

## Schema CxF21.xsd

schema location: <C:\SVN\components\cxf2\trunk\src\main\schema\CxF21.xsd>  
attribute form default: **unqualified**  
element form default: **qualified**  
targetNamespace: <http://colorexchangeformat.com/v2>

### Elements

[CollectionColorSpaceSpecification](#)

[ColorSpace](#)  
[ColorSpaceAdobeRGB](#)  
[ColorSpaceAdobeWideGamutRGB](#)  
[ColorSpaceCIELab](#)  
[ColorSpaceCIELCh](#)  
[ColorSpaceCIELuv](#)  
[ColorSpaceCIExyY](#)  
[ColorSpaceCIEXYZ](#)  
[ColorSpaceCMYK](#)  
[ColorSpaceCMYKPlusN](#)  
[ColorSpaceDensity](#)  
[ColorSpaceEmissiveCIExyY](#)  
[ColorSpaceEmissiveCIEXYZ](#)  
[ColorSpaceEmissiveGeneric](#)  
[ColorSpaceEmissiveSpectral](#)  
[ColorSpaceGeneric](#)  
[ColorSpaceHSL](#)  
[ColorSpaceHSV](#)  
[ColorSpaceMunsell](#)  
[ColorSpaceNCS](#)  
[ColorSpacePANTONE](#)  
[ColorSpacePANTONEHexachrome](#)  
[ColorSpaceRecipe](#)  
  
[ColorSpaceRGB](#)  
  
[ColorSpaceSpecification](#)  
  
[ColorSpaceSpecificationEmissive](#)  
  
[ColorSpaceSpecificationEmissiveGeneric](#)  
  
[ColorSpaceSpecificationEmissiveSpectral](#)  
  
[ColorSpaceSpecificationEmissiveTristimulus](#)  
  
[ColorSpaceSpecificationSpectrum](#)  
  
[ColorSpaceSpecificationSpectrumGeneric](#)  
  
[ColorSpaceSpecificationSpectrumSpectral](#)  
  
[ColorSpaceSpecificationSpectrumTristimulus](#)  
  
[ColorSpaceSpectral](#)  
  
[ColorSpaceSRGB](#)  
  
[ColorSpaceYBR](#)  
  
[ColorSpaceYIQ](#)  
  
[ColorSpaceYUV](#)  
  
[CxF](#)  
  
[Function](#)  
  
[FunctionAverageStdDevA](#)  
  
[FunctionAverageStdDevB](#)  
  
[FunctionAverageStdDevL](#)

### Complex types

[AxisType](#)

[BaseElementType](#)  
[BSDFAngle](#)  
[CalibrationStateType](#)  
[CollectionColorSpaceSpecificationType](#)  
[ColorantElementType](#)  
[ColorQualityControlType](#)  
[ColorSetType](#)  
[ColorSpaceAdobeRGBType](#)  
[ColorSpaceAdobeWideGamutRGBType](#)  
[ColorSpaceCIELabType](#)  
[ColorSpaceCIELChType](#)  
[ColorSpaceCIELuvType](#)  
[ColorSpaceCIExyYType](#)  
[ColorSpaceCIEXYZType](#)  
[ColorSpaceCMYKPlusNType](#)  
[ColorSpaceCMYKType](#)  
[ColorSpaceDensityType](#)  
[ColorSpaceEmissiveCIExyYType](#)  
[ColorSpaceEmissiveCIEXYZType](#)  
[ColorSpaceEmissiveGenericType](#)  
[ColorSpaceEmissiveSpectralType](#)  
[ColorSpaceGenericType](#)  
[ColorSpaceHSLType](#)  
  
[ColorSpaceHSVType](#)  
  
[ColorSpaceMunsellType](#)  
  
[ColorSpaceNCSType](#)  
  
[ColorSpacePANTONEHexachromeType](#)  
  
[ColorSpacePANTONEType](#)  
  
[ColorSpaceRecipeType](#)  
  
[ColorSpaceRGBType](#)  
  
[ColorSpaceSpecificationEmissiveGenericType](#)  
  
[ColorSpaceSpecificationEmissiveSpectralType](#)  
  
[ColorSpaceSpecificationEmissiveTristimulusType](#)  
  
[ColorSpaceSpecificationEmissiveType](#)  
  
[ColorSpaceSpecificationSpectrumGenericType](#)  
  
[ColorSpaceSpecificationSpectrumSpectralType](#)  
  
[ColorSpaceSpecificationSpectrumTristimulusType](#)  
  
[ColorSpaceSpecificationSpectrumType](#)  
  
[ColorSpaceSpecificationType](#)  
  
[ColorSpaceSpectralType](#)  
  
[ColorSpaceSRGBType](#)  
  
[ColorSpaceType](#)  
  
[ColorSpaceYBRType](#)

### Simple types

[DateTimeWithTimeZoneType](#)  
[E](#)  
[EAstmTableType](#)  
[EBackingType](#)  
[ECalibrationStateType](#)  
[EColorDepthType](#)  
[EDensityFilterType](#)  
[EDensityStatusType](#)  
[EDeviceClassType](#)  
[EEmissiveModeType](#)  
[EEmissiveSpectrumType](#)  
[EEmissiveType](#)  
[EFieldOfViewType](#)  
[EFilterType](#)  
[EFinishType](#)  
[EIlluminantType](#)  
[EmissiveType](#)  
[EScaleType](#)  
[ESpectrumType](#)  
[ESphereType](#)  
[ETargetType](#)  
[EToleranceParameterType](#)  
[EToleranceType](#)  
[ReflectanceType](#)

[FunctionDE](#)  
[FunctionDE2000](#)  
[FunctionDE94](#)  
[FunctionDECMC](#)  
[FunctionGeneric](#)  
[FunctionMeanDE](#)  
[FunctionStdDevA](#)  
[FunctionStdDevB](#)  
[FunctionStdDevC](#)  
[FunctionStdDevH](#)  
[FunctionStdDevL](#)  
[FunctionStdDevX](#)  
[FunctionStdDevY](#)  
[FunctionStdDevZ](#)  
[Measurement](#)  
[Sample](#)  
[SampleSpot](#)  
[SampleTarget](#)  
[Standard](#)  
[Substrate](#)  
[SubstrateFilm](#)  
[SubstrateGeneric](#)  
[SubstrateMetal](#)  
[SubstratePaper](#)  
[SubstratePlastic](#)  
[SubstrateTextile](#)  
[SubstrateTile](#)  
[SubstrateVinyl](#)  
[SubstrateWood](#)

[ColorSpaceYIQType](#)  
[ColorSpaceYUVType](#)  
[ColorType](#)  
[CustomAttributeType](#)  
[DensityType](#)  
[DeviceFilterType](#)  
[DeviceType](#)  
[EmissiveSpectralPointType](#)  
[FloatingPointValueType](#)  
[FunctionAverageStdDevAType](#)  
[FunctionAverageStdDevBType](#)  
[FunctionAverageStdDevLType](#)  
[FunctionDE2000Type](#)  
[FunctionDE94Type](#)  
[FunctionDEcmcType](#)  
[FunctionDEType](#)  
[FunctionGenericType](#)  
[FunctionMeanDEType](#)  
[FunctionStdDevAType](#)  
[FunctionStdDevBType](#)  
[FunctionStdDevCType](#)  
[FunctionStdDevHType](#)  
[FunctionStdDevLType](#)  
[FunctionStdDevXType](#)  
[FunctionStdDevYType](#)  
[FunctionStdDevZType](#)  
[FunctionTolerance](#)  
[FunctionType](#)  
[GeometryChoiceType](#)  
[IlluminationOptionsType](#)  
[LimitsType](#)  
[OwnerType](#)  
[PaletteType](#)  
[PhysicalSampleType](#)  
[PlatformType](#)  
[ProfileType](#)  
[ReflectancePointType](#)  
[SampleSpotType](#)  
[SampleTargetType](#)  
[SampleType](#)  
[SDKType](#)  
[SpectrumType](#)  
[SpotColorType](#)  
[StandardAndMeasurementType](#)  
[SubstrateFilmType](#)  
[SubstrateGenericType](#)

[SubstrateMetalType](#)

[SubstratePaperType](#)

[SubstratePlasticType](#)

[SubstrateTextileType](#)

[SubstrateTileType](#)

[SubstrateType](#)

[SubstrateVinylType](#)

[SubstrateWoodType](#)

[Tag](#)

[TagCategory](#)

[TagValue](#)

[ToleranceParameterType](#)

[ToleranceType](#)

## element **CollectionColorSpaceSpecification**

diagram	<p><b>CollectionColorSpaceSpecification</b></p> <p>Optimal color space specification(s) for all colors in a collection. Each color, by default, also contains a color space specification. If you want a color's color space specification to refer to this one instead, you must set this color space specification and set the color's color space specification to nil. Note that you can specify only one color space specification per type here, however for each color you can specify any number of color space specifications/values. Therefore, if using this parent setting all colors that use the same color space specification type must use the same color space specification. For instance, if you want to store Lab, RGB and Spectral data and use common parent color space specification, you will need to set two parent color space specifications here, one for Lab and RGB and one for Spectral. Therefore the RGB and Lab color space values will be using the same color space specification because they use the same color space specification type.</p> <p><b>CxF:CollectionColorSpaceSpecificationType</b></p> <ul style="list-style-type: none"> <li><b>CxF:ColorSpaceSpecificationSpectrumGeneric</b> Base color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</li> <li><b>CxF:ColorSpaceSpecificationSpectrumSpectral</b> Spectral color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</li> <li><b>CxF:ColorSpaceSpecificationSpectrumTristimulus</b> Three axis color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</li> <li><b>CxF:ColorSpaceSpecificationEmissiveGeneric</b> Generic emissive color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</li> <li><b>CxF:ColorSpaceSpecificationEmissiveSpectral</b> Spectral emissive color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</li> <li><b>CxF:ColorSpaceSpecificationEmissiveTristimulus</b> Three axis emissive color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</li> </ul>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:CollectionColorSpaceSpecificationType</a>
properties	content complex
children	<a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumSpectral</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:ColorSpaceSpecificationEmissiveGeneric</a> <a href="#">CxF:ColorSpaceSpecificationEmissiveSpectral</a> <a href="#">CxF:ColorSpaceSpecificationEmissiveTristimulus</a>
used by	complexTypees <a href="#">ColorSetType</a> <a href="#">PaletteType</a>
annotation	<p>documentation</p> <p>Optimal color space specification(s) for all colors in a collection. Each color, by default, also contains a color space specification. If you want a color's color space specification to refer to this one instead, you must set this color space specification and set the color's color space specification to nil. Note that you can specify only one color space specification per type here, however for each color you can specify any number of color space specifications/values. Therefore, if using this parent setting all colors that use the same color space specification type must use the same color space specification. For instance, if you want to store Lab, RGB and Spectral data and use common parent color space</p>

	<p>specification, you will need to set two parent color space specifications here, one for Lab and RGB and one for Spectral. Therefore the RGB and Lab color space values will be using the same color space specification because they use the same color space specification type.</p>
source	<pre>&lt;xs:element name="CollectionColorSpaceSpecification" type="CxF:CollectionColorSpaceSpecificationType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optimal color space specification(s) for all colors in a collection. Each color, by default, also contains a color space specification. If you want a color's color space specification to refer to this one instead, you must set this color space specification and set the color's color space specification to nil. Note that you can specify only one color space specification per type here, however for each color you can specify any number of color space specifications/values. Therefore, if using this parent setting all colors that use the same color space specification type must use the same color space specification. For instance, if you want to store Lab, RGB and Spectral data and use common parent color space specification, you will need to set two parent color space specifications here, one for Lab and RGB and one for Spectral. Therefore the RGB and Lab color space values will be using the same color space specification because they use the same color space specification type.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element ColorSpace

diagram

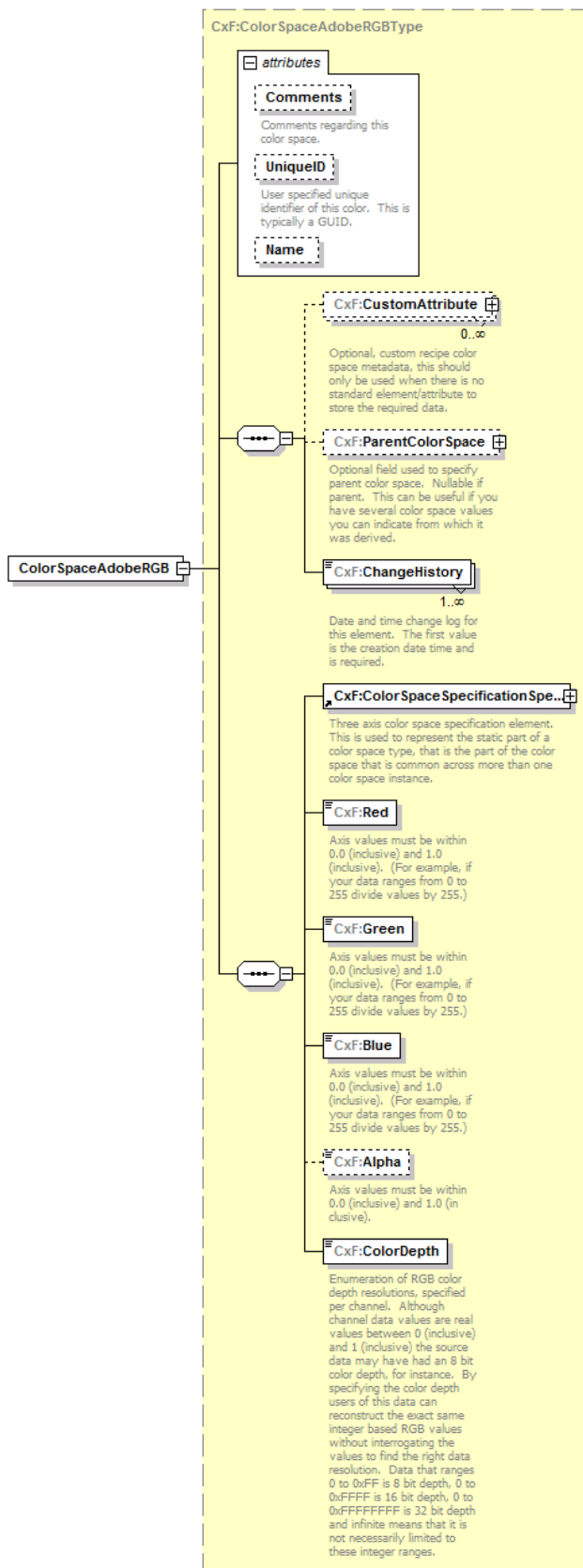




element **ColorSpaceAdobeRGB**



diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceAdobeRGBType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:Red</a> <a href="#">CxF:Green</a> <a href="#">CxF:Blue</a> <a href="#">CxF:Alpha</a> <a href="#">CxF:ColorDepth</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	<b>xs:string</b>				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	<b>xs:string</b>	optional			
source	<xs:element name="ColorSpaceAdobeRGB" type="CxF:ColorSpaceAdobeRGBType" substitutionGroup="CxF:ColorSpace"/>					

element **ColorSpaceAdobeWideGamutRGB**

diagram

ColorSpaceAdobeWideGamutRGB

#### CxF:ColorSpaceAdobeWideGamutRGBType

##### attributes

###### Comments

Comments regarding this color space.

###### UniqueID

User specified unique identifier of this color. This is typically a GUID.

###### Name

##### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

##### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

##### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

##### CxF:ColorSpaceSpecificationSpec...

Three axis color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

##### CxF:Red

Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)

##### CxF:Green

Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)

##### CxF:Blue

Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)

##### CxF:Alpha

Axis values must be within 0.0 (inclusive) and 1.0 (inclusive).

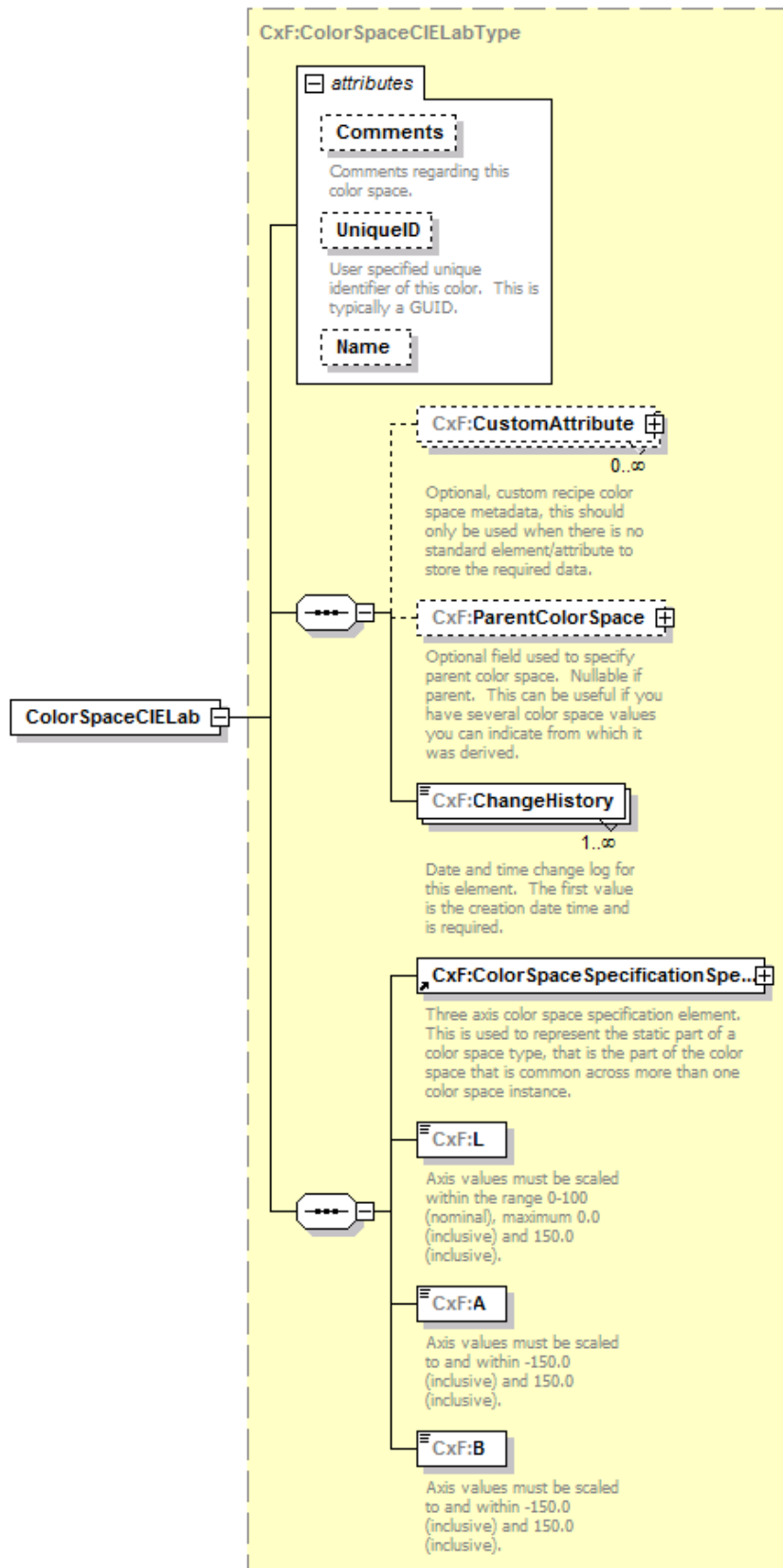
##### CxF:ColorDepth

Enumeration of RGB color depth resolutions, specified per channel. Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source data may have had an 8 bit color depth. For instance. By specifying the color depth users of this data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer ranges.

namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceAdobeWideGamutRGBType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:Red</a> <a href="#">CxF:Green</a> <a href="#">CxF:Blue</a> <a href="#">CxF:Alpha</a> <a href="#">CxF:ColorDepth</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	<b>xs:string</b>				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	<b>xs:string</b>	optional			
source	<xs:element name="ColorSpaceAdobeWideGamutRGB" type="CxF:ColorSpaceAdobeWideGamutRGBType" substitutionGroup="CxF:ColorSpace"/>					

## element **ColorSpaceCIELab**

diagram

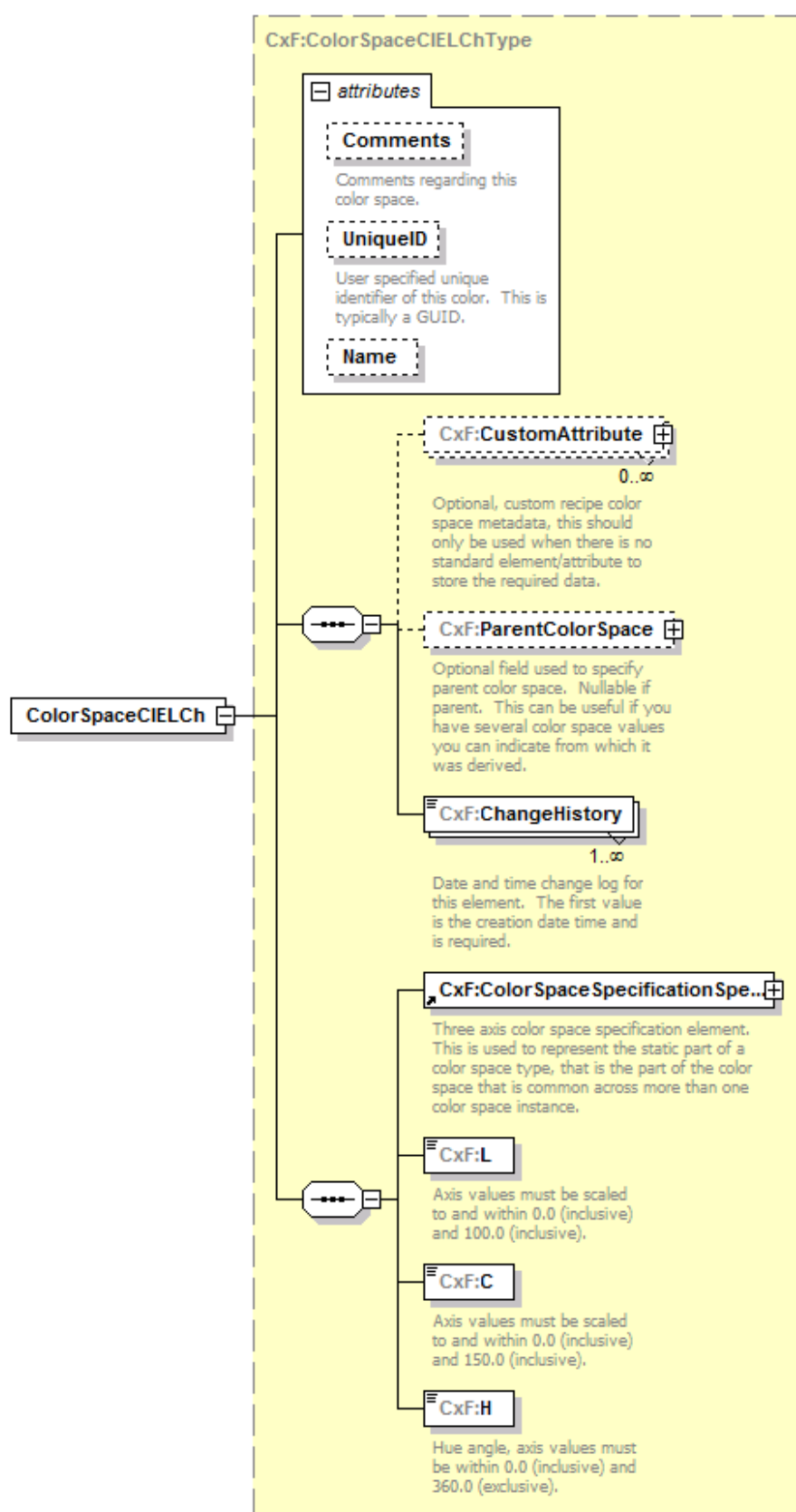


namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceCIELabType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:L</a> <a href="#">CxF:A</a> <a href="#">CxF:B</a>					
attributes	Name <a href="#">Comments</a>   <					

element **ColorSpaceCIELCh**



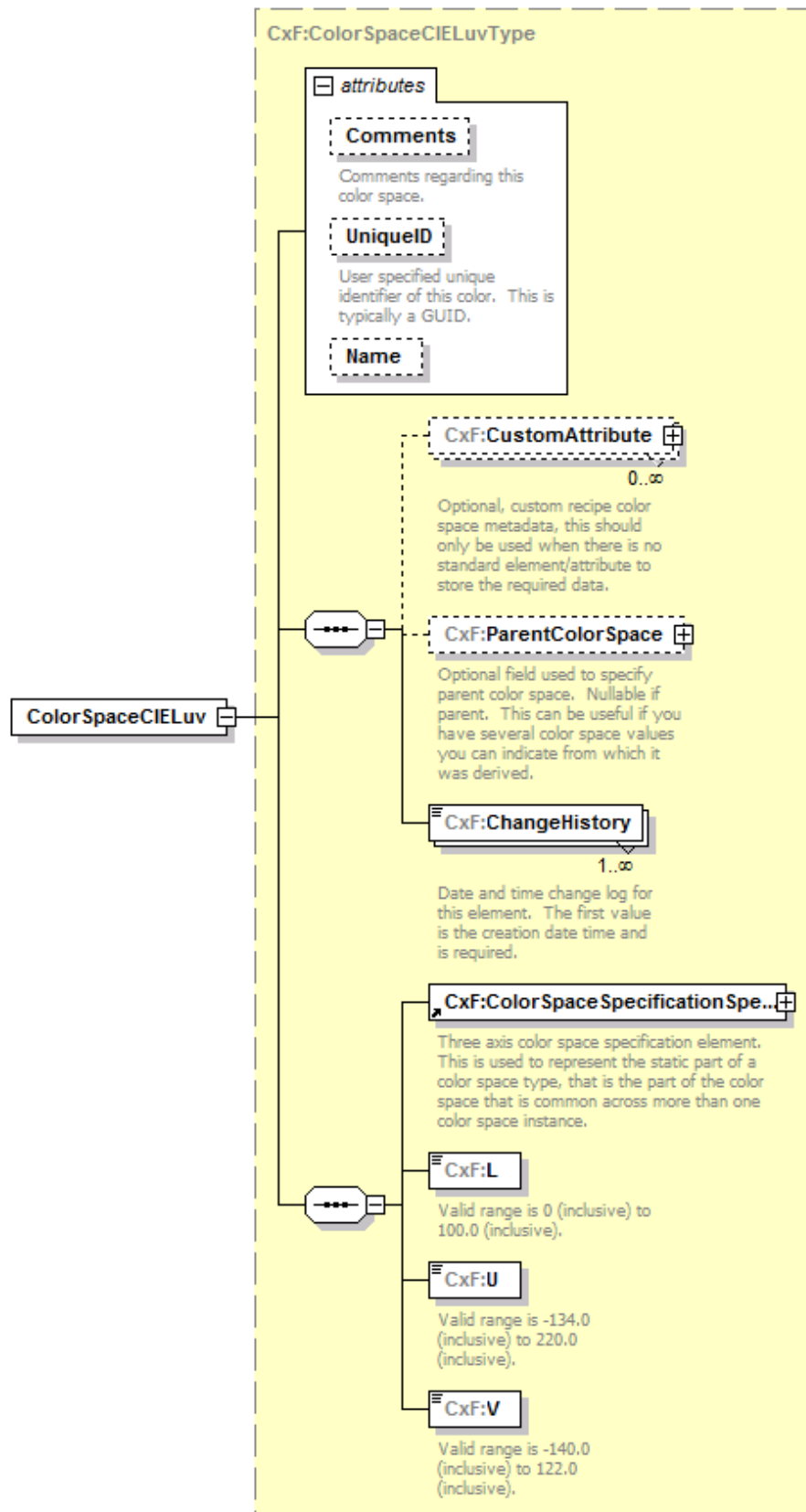
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceCIELChType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:L</a> <a href="#">CxF:C</a> <a href="#">CxF:H</a>					
attributes	Name <a href="#">Comments</a>  <					

## element **ColorSpaceCIElLv**

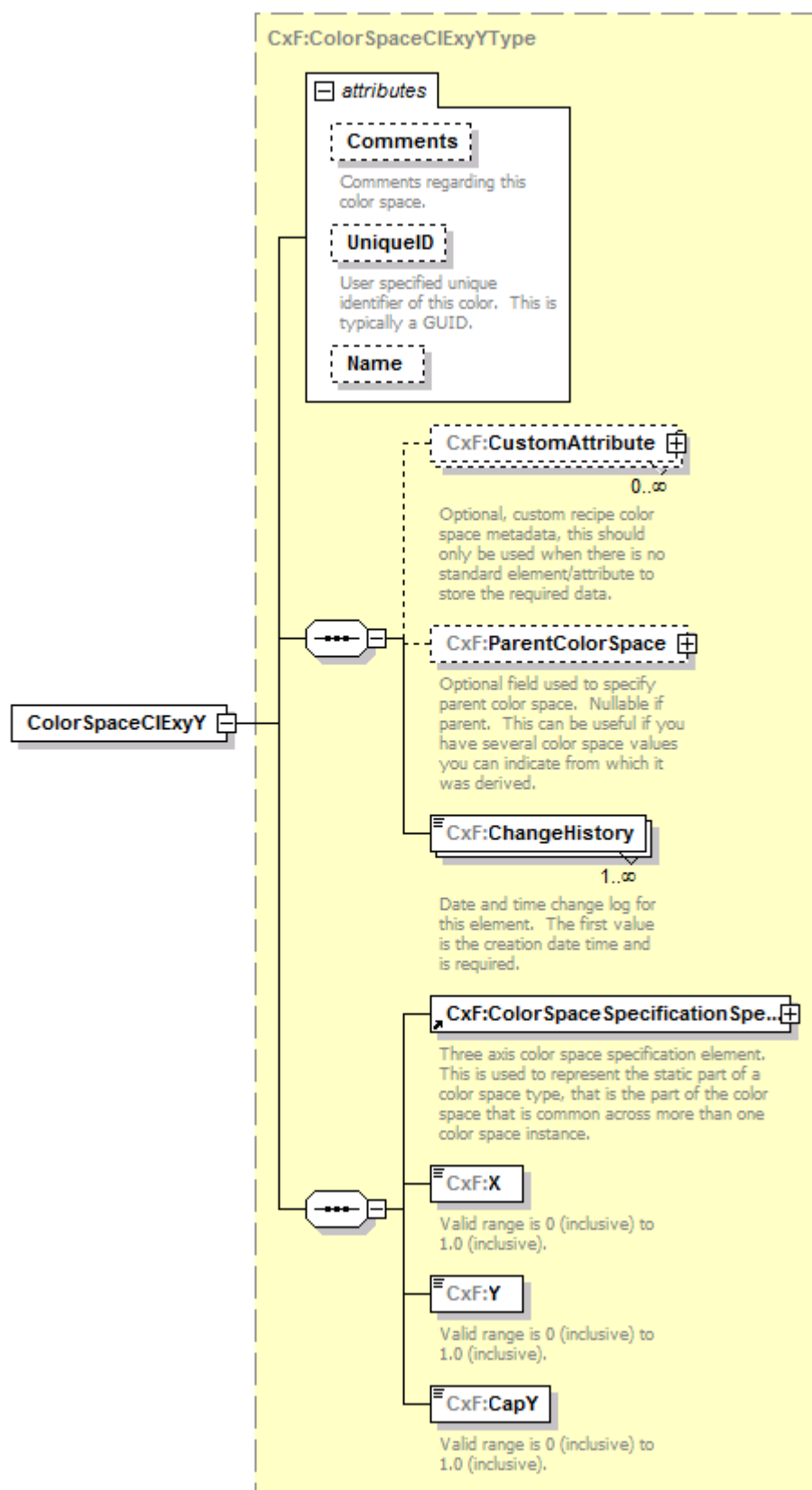
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceCIEluvType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:L</a> <a href="#">CxF:U</a> <a href="#">CxF:V</a>					
attributes	Name <a href="#">Comments</a>   <a href="#">UniqueID</a>    <a href="#">Name</a>	Type <b>xs:string</b>   <b>xs:string</b>    <b>xs:string</b>	Use       optional	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
source	<xs:element name="ColorSpaceCIEluv" type="CxF:ColorSpaceCIEluvType" substitutionGroup="CxF:ColorSpace"/>					

## element ColorSpaceCIExyY

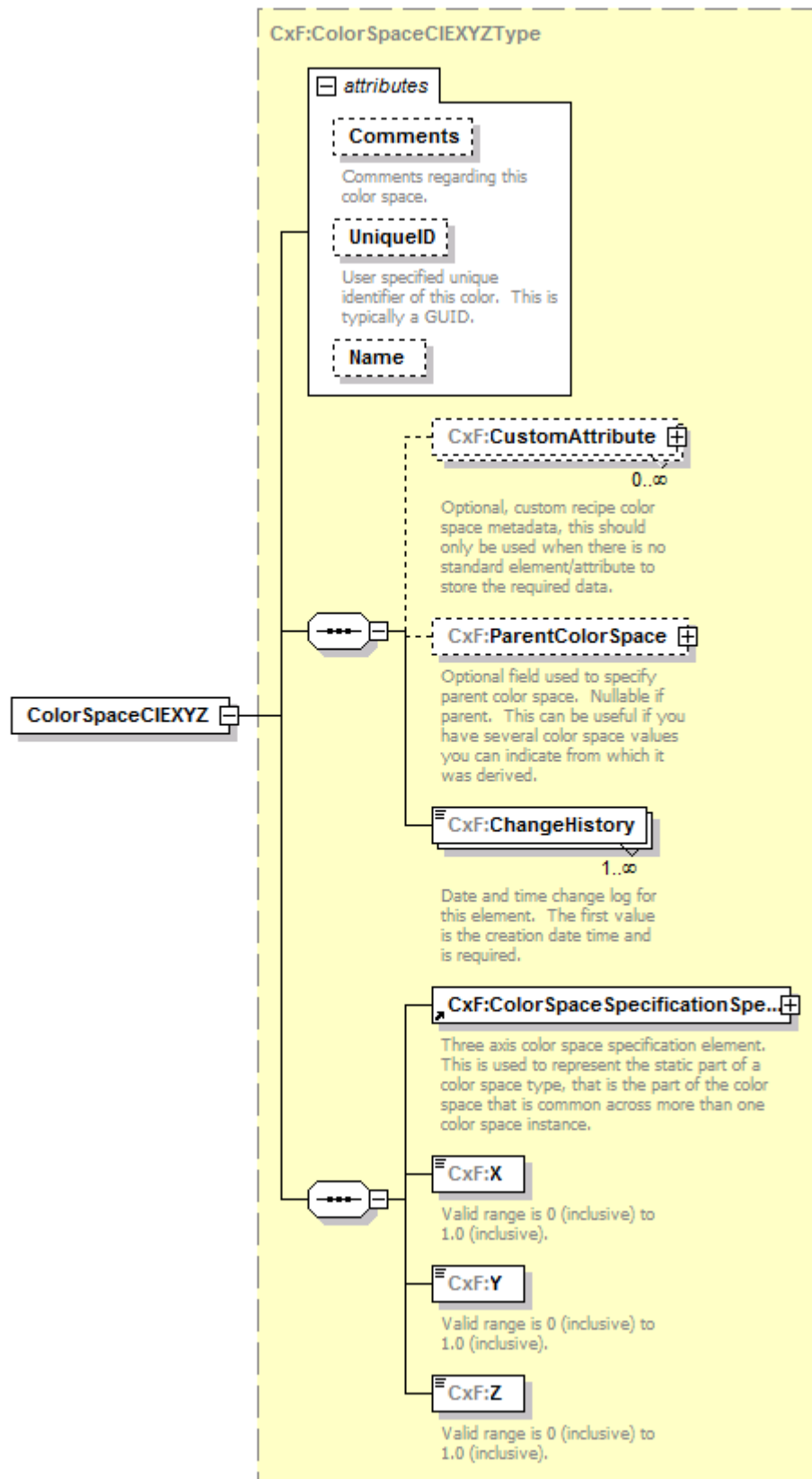
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceCIExyYType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:X</a> <a href="#">CxF:Y</a> <a href="#">CxF:CapY</a>					
attributes	Name <a href="#">Comments</a>   <a href="#">UniqueID</a>       <a href="#">Name</a>	Type <b>xs:string</b>   <b>xs:string</b>       <b>xs:string</b>	Use          optional	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
source	<xs:element name="ColorSpaceCIExyY" type="CxF:ColorSpaceCIExyYType" substitutionGroup="CxF:ColorSpace"/>					

## element ColorSpaceCIEXYZ

diagram

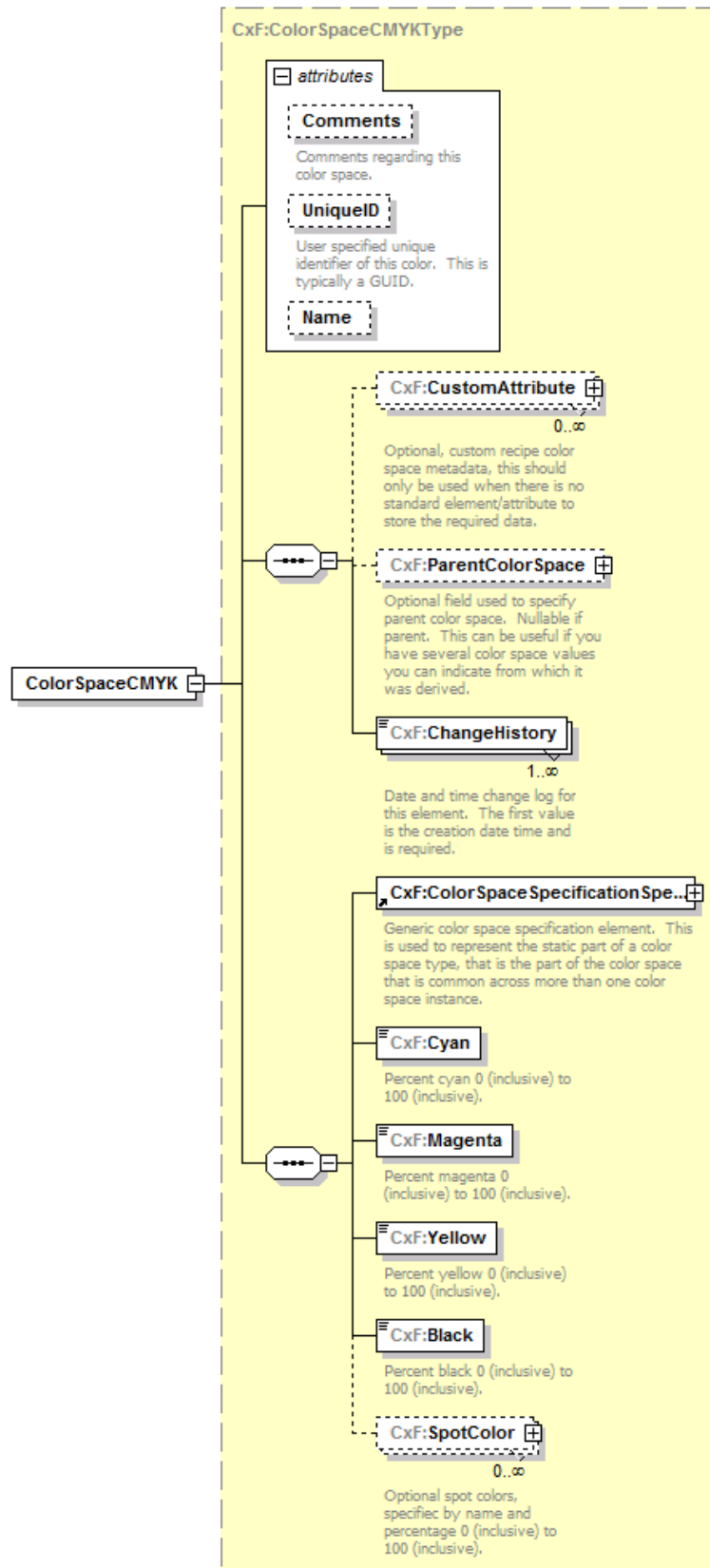


namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceCIEXYZType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:X</a> <a href="#">CxF:Y</a> <a href="#">CxF:Z</a>					
attributes	Name <a href="#">Comments</a>   <a href="#">UniqueID</a>    <a href="#">Name</a>	Type <b>xs:string</b>   <b>xs:string</b>    <b>xs:string</b>	Use       optional	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
source	<xs:element name="ColorSpaceCIEXYZ" type="CxF:ColorSpaceCIEXYZType" substitutionGroup="CxF:ColorSpace"/>					



## element ColorSpaceCMYK

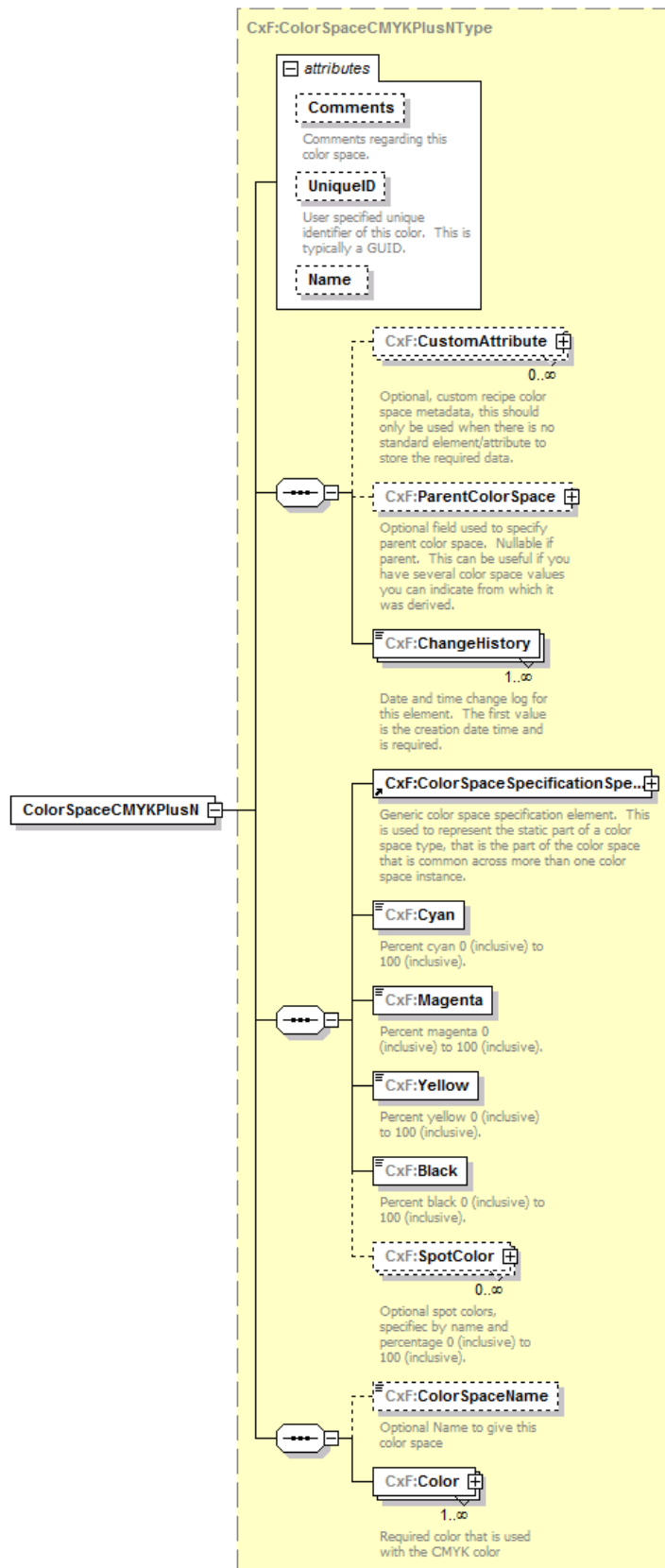
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceCMYKType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Cyan</a> <a href="#">CxF:Magenta</a> <a href="#">CxF:Yellow</a> <a href="#">CxF:Black</a> <a href="#">CxF:SpotColor</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	<b>xs:string</b>				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	<b>xs:string</b>	optional			
source	<xs:element name="ColorSpaceCMYK" type="CxF:ColorSpaceCMYKType" substitutionGroup="CxF:ColorSpace"/>					

## element ColorSpaceCMYKPlusN

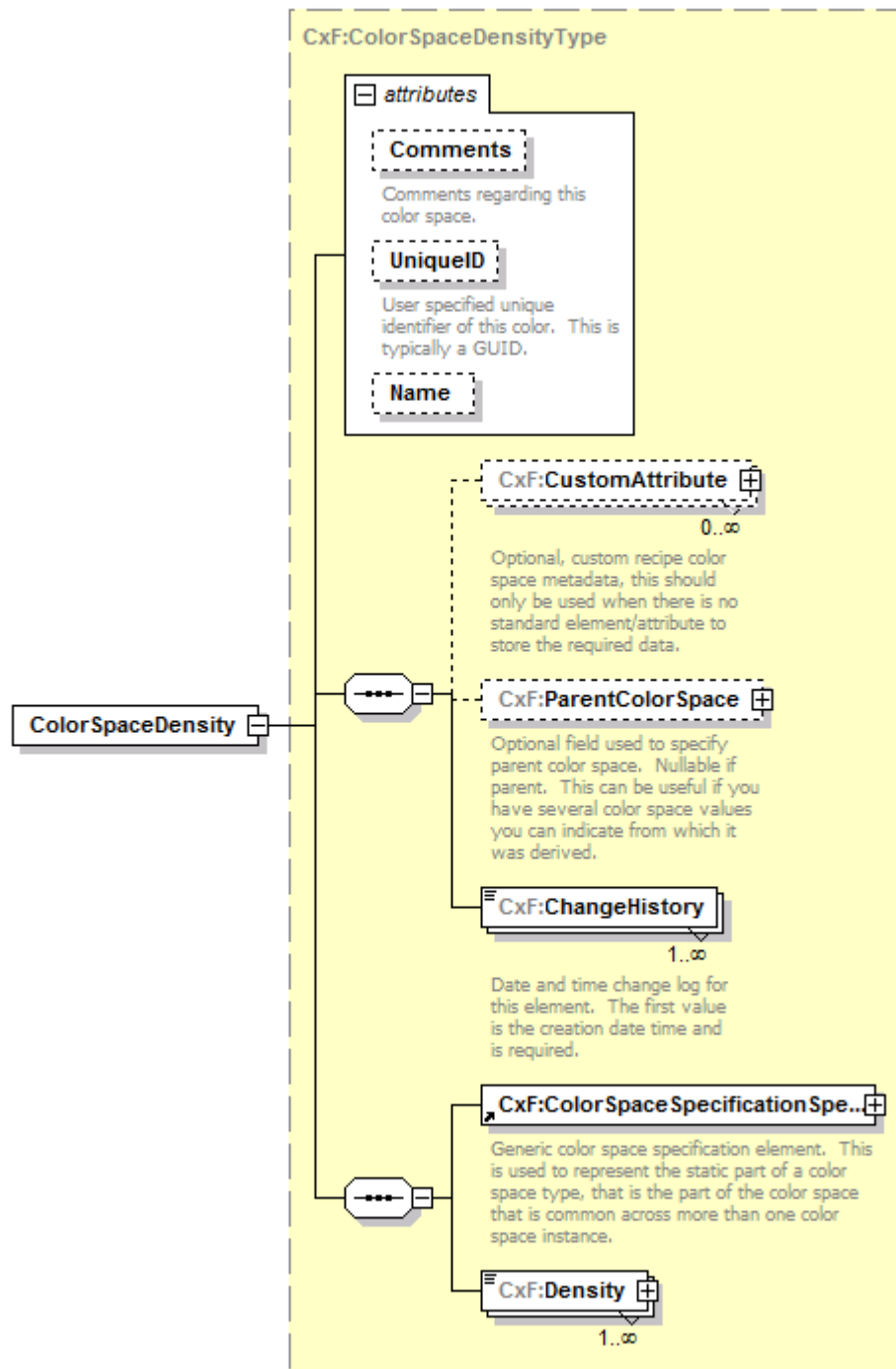
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceCMYKPlusNType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Cyan</a> <a href="#">CxF:Magenta</a> <a href="#">CxF:Yellow</a> <a href="#">CxF:Black</a> <a href="#">CxF:SpotColor</a> <a href="#">CxF:ColorSpaceName</a> <a href="#">CxF:Color</a>					
attributes	Name <a href="#">Comments</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	<b>xs:string</b>	optional			
source	<xs:element name="ColorSpaceCMYKPlusN" type="CxF:ColorSpaceCMYKPlusNType" substitutionGroup="CxF:ColorSpace"/>					

## element **ColorSpaceDensity**

diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceDensityType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Density</a>					
attributes	Name	Type	Use	Default	Fixed	annotation

	<div><div><a href="#">Comments</a></div><div><b>xs:string</b></div></div> <div><div><a href="#">UniqueID</a></div><div><b>xs:string</b></div></div> <div><div><a href="#">Name</a></div><div><b>xs:string</b></div><div>optional</div></div>	<div>documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.</div>
source	<div>&lt;xs:element name="ColorSpaceDensity" type="CxF:ColorSpaceDensityType" substitutionGroup="CxF:ColorSpace"/&gt;</div>	

# element **ColorSpaceEmissiveCIExyY**

diagram

**ColorSpaceEmissiveCIExyY**

## **CxF:ColorSpaceEmissiveCIExyYType**

### **attributes**

#### **Comments**

Comments regarding this color space.

#### **UniqueID**

User specified unique identifier of this color. This is typically a GUID.

#### **Name**

#### **CxF:CustomAttribute**

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

#### **CxF:ParentColorSpace**

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

#### **CxF:ChangeHistory**

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### **CxF:Color Space Specification Emi...**

Three axis color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

#### **CxF:X**

Valid range is 0 (inclusive) to 1.0 (inclusive).

#### **CxF:Y**

Valid range is 0 (inclusive) to 1.0 (inclusive).

#### **CxF:CapY**

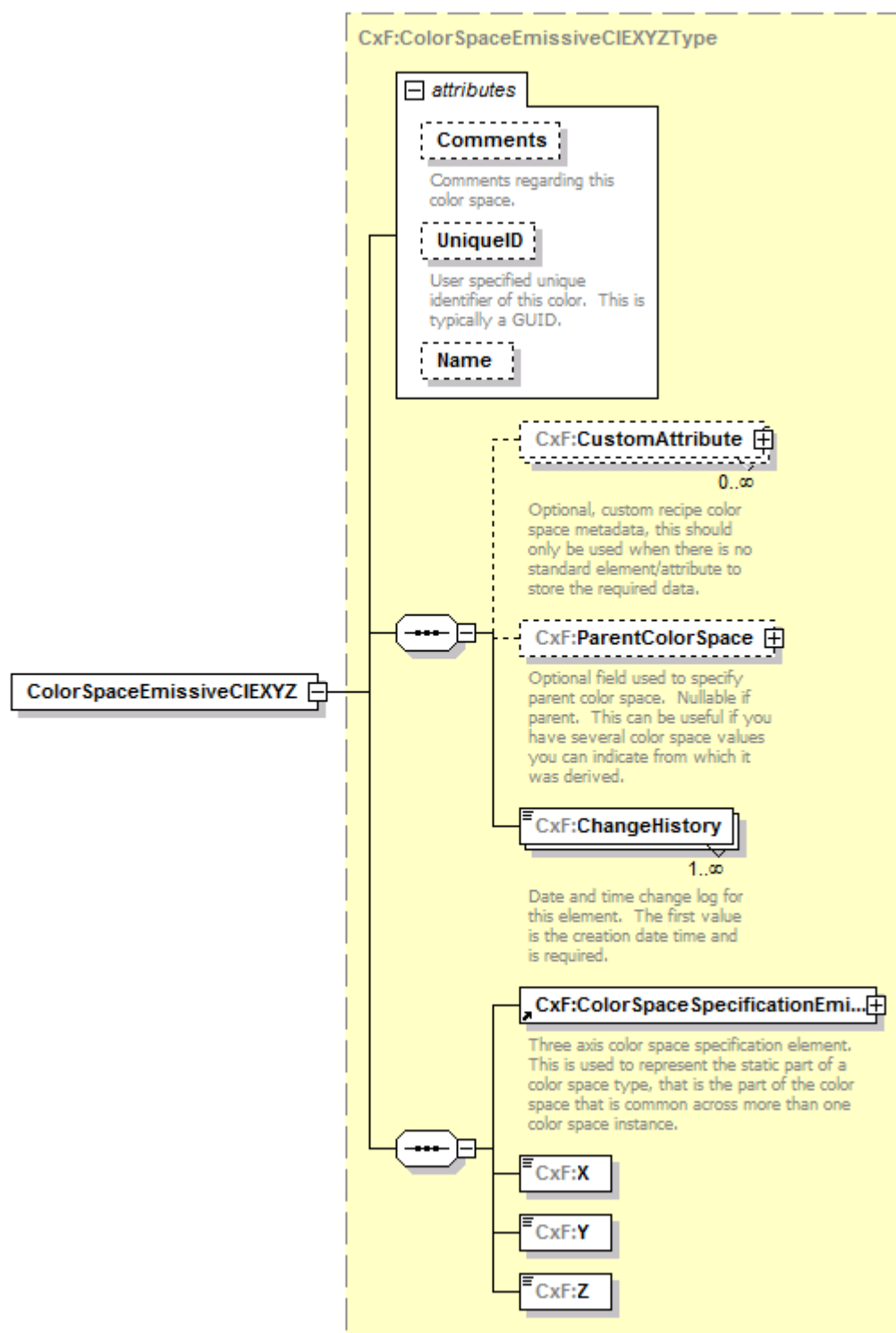
namespace <http://colorexchangeformat.com/v2>

type	<a href="#">CxF:ColorSpaceEmissiveCIExyYType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationEmissiveTristimulus</a> <a href="#">CxF:X</a> <a href="#">CxF:Y</a> <a href="#">CxF:CapY</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	<b>xs:string</b>				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	<b>xs:string</b>	optional			
source	<xs:element name="ColorSpaceEmissiveCIExyY" type="CxF:ColorSpaceEmissiveCIExyYType" substitutionGroup="CxF:ColorSpace"/>					



# element **ColorSpaceEmissiveCIEXYZ**

diagram



namespace <http://colorexchangeformat.com/v2>

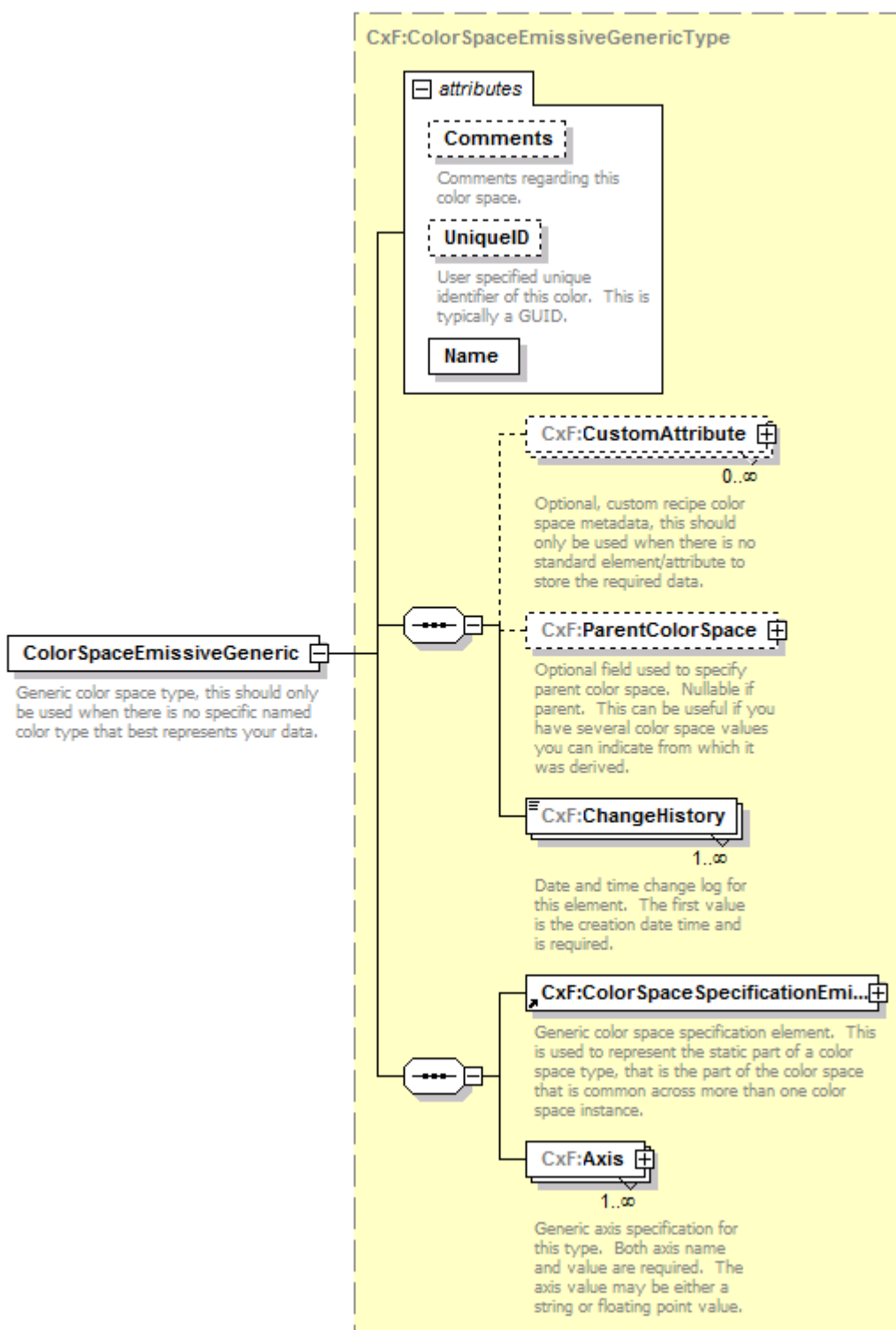
type [CxF:ColorSpaceEmissiveCIEXYZType](#)

properties  
content complex  
substGrp CxF:ColorSpace

children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationEmissiveTristimulus</a> <a href="#">CxF:X</a> <a href="#">CxF:Y</a> <a href="#">CxF:Z</a>					
attributes	Name <a href="#">Comments</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">UniqueID</a>	<b>xs:string</b>				
	<a href="#">Name</a>	<b>xs:string</b>	optional			
source	<xs:element name="ColorSpaceEmissiveCIEXYZ" type="CxF:ColorSpaceEmissiveCIEXYZType" substitutionGroup="CxF:ColorSpace"/>					

# element **ColorSpaceEmissiveGeneric**

diagram



namespace <http://colorexchangeformat.com/v2>

type [CxF:ColorSpaceEmissiveGenericType](#)

properties content complex  
substGrp CxF:ColorSpace

children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecification</a> <a href="#">EmissiveGeneric</a> <a href="#">CxF:Axis</a>					
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>  <a href="#">Name</a>	Type <b>xs:string</b>  <b>xs:string</b>  <b>xs:string</b>	Use    required	Default    	Fixed    	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Generic color space type, this should only be used when there is no specific named color type that best represents your data.					
source	<xs:element name="ColorSpaceEmissiveGeneric" type="CxF:ColorSpaceEmissiveGenericType" substitutionGroup="CxF:ColorSpace"> <xs:annotation> <xs:documentation>Generic color space type, this should only be used when there is no specific named color type that best represents your data.</xs:documentation> </xs:annotation> </xs:element>					

# element **ColorSpaceEmissiveSpectral**

diagram

## **ColorSpaceEmissiveSpectral**

ColorSpaceSpectral element representing ColorSpaceEmissiveSpectralType. In this type the spectral data is specified using  $\text{cd/m}^2$  units.

## CxF:ColorSpaceEmissiveSpectralType

### attributes

#### Comments

Comments regarding this color space.

#### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### Name

### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

### CxF:ColorSpaceSpecificationEmi...

Spectral color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

### CxF:EmissiveSpectralPoint

1..∞

Required set of reflectance pontss where each point is specified as a response value  $\text{cd/m}^2$  at a wavelength (nm.)

namespace <http://colorexchangeformat.com/v2>

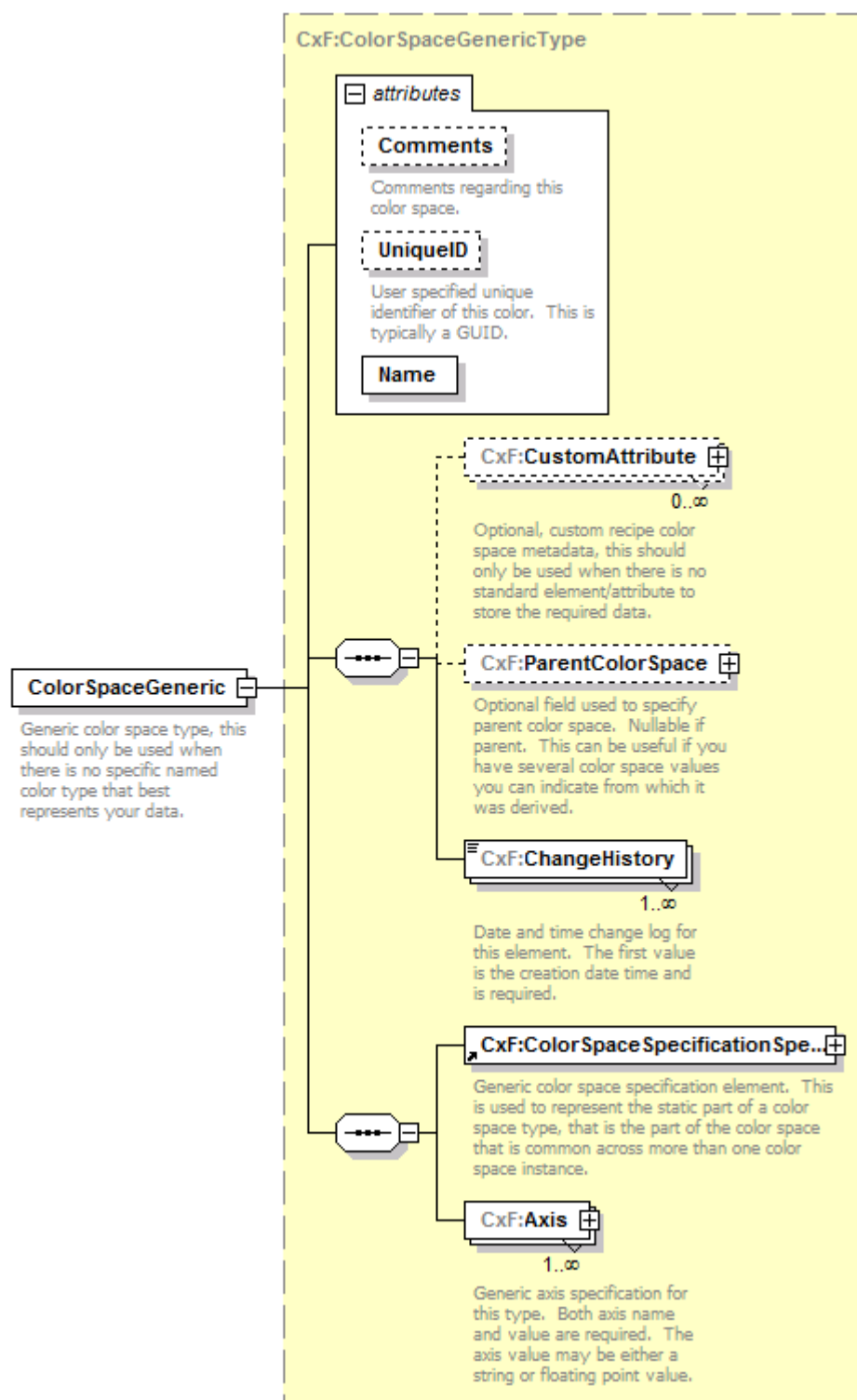
type [CxF:ColorSpaceEmissiveSpectralType](#)

properties content complex  
substGrp CxF:ColorSpace

children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecification</a> <a href="#">EmissiveSpectral</a> <a href="#">CxF:EmissiveSpectralPoint</a>					
attributes	<div> <div>Name</div> <div><a href="#">Comments</a></div> </div> <div> <div>UniqueID</div> <div><a href="#">Name</a></div> </div>	<div> <div>Type</div> <div><b>xs:string</b></div> </div> <div> <div><b>xs:string</b></div> <div><b>xs:string</b></div> </div>	<div>Use</div> <div>optional</div>	<div>Default</div>	<div>Fixed</div>	<div> <div>annotation</div> <div>documentation</div> <div>Comments</div> <div>regarding this</div> <div>color space.</div> <div>documentation</div> <div>User specified</div> <div>unique</div> <div>identifier of</div> <div>this color.</div> <div>This is</div> <div>typically a</div> <div>GUID.</div> </div>
annotation	<div>documentation</div> <div>ColorSpaceSpectral element representing ColorSpaceEmissiveSpectralType. In this type the spectral data is specified using cd/m^2 units.</div>					
source	<div> <div>&lt;xs:element name="ColorSpaceEmissiveSpectral" type="CxF:ColorSpaceEmissiveSpectralType"</div> <div>substitutionGroup="CxF:ColorSpace"&gt;</div> <div> <div>&lt;xs:annotation&gt;</div> <div> <div>&lt;xs:documentation&gt;ColorSpaceSpectral element representing</div> <div>ColorSpaceEmissiveSpectralType. In this type the spectral data is specified using cd/m^2</div> <div>units.&lt;/xs:documentation&gt;</div> </div> <div>&lt;/xs:annotation&gt;</div> </div> <div>&lt;/xs:element&gt;</div> </div>					

## element **ColorSpaceGeneric**

diagram



namespace <http://colorexchangeformat.com/v2>

type [CxF:ColorSpaceGenericType](#)

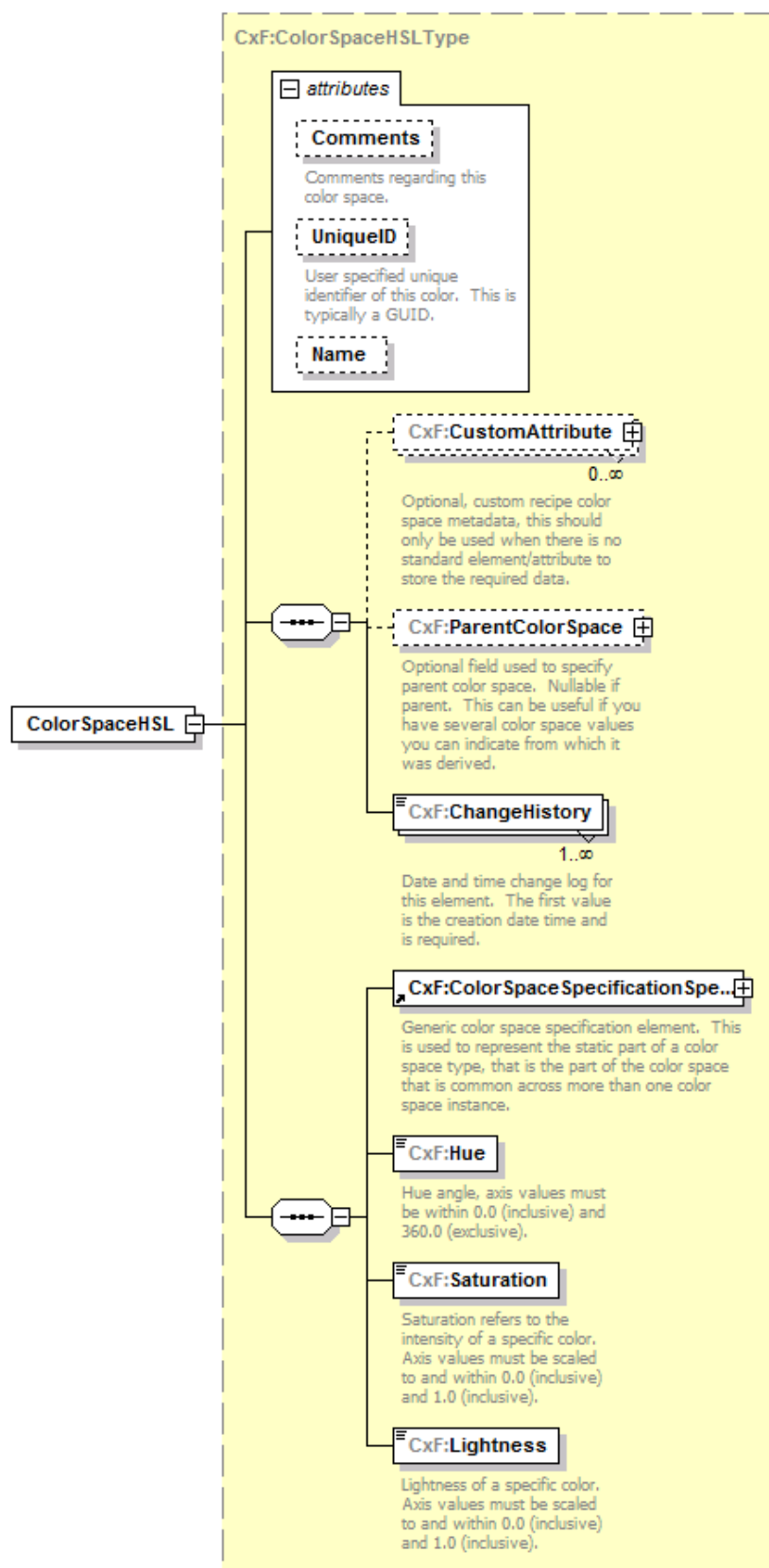
properties content complex  
substGrp CxF:ColorSpace

children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Axis</a>					
attributes	<div><div><div>Name</div><div><a href="#">Comments</a></div></div><div><div>UniqueID</div><div><a href="#">Name</a></div></div></div>	<div><div>xs:string</div><div>xs:string</div><div>xs:string</div></div>	<div><div></div><div></div><div>required</div></div>	<div><div>Default</div><div></div><div></div></div>	<div><div>Fixed</div><div></div><div></div></div>	<div><div>documentation</div><div>documentation</div><div>Comments regarding this color space.</div><div>documentation</div><div>User specified unique identifier of this color.</div><div>This is typically a GUID.</div></div>
annotation	<div>documentation</div> <div>Generic color space type, this should only be used when there is no specific named color type that best represents your data.</div>					
source	<pre>&lt;xs:element name="ColorSpaceGeneric" type="CxF:ColorSpaceGenericType" substitutionGroup="CxF:ColorSpace"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Generic color space type, this should only be used when there is no specific named color type that best represents your data.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					



## element ColorSpaceHSL

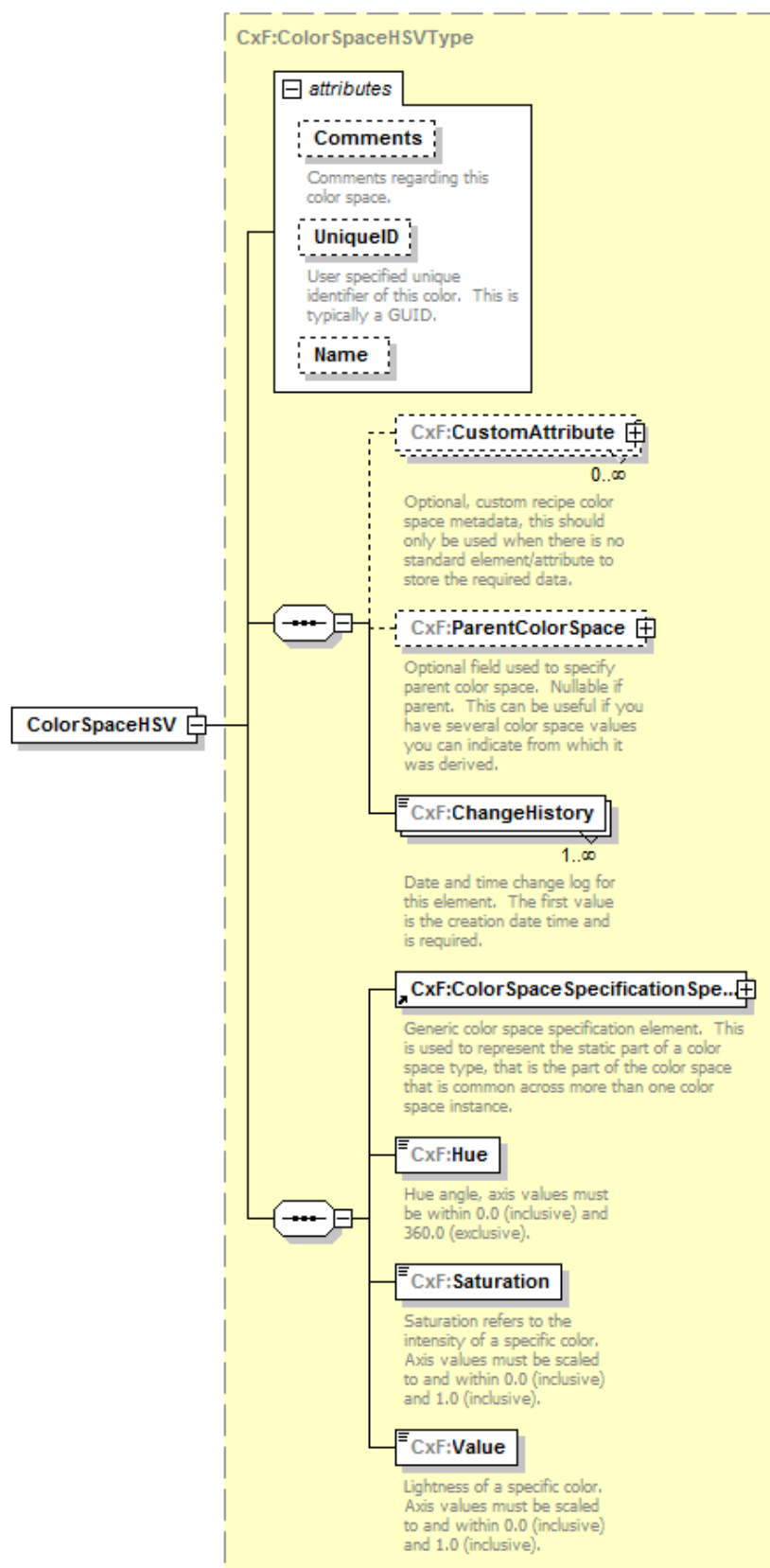
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceHSLType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Hue</a> <a href="#">CxF:Saturation</a> <a href="#">CxF:Lightness</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	<b>xs:string</b>				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	<b>xs:string</b>	optional			
source	<xs:element name="ColorSpaceHSL" type="CxF:ColorSpaceHSLType" substitutionGroup="CxF:ColorSpace"/>					

## element ColorSpaceHSV

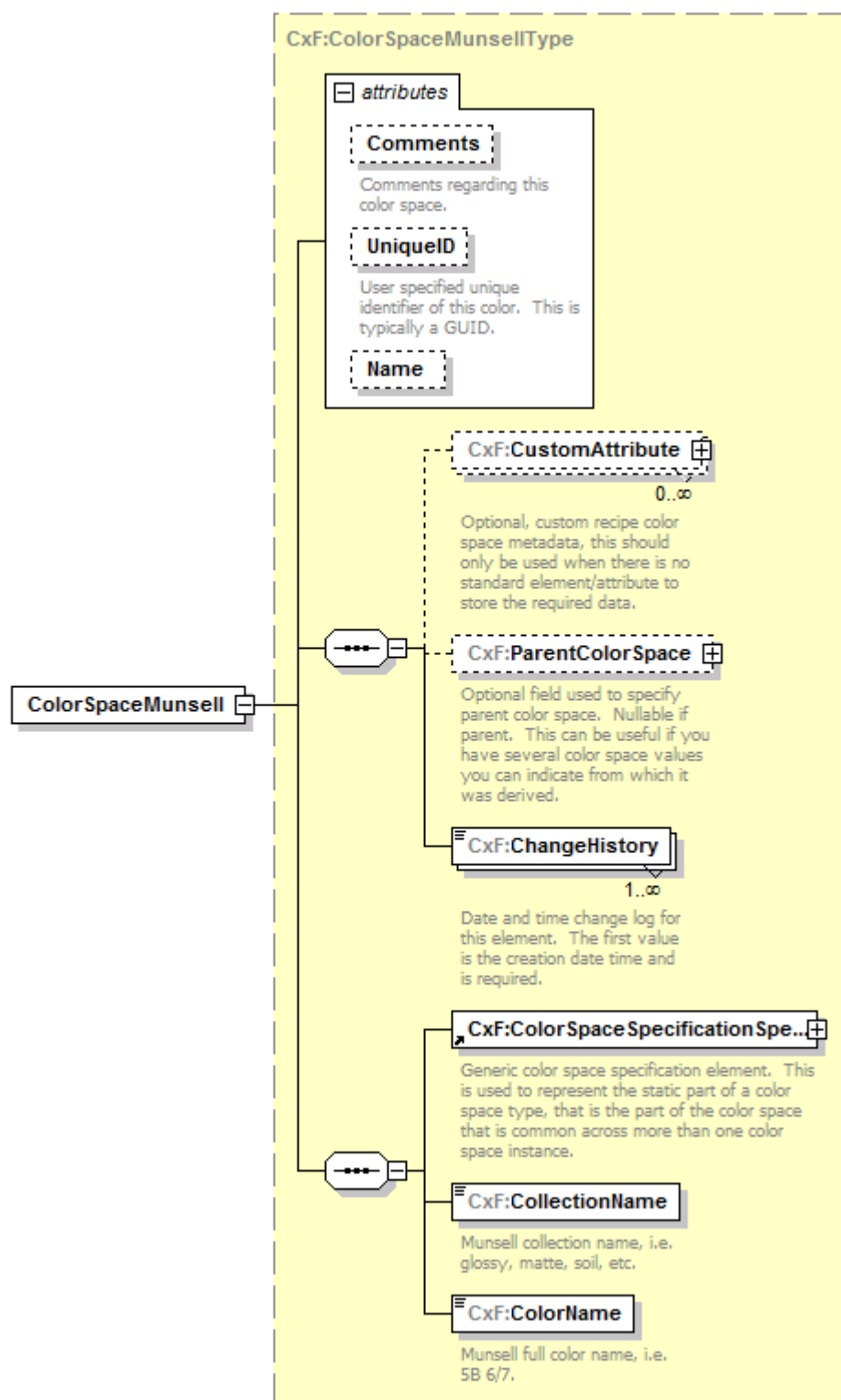
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceHSVType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Hue</a> <a href="#">CxF:Saturation</a> <a href="#">CxF:Value</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	<b>xs:string</b>				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	<b>xs:string</b>	optional			
source	<xs:element name="ColorSpaceHSV" type="CxF:ColorSpaceHSVType" substitutionGroup="CxF:ColorSpace"/>					

# element **ColorSpaceMunsell**

diagram



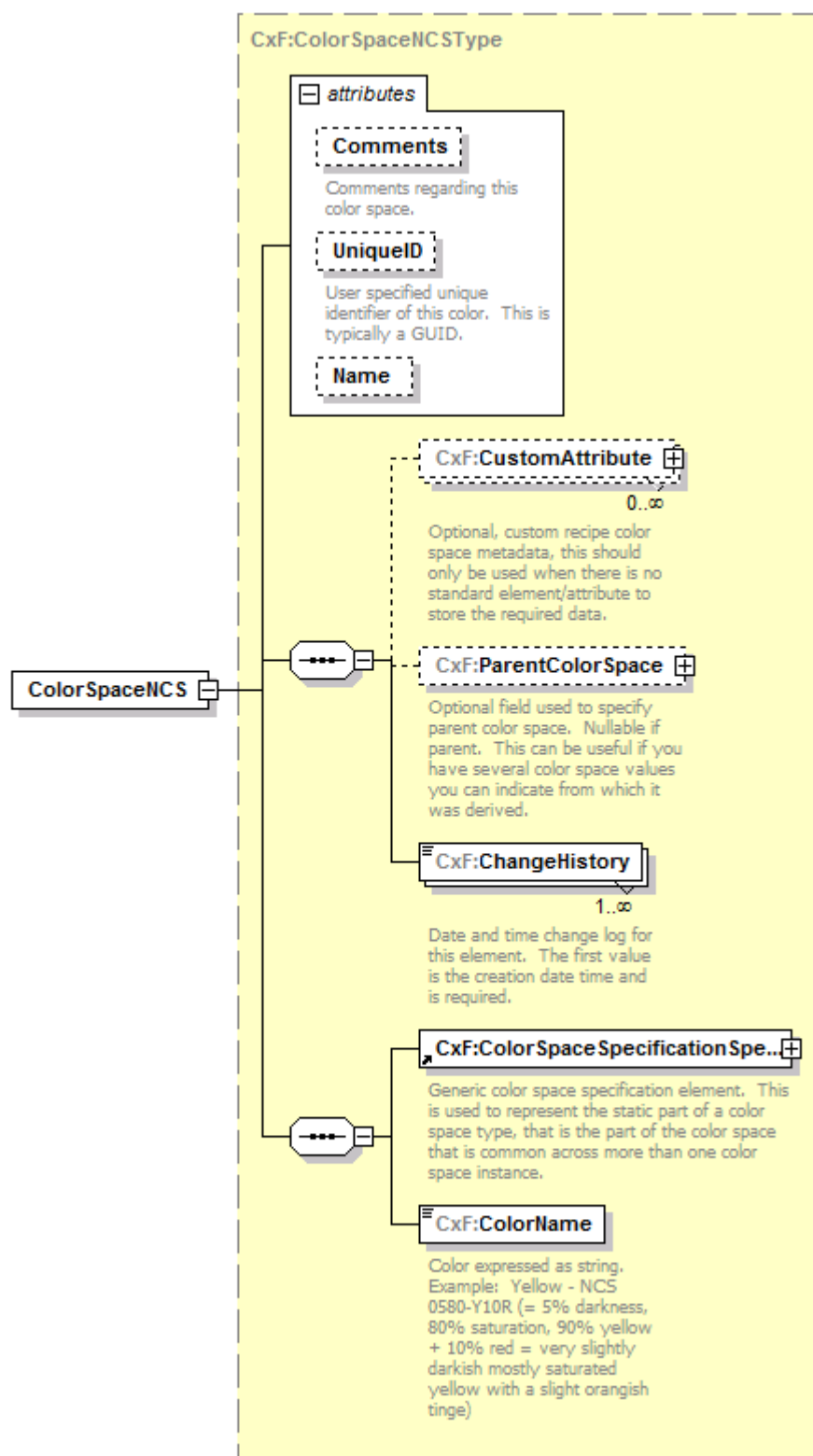
namespace <http://colorexchangeformat.com/v2>

type [CxF:ColorSpaceMunsellType](#)

properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:CollectionName</a> <a href="#">CxF:ColorName</a>					
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>  <a href="#">Name</a>	Type <b>xs:string</b>  <b>xs:string</b>  <b>xs:string</b>	Use   optional	Default   	Fixed   	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
source	<code>&lt;xs:element name="ColorSpaceMunsell" type="CxF:ColorSpaceMunsellType" substitutionGroup="CxF:ColorSpace"/&gt;</code>					

## element ColorSpaceNCS

diagram



namespace <http://colorexchangeformat.com/v2>

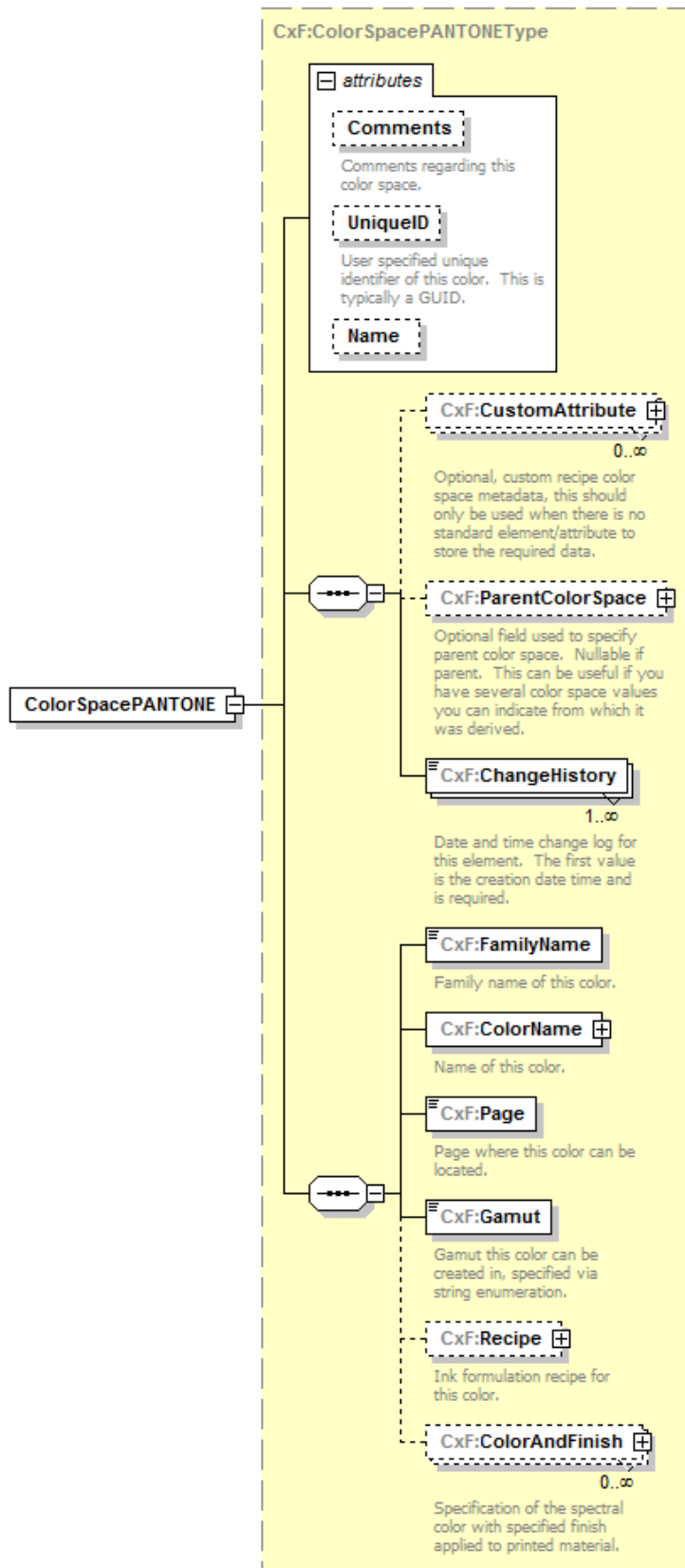
type [CxF:ColorSpaceNCSType](#)

properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:ColorName</a>					
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>  <a href="#">Name</a>	Type <b>xs:string</b>  <b>xs:string</b>  <b>xs:string</b>	Use    optional	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
source	<xs:element name="ColorSpaceNCS" type="CxF:ColorSpaceNCSType" substitutionGroup="CxF:ColorSpace"/>					



## element ColorSpacePANTONE

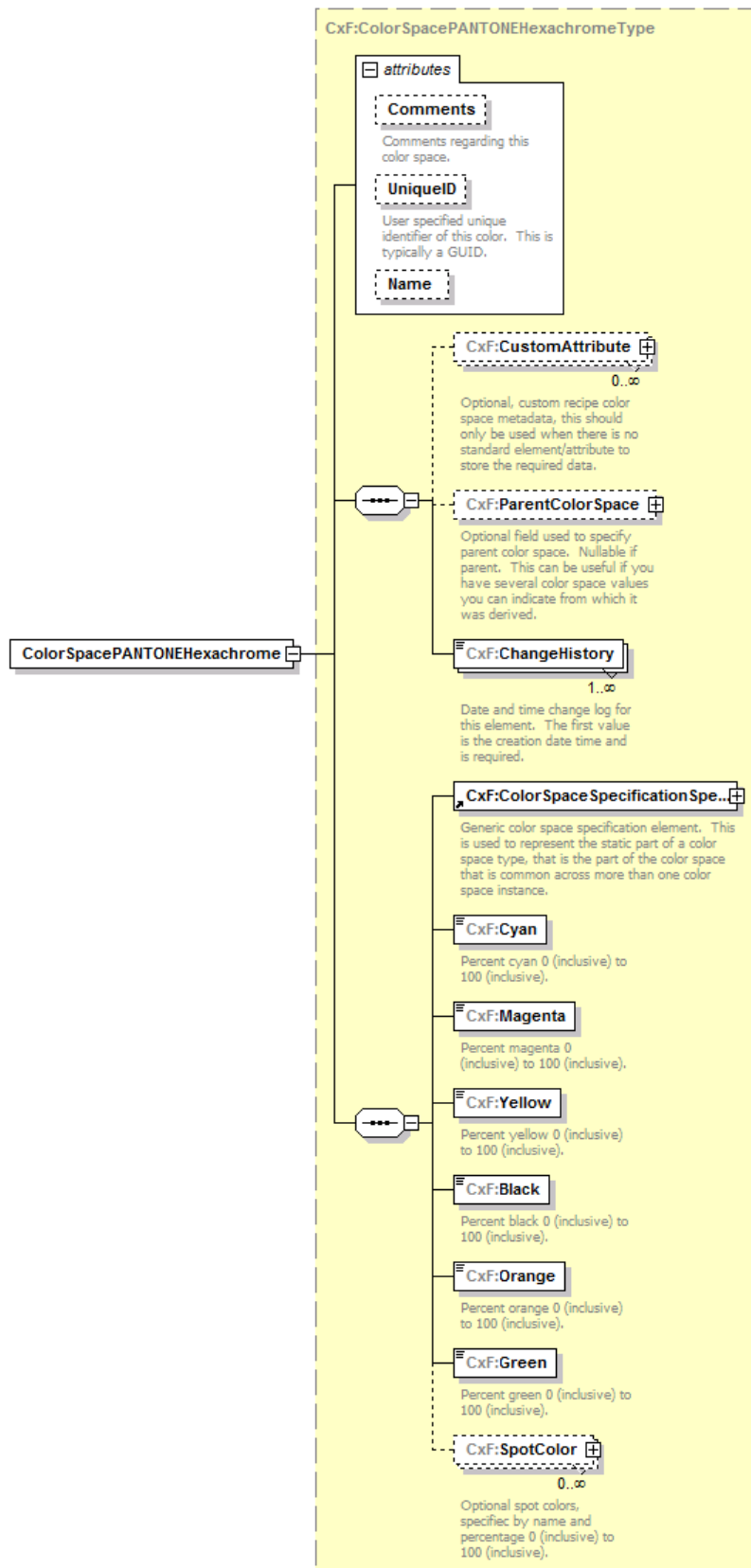
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpacePANTONEType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:FamilyName</a> <a href="#">CxF:ColorName</a> <a href="#">CxF:Page</a> <a href="#">CxF:Gamut</a> <a href="#">CxF:Recipe</a> <a href="#">CxF:ColorAndFinish</a>					
attributes	Name <a href="#">Comments</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	<b>xs:string</b>	optional			
source	<xs:element name="ColorSpacePANTONE" type="CxF:ColorSpacePANTONEType" substitutionGroup="CxF:ColorSpace"/>					

## element ColorSpacePANTONEHexachrome

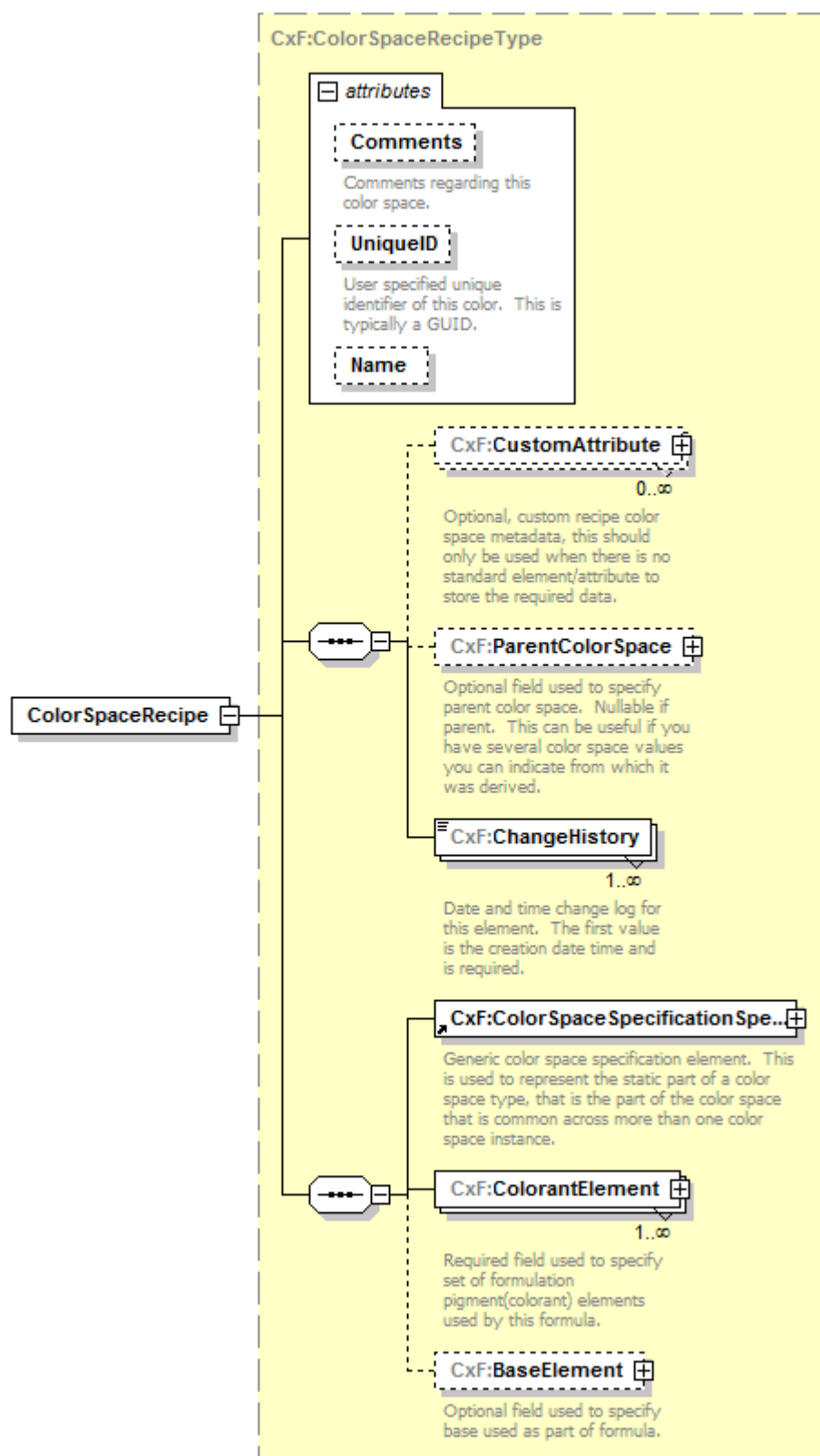
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpacePANTONEHexachromeType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Cyan</a> <a href="#">CxF:Magenta</a> <a href="#">CxF:Yellow</a> <a href="#">CxF:Black</a> <a href="#">CxF:Orange</a> <a href="#">CxF:Green</a> <a href="#">CxF:SpotColor</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	<b>xs:string</b>				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	<b>xs:string</b>	optional			
source	<xs:element name="ColorSpacePANTONEHexachrome" type="CxF:ColorSpacePANTONEHexachromeType" substitutionGroup="CxF:ColorSpace"/>					

## element ColorSpaceRecipe

diagram

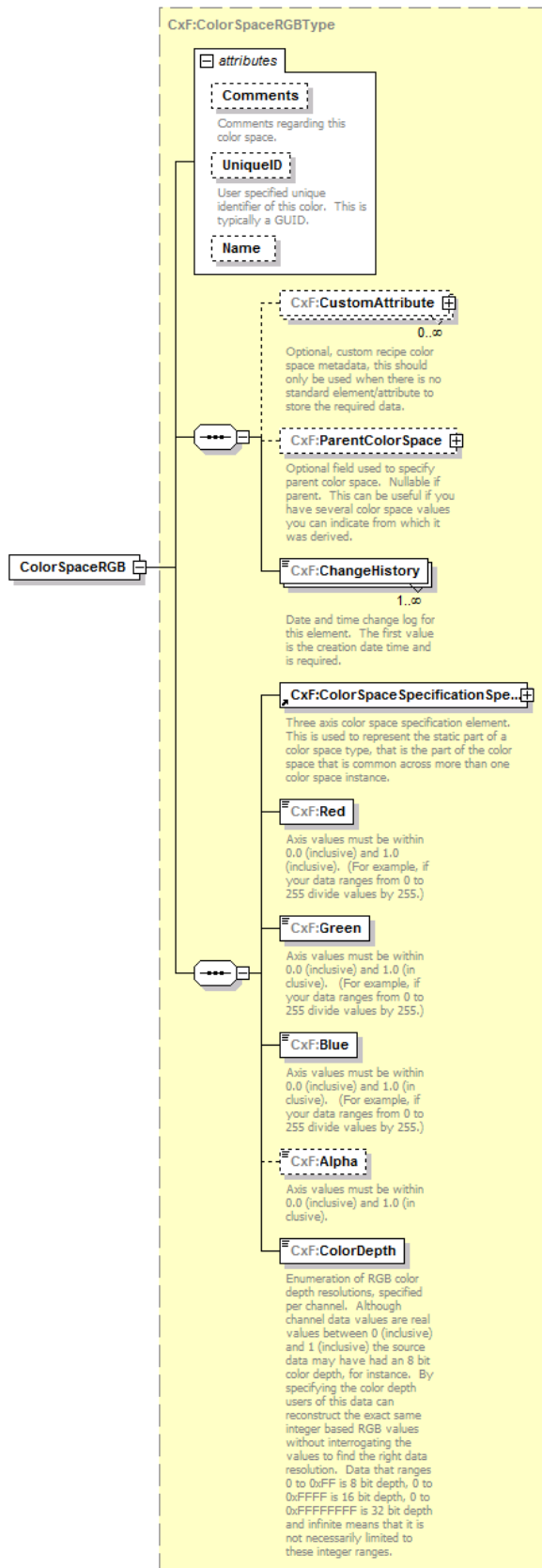


namespace <http://colorexchangeformat.com/v2>

type	<a href="#">CxF:ColorSpaceRecipeType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:ColorantElement</a> <a href="#">CxF:BaseElement</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	<b>xs:string</b>				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	<b>xs:string</b>	optional			
source	<xs:element name="ColorSpaceRecipe" type="CxF:ColorSpaceRecipeType" substitutionGroup="CxF:ColorSpace"/>					

element **ColorSpaceRGB**

diagram

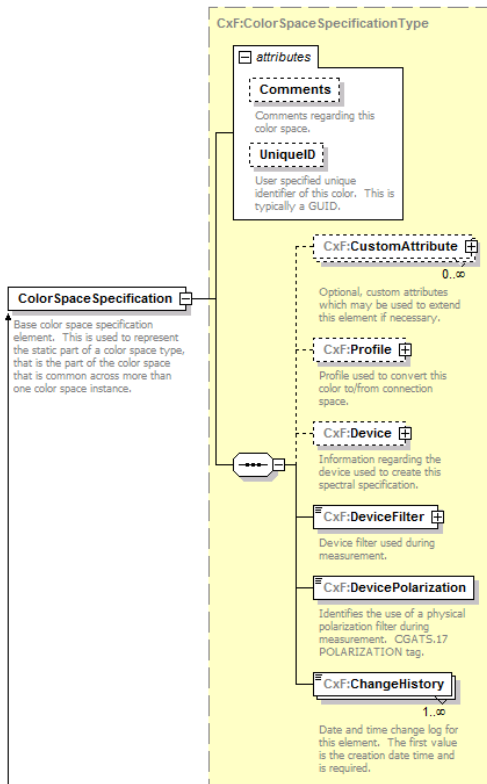




namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceRGBType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:Red</a> <a href="#">CxF:Green</a> <a href="#">CxF:Blue</a> <a href="#">CxF:Alpha</a> <a href="#">CxF:ColorDepth</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	<b>xs:string</b>				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	<b>xs:string</b>	optional			
source	<xs:element name="ColorSpaceRGB" type="CxF:ColorSpaceRGBType" substitutionGroup="CxF:ColorSpace"/>					

## element ColorSpaceSpecification

diagram



### ColorSpaceSpecificationEmissive

Base color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

### ColorSpaceSpecificationEmissiv...

Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

### ColorSpaceSpecificationEmissiv...

Spectral color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

### ColorSpaceSpecificationEmissiv...

Three axis color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

### ColorSpaceSpecificationSpectru...

Base color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

### ColorSpaceSpecificationSpectru...

Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

### ColorSpaceSpecificationSpectru...

Spectral color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

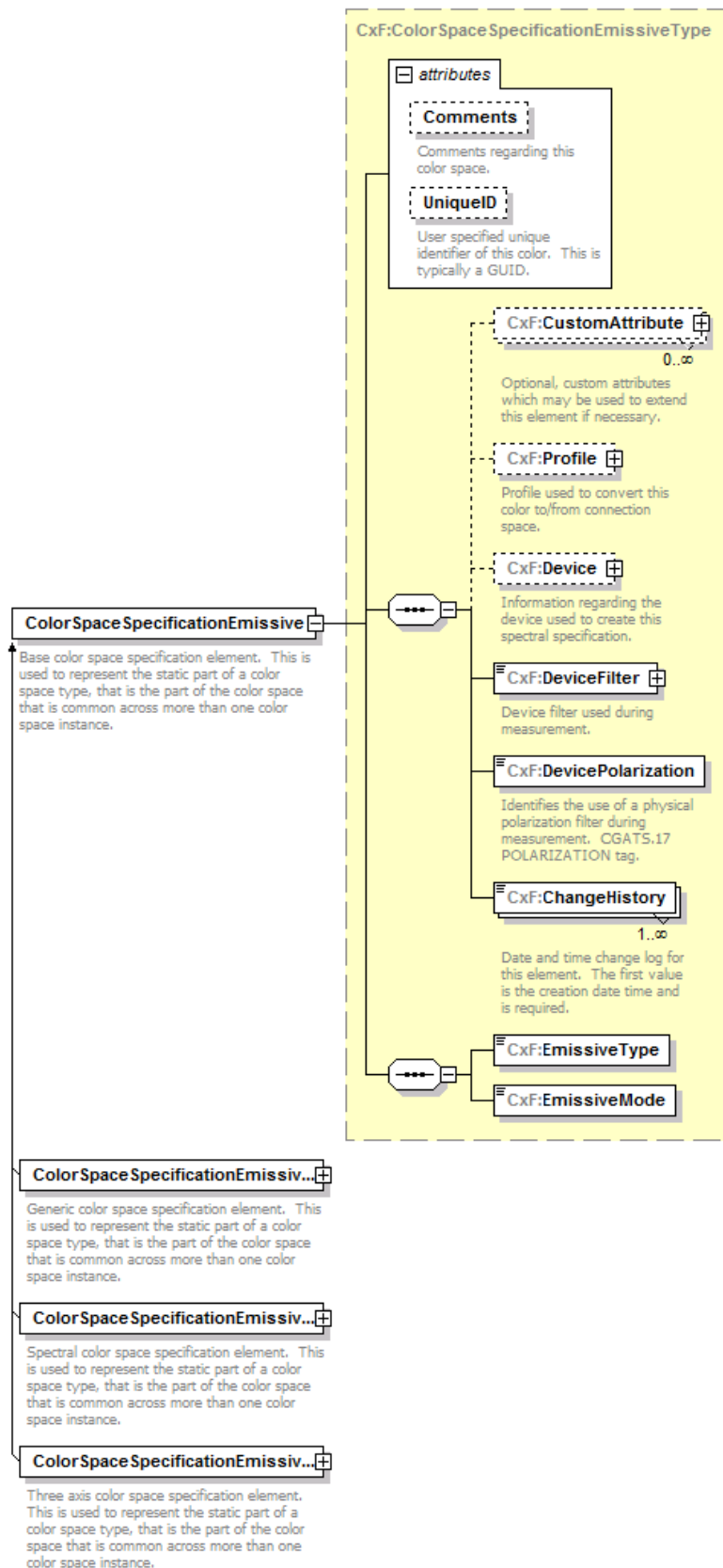
### ColorSpaceSpecificationSpectru...

Three axis color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.



element **ColorSpaceSpecificationEmissive**

diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceSpecificationEmissiveType</a>					
properties	content substGrp	complex CxF:ColorSpaceSpecification				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:EmissiveType</a> <a href="#">CxF:EmissiveMode</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	<b>xs:string</b>				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Base color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<xs:element name="ColorSpaceSpecificationEmissive" type="CxF:ColorSpaceSpecificationEmissiveType" substitutionGroup="CxF:ColorSpaceSpecification"> <xs:annotation> <xs:documentation>Base color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</xs:documentation> </xs:annotation> </xs:element>					

## element ColorSpaceSpecificationEmissiveGeneric

diagram

### ColorSpaceSpecificationEmissiv...

Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

### CxF:ColorSpaceSpecificationEmissiveGenericType

#### attributes

##### Comments

Comments regarding this color space.

##### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### CxF:CustomAttribute

0..∞

Optional, custom attributes which may be used to extend this element if necessary.

#### CxF:Profile

Profile used to convert this color to/from connection space.

#### CxF:Device

Information regarding the device used to create this spectral specification.

#### CxF:DeviceFilter

Device filter used during measurement.

#### CxF:DevicePolarization

Identifies the use of a physical polarization filter during measurement. CGATS.17 POLARIZATION tag.

#### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### CxF:EmissiveType

#### CxF:EmissiveMode

#### CxF:GeometryChoice

This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.

#### CxF:IlluminationOptions

Illumination specification options.

#### CxF:FieldOfView

Standard observer field of view angles. CGATS.17 WEIGHTING\_FUNCTION.

#### CxF:ASTM\_Table

ASTM E308 table data used to convert to CIE color space from spectral color space.

#### CxF:Gamma

#### CxF:DensityStatus

namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceSpecificationEmissiveGenericType</a>					
properties	content substGrp nillable	complex CxF:ColorSpaceSpecificationEmissive true				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:EmissiveType</a> <a href="#">CxF:EmissiveMode</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:IlluminationOptions</a> <a href="#">CxF:FieldOfView</a> <a href="#">CxF:ASTM_Table</a> <a href="#">CxF:Gamma</a> <a href="#">CxF:DensityStatus</a>					
used by	complexType	<a href="#">ColorSpaceEmissiveGenericType</a>				
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>	Type <b>xs:string</b>  <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<xs:element name="ColorSpaceSpecificationEmissiveGeneric" type="CxF:ColorSpaceSpecificationEmissiveGenericType" substitutionGroup="CxF:ColorSpaceSpecificationEmissive" nillable="true"> <xs:annotation> <xs:documentation>Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</xs:documentation> </xs:annotation> </xs:element>					



## element **ColorSpaceSpecificationEmissiveSpectral**

diagram

### **ColorSpaceSpecificationEmissiv...**

Spectral color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

### CxF:ColorSpaceSpecificationEmissiveSpectralType

#### attributes

##### Comments

Comments regarding this color space.

##### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### CxF:CustomAttribute

0..∞

Optional, custom attributes which may be used to extend this element if necessary.

#### CxF:Profile

Profile used to convert this color to/from connection space.

#### CxF:Device

Information regarding the device used to create this spectral specification.

#### CxF:DeviceFilter

Device filter used during measurement.

#### CxF:DevicePolarization

Identifies the use of a physical polarization filter during measurement. CGATS.17 POLARIZATION tag.

#### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### CxF:EmissiveType

#### CxF:EmissiveMode

#### CxF:GeometryChoice

This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.

#### CxF:ASTM\_Table

ASTM E308 table data that should be used to convert to CIE color space.

namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceSpecificationEmissiveSpectralType</a>					
properties	content substGrp nillable	complex CxF:ColorSpaceSpecificationEmissive true				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:EmissiveType</a> <a href="#">CxF:EmissiveMode</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:ASTM</a> <a href="#">Table</a>					
used by	complexType	<a href="#">ColorSpaceEmissiveSpectralType</a>				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	<b>xs:string</b>				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Spectral color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<xs:element name="ColorSpaceSpecificationEmissiveSpectral" type="CxF:ColorSpaceSpecificationEmissiveSpectralType" substitutionGroup="CxF:ColorSpaceSpecificationEmissive" nillable="true"> <xs:annotation> <xs:documentation>Spectral color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</xs:documentation> </xs:annotation> </xs:element>					

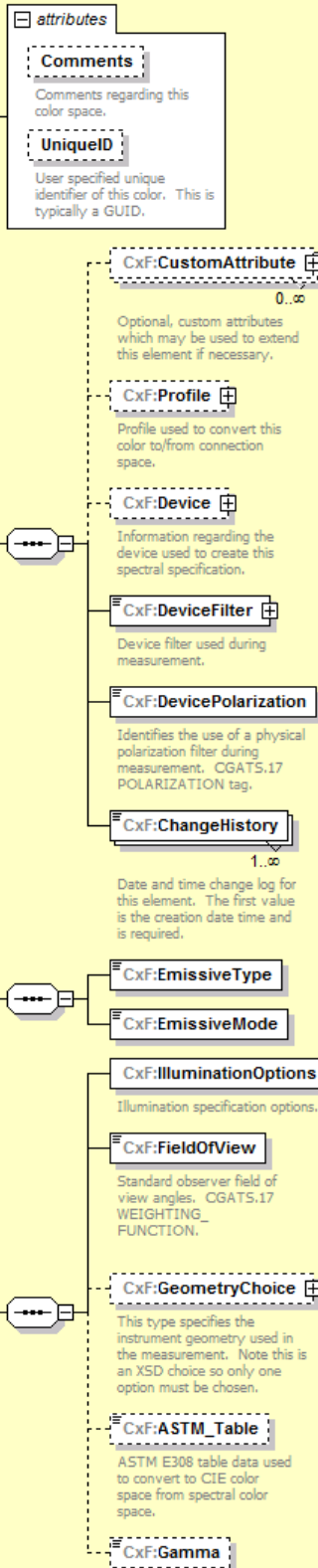
element **ColorSpaceSpecificationEmissiveTristimulus**

diagram

**ColorSpaceSpecificationEmissiv...**

Three axis color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

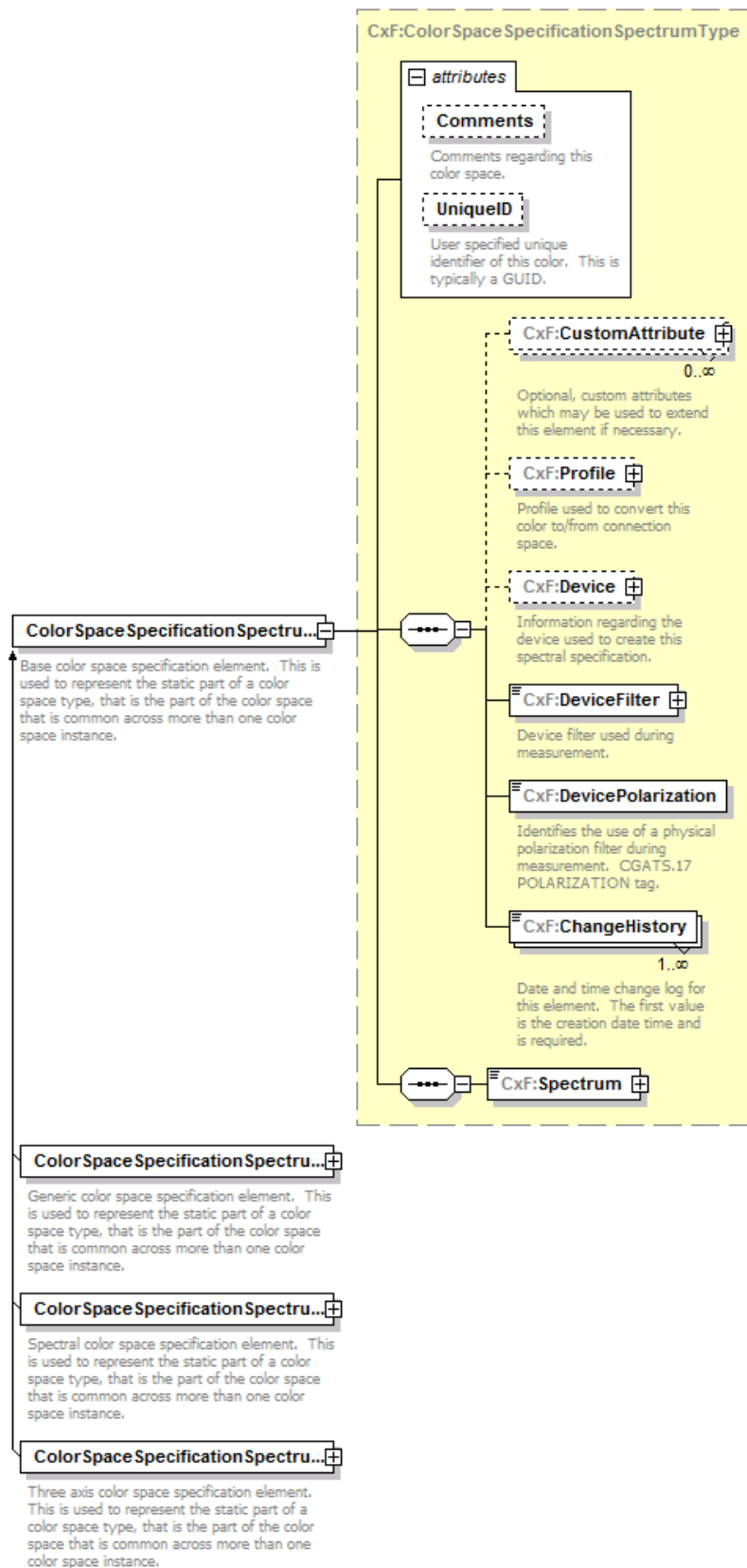
CxF:ColorSpaceSpecificationEmissiveTristimulusType



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceSpecificationEmissiveTristimulusType</a>					
properties	content substGrp nillable	complex CxF:ColorSpaceSpecificationEmissive true				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:EmissiveType</a> <a href="#">CxF:EmissiveMode</a> <a href="#">CxF:IlluminationOptions</a> <a href="#">CxF:FieldOfView</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:ASTM_Table</a> <a href="#">CxF:Gamma</a>					
used by	complexTypes	<a href="#">ColorSpaceEmissiveCIExyYType</a> <a href="#">ColorSpaceEmissiveCIEXYZType</a>				
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>	Type <b>xs:string</b>  <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Three axis color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<xs:element name="ColorSpaceSpecificationEmissiveTristimulus" type="CxF:ColorSpaceSpecificationEmissiveTristimulusType" substitutionGroup="CxF:ColorSpaceSpecificationEmissive" nillable="true"> <xs:annotation> <xs:documentation>Three axis color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</xs:documentation> </xs:annotation> </xs:element>					

## element ColorSpaceSpecificationSpectrum

diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceSpecificationSpectrumType</a>					
properties	content substGrp	complex CxF:ColorSpaceSpecification				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Spectrum</a>					
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>	Type <b>xs:string</b>  <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Base color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<xs:element name="ColorSpaceSpecificationSpectrum" type="CxF:ColorSpaceSpecificationSpectrumType" substitutionGroup="CxF:ColorSpaceSpecification"> <xs:annotation> <xs:documentation>Base color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</xs:documentation> </xs:annotation> </xs:element>					

## element **ColorSpaceSpecificationSpectrumGeneric**

diagram

### ColorSpaceSpecificationSpectru...

Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

### CxF:ColorSpaceSpecificationSpectrumGenericType

#### attributes

##### Comments

Comments regarding this color space.

##### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### CxF:CustomAttribute

0..∞

Optional, custom attributes which may be used to extend this element if necessary.

#### CxF:Profile

Profile used to convert this color to/from connection space.

#### CxF:Device

Information regarding the device used to create this spectral specification.

#### CxF:DeviceFilter

Device filter used during measurement.

#### CxF:DevicePolarization

Identifies the use of a physical polarization filter during measurement. CGATS.17 POLARIZATION tag.

#### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### CxF:Spectrum

#### CxF:GeometryChoice

This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.

#### CxF:IlluminationOptions

Illumination specification options.

#### CxF:FieldOfView

Standard observer field of view angles. CGATS.17 WEIGHTING\_FUNCTION.

#### CxF:ASTM\_Table

ASTM E308 table data used to convert to CIE color space from spectral color space.

#### CxF:Gamma

#### CxF:DensityStatus

namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceSpecificationSpectrumGenericType</a>					
properties	content substGrp nillable	complex CxF:ColorSpaceSpecificationSpectrum true				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Spectrum</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:IlluminationOptions</a> <a href="#">CxF:FieldOfView</a> <a href="#">CxF:ASTM Table</a> <a href="#">CxF:Gamma</a> <a href="#">CxF:DensityStatus</a>					
used by	complexTypes	<a href="#">ColorSpaceCMYKType</a> <a href="#">ColorSpaceDensityType</a> <a href="#">ColorSpaceGenericType</a> <a href="#">ColorSpaceHSLType</a> <a href="#">ColorSpaceHSVType</a> <a href="#">ColorSpaceMunsellType</a> <a href="#">ColorSpaceNCSType</a> <a href="#">ColorSpacePANTONEHexachromeType</a> <a href="#">ColorSpaceRecipeType</a> <a href="#">ColorSpaceYBRType</a> <a href="#">ColorSpaceYIQType</a> <a href="#">ColorSpaceYUVType</a>				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	xs:string				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	xs:string				documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<xs:element name="ColorSpaceSpecificationSpectrumGeneric" type="CxF:ColorSpaceSpecificationSpectrumGenericType" substitutionGroup="CxF:ColorSpaceSpecificationSpectrum" nillable="true"> <xs:annotation> <xs:documentation>Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</xs:documentation> </xs:annotation> </xs:element>					



element **ColorSpaceSpecificationSpectrumSpectral**

diagram

**ColorSpaceSpecificationSpectru...**

Spectral color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

## CxF:Color Space Specification SpectrumSpectralType

### attributes

#### Comments

Comments regarding this color space.

#### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### CxF:CustomAttribute

0..∞

Optional, custom attributes which may be used to extend this element if necessary.

#### CxF:Profile

Profile used to convert this color to/from connection space.

#### CxF:Device

Information regarding the device used to create this spectral specification.

#### CxF:DeviceFilter

Device filter used during measurement.

#### CxF:DevicePolarization

Identifies the use of a physical polarization filter during measurement. CGATS.17 POLARIZATION tag.

#### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### CxF:Spectrum

#### CxF:GeometryChoice

This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.

#### CxF:ASTM\_Table

ASTM E308 table data that should be used to convert to CIE color space.

namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceSpecificationSpectrumSpectralType</a>					
properties	content substGrp nillable	complex CxF:ColorSpaceSpecificationSpectrum true				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Spectrum</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:ASTM</a> <a href="#">Table</a>					
used by	complexType	<a href="#">ColorSpaceSpectralType</a>				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	<b>xs:string</b>				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Spectral color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<xs:element name="ColorSpaceSpecificationSpectrumSpectral" type="CxF:ColorSpaceSpecificationSpectrumSpectralType" substitutionGroup="CxF:ColorSpaceSpecificationSpectrum" nillable="true"> <xs:annotation> <xs:documentation>Spectral color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</xs:documentation> </xs:annotation> </xs:element>					

element **ColorSpaceSpecificationSpectrumTristimulus**

diagram

### ColorSpaceSpecificationSpectru...

Three axis color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

### CxF:ColorSpaceSpecificationSpectrumTristimulusType

#### attributes

##### Comments

Comments regarding this color space.

##### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### CxF:CustomAttribute

0..∞

Optional, custom attributes which may be used to extend this element if necessary.

#### CxF:Profile

Profile used to convert this color to/from connection space.

#### CxF:Device

Information regarding the device used to create this spectral specification.

#### CxF:DeviceFilter

Device filter used during measurement.

#### CxF:DevicePolarization

Identifies the use of a physical polarization filter during measurement. CGATS.17 POLARIZATION tag.

#### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### CxF:Spectrum

#### CxF:IlluminationOptions

Illumination specification options.

#### CxF:FieldOfView

Standard observer field of view angles. CGATS.17 WEIGHTING\_FUNCTION.

#### CxF:GeometryChoice

This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.

#### CxF:ASTM\_Table

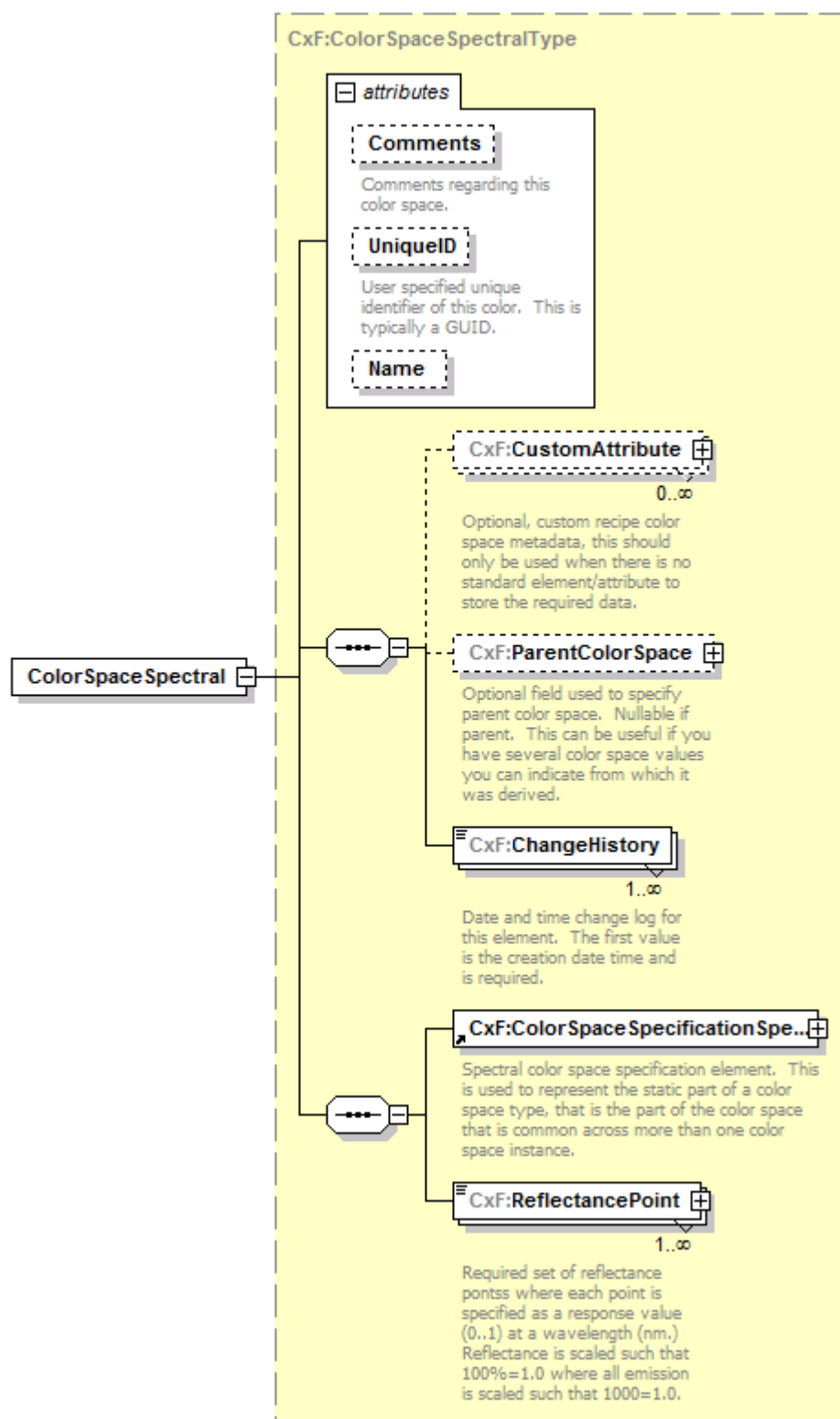
ASTM E308 table data used to convert to CIE color space from spectral color space.

#### CxF:Gamma

namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulusType</a>					
properties	content substGrp nillable	complex CxF:ColorSpaceSpecificationSpectrum true				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Spectrum</a> <a href="#">CxF:IlluminationOptions</a> <a href="#">CxF:FieldOfView</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:ASTM</a> <a href="#">Table</a> <a href="#">CxF:Gamma</a>					
used by	complexTypes	<a href="#">ColorSpaceAdobeRGBType</a> <a href="#">ColorSpaceAdobeWideGamutRGBType</a> <a href="#">ColorSpaceCIELabType</a> <a href="#">ColorSpaceCIELChType</a> <a href="#">ColorSpaceCIELuvType</a> <a href="#">ColorSpaceCIExyYType</a> <a href="#">ColorSpaceCIEXYZType</a> <a href="#">ColorSpaceRGBType</a> <a href="#">ColorSpaceSRGBType</a>				
attributes	Name <a href="#">Comments</a>   <a href="#">UniqueID</a>	Type <b>xs:string</b>   <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Three axis color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<xs:element name="ColorSpaceSpecificationSpectrumTristimulus" type="CxF:ColorSpaceSpecificationSpectrumTristimulusType" substitutionGroup="CxF:ColorSpaceSpecificationSpectrum" nillable="true"> <xs:annotation> <xs:documentation>Three axis color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</xs:documentation> </xs:annotation> </xs:element>					

# element **ColorSpaceSpectral**

diagram



namespace <http://colorexchangeformat.com/v2>

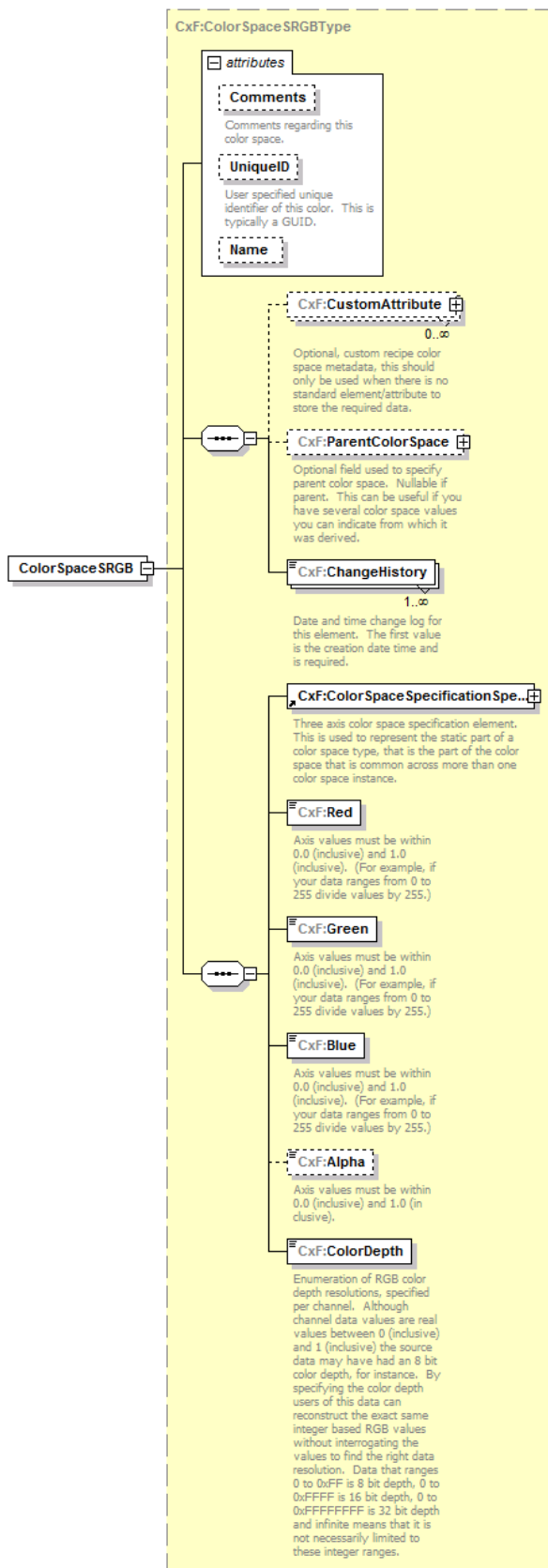
type [CxF:ColorSpaceSpectralType](#)

properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumSpectral</a> <a href="#">CxF:ReflectancePoint</a>					
used by	element	<a href="#">ColorSpacePANTONEType/ColorAndFinish</a>				
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>  <a href="#">Name</a>	Type <b>xs:string</b>  <b>xs:string</b>  <b>xs:string</b>	Use   optional	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
source	<xs:element name="ColorSpaceSpectral" type="CxF:ColorSpaceSpectralType" substitutionGroup="CxF:ColorSpace"/>					



element **ColorSpaceSRGB**

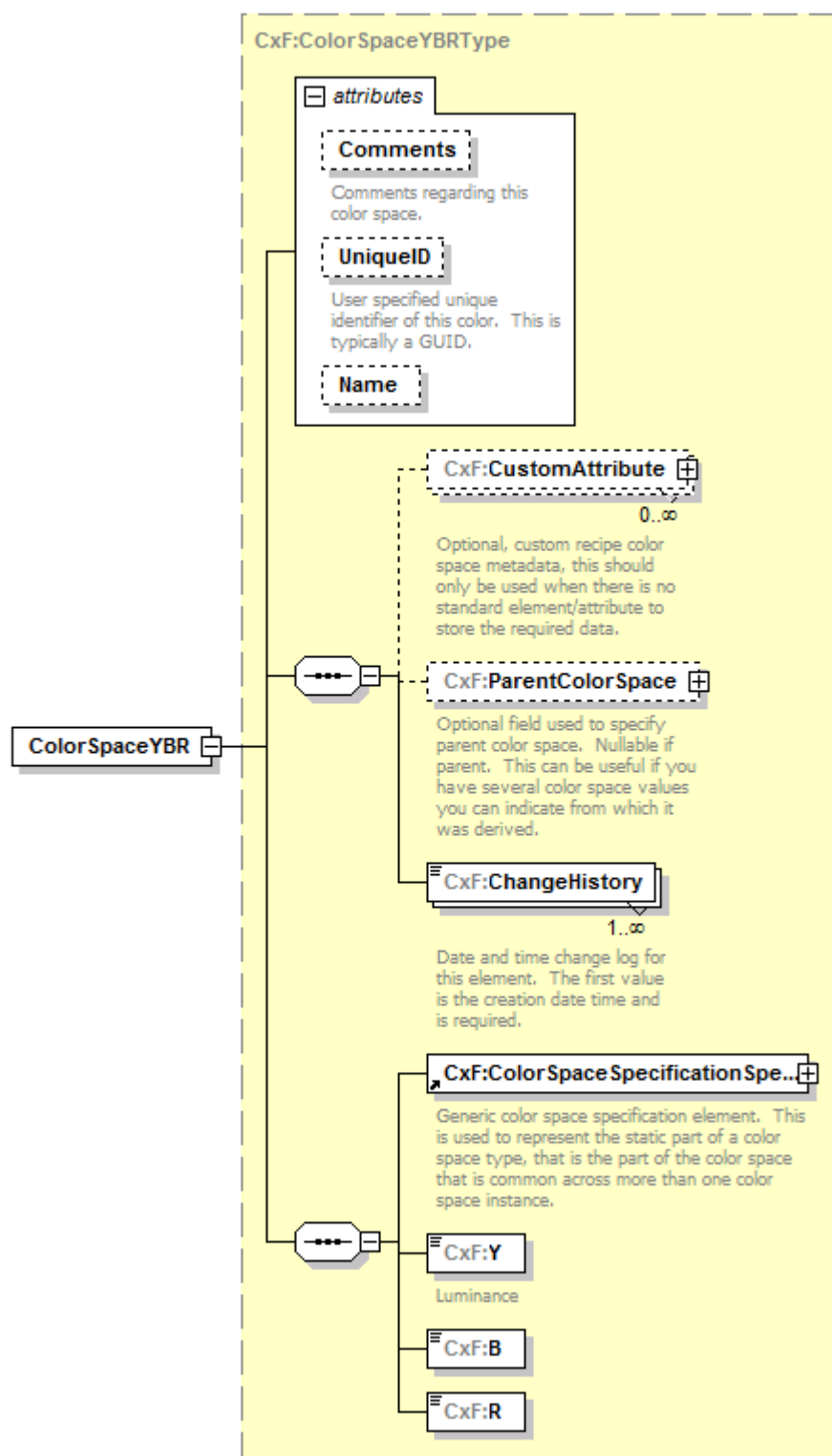
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceSRGBType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:Red</a> <a href="#">CxF:Green</a> <a href="#">CxF:Blue</a> <a href="#">CxF:Alpha</a> <a href="#">CxF:ColorDepth</a>					
attributes	Name <a href="#">Comments</a>   <a href="#">UniqueID</a>    <a href="#">Name</a>	Type <b>xs:string</b>   <b>xs:string</b>    <b>xs:string</b>	Use       optional	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
source	<xs:element name="ColorSpaceSRGB" type="CxF:ColorSpaceSRGBType" substitutionGroup="CxF:ColorSpace"/>					

# element **ColorSpaceYBR**

diagram



namespace <http://colorexchangeformat.com/v2>

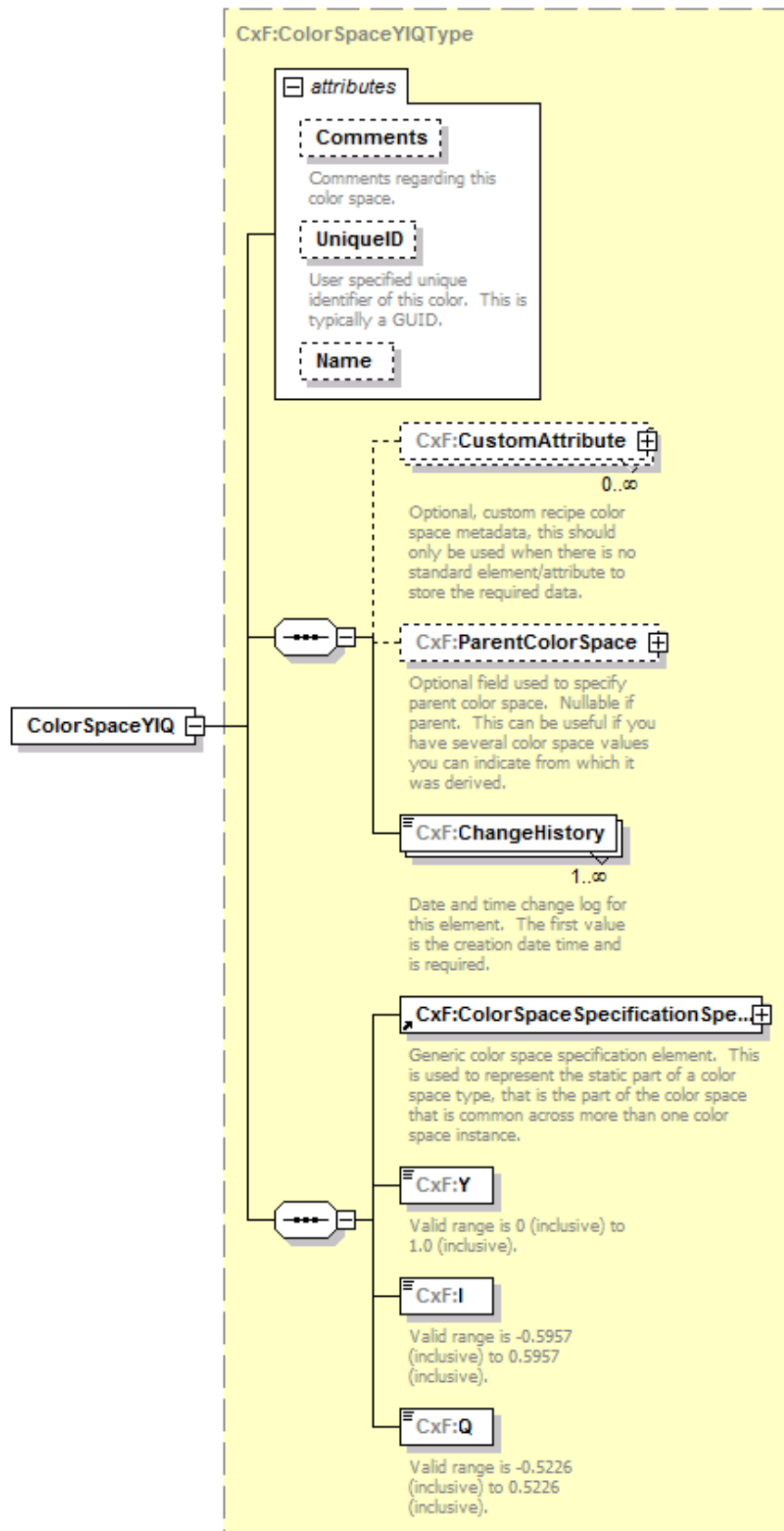
type [CxF:ColorSpaceYBRType](#)

properties content complex



## element **ColorSpaceYIQ**

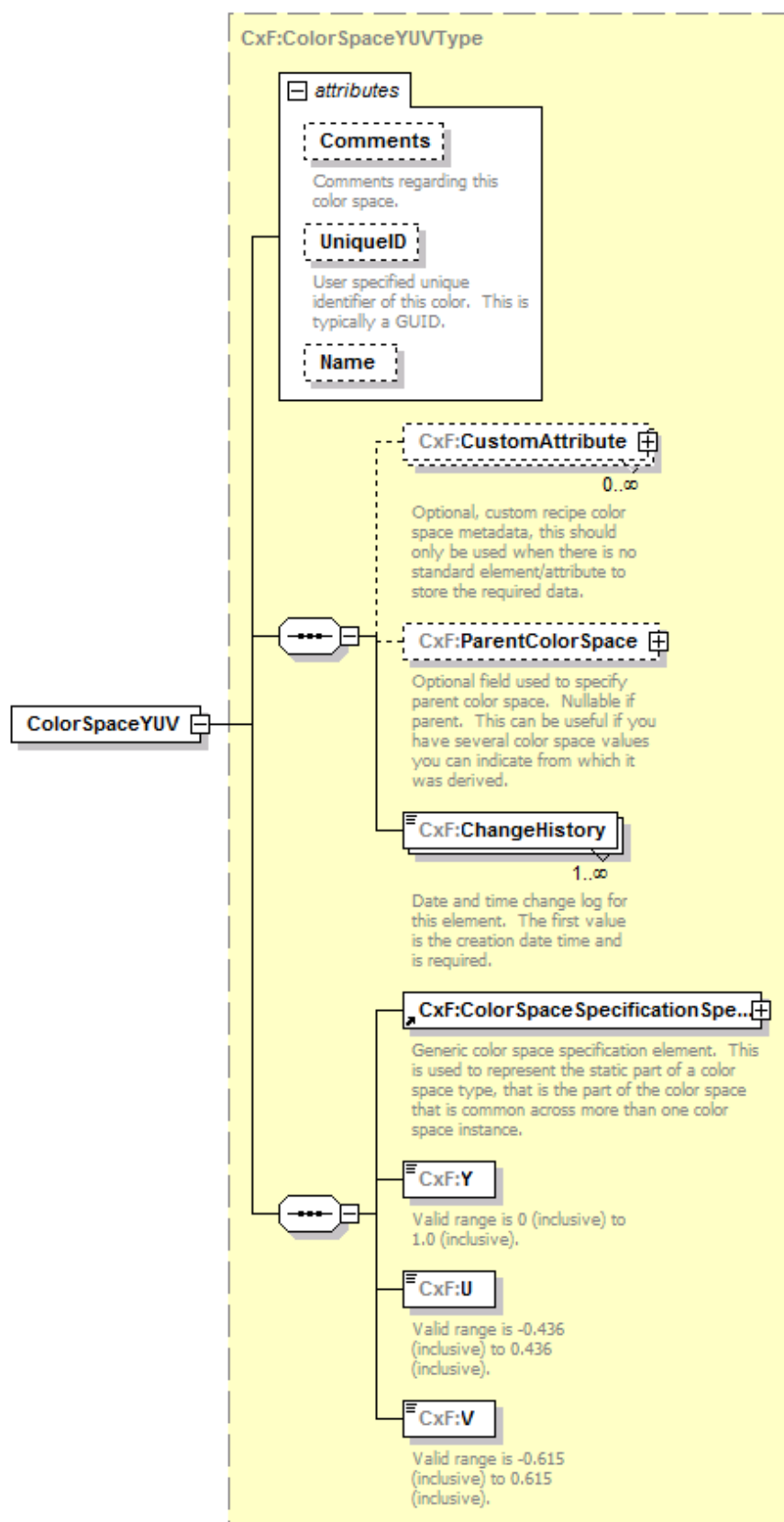
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceYIQType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Y</a> <a href="#">CxF:I</a> <a href="#">CxF:Q</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	<b>xs:string</b>				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	<b>xs:string</b>	optional			
source	<xs:element name="ColorSpaceYIQ" type="CxF:ColorSpaceYIQType" substitutionGroup="CxF:ColorSpace"/>					

## element **ColorSpaceYUV**

diagram





namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceYUVType</a>					
properties	content substGrp	complex CxF:ColorSpace				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Y</a> <a href="#">CxF:U</a> <a href="#">CxF:V</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	<b>xs:string</b>				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	<b>xs:string</b>	optional			
source	<xs:element name="ColorSpaceYUV" type="CxF:ColorSpaceYUVType" substitutionGroup="CxF:ColorSpace"/>					

## element CxF

diagram	<p><b>CxF</b></p> <p>The root container for CxF documents. CxF supports storing and communicating color data in a structured manor using XML and XSD. This color data may be a single color, set of colors or a palette of colors. It may also contain standard and trial colors with associated tolerances.</p> <p><b>CxF:Preamble</b></p> <p>Required introductory document data such as document header, owner and version information.</p> <p><b>CxF:Color</b></p> <p>Optional field used to specify a collection of colors. The colors do not have to have any relationship to each other. (Note each color can have one or more ways of describing that color.)</p> <p><b>CxF:Palette</b></p> <p>Optional field used to specify a collection of palettes. Each palette is used to specify a collection of color sets. The palettes do not have to have any relationship to each other. However, it is intended that each color set within each palette is related in some way to each other. (Note each color can have one or more ways of describing that color.)</p> <p><b>CxF:ColorQualityControl</b></p> <p>Optional field used to specify a collection of color quality control instances. Each instance represents one physical sample and associated standard, measurement(s) and tolerance(s). This physical sample may consist of a single patch, or it may consist of a target (array of patches) used to make profiles, for instance.</p>
namespace	http://colorexchangeformat.com/v2
properties	content complex
children	<a href="#">CxF:Preamble</a> <a href="#">CxF:Color</a> <a href="#">CxF:Palette</a> <a href="#">CxF:ColorQualityControl</a>
annotation	<p>documentation</p> <p>The root container for CxF documents. CxF supports storing and communicating color data in a structured manor using XML and XSD. This color data may be a single color, set of colors or a palette of colors. It may also contain standard and trial colors with associated tolerances.</p>
source	<pre> &lt;xs:element name="CxF"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The root container for CxF documents. CxF supports storing and communicating color data in a structured manor using XML and XSD. This color data may be a single color, set of colors or a palette of colors. It may also contain standard and trial colors with associated tolerances.&lt;/xs:documentation&gt;     &lt;!--&lt;xs:appinfo&gt;       &lt;jxb:class&gt; </pre>

<jxb:javadoc>The root container for this CxF document.  
 This document supports storing and communicating color data in a structured standard manor.  
 This color data may be a single color, or an endless array or palette of colors. It may also contain  
 standard colors and many trial colors.</jxb:javadoc>  
 </jxb:class>  
 </xs:appinfo-->  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence>  
 <xs:element name="Preamble">  
 <xs:annotation>  
 <xs:documentation>Required introductory document data such as document header, owner  
 and version information.</xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence>  
 <xs:element name="Header">  
 <xs:annotation>  
 <xs:documentation>File and CxF specific metadata</xs:documentation>  
 </xs:annotation>  
 <xs:complexType>  
 <xs:sequence>  
 <xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0"  
 maxOccurs="unbounded">  
 <xs:annotation>  
 <xs:documentation>Optional custom color header metadata, this should only be used  
 when there is no standard element/attribute to store the required data.</xs:documentation>  
 </xs:annotation>  
 </xs:element>  
 <xs:element name="Creator" type="xs:string">  
 <xs:annotation>  
 <xs:documentation>Name of the data creator. E.x. Program name used to generate  
 file, company name, etc. CGATS.17 ORIGINATOR tag.</xs:documentation>  
 </xs:annotation>  
 </xs:element>  
 <xs:element name="CreatorVersion" type="xs:string">  
 <xs:annotation>  
 <xs:documentation>Version of the data creator. E.x. Program version used to  
 generate file.</xs:documentation>  
 </xs:annotation>  
 </xs:element>  
 <xs:element name="ChangeHistory" type="CxF:DateTimeWithTimeZoneType"  
 maxOccurs="unbounded">  
 <xs:annotation>  
 <xs:documentation>Date and time of the creation of this CxF file. Date time format is  
 CCYY-MM-DDThh:mm:ss.SSSZ. Time zone must be specified either as UTC or UTC offset.  
 CGATS.17 CREATED tag.</xs:documentation>  
 </xs:annotation>  
 </xs:element>  
 <xs:element name="Purpose" type="xs:string">  
 <xs:annotation>  
 <xs:documentation>Purpose or contents of the data file. CGATS.17  
 FILE\_DESCRIPTOR TAG.</xs:documentation>  
 </xs:annotation>  
 </xs:element>  
 <xs:element name="Name" type="xs:string" minOccurs="0">

	<pre> &lt;xs:annotation&gt;   &lt;xs:documentation&gt;Optional header name.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="Comments" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional header comments.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="ReadSDKInformation" type="CxF:SDKType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of the SDK used to read this document. This is used for in-memory debugging purposes. For instance, once the document is in memory and you have a problem you might log this value (for instance in the Java edition using the toString() method) so there is a record of what SDK you were using to read the document. Note that at this point this may be a different SDK than what was used when this same document was written to XML. This element is set by the SDK so you should not need to set this element.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="WriteSDKInformation" type="CxF:SDKType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of the SDK used to write this document. This element is set by the SDK so you should not need to set this element.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="ReadPlatformInformation" type="CxF:PlatformType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Platform information used to read this document. This is used for in-memory debugging purposes. For instance, once the document is in memory and you have a problem you might log this value (for instance in the Java edition using the toString() method) so there is a record of what platform you were using to read the document. Note that at this point this may be a different platform than what was used when this same document was written to XML. (Java SDK edition: This element is set by the SDK so you should not need to set this element.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="WritePlatformInformation" type="CxF:PlatformType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Platform information used to write this document. (Java SDK edition: This element is set by the SDK so you should not need to set this element.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="Revision" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Internal schema revision information. Users must not use this element&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;xs:complexType&gt;   &lt;xs:sequence&gt;     &lt;xs:any namespace="##any" maxOccurs="unbounded"/&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	---

```

</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="Owner" type="CxF:OwnerType" minOccurs="0"/>
<xs:element name="Version" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Version info for the data in the CxF file.</xs:documentation>
  </xs:annotation>
</xs:complexType>
<xs:sequence>
  <xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0"
maxOccurs="unbounded">
    <xs:annotation>
      <xs:documentation>Optional custom version metadata, this should only be used
when there is no standard element/attribute to store the required data.</xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Version" type="xs:string">
    <xs:annotation>
      <xs:documentation>Version identifier for this document's data. (This is not the
version of the schema or SDK but the version of the data contained within this
document.)</xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Predecessor" type="xs:anyURI" minOccurs="0"
maxOccurs="unbounded">
    <xs:annotation>
      <xs:documentation>Optional element used to specify location (URI) of either previous
versions of this document or locations of documents from which this data was
derived.</xs:documentation>
    </xs:annotation>
  </xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="Color" type="CxF:ColorType" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Optional field used to specify a collection of colors. The colors do not
have to have any relationship to each other. (Note each color can have one or more ways of
describing that color.)</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Palette" type="CxF:PaletteType" minOccurs="0"
maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Optional field used to specify a collection of palettes. Each palette is
used to specify a collection of color sets. The palettes do not have to have any relationship to each
other. However, it is intended that each color set within each palette is related in some way to each
other. (Note each color can have one or more ways of describing that color.)</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="ColorQualityControl" type="CxF:ColorQualityControlType" minOccurs="0"
maxOccurs="unbounded">

```

	<pre> &lt;xs:annotation&gt;   &lt;xs:documentation&gt;Optional field used to specify a collection of color quality control   instances. Each instance represents one physical sample and associated standard,   measurement(s) and tolerance(s). This physical sample may consist of a single patch, or it may   consist of a target (array of patches) used to make profiles, for instance.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	--

### element CxF/Preamble

diagram	
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 content complex
children	<a href="#">CxF:Header</a> <a href="#">CxF:Owner</a> <a href="#">CxF:Version</a>
annotation	documentation Required introductory document data such as document header, owner and version information.
source	<pre> &lt;xs:element name="Preamble"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required introductory document data such as document header, owner and     version information.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="Header"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;File and CxF specific metadata&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:complexType&gt;           &lt;xs:sequence&gt;             &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0"             maxOccurs="unbounded"&gt;               &lt;xs:annotation&gt;                 &lt;xs:documentation&gt;Optional custom color header metadata, this should only be used                 when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;               &lt;/xs:annotation&gt;             &lt;/xs:element&gt;             &lt;xs:element name="Creator" type="xs:string"&gt;               &lt;xs:annotation&gt;                 &lt;xs:documentation&gt;Name of the data creator. E.x. Program name used to generate file,                 company name, etc. CGATS.17 ORIGINATOR tag.&lt;/xs:documentation&gt;               &lt;/xs:annotation&gt;             &lt;/xs:element&gt;           &lt;/xs:sequence&gt;         &lt;/xs:complexType&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

```

</xs:element>
<xs:element name="CreatorVersion" type="xs:string">
  <xs:annotation>
    <xs:documentation>Version of the data creator. E.x. Program version used to generate
file.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="ChangeHistory" type="CxF:DateTimeWithTimeZoneType"
maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Date and time of the creation of this CxF file. Date time format is
CCYY-MM-DDThh:mm:ss.SSSZ. Time zone must be specified either as UTC or UTC offset.
CGATS.17 CREATED tag.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Purpose" type="xs:string">
  <xs:annotation>
    <xs:documentation>Purpose or contents of the data file. CGATS.17
FILE_DESCRIPTOR TAG.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Name" type="xs:string" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Optional header name.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Comments" type="xs:string" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Optional header comments.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="ReadSDKInformation" type="CxF:SDKType" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Name of the SDK used to read this document. This is used for in-
memory debugging purposes. For instance, once the document is in memory and you have a
problem you might log this value (for instance in the Java edition using the toString() method) so
there is a record of what SDK you were using to read the document. Note that at this point this
may be a different SDK than what was used when this same document was written to XML. This
element is set by the SDK so you should not need to set this element.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="WriteSDKInformation" type="CxF:SDKType" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Name of the SDK used to write this document. This element is set
by the SDK so you should not need to set this element.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="ReadPlatformInformation" type="CxF:PlatformType" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Platform information used to read this document. This is used for in-
memory debugging purposes. For instance, once the document is in memory and you have a
problem you might log this value (for instance in the Java edition using the toString() method) so
there is a record of what platform you were using to read the document. Note that at this point this
may be a different platform than what was used when this same document was written to XML.
(Java SDK edition: This element is set by the SDK so you should not need to set this
element.)</xs:documentation>
  </xs:annotation>

```

```

</xs:annotation>
</xs:element>
<xs:element name="WritePlatformInformation" type="CxF:PlatformType" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Platform information used to write this document. (Java SDK
edition: This element is set by the SDK so you should not need to set this
element.)</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Revision" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Internal schema revision information. Users must not use this
element</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:any namespace="##any" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="Owner" type="CxF:OwnerType" minOccurs="0"/>
<xs:element name="Version" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Version info for the data in the CxF file.</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0"
maxOccurs="unbounded">
        <xs:annotation>
          <xs:documentation>Optional custom version metadata, this should only be used when
there is no standard element/attribute to store the required data.</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="Version" type="xs:string">
        <xs:annotation>
          <xs:documentation>Version identifier for this document's data. (This is not the version of
the schema or SDK but the version of the data contained within this
document.)</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="Predecessor" type="xs:anyURI" minOccurs="0"
maxOccurs="unbounded">
        <xs:annotation>
          <xs:documentation>Optional element used to specify location (URI) of either previous
versions of this document or locations of documents from which this data was
derived.</xs:documentation>
        </xs:annotation>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>
</xs:sequence>

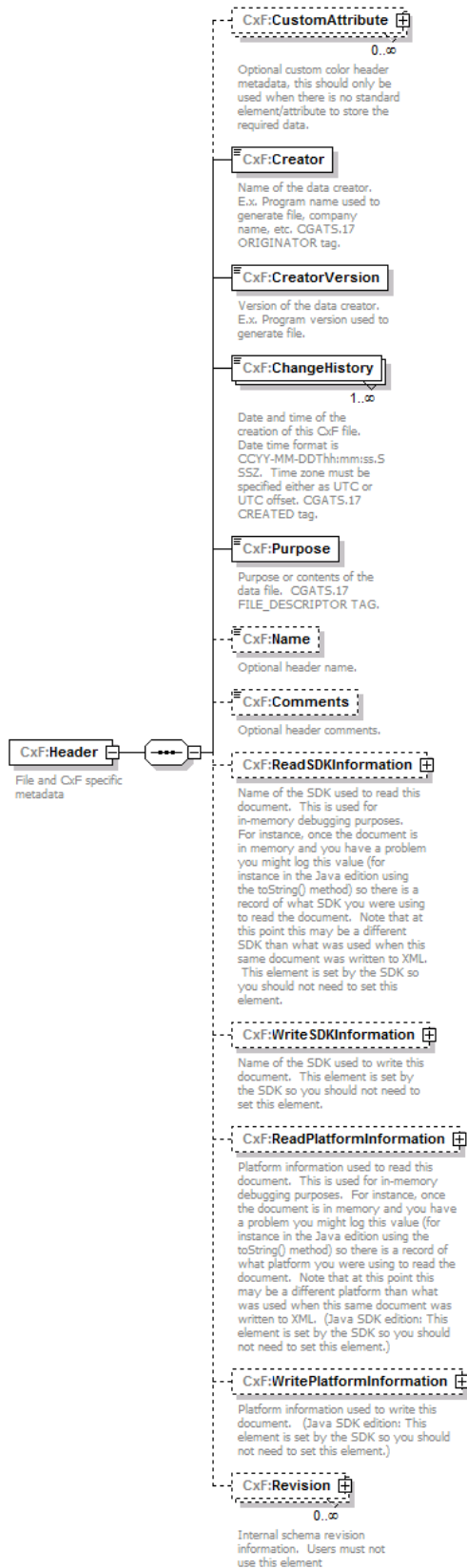
```



	<pre>&lt;/xs:complexType&gt; &lt;/xs:element&gt;</pre>
--	--

## element CxF/Preamble/Header

diagram



namespace	http://colorexchangeformat.com/v2
properties	isRef 0 content complex
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Creator</a> <a href="#">CxF:CreatorVersion</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Purpose</a> <a href="#">CxF:Name</a> <a href="#">CxF:Comments</a> <a href="#">CxF:ReadSDKInformation</a> <a href="#">CxF:WriteSDKInformation</a> <a href="#">CxF:ReadPlatformInformation</a> <a href="#">CxF:WritePlatformInformation</a> <a href="#">CxF:Revision</a>
annotation	documentation File and CxF specific metadata
source	<pre> &lt;xs:element name="Header"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;File and CxF specific metadata&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Optional custom color header metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Creator" type="xs:string"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Name of the data creator. E.x. Program name used to generate file, company name, etc. CGATS.17 ORIGINATOR tag.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="CreatorVersion" type="xs:string"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Version of the data creator. E.x. Program version used to generate file.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="ChangeHistory" type="CxF:DateTimeWithTimeZoneType" maxOccurs="unbounded"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Date and time of the creation of this CxF file. Date time format is CCYY- MM-DDThh:mm:ss.SSSZ. Time zone must be specified either as UTC or UTC offset. CGATS.17 CREATED tag.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Purpose" type="xs:string"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Purpose or contents of the data file. CGATS.17 FILE_DESCRIPTOR TAG.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Name" type="xs:string" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Optional header name.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Comments" type="xs:string" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Optional header comments.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

```

</xs:element>
<xs:element name="ReadSDKInformation" type="CxF:SDKType" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Name of the SDK used to read this document. This is used for in-
memory debugging purposes. For instance, once the document is in memory and you have a
problem you might log this value (for instance in the Java edition using the toString() method) so
there is a record of what SDK you were using to read the document. Note that at this point this
may be a different SDK than what was used when this same document was written to XML. This
element is set by the SDK so you should not need to set this element.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="WriteSDKInformation" type="CxF:SDKType" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Name of the SDK used to write this document. This element is set by
the SDK so you should not need to set this element.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="ReadPlatformInformation" type="CxF:PlatformType" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Platform information used to read this document. This is used for in-
memory debugging purposes. For instance, once the document is in memory and you have a
problem you might log this value (for instance in the Java edition using the toString() method) so
there is a record of what platform you were using to read the document. Note that at this point this
may be a different platform than what was used when this same document was written to XML.
(Java SDK edition: This element is set by the SDK so you should not need to set this
element.)</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="WritePlatformInformation" type="CxF:PlatformType" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Platform information used to write this document. (Java SDK edition:
This element is set by the SDK so you should not need to set this element.)</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Revision" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Internal schema revision information. Users must not use this
element</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:any namespace="##any" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>

```

## element CxF/Preamble/Header/CustomAttribute

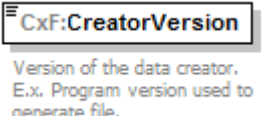
diagram	<p><b>CxF:CustomAttribute</b> 0..∞</p> <p>Optional custom color header metadata, this should only be used when there is no standard element/attribute to store the required data.</p> <p><b>CxF:CustomAttributeType</b></p> <p><b>CxF:Name</b> Required field used to specify the name of this custom attribute.</p> <p><b>CxF:ValueChoice</b> Required field which allows one of several value choices to be specified. Note this is an XSD choice so only one option may be specified.</p>								
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:CustomAttributeType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
isRef	0								
minOcc	0								
maxOcc	unbounded								
content	complex								
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>								
annotation	<p>documentation</p> <p>Optional custom color header metadata, this should only be used when there is no standard element/attribute to store the required data.</p>								
source	<pre>&lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional custom color header metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

## element CxF/Preamble/Header/Creator

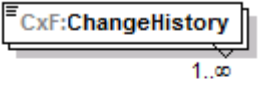
diagram	<p><b>CxF:Creator</b></p> <p>Name of the data creator. E.x. Program name used to generate file, company name, etc. CGATS.17 ORIGINATOR tag.</p>				
namespace	http://colorexchangeformat.com/v2				
type	<b>xs:string</b>				
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	content	simple
isRef	0				
content	simple				
annotation	<p>documentation</p> <p>Name of the data creator. E.x. Program name used to generate file, company name, etc. CGATS.17 ORIGINATOR tag.</p>				
source	<pre>&lt;xs:element name="Creator" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of the data creator. E.x. Program name used to generate file, company name, etc. CGATS.17 ORIGINATOR tag.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;</pre>				

	</xs:element>
--	---------------

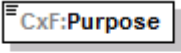
#### element CxF/Preamble/Header/CreatorVersion

diagram	 <p>Version of the data creator. E.x. Program version used to generate file.</p>
namespace	http://colorexchangeformat.com/v2
type	xs:string
properties	isRef 0 content simple
annotation	documentation Version of the data creator. E.x. Program version used to generate file.
source	<pre>&lt;xs:element name="CreatorVersion" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Version of the data creator. E.x. Program version used to generate file.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

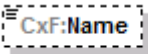
#### element CxF/Preamble/Header/ChangeHistory

diagram	 <p>1..∞</p> <p>Date and time of the creation of this CxF file. Date time format is CCYY-MM-DDThh:mm:ss.SSSZ. Time zone must be specified either as UTC or UTC offset. CGATS.17 CREATED tag.</p>
namespace	http://colorexchangeformat.com/v2
type	CxF:DateTimeWithTimeZoneType
properties	isRef 0 minOcc 1 maxOcc unbounded content simple
facets	pattern .+T.+(Z [-+].+)
annotation	documentation Date and time of the creation of this CxF file. Date time format is CCYY-MM-DDThh:mm:ss.SSSZ. Time zone must be specified either as UTC or UTC offset. CGATS.17 CREATED tag.
source	<pre>&lt;xs:element name="ChangeHistory" type="CxF:DateTimeWithTimeZoneType" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Date and time of the creation of this CxF file. Date time format is CCYY- MM-DDThh:mm:ss.SSSZ. Time zone must be specified either as UTC or UTC offset. CGATS.17 CREATED tag.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>


### element CxF/Preamble/Header/Purpose

diagram	 <p>Purpose or contents of the data file. CGATS.17 FILE_DESCRIPTOR TAG.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Purpose or contents of the data file. CGATS.17 FILE_DESCRIPTOR TAG.
source	<pre>&lt;xs:element name="Purpose" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Purpose or contents of the data file. CGATS.17 FILE_DESCRIPTOR TAG.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

### element CxF/Preamble/Header/Name

diagram	 <p>Optional header name.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Optional header name.
source	<pre>&lt;xs:element name="Name" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional header name.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

### element CxF/Preamble/Header/Comments

diagram	 <p>Optional header comments.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple

annotation	documentation Optional header comments.
source	<pre>&lt;xs:element name="Comments" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional header comments.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element CxF/Preamble/Header/ReadSDKInformation

diagram	<p>Name of the SDK used to read this document. This is used for in-memory debugging purposes. For instance, once the document is in memory and you have a problem you might log this value (for instance in the Java edition using the toString() method) so there is a record of what SDK you were using to read the document. Note that at this point this may be a different SDK than what was used when this same document was written to XML. This element is set by the SDK so you should not need to set this element.</p>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:SDKType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">CxF:SDKName</a> <a href="#">CxF:SDKVersion</a>
annotation	documentation Name of the SDK used to read this document. This is used for in-memory debugging purposes. For instance, once the document is in memory and you have a problem you might log this value (for instance in the Java edition using the toString() method) so there is a record of what SDK you were using to read the document. Note that at this point this may be a different SDK than what was used when this same document was written to XML. This element is set by the SDK so you should not need to set this element.
source	<pre>&lt;xs:element name="ReadSDKInformation" type="CxF:SDKType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of the SDK used to read this document. This is used for in-memory debugging purposes. For instance, once the document is in memory and you have a problem you might log this value (for instance in the Java edition using the toString() method) so there is a record of what SDK you were using to read the document. Note that at this point this may be a different SDK than what was used when this same document was written to XML. This element is set by the SDK so you should not need to set this element.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>



## element CxF/Preamble/Header/WriteSDKInformation

diagram	<p><b>CxF:WriteSDKInformation</b> Name of the SDK used to write this document. This element is set by the SDK so you should not need to set this element.</p> <p><b>CxF:SDKType</b></p> <p><b>CxF:SDKName</b> Name of the SDK.</p> <p><b>CxF:SDKVersion</b> Version of the SDK.</p>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:SDKType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">CxF:SDKName</a> <a href="#">CxF:SDKVersion</a>
annotation	documentation Name of the SDK used to write this document. This element is set by the SDK so you should not need to set this element.
source	<pre>&lt;xs:element name="WriteSDKInformation" type="CxF:SDKType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of the SDK used to write this document. This element is set by the     SDK so you should not need to set this element.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element CxF/Preamble/Header/ReadPlatformInformation

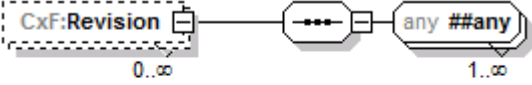
diagram	<p><b>CxF:ReadPlatformInformation</b> Platform information used to read this document. This is used for in-memory debugging purposes. For instance, once the document is in memory and you have a problem you might log this value (for instance in the Java edition using the toString() method) so there is a record of what platform you were using to read the document. Note that at this point this may be a different platform than what was used when this same document was written to XML. (Java SDK edition: This element is set by the SDK so you should not need to set this element.)</p> <p><b>CxF:PlatformType</b></p> <p><b>CxF:OperatingSystem</b> Name of the operating system used to generate/write this document.</p> <p><b>CxF:OperatingSystemVersion</b> Version of the operating system used to generate/write this document.</p>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:PlatformType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex

children	<a href="#">CxF:OperatingSystem</a> <a href="#">CxF:OperatingSystemVersion</a>
annotation	documentation Platform information used to read this document. This is used for in-memory debugging purposes. For instance, once the document is in memory and you have a problem you might log this value (for instance in the Java edition using the toString() method) so there is a record of what platform you were using to read the document. Note that at this point this may be a different platform than what was used when this same document was written to XML. (Java SDK edition: This element is set by the SDK so you should not need to set this element.)
source	<pre> &lt;xs:element name="ReadPlatformInformation" type="CxF:PlatformType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Platform information used to read this document. This is used for in- memory debugging purposes. For instance, once the document is in memory and you have a problem you might log this value (for instance in the Java edition using the toString() method) so there is a record of what platform you were using to read the document. Note that at this point this may be a different platform than what was used when this same document was written to XML. (Java SDK edition: This element is set by the SDK so you should not need to set this element.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

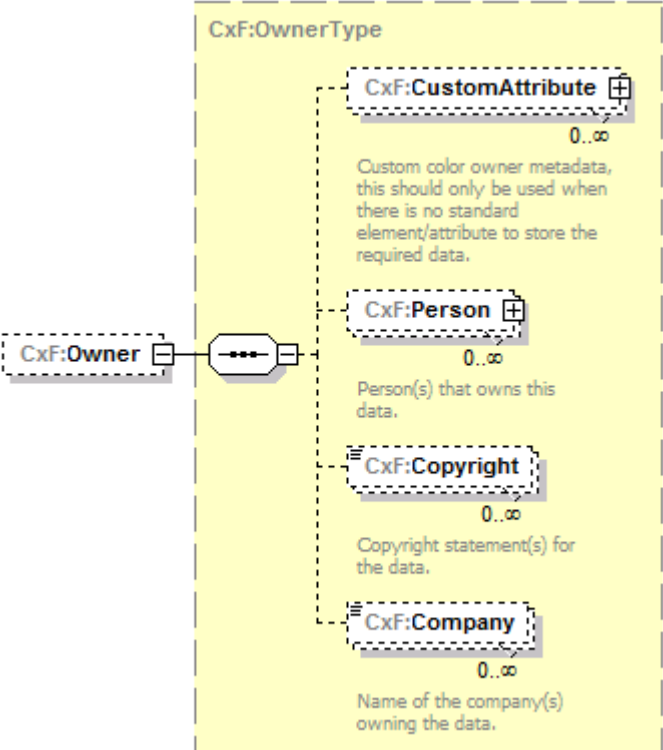
#### element **CxF/Preamble/Header/WritePlatformInformation**

diagram									
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>								
type	<a href="#">CxF:PlatformType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	complex
isRef	0								
minOcc	0								
maxOcc	1								
content	complex								
children	<a href="#">CxF:OperatingSystem</a> <a href="#">CxF:OperatingSystemVersion</a>								
annotation	documentation Platform information used to write this document. (Java SDK edition: This element is set by the SDK so you should not need to set this element.)								
source	<pre> &lt;xs:element name="WritePlatformInformation" type="CxF:PlatformType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Platform information used to write this document. (Java SDK edition: This element is set by the SDK so you should not need to set this element.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								

## element CxF/Preamble/Header/Revision

diagram	 <p>0..∞</p> <p>1..∞</p> <p>Internal schema revision information. Users must not use this element</p>
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 minOcc 0 maxOcc unbounded content complex
annotation	documentation Internal schema revision information. Users must not use this element
source	<pre> &lt;xs:element name="Revision" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Internal schema revision information. Users must not use this element&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:any namespace="##any" maxOccurs="unbounded"/&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

## element CxF/Preamble/Owner

diagram	 <p>CxF:OwnerType</p> <p>CxF:CustomAttribute 0..∞</p> <p>Custom color owner metadata, this should only be used when there is no standard element/attribute to store the required data.</p> <p>CxF:Person 0..∞</p> <p>Person(s) that owns this data.</p> <p>CxF:Copyright 0..∞</p> <p>Copyright statement(s) for the data.</p> <p>CxF:Company 0..∞</p> <p>Name of the company(s) owning the data.</p>
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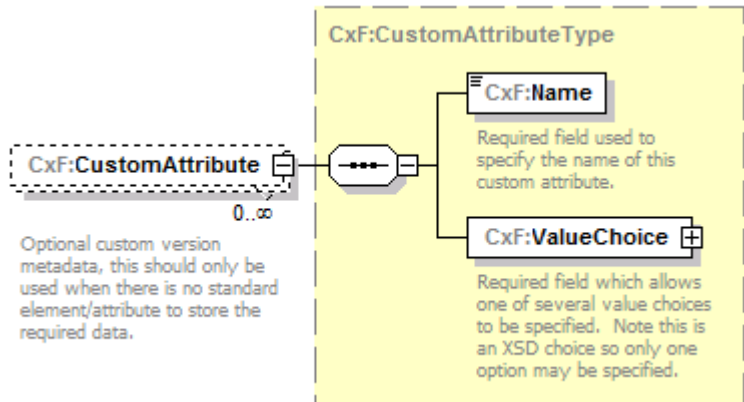
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:OwnerType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Person</a> <a href="#">CxF:Copyright</a> <a href="#">CxF:Company</a>
source	<xs:element name="Owner" type="CxF:OwnerType" minOccurs="0"/>

## element CxF/Preamble/Version

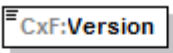
diagram	
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Version</a> <a href="#">CxF:Predecessor</a>
annotation	documentation Version info for the data in the CxF file.
source	<pre> &lt;xs:element name="Version" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Version info for the data in the CxF file.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Optional custom version metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt; </pre>

	<pre> &lt;/xs:element&gt; &lt;xs:element name="Version" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Version identifier for this document's data. (This is not the version of the schema or SDK but the version of the data contained within this document.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="Predecessor" type="xs:anyURI" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional element used to specify location (URI) of either previous versions of this document or locations of documents from which this data was derived.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
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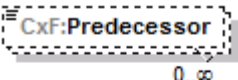
element **CxF/Preamble/Version/CustomAttribute**

diagram									
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:CustomAttributeType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
isRef	0								
minOcc	0								
maxOcc	unbounded								
content	complex								
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>								
annotation	documentation Optional custom version metadata, this should only be used when there is no standard element/attribute to store the required data.								
source	<pre> &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional custom version metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								

## element CxF/Preamble/Version/Version

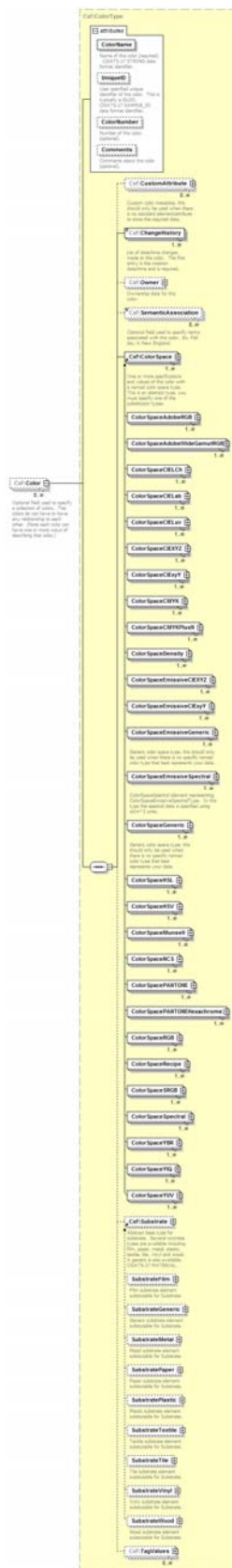
diagram	 <p>Version identifier for this document's data. (This is not the version of the schema or SDK but the version of the data contained within this document.)</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Version identifier for this document's data. (This is not the version of the schema or SDK but the version of the data contained within this document.)
source	<pre>&lt;xs:element name="Version" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Version identifier for this document's data. (This is not the version of the schema or SDK but the version of the data contained within this document.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element CxF/Preamble/Version/Predecessor

diagram	 <p>Optional element used to specify location (URI) of either previous versions of this document or locations of documents from which this data was derived.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:anyURI</b>
properties	isRef 0 minOcc 0 maxOcc unbounded content simple
annotation	documentation Optional element used to specify location (URI) of either previous versions of this document or locations of documents from which this data was derived.
source	<pre>&lt;xs:element name="Predecessor" type="xs:anyURI" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional element used to specify location (URI) of either previous versions of this document or locations of documents from which this data was derived.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

element **CxF/Color**

diagram

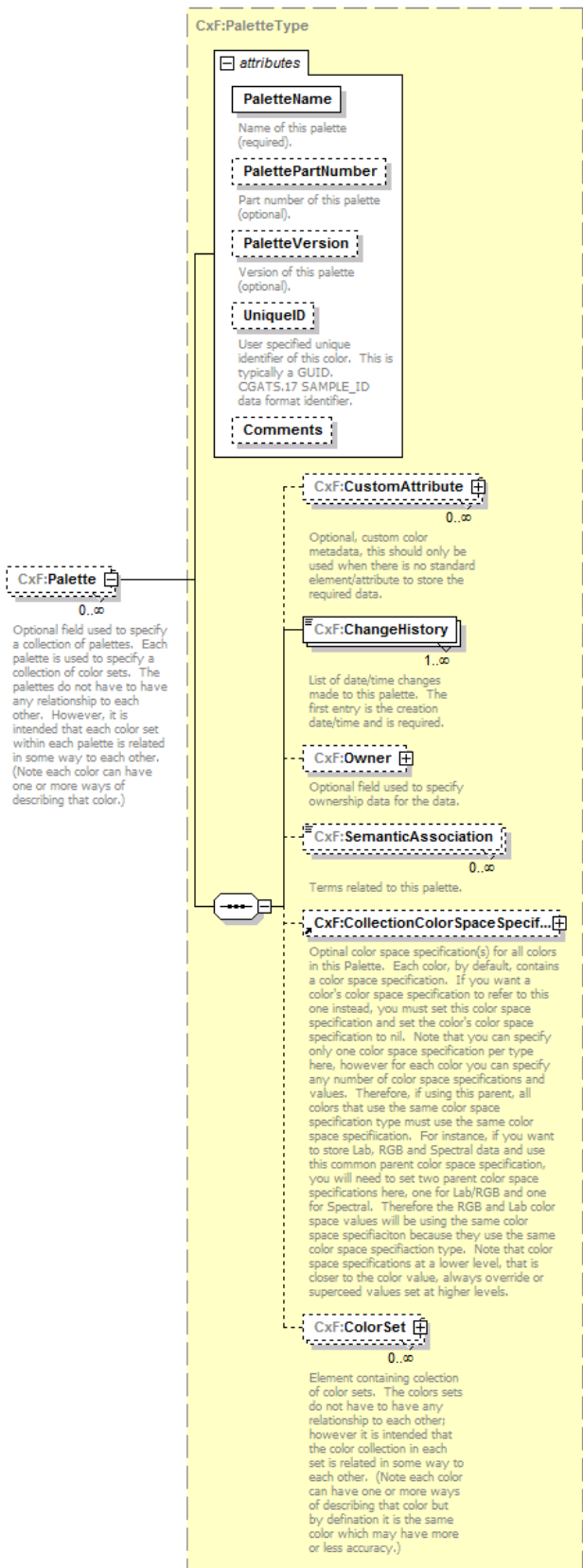




namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorType</a>					
properties	isRef 0 minOcc 0 maxOcc unbounded content complex					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Owner</a> <a href="#">CxF:SemanticAssociation</a> <a href="#">CxF:ColorSpace</a> <a href="#">CxF:Substrate</a> <a href="#">CxF:TagValues</a>					
attributes	Name <a href="#">ColorName</a>	Type <b>xs:string</b>	Use required	Default	Fixed	annotation documentation Name of this color (required). CGATS.17 STRING data format identifier. documentation User specified unique identifier of this color. This is typically a GUID. CGATS.17 SAMPLE_ID data format identifier. documentation Number of this color, (optional). documentation Comments about this color (optional).
	<a href="#">UniqueID</a>	<b>xs:string</b>				
	<a href="#">ColorNumber</a>	<b>xs:string</b>				
	<a href="#">Comments</a>	<b>xs:string</b>				
annotation	documentation Optional field used to specify a collection of colors. The colors do not have to have any relationship to each other. (Note each color can have one or more ways of describing that color.)					
source	<xs:element name="Color" type="CxF:ColorType" minOccurs="0" maxOccurs="unbounded"> <xs:annotation> <xs:documentation>Optional field used to specify a collection of colors. The colors do not have to have any relationship to each other. (Note each color can have one or more ways of describing that color.)</xs:documentation> </xs:annotation> </xs:element>					

element **CxF/Palette**

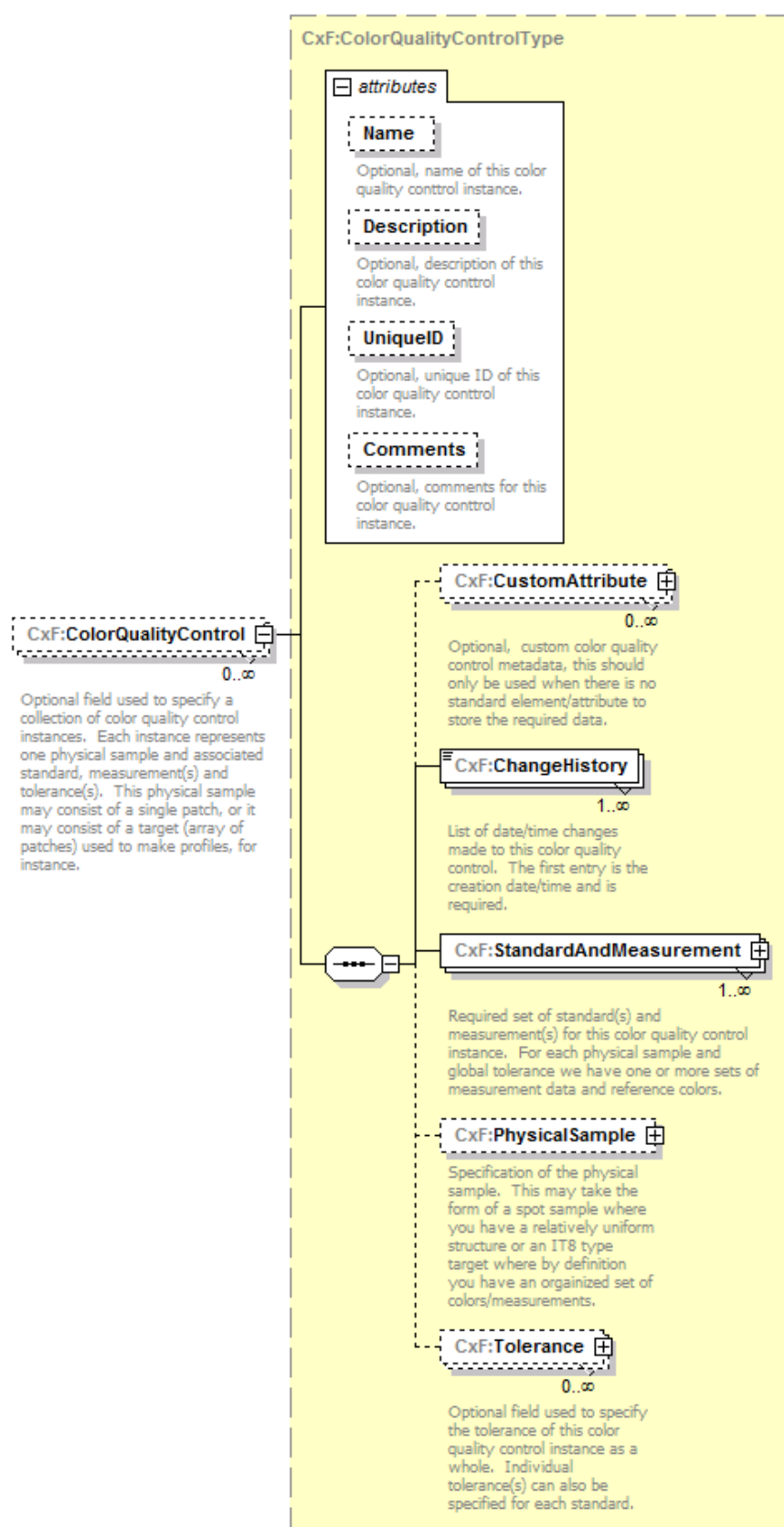
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:PaletteType</a>					
properties	isRef 0 minOcc 0 maxOcc unbounded content complex					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Owner</a> <a href="#">CxF:SemanticAssociation</a> <a href="#">CxF:CollectionColorSpaceSpecification</a> <a href="#">CxF:ColorSet</a>					
attributes	Name <a href="#">PaletteName</a>  <a href="#">PalettePartNumber</a>  <a href="#">PaletteVersion</a>  <a href="#">UniqueID</a>  <a href="#">Comments</a>	Type <b>xs:string</b>  <b>xs:string</b>  <b>xs:string</b>  <b>xs:string</b>  <b>xs:string</b>	Use required  optional     	Default     	Fixed     	annotation documentation Name of this palette (required). documentation Part number of this palette (optional). documentation Version of this palette (optional). documentation User specified unique identifier of this color. This is typically a GUID. CGATS.17 SAMPLE_ID data format identifier.
annotation	documentation Optional field used to specify a collection of palettes. Each palette is used to specify a collection of color sets. The palettes do not have to have any relationship to each other. However, it is intended that each color set within each palette is related in some way to each other. (Note each color can have one or more ways of describing that color.)					
source	<xs:element name="Palette" type="CxF:PaletteType" minOccurs="0" maxOccurs="unbounded"> <xs:annotation> <xs:documentation>Optional field used to specify a collection of palettes. Each palette is used to specify a collection of color sets. The palettes do not have to have any relationship to each other. However, it is intended that each color set within each palette is related in some way to each other. (Note each color can have one or more ways of describing that color.)</xs:documentation> </xs:annotation> </xs:element>					

element **CxF/ColorQualityControl**

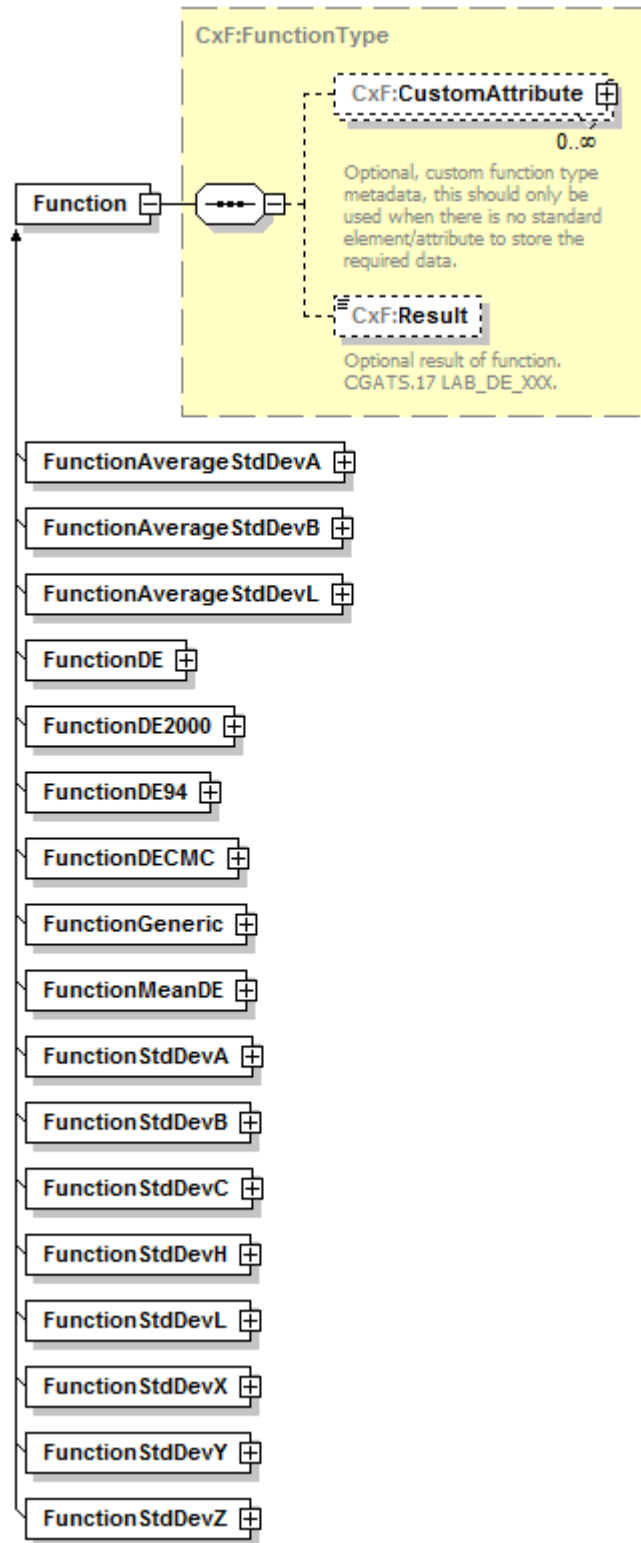
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorQualityControlType</a>					
properties	isRef 0 minOcc 0 maxOcc unbounded content complex					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:StandardAndMeasurement</a> <a href="#">CxF:PhysicalSample</a> <a href="#">CxF:Tolerance</a>					
attributes	Name <a href="#">Name</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Optional, name of this color quality control instance. documentation Optional, description of this color quality control instance. documentation Optional, unique ID of this color quality control instance. documentation Optional, comments for this color quality control instance.
	<a href="#">Description</a>	<b>xs:string</b>				
	<a href="#">UniqueID</a>	<b>xs:string</b>				
	<a href="#">Comments</a>	<b>xs:string</b>				
annotation	documentation Optional field used to specify a collection of color quality control instances. Each instance represents one physical sample and associated standard, measurement(s) and tolerance(s). This physical sample may consist of a single patch, or it may consist of a target (array of patches) used to make profiles, for instance.					
source	<xs:element name="ColorQualityControl" type="CxF:ColorQualityControlType" minOccurs="0" maxOccurs="unbounded"> <xs:annotation> <xs:documentation>Optional field used to specify a collection of color quality control instances. Each instance represents one physical sample and associated standard, measurement(s) and tolerance(s). This physical sample may consist of a single patch, or it may consist of a target (array of patches) used to make profiles, for instance.</xs:documentation> </xs:annotation> </xs:element>					

## element Function

diagram



namespace <http://colorexchangeformat.com/v2>

type [CxF:FunctionType](#)

properties	content complex
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
used by	element <a href="#">Measurement</a> complexType <a href="#">ToleranceType</a>
source	<code>&lt;xs:element name="Function" type="CxF:FunctionType"/&gt;</code>

### element **FunctionAverageStdDevA**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:FunctionAverageStdDevAType</a>
properties	content complex substGrp CxF:Function
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
source	<code>&lt;xs:element name="FunctionAverageStdDevA" type="CxF:FunctionAverageStdDevAType" substitutionGroup="CxF:Function"/&gt;</code>

### element **FunctionAverageStdDevB**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:FunctionAverageStdDevBType</a>
properties	content complex substGrp CxF:Function



children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
source	<pre>&lt;xs:element name="FunctionAverageStdDevB" type="CxF:FunctionAverageStdDevBType" substitutionGroup="CxF:Function"/&gt;</pre>

### element **FunctionAverageStdDevL**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:FunctionAverageStdDevLType</a>
properties	content complex substGrp CxF:Function
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
source	<pre>&lt;xs:element name="FunctionAverageStdDevL" type="CxF:FunctionAverageStdDevLType" substitutionGroup="CxF:Function"/&gt;</pre>

### element **FunctionDE**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:FunctionDEType</a>
properties	content complex substGrp CxF:Function
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>

source	<code>&lt;xs:element name="FunctionDE" type="CxF:FunctionDEType" substitutionGroup="CxF:Function"/&gt;</code>
--------	---

element **FunctionDE2000**

diagram	<p>The diagram illustrates the structure of the <b>CxF:FunctionDE2000Type</b>. It shows a central <b>FunctionDE2000</b> element connected to a dashed yellow box representing the type. Inside this box, there are four components: <b>CxF:CustomAttribute</b> (optional, 0..∞), <b>CxF:Result</b> (optional), <b>CxF:Param_l</b> (constant value, defaults to 2.0), and <b>CxF:Param_c</b> (constant value, defaults to 1.0). The <b>CxF:Param_c</b> box is further connected to <b>CxF:Param_h</b> (constant value, defaults to 1.0).</p>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:FunctionDE2000Type</a>
properties	content complex substGrp CxF:Function
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a> <a href="#">CxF:Param_l</a> <a href="#">CxF:Param_c</a> <a href="#">CxF:Param_h</a>
source	<code>&lt;xs:element name="FunctionDE2000" type="CxF:FunctionDE2000Type" substitutionGroup="CxF:Function"/&gt;</code>

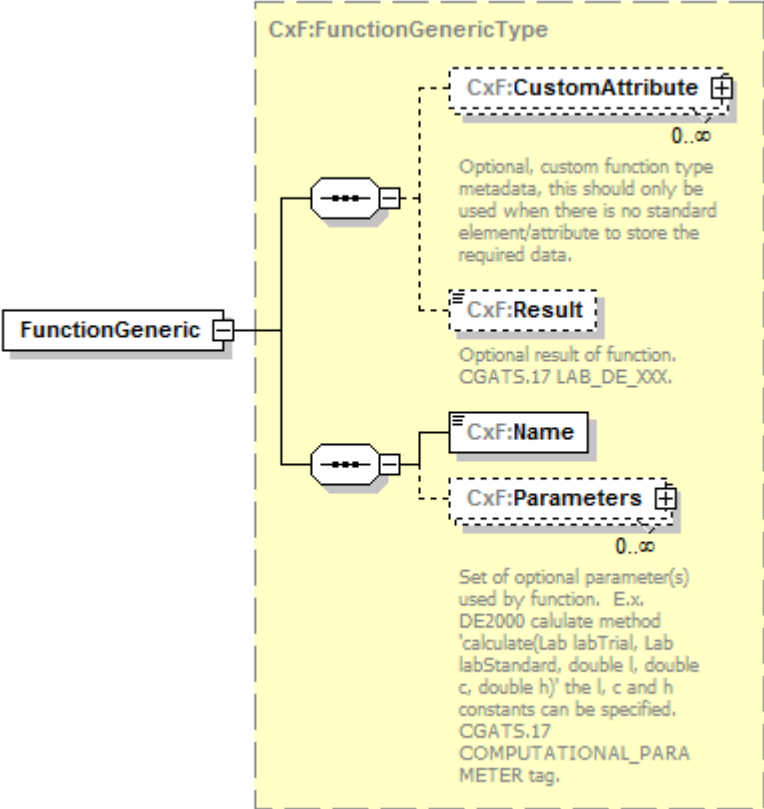
# element **FunctionDE94**

diagram	<p>The diagram illustrates the structure of the <b>FunctionDE94</b> element. It is a complex type containing the following elements:</p> <ul style="list-style-type: none"> <li><b>CxF:CustomAttribute</b>: Optional, custom function type metadata, this should only be used when there is no standard element/attribute to store the required data. (0..∞)</li> <li><b>CxF:Result</b>: Optional result of function. CGATS.17 LAB_DE_XXX.</li> <li><b>CxF:Param_l</b>: l constant value, defaults to 2.0.</li> <li><b>CxF:Param_c</b>: c constant value, defaults to 1.0.</li> <li><b>CxF:Param_h</b>: h constant value, defaults to 1.0.</li> </ul>				
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>				
type	<a href="#">CxF:FunctionDE94Type</a>				
properties	<table border="1"> <tr> <td>content</td> <td>complex</td> </tr> <tr> <td>substGrp</td> <td>CxF:Function</td> </tr> </table>	content	complex	substGrp	CxF:Function
content	complex				
substGrp	CxF:Function				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a> <a href="#">CxF:Param_l</a> <a href="#">CxF:Param_c</a> <a href="#">CxF:Param_h</a>				
source	<pre>&lt;xs:element name="FunctionDE94" type="CxF:FunctionDE94Type" substitutionGroup="CxF:Function"/&gt;</pre>				

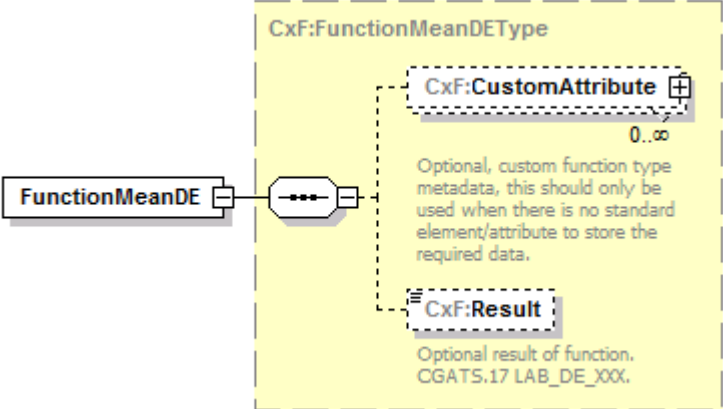
# element **FunctionDECMC**

diagram	<p>The diagram illustrates the structure of the <b>FunctionDECMC</b> element. It is a complex type that can contain zero or more <b>CxF:CustomAttribute</b> elements, one optional <b>CxF:Result</b> element, one optional <b>CxF:Param_l</b> element, and one optional <b>CxF:Param_c</b> element. The <b>CxF:Param_l</b> element represents a constant value for 'l', defaulting to 2.0, and the <b>CxF:Param_c</b> element represents a constant value for 'c', defaulting to 1.0. The <b>CxF:Result</b> element represents the optional result of the function, such as 'CGATS.17 LAB_DE_XXX'.</p>				
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>				
type	<a href="#">CxF:FunctionDEcmcType</a>				
properties	<table border="1"> <tr> <td>content</td> <td>complex</td> </tr> <tr> <td>substGrp</td> <td>CxF:Function</td> </tr> </table>	content	complex	substGrp	CxF:Function
content	complex				
substGrp	CxF:Function				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a> <a href="#">CxF:Param_l</a> <a href="#">CxF:Param_c</a>				
source	<pre>&lt;xs:element name="FunctionDECMC" type="CxF:FunctionDEcmcType" substitutionGroup="CxF:Function"/&gt;</pre>				

## element **FunctionGeneric**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:FunctionGenericType</a>
properties	content complex substGrp CxF:Function
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a> <a href="#">CxF:Name</a> <a href="#">CxF:Parameters</a>
source	<code>&lt;xs:element name="FunctionGeneric" type="CxF:FunctionGenericType" substitutionGroup="CxF:Function"/&gt;</code>

## element **FunctionMeanDE**

diagram	
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namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:FunctionMeanDEType</a>
properties	content complex substGrp CxF:Function
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
source	<pre>&lt;xs:element name="FunctionMeanDE" type="CxF:FunctionMeanDEType" substitutionGroup="CxF:Function"/&gt;</pre>

### element **FunctionStdDevA**

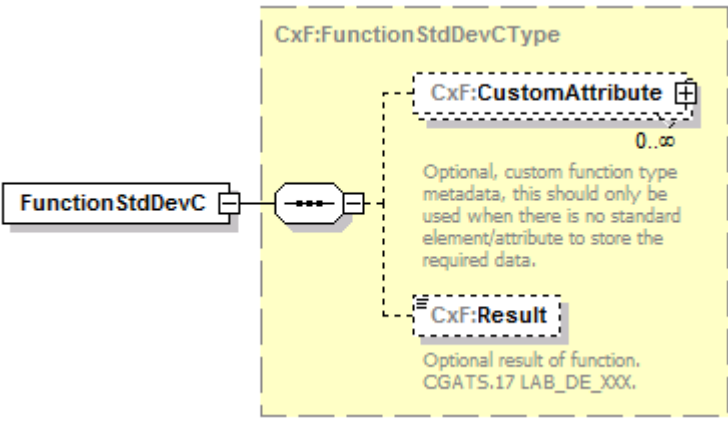
diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:FunctionStdDevAType</a>
properties	content complex substGrp CxF:Function
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
source	<pre>&lt;xs:element name="FunctionStdDevA" type="CxF:FunctionStdDevAType" substitutionGroup="CxF:Function"/&gt;</pre>

### element **FunctionStdDevB**

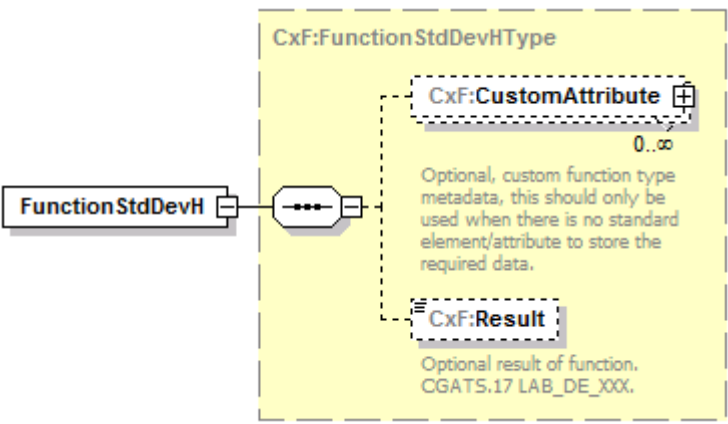
diagram	
namespace	http://colorexchangeformat.com/v2

type	<a href="#">CxF:FunctionStdDevBType</a>
properties	content complex substGrp CxF:Function
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
source	<pre>&lt;xs:element name="FunctionStdDevB" type="CxF:FunctionStdDevBType" substitutionGroup="CxF:Function"/&gt;</pre>

#### element **FunctionStdDevC**

diagram	 <p>The diagram shows the structure of the <b>FunctionStdDevC</b> element. It is a complex element with a substitution group <b>CxF:Function</b>. The element contains two optional children: <b>CxF:CustomAttribute</b> (0..∞ occurrences) and <b>CxF:Result</b> (1 occurrence). The <b>CxF:CustomAttribute</b> is described as "Optional, custom function type metadata, this should only be used when there is no standard element/attribute to store the required data." The <b>CxF:Result</b> is described as "Optional result of function. CGATS.17 LAB_DE_XXX." The element is represented by a box labeled <b>FunctionStdDevC</b> connected to a dashed box labeled <b>CxF:FunctionStdDevCType</b>.</p>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:FunctionStdDevCType</a>
properties	content complex substGrp CxF:Function
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
source	<pre>&lt;xs:element name="FunctionStdDevC" type="CxF:FunctionStdDevCType" substitutionGroup="CxF:Function"/&gt;</pre>

#### element **FunctionStdDevH**

diagram	 <p>The diagram shows the structure of the <b>FunctionStdDevH</b> element. It is a complex element with a substitution group <b>CxF:Function</b>. The element contains two optional children: <b>CxF:CustomAttribute</b> (0..∞ occurrences) and <b>CxF:Result</b> (1 occurrence). The <b>CxF:CustomAttribute</b> is described as "Optional, custom function type metadata, this should only be used when there is no standard element/attribute to store the required data." The <b>CxF:Result</b> is described as "Optional result of function. CGATS.17 LAB_DE_XXX." The element is represented by a box labeled <b>FunctionStdDevH</b> connected to a dashed box labeled <b>CxF:FunctionStdDevHType</b>.</p>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:FunctionStdDevHType</a>

properties	content substGrp	complex CxF:Function
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>	
source	<xs:element name="FunctionStdDevH" type="CxF:FunctionStdDevHType" substitutionGroup="CxF:Function"/>	

#### element **FunctionStdDevL**

diagram		
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>	
type	<a href="#">CxF:FunctionStdDevLType</a>	
properties	content substGrp	complex CxF:Function
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>	
source	<xs:element name="FunctionStdDevL" type="CxF:FunctionStdDevLType" substitutionGroup="CxF:Function"/>	

#### element **FunctionStdDevX**

diagram		
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>	
type	<a href="#">CxF:FunctionStdDevXType</a>	
properties	content substGrp	complex CxF:Function



children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
source	<pre>&lt;xs:element name="FunctionStdDevX" type="CxF:FunctionStdDevXType" substitutionGroup="CxF:Function"/&gt;</pre>

#### element **FunctionStdDevY**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:FunctionStdDevYType</a>
properties	content complex substGrp CxF:Function
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
source	<pre>&lt;xs:element name="FunctionStdDevY" type="CxF:FunctionStdDevYType" substitutionGroup="CxF:Function"/&gt;</pre>

#### element **FunctionStdDevZ**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:FunctionStdDevZType</a>
properties	content complex substGrp CxF:Function
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>

source	<code>&lt;xs:element name="FunctionStdDevZ" type="CxF:FunctionStdDevZType" substitutionGroup="CxF:Function"/&gt;</code>
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element **Measurement**

diagram



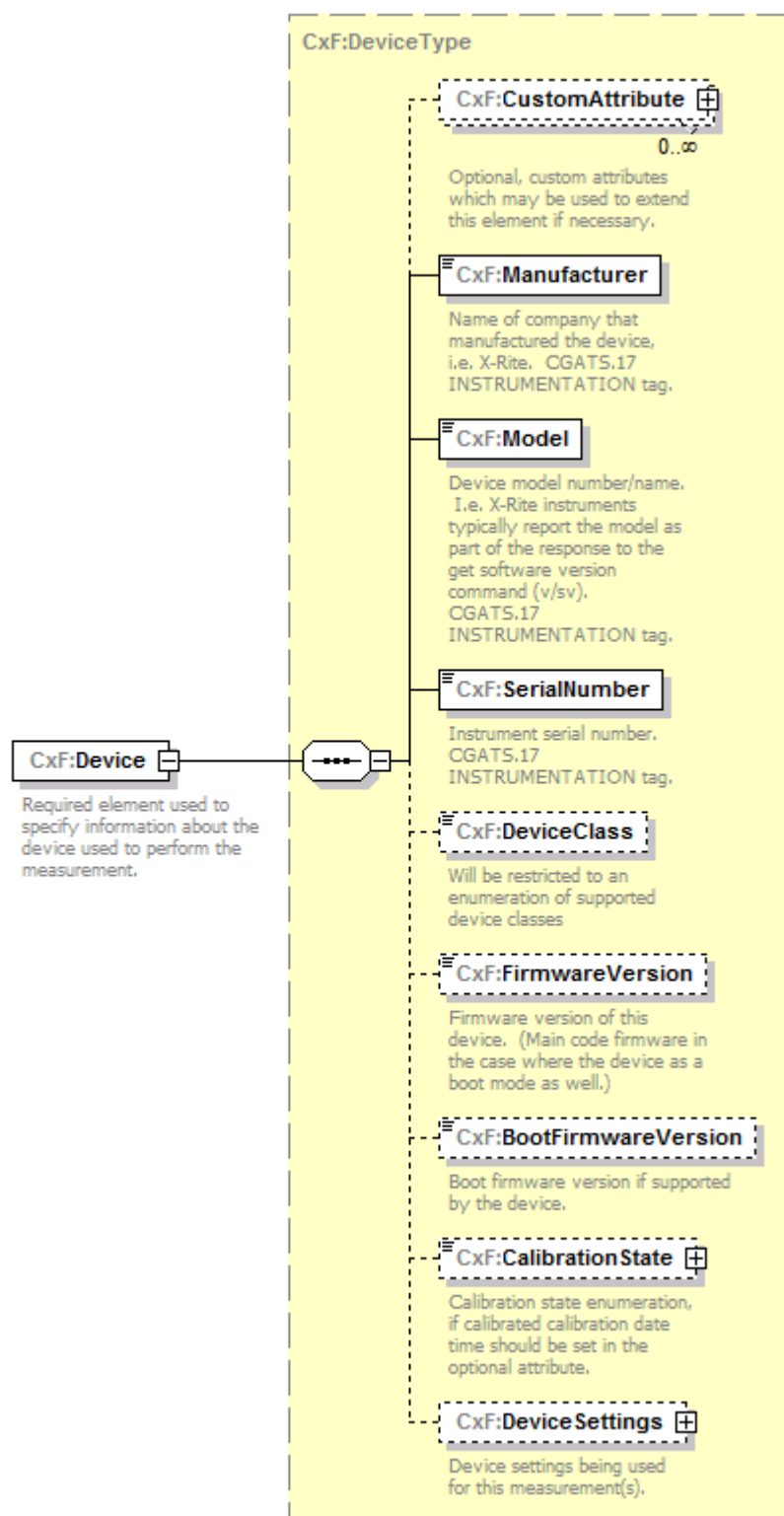
namespace	http://colorexchangeformat.com/v2
properties	content complex
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Device</a> <a href="#">CxF:Color</a> <a href="#">CxF:Function</a>
used by	complexType <a href="#">StandardAndMeasurementType</a>
annotation	documentation Single measurement of the sample which will have one or more color values. For instance, the device may have returned reflectance data for multiple angles.
source	<pre> &lt;xs:element name="Measurement"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Single measurement of the sample which will have one or more color values. For instance, the device may have returned reflectance data for multiple angles.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Optional, custom measurement metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Device" type="CxF:DeviceType"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Required element used to specify information about the device used to perform the measurement.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Color" type="CxF:ColorType"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Required field used to specify the color of this measurement. Each color may have one or more ways of describing the color, i.e. Lab and RGB. However they both represent the exact same measurement. Note that each color space representation may refer to the parent color space from which it was derived. In this case the grandparent's parent element must be null.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element ref="CxF:Function" minOccurs="0" maxOccurs="unbounded"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Optional field used to specify the function(s) that will be used and optionally the function's result.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

## element **Measurement/CustomAttribute**

diagram	<p><b>CxF:CustomAttribute</b> 0..∞ Optional, custom measurement metadata, this should only be used when there is no standard element/attribute to store the required data.</p> <p><b>CxF:CustomAttributeType</b></p> <p><b>CxF:Name</b> Required field used to specify the name of this custom attribute.</p> <p><b>CxF:ValueChoice</b> Required field which allows one of several value choices to be specified. Note this is an XSD choice so only one option may be specified.</p>								
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:CustomAttributeType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
isRef	0								
minOcc	0								
maxOcc	unbounded								
content	complex								
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>								
annotation	<p>documentation</p> <p>Optional, custom measurement metadata, this should only be used when there is no standard element/attribute to store the required data.</p>								
source	<pre> &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, custom measurement metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								

# element **Measurement/Device**

diagram



namespace <http://colorexchangeformat.com/v2>

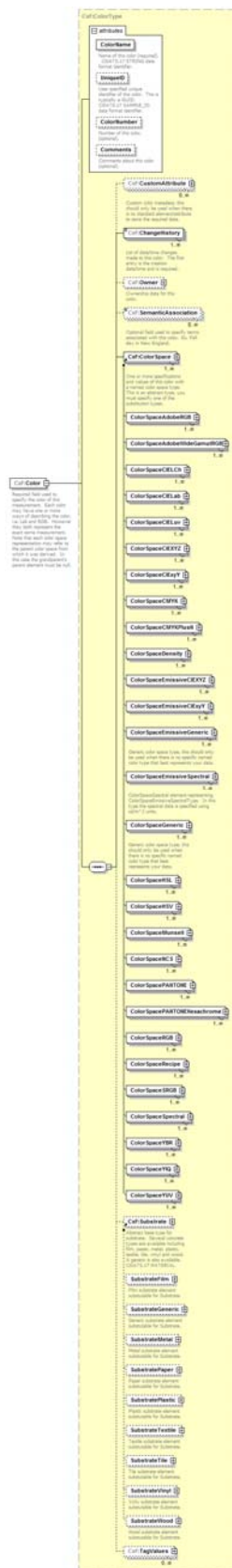
type [CxF:DeviceType](#)

properties	isRef 0 content complex
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Manufacturer</a> <a href="#">CxF:Model</a> <a href="#">CxF:SerialNumber</a> <a href="#">CxF:DeviceClass</a> <a href="#">CxF:FirmwareVersion</a> <a href="#">CxF:BootFirmwareVersion</a> <a href="#">CxF:CalibrationState</a> <a href="#">CxF:DeviceSettings</a>
annotation	documentation Required element used to specify information about the device used to perform the measurement.
source	<pre> &lt;xs:element name="Device" type="CxF:DeviceType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required element used to specify information about the device used to perform the measurement.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

element **Measurement/Color**



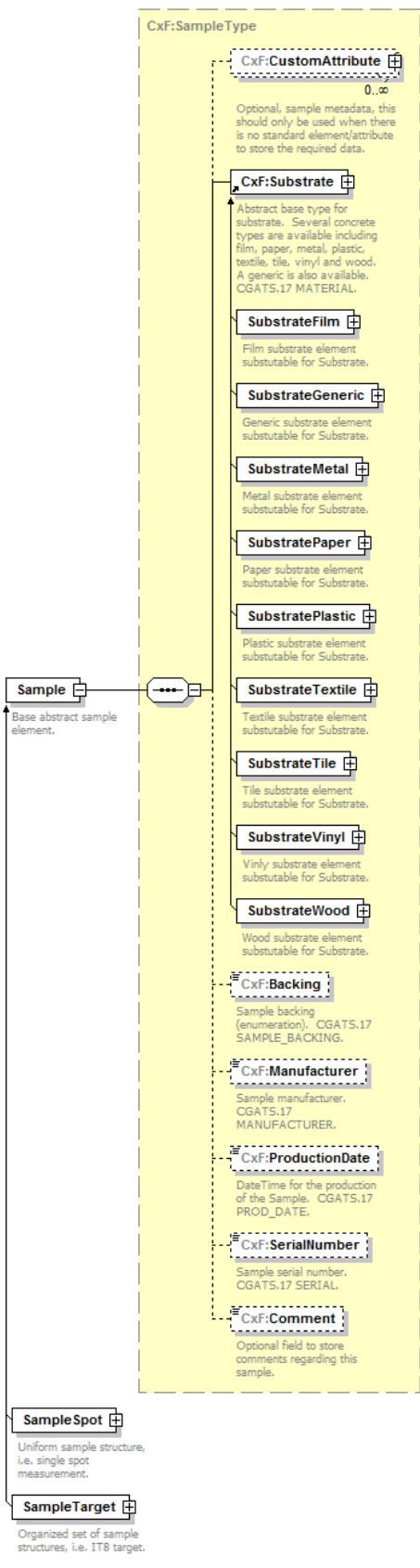
diagram





element **Sample**

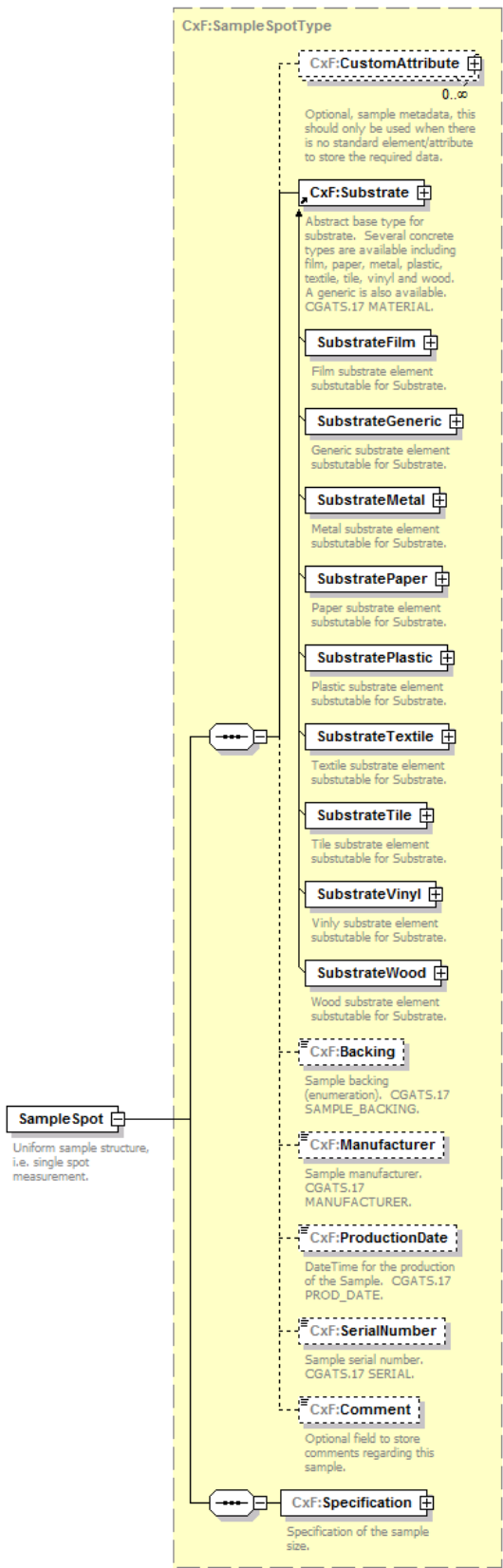
diagram



namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:SampleType</a>
properties	content    complex abstract    true
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Substrate</a> <a href="#">CxF:Backing</a> <a href="#">CxF:Manufacturer</a> <a href="#">CxF:ProductionDate</a> <a href="#">CxF:SerialNumber</a> <a href="#">CxF:Comment</a>
used by	complexType <a href="#">PhysicalSampleType</a>
annotation	documentation Base abstract sample element.
source	<pre> &lt;xs:element name="Sample" type="CxF:SampleType" abstract="true"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Base abstract sample element.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

element **SampleSpot**

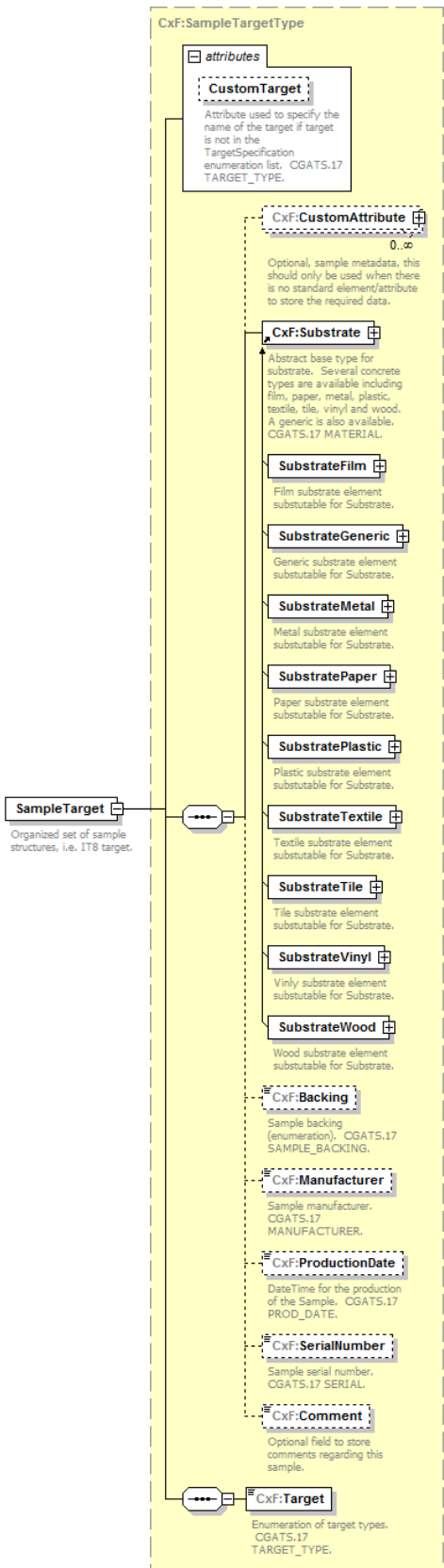
diagram



namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:SampleSpotType</a>
properties	<div>content</div> <div>complex</div> <div>substGrp</div> <div>CxF:Sample</div>
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Substrate</a> <a href="#">CxF:Backing</a> <a href="#">CxF:Manufacturer</a> <a href="#">CxF:ProductionDate</a> <a href="#">CxF:SerialNumber</a> <a href="#">CxF:Comment</a> <a href="#">CxF:Specification</a>
annotation	<div>documentation</div> <div>Uniform sample structure, i.e. single spot measurement.</div>
source	<pre> &lt;xs:element name="SampleSpot" type="CxF:SampleSpotType" substitutionGroup="CxF:Sample"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Uniform sample structure, i.e. single spot measurement.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

element **SampleTarget**

diagram





namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:SampleTargetType</a>					
properties	content substGrp	complex CxF:Sample				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Substrate</a> <a href="#">CxF:Backing</a> <a href="#">CxF:Manufacturer</a> <a href="#">CxF:ProductionDate</a> <a href="#">CxF:SerialNumber</a> <a href="#">CxF:Comment</a> <a href="#">CxF:Target</a>					
attributes	Name <a href="#">CustomTarget</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Attribute used to specify the name of the target if target is not in the TargetSpecification enumeration list. CGATS.17 TARGET_TYPE.
annotation	documentation Organized set of sample structures, i.e. IT8 target.					
source	<pre>&lt;xs:element name="SampleTarget" type="CxF:SampleTargetType" substitutionGroup="CxF:Sample"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Organized set of sample structures, i.e. IT8 target.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

## element Standard

diagram	<p><b>Standard</b> Color of a single item to be measured. This may be a patch in an IT8 target for instance.</p> <p><b>CxF:CustomAttribute</b> Optional, custom standard and standard metadata, this should only be used when there is no standard element/attribute to store the required data.</p> <p><b>CxF:Device</b> Required field used to specify the color of this standard.</p> <p><b>CxF:Color</b> Required field used to specify the color of this standard.</p> <p><b>CxF:Tolerance</b> Optional field used to specify the tolerance(s) of this standard and measurement.</p>
namespace	http://colorexchangeformat.com/v2
properties	content complex nillable true
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Device</a> <a href="#">CxF:Color</a> <a href="#">CxF:Tolerance</a>
used by	complexType <a href="#">StandardAndMeasurementType</a>
annotation	documentation Color of a single item to be measured. This may be a patch in an IT8 target for instance.

source	<pre> &lt;xs:element name="Standard" nillable="true"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Color of a single item to be measured. This may be a patch in an IT8 target for instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Optional, custom standard and standard metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Device" type="CxF:DeviceType"/&gt;       &lt;xs:element name="Color" type="CxF:ColorType"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Required field used to specify the color of this standard.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Tolerance" type="CxF:ToleranceType" minOccurs="0" maxOccurs="unbounded"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Optional field used to specify the tolerance(s) of this standard and measurement.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
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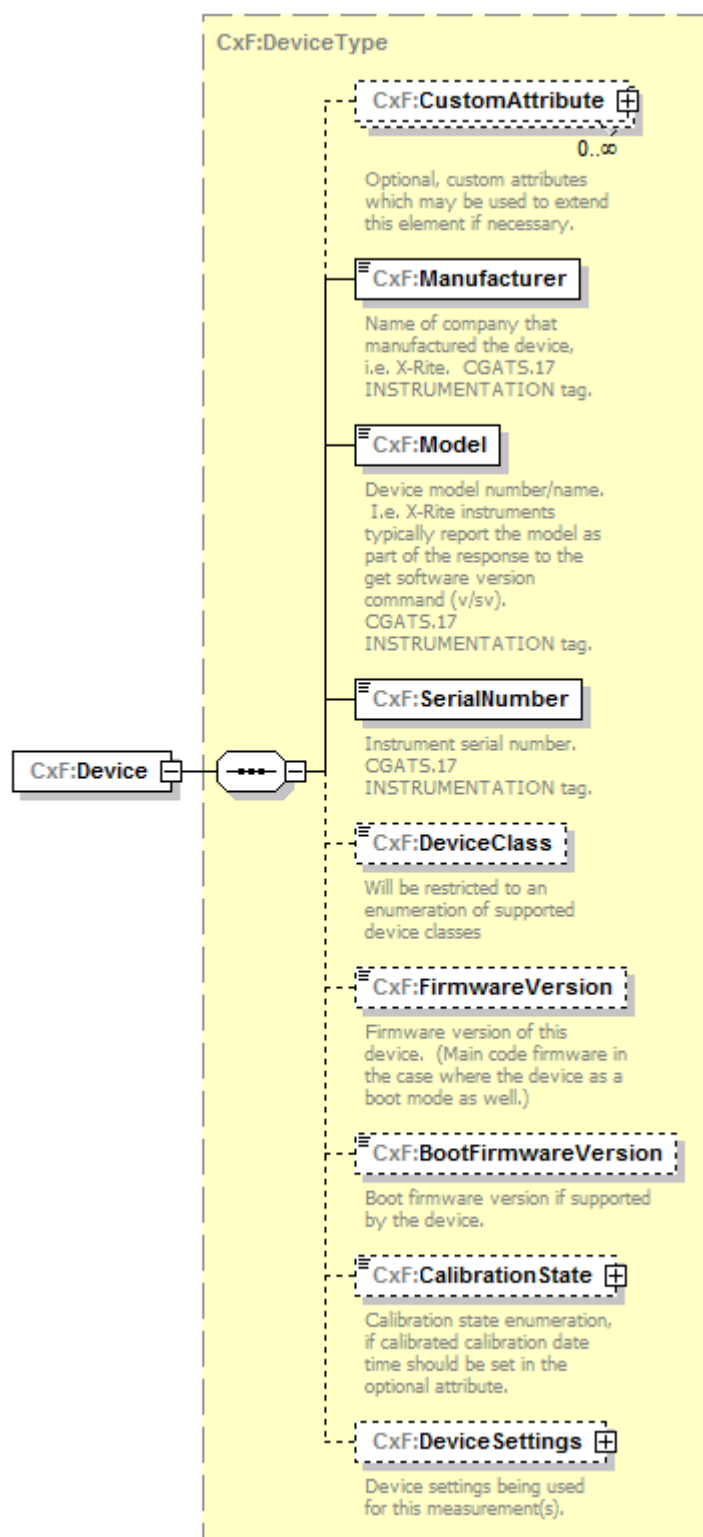
element **Standard/CustomAttribute**

diagram									
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:CustomAttributeType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
isRef	0								
minOcc	0								
maxOcc	unbounded								
content	complex								

children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>
annotation	documentation Optional, custom standard and standard metadata, this should only be used when there is no standard element/attribute to store the required data.
source	<pre> &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, custom standard and standard metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

# element **Standard/Device**

diagram



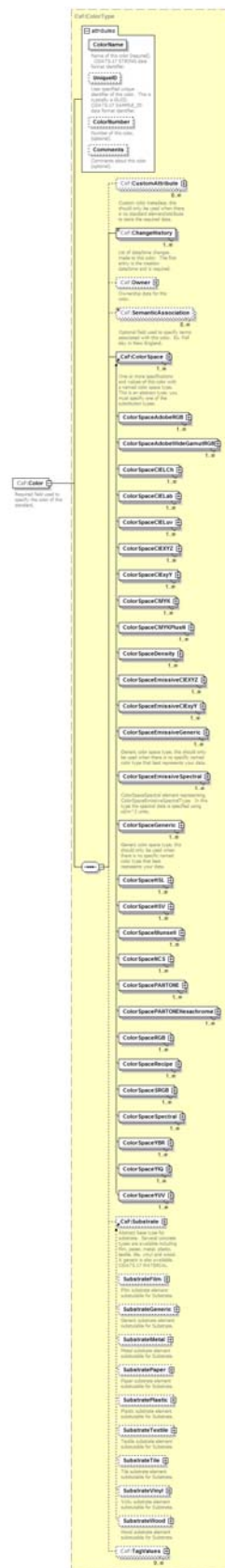
namespace <http://colorexchangeformat.com/v2>

type [CxF:DeviceType](#)

properties	isRef 0 content complex
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Manufacturer</a> <a href="#">CxF:Model</a> <a href="#">CxF:SerialNumber</a> <a href="#">CxF:DeviceClass</a> <a href="#">CxF:FirmwareVersion</a> <a href="#">CxF:BootFirmwareVersion</a> <a href="#">CxF:CalibrationState</a> <a href="#">CxF:DeviceSettings</a>
source	<xs:element name="Device" type="CxF:DeviceType"/>

element **Standard/Color**

diagram

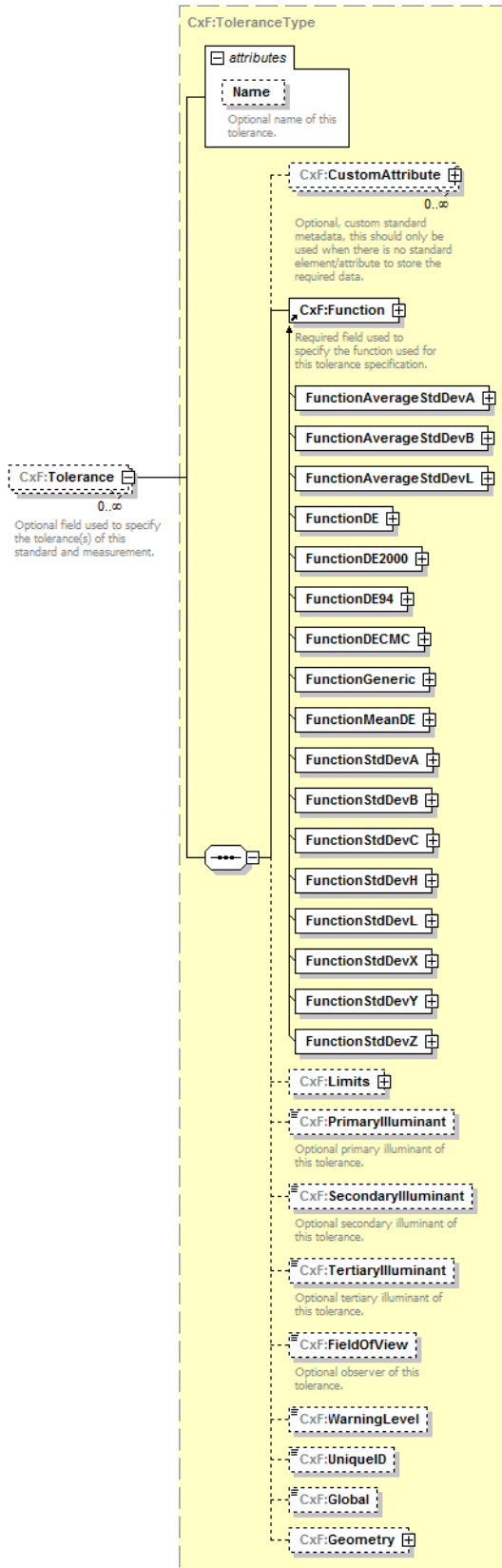






## element Standard/Tolerance

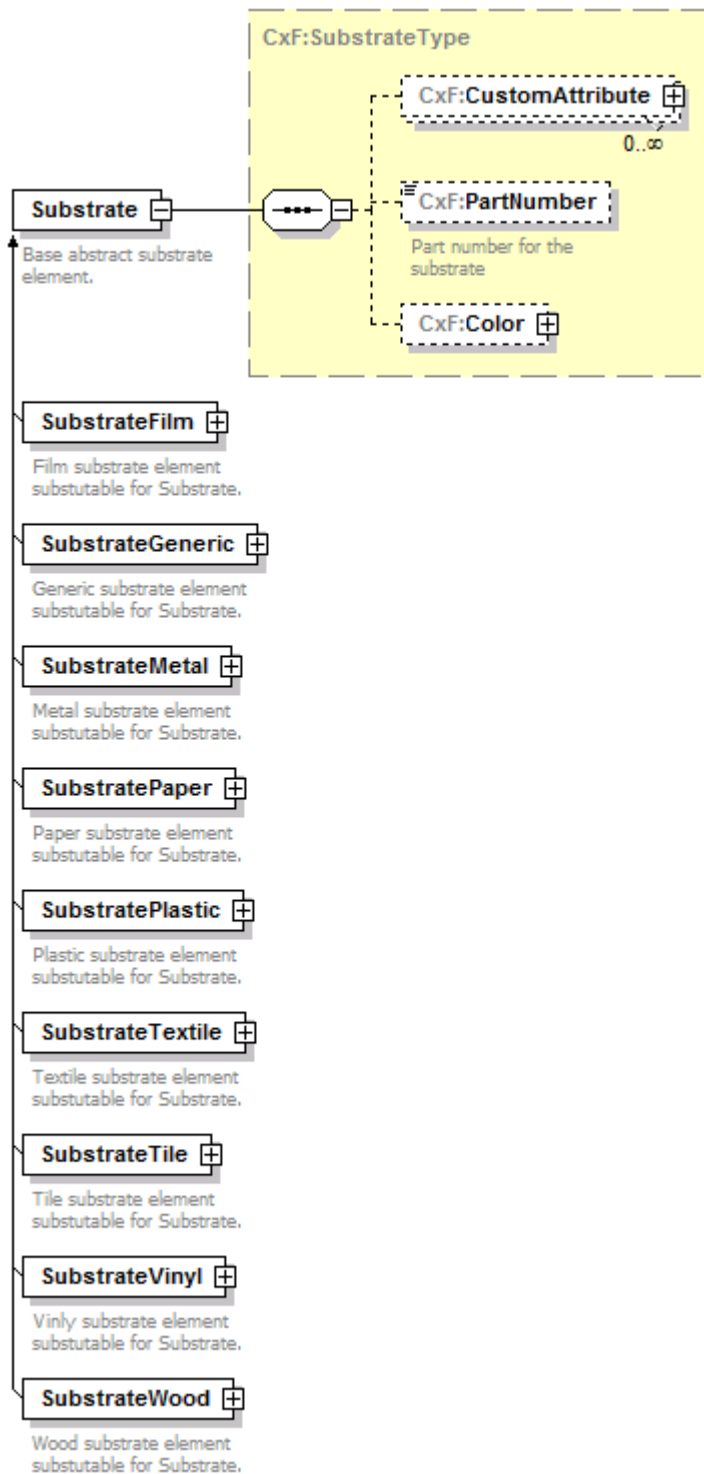
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ToleranceType</a>					
properties	isRef	0	minOcc	0	maxOcc	unbounded
	content	complex				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Function</a> <a href="#">CxF:Limits</a> <a href="#">CxF:PrimaryIlluminant</a> <a href="#">CxF:SecondaryIlluminant</a> <a href="#">CxF:TertiaryIlluminant</a> <a href="#">CxF:FieldOfView</a> <a href="#">CxF:WarningLevel</a> <a href="#">CxF:UniqueID</a> <a href="#">CxF:Global</a> <a href="#">CxF:Geometry</a>					
attributes	Name <a href="#">Name</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Optional name of this tolerance.
annotation	documentation Optional field used to specify the tolerance(s) of this standard and measurement.					
source	<xs:element name="Tolerance" type="CxF:ToleranceType" minOccurs="0" maxOccurs="unbounded"> <xs:annotation> <xs:documentation>Optional field used to specify the tolerance(s) of this standard and measurement.</xs:documentation> </xs:annotation> </xs:element>					

## element **Substrate**

diagram



namespace <http://colorexchangeformat.com/v2>

type [CxF:SubstrateType](#)

properties content complex  
abstract true

children [CxF:CustomAttribute](#) [CxF:PartNumber](#) [CxF:Color](#)

used by	complexTypes <a href="#">ColorSetType</a> <a href="#">ColorType</a> <a href="#">SampleType</a>
annotation	documentation Base abstract substrate element.
source	<pre> &lt;xs:element name="Substrate" type="CxF:SubstrateType" abstract="true"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Base abstract substrate element.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## element **SubstrateFilm**

diagram					
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>				
type	<a href="#">CxF:SubstrateFilmType</a>				
properties	<table> <tr> <td>content</td> <td>complex</td> </tr> <tr> <td>substGrp</td> <td>CxF:Substrate</td> </tr> </table>	content	complex	substGrp	CxF:Substrate
content	complex				
substGrp	CxF:Substrate				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:FilmWeight</a> <a href="#">CxF:FilmType</a>				
annotation	documentation Film substrate element substitutable for Substrate.				
source	<pre> &lt;xs:element name="SubstrateFilm" type="CxF:SubstrateFilmType"   substitutionGroup="CxF:Substrate"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Film substrate element substitutable for Substrate.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>				

## element SubstrateGeneric

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:SubstrateGenericType</a>
properties	content complex substGrp CxF:Substrate
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:Type</a>
annotation	documentation Generic substrate element substitutable for Substrate.
source	<pre> &lt;xs:element name="SubstrateGeneric" type="CxF:SubstrateGenericType" substitutionGroup="CxF:Substrate"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Generic substrate element substitutable for Substrate.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## element SubstrateMetal

diagram	
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namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:SubstrateMetalType</a>
properties	content complex substGrp CxF:Substrate
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:MetalWeight</a> <a href="#">CxF:MetalType</a>
annotation	documentation Metal substrate element substitutable for Substrate.
source	<pre> &lt;xs:element name="SubstrateMetal" type="CxF:SubstrateMetalType" substitutionGroup="CxF:Substrate"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Metal substrate element substitutable for Substrate.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

### element **SubstratePaper**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:SubstratePaperType</a>
properties	content complex substGrp CxF:Substrate
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:PaperThickness</a> <a href="#">CxF:PaperType</a>
annotation	documentation Paper substrate element substitutable for Substrate.
source	<pre> &lt;xs:element name="SubstratePaper" type="CxF:SubstratePaperType" substitutionGroup="CxF:Substrate"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Paper substrate element substitutable for Substrate.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## element **SubstratePlastic**

diagram					
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>				
type	<a href="#">CxF:SubstratePlasticType</a>				
properties	<table border="0"> <tr> <td>content</td> <td>complex</td> </tr> <tr> <td>substGrp</td> <td>CxF:Substrate</td> </tr> </table>	content	complex	substGrp	CxF:Substrate
content	complex				
substGrp	CxF:Substrate				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:PlasticWeight</a> <a href="#">CxF:PlasticType</a>				
annotation	documentation Plastic substrate element substitutable for Substrate.				
source	<pre> &lt;xs:element name="SubstratePlastic" type="CxF:SubstratePlasticType" substitutionGroup="CxF:Substrate"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Plastic substrate element substitutable for Substrate.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;           </pre>				

## element **SubstrateTextile**

diagram	<p>The diagram illustrates the structure of the <b>SubstrateTextile</b> element. It is a complex element that can substitute for the <b>Substrate</b> element. It contains five child elements: <b>CxF:CustomAttribute</b> (0..∞ occurrences), <b>CxF:PartNumber</b> (Part number for the substrate), <b>CxF:Color</b>, <b>CxF:TextileWeight</b> (TBD), and <b>CxF:TextileType</b> (TBD).</p>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:SubstrateTextileType</a>
properties	content complex substGrp CxF:Substrate
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:TextileWeight</a> <a href="#">CxF:TextileType</a>
annotation	documentation Textile substrate element substitutable for Substrate.
source	<pre> &lt;xs:element name="SubstrateTextile" type="CxF:SubstrateTextileType" substitutionGroup="CxF:Substrate"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Textile substrate element substitutable for Substrate.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>



## element **SubstrateTile**

diagram					
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>				
type	<a href="#">CxF:SubstrateTileType</a>				
properties	<table> <tr> <td>content</td> <td>complex</td> </tr> <tr> <td>substGrp</td> <td>CxF:Substrate</td> </tr> </table>	content	complex	substGrp	CxF:Substrate
content	complex				
substGrp	CxF:Substrate				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:TileWeight</a> <a href="#">CxF:TileType</a>				
annotation	documentation Tile substrate element substitutable for Substrate.				
source	<pre> &lt;xs:element name="SubstrateTile" type="CxF:SubstrateTileType" substitutionGroup="CxF:Substrate"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Tile substrate element substitutable for Substrate.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;           </pre>				

## element **SubstrateVinyl**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:SubstrateVinylType</a>
properties	content complex substGrp CxF:Substrate
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:VinylWeight</a> <a href="#">CxF:VinylType</a>
annotation	documentation Vinly substrate element substutable for Substrate.
source	<pre> &lt;xs:element name="SubstrateVinyl" type="CxF:SubstrateVinylType" substitutionGroup="CxF:Substrate"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Vinly substrate element substutable for Substrate.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## element **SubstrateWood**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:SubstrateWoodType</a>
properties	content complex substGrp CxF:Substrate
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:WoodWeight</a> <a href="#">CxF:WoodType</a>
annotation	documentation Wood substrate element substitutable for Substrate.
source	<pre> &lt;xs:element name="SubstrateWood" type="CxF:SubstrateWoodType" substitutionGroup="CxF:Substrate"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Wood substrate element substitutable for Substrate.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## complexType **AxisType**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
children	<a href="#">CxF:AxisName</a> <a href="#">CxF:AxisValueChoice</a>
used by	elements <a href="#">ColorSpaceGenericType/Axis</a> <a href="#">ColorSpaceEmissiveGenericType/Axis</a>
annotation	documentation Type used to represent an axis including the axis name and value.
source	<pre> &lt;xs:complexType name="AxisType"&gt;   &lt;xs:annotation&gt; </pre>

	<pre> &lt;xs:documentation&gt;Type used to represent an axis including the axis name and value.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:sequence&gt;   &lt;xs:element name="AxisName" type="xs:string"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Name of this axis.&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:element&gt;   &lt;xs:element name="AxisValueChoice"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Value of this axis. The axis value may be either a string or floating point value.&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;     &lt;xs:complexType&gt;       &lt;xs:choice&gt;         &lt;xs:element name="AxisFloatingPointValue" type="CxF:FloatingPointValueType"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Floating point value with axis scale information.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="AxisStringValue" type="xs:string"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;String value.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:choice&gt;     &lt;/xs:complexType&gt;   &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>
--	---

element **AxisType/AxisName**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Name of this axis.
source	<pre> &lt;xs:element name="AxisName" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of this axis.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

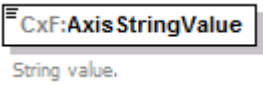
# element **AxisType/AxisValueChoice**

diagram	
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 content complex
children	<a href="#">CxF:AxisFloatingPointValue</a> <a href="#">CxF:AxisStringValue</a>
annotation	documentation Value of this axis. The axis value may be either a string or floating point value.
source	<pre> &lt;xs:element name="AxisValueChoice"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Value of this axis. The axis value may be either a string or floating point value.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:choice&gt;       &lt;xs:element name="AxisFloatingPointValue" type="CxF:FloatingPointValueType"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Floating point value with axis scale information.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="AxisStringValue" type="xs:string"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;String value.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;     &lt;/xs:choice&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

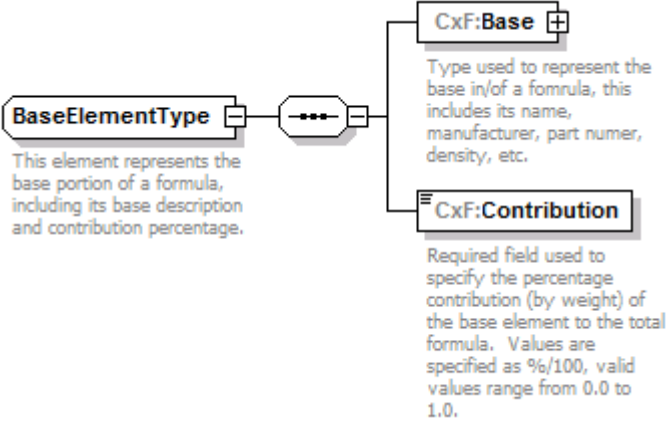


	<p><a href="#">AxisNominalScale</a> derived by: <a href="#">CxF:EScaleType</a> Scale_Linear</p>	<pre>&lt;jxb:property&gt;   &lt;jxb:javadoc&gt;Minimum value (inclusive) for the axis value. Note this is normally the nominal minimum as some color spaces to not have hard absolute bounds limits but always do have range limits that represent zero range.&lt;/jxb:javadoc&gt; &lt;/jxb:property&gt; documentation Enumeration of valid axis scales, defaults to Linear.</pre>
annotation	documentation Floating point value with axis scale information.	
source	<pre>&lt;xs:element name="AxisFloatingPointValue" type="CxF:FloatingPointValueType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Floating point value with axis scale information.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>	

#### element **AxisType/AxisValueChoice/AxisStringValue**

diagram		
namespace	http://colorexchangeformat.com/v2	
type	<b>xs:string</b>	
properties	isRef 0 content simple	
annotation	documentation String value.	
source	<pre>&lt;xs:element name="AxisStringValue" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;String value.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>	

#### complexType **BaseElementType**

diagram		
---------	---	--

namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
children	<a href="#">CxF:Base</a> <a href="#">CxF:Contribution</a>
used by	element <a href="#">ColorSpaceRecipeType/BaseElement</a>
annotation	documentation This element represents the base portion of a formula, including its base description and contribution percentage.
source	<pre> &lt;xs:complexType name="BaseElementType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;This element represents the base portion of a formula, including its base description and contribution percentage.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="Base"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Type used to represent the base in/of a fomrula, this includes its name, manufacturer, part number, density, etc.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:complexType&gt;         &lt;xs:sequence&gt;           &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Custom base attribute(s).&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;           &lt;xs:element name="Name"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;The name of the base, this is required.&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;             &lt;xs:appinfo&gt;               &lt;jxb:property&gt;                 &lt;jxb:javadoc&gt;The name of the base, this is required.&lt;/jxb:javadoc&gt;               &lt;/jxb:property&gt;             &lt;/xs:appinfo&gt;           &lt;/xs:element&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:string"&gt;               &lt;xs:minLength value="1"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:sequence&gt;       &lt;/xs:complexType&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Manufacturer"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Manufacturer of the base, this is required.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:appinfo&gt;         &lt;jxb:property&gt;           &lt;jxb:javadoc&gt;Manufacturer of the base, this is required.&lt;/jxb:javadoc&gt;         &lt;/jxb:property&gt;       &lt;/xs:appinfo&gt;     &lt;/xs:element&gt;     &lt;xs:simpleType&gt;       &lt;xs:restriction base="xs:string"&gt;         &lt;xs:minLength value="1"/&gt;       &lt;/xs:restriction&gt;     &lt;/xs:simpleType&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>



```

<xs:element name="PartNumber">
  <xs:annotation>
    <xs:documentation>Base part number (typically specified by manufacturer), this is
required.</xs:documentation>
    <xs:appinfo>
      <jxb:property>
        <jxb:javadoc>Base part number (typically specified by manufacturer), this is
required.</jxb:javadoc>
      </jxb:property>
    </xs:appinfo>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:minLength value="1"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="Density" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Density specified as liters per kilogram.</xs:documentation>
    <xs:appinfo>
      <jxb:property>
        <jxb:javadoc>Density specified as liters per kilogram.</jxb:javadoc>
      </jxb:property>
    </xs:appinfo>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:double">
      <xs:minExclusive value="0.0"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="Contribution">
  <xs:annotation>
    <xs:documentation>Required field used to specify the percentage contribution (by weight) of
the base element to the total formula. Values are specified as %/100, valid values range from 0.0
to 1.0.</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:double">
      <xs:minInclusive value="0.0"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
</xs:sequence>
</xs:complexType>

```

# element BaseElementType/Base

diagram	<p>The diagram shows the structure of the <b>CxF:Base</b> element. It is a container element that includes the following sub-elements:</p> <ul style="list-style-type: none"> <li><b>CxF:CustomAttribute</b>: Custom base attribute(s). Occurs 0 to infinity times (0..∞).</li> <li><b>CxF:Name</b>: The name of the base, this is required.</li> <li><b>CxF:Manufacturer</b>: Manufacturer of the base, this is required.</li> <li><b>CxF:PartNumber</b>: Base part number (typically specified by manufacturer), this is required.</li> <li><b>CxF:Density</b>: Density specified as liters per kilogram.</li> </ul>
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 content complex
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Name</a> <a href="#">CxF:Manufacturer</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Density</a>
annotation	documentation Type used to represent the base in/of a fomrula, this includes its name, manufacturer, part numer, density, etc.
source	<pre> &lt;xs:element name="Base"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type used to represent the base in/of a fomrula, this includes its name, manufacturer, part numer, density, etc.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Custom base attribute(s).&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Name"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;The name of the base, this is required.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:appinfo&gt;           &lt;jxb:property&gt;             &lt;jxb:javadoc&gt;The name of the base, this is required.&lt;/jxb:javadoc&gt;           &lt;/jxb:property&gt;         &lt;/xs:appinfo&gt;         &lt;/xs:annotation&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:string"&gt;             &lt;xs:minLength value="1"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

```

</xs:element>
<xs:element name="Manufacturer">
  <xs:annotation>
    <xs:documentation>Manufacturer of the base, this is required.</xs:documentation>
  </xs:annotation>
  <xs:appinfo>
    <jxb:property>
      <jxb:javadoc>Manufacturer of the base, this is required.</jxb:javadoc>
    </jxb:property>
  </xs:appinfo>
</xs:element>
<xs:simpleType>
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
  </xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="PartNumber">
  <xs:annotation>
    <xs:documentation>Base part number (typically specified by manufacturer), this is
required.</xs:documentation>
  </xs:annotation>
  <xs:appinfo>
    <jxb:property>
      <jxb:javadoc>Base part number (typically specified by manufacturer), this is
required.</jxb:javadoc>
    </jxb:property>
  </xs:appinfo>
</xs:element>
<xs:simpleType>
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
  </xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="Density" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Density specified as liters per kilogram.</xs:documentation>
  </xs:annotation>
  <xs:appinfo>
    <jxb:property>
      <jxb:javadoc>Density specified as liters per kilogram.</jxb:javadoc>
    </jxb:property>
  </xs:appinfo>
</xs:element>
<xs:simpleType>
  <xs:restriction base="xs:double">
    <xs:minExclusive value="0.0"/>
  </xs:restriction>
</xs:simpleType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>

```

## element **BaseElementType/Base/CustomAttribute**

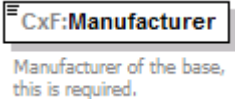
diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:CustomAttributeType</a>
properties	isRef 0 minOcc 0 maxOcc unbounded content complex
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>
annotation	documentation Custom base attribute(s).
source	<pre> &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Custom base attribute(s).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## element **BaseElementType/Base/Name**

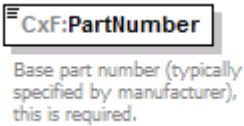
diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	minLength 1
annotation	documentation The name of the base, this is required. appinfo <jxb:property> <jxb:javadoc>The name of the base, this is required.</jxb:javadoc> </jxb:property>
source	<pre> &lt;xs:element name="Name"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The name of the base, this is required.&lt;/xs:documentation&gt;     &lt;xs:appinfo&gt;       &lt;jxb:property&gt;         &lt;jxb:javadoc&gt;The name of the base, this is required.&lt;/jxb:javadoc&gt;       &lt;/jxb:property&gt;     &lt;/xs:appinfo&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

	<pre> &lt;jxb:javadoc&gt;The name of the base, this is required.&lt;/jxb:javadoc&gt; &lt;/jxb:property&gt; &lt;/xs:appinfo&gt; &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:minLength value="1"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
--	---

#### element **BaseElementType/Base/Manufacturer**

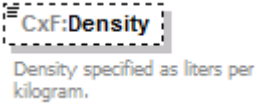
diagram	 <p>CxF:Manufacturer</p> <p>Manufacturer of the base, this is required.</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	minLength 1
annotation	documentation Manufacturer of the base, this is required. appinfo <jxb:property> <jxb:javadoc>Manufacturer of the base, this is required.</jxb:javadoc> </jxb:property>
source	<pre> &lt;xs:element name="Manufacturer"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Manufacturer of the base, this is required.&lt;/xs:documentation&gt;   &lt;xs:appinfo&gt;     &lt;jxb:property&gt;       &lt;jxb:javadoc&gt;Manufacturer of the base, this is required.&lt;/jxb:javadoc&gt;     &lt;/jxb:property&gt;   &lt;/xs:appinfo&gt; &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:minLength value="1"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **BaseElementType/Base/PartNumber**

diagram	 <p>CxF:PartNumber</p> <p>Base part number (typically specified by manufacturer), this is required.</p>
namespace	http://colorexchangeformat.com/v2

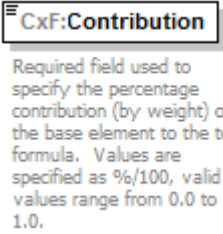
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	minLength 1
annotation	documentation Base part number (typically specified by manufacturer), this is required. appinfo <jxb:property> <jxb:javadoc>Base part number (typically specified by manufacturer), this is required.</jxb:javadoc> </jxb:property>
source	<pre> &lt;xs:element name="PartNumber"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Base part number (typically specified by manufacturer), this is required.&lt;/xs:documentation&gt;     &lt;xs:appinfo&gt;       &lt;jxb:property&gt;         &lt;jxb:javadoc&gt;Base part number (typically specified by manufacturer), this is required.&lt;/jxb:javadoc&gt;       &lt;/jxb:property&gt;     &lt;/xs:appinfo&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **BaseElementType/Base/Density**

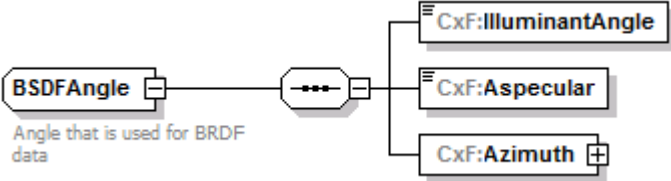
diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	minExclusive 0.0
annotation	documentation Density specified as liters per kilogram. appinfo <jxb:property> <jxb:javadoc>Density specified as liters per kilogram.</jxb:javadoc> </jxb:property>
source	<pre> &lt;xs:element name="Density" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Density specified as liters per kilogram.&lt;/xs:documentation&gt;     &lt;xs:appinfo&gt;       &lt;jxb:property&gt;         &lt;jxb:javadoc&gt;Density specified as liters per kilogram.&lt;/jxb:javadoc&gt;       &lt;/jxb:property&gt;     &lt;/xs:appinfo&gt; </pre>

	<pre> &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:double"&gt;     &lt;xs:minExclusive value="0.0"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
--	---

### element **BaseElementType/Contribution**

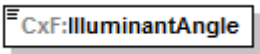
diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0
annotation	documentation Required field used to specify the percentage contribution (by weight) of the base element to the total formula. Values are specified as %/100, valid values range from 0.0 to 1.0.
source	<pre> &lt;xs:element name="Contribution"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required field used to specify the percentage contribution (by weight) of the base element to the total formula. Values are specified as %/100, valid values range from 0.0 to 1.0.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

### complexType **BSDFAngle**

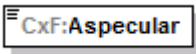
diagram	
namespace	http://colorexchangeformat.com/v2
children	<a href="#">CxF:IlluminantAngle</a> <a href="#">CxF:Aspecular</a> <a href="#">CxF:Azimuth</a>
used by	element <a href="#">GeometryChoiceType/BSDFAngle</a>

annotation	documentation Angle that is used for BRDF data
source	<pre> &lt;xs:complexType name="BSDFAngle"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Angle that is used for BRDF data&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="IlluminantAngle" type="xs:double"/&gt;     &lt;xs:element name="Aspecular" type="xs:double"/&gt;     &lt;xs:element name="Azimuth"&gt;       &lt;xs:complexType&gt;         &lt;xs:sequence/&gt;       &lt;/xs:complexType&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>


#### element **BSDFAngle/IlluminantAngle**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 content simple
source	<pre>&lt;xs:element name="IlluminantAngle" type="xs:double"/&gt;</pre>

#### element **BSDFAngle/Aspecular**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 content simple
source	<pre>&lt;xs:element name="Aspecular" type="xs:double"/&gt;</pre>

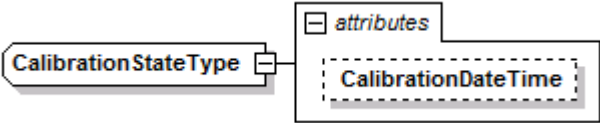
#### element **BSDFAngle/Azimuth**

diagram	
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 content complex
source	<pre> &lt;xs:element name="Azimuth"&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence/&gt;   &lt;/xs:complexType&gt; </pre>



	</xs:element>
--	---------------

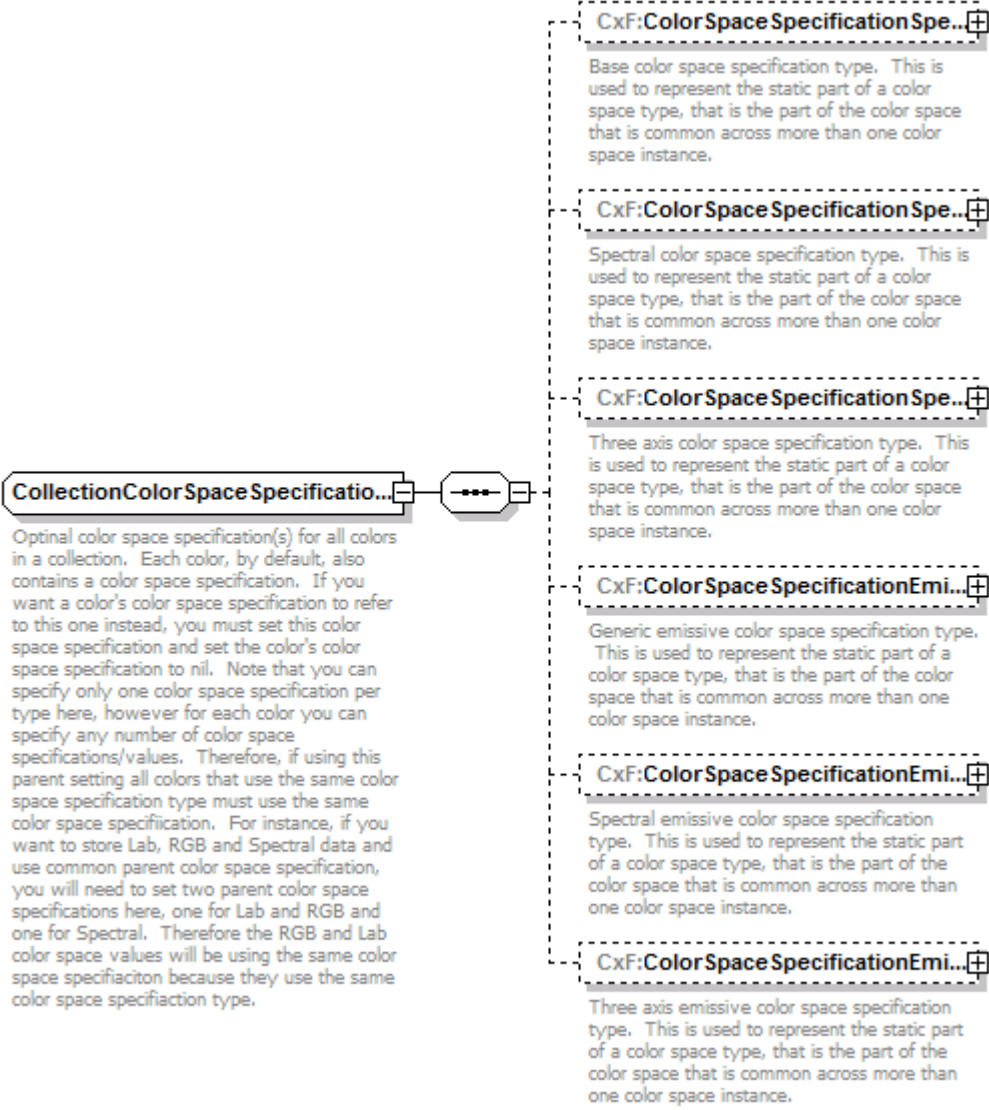
# complexType CalibrationStateType

diagram						
namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ECalibrationStateType</a>					
properties	base CxF:ECalibrationStateType					
used by	element <a href="#">DeviceType/CalibrationState</a>					
facets	enumeration CalibrationState_NotCalibrated enumeration CalibrationState_Calibrated enumeration CalibrationState_NA					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">CalibrationDateTime</a>	<a href="#">CxF:DateTimeWithTimeZoneType</a>	optional			
source	<pre> &lt;xs:complexType name="CalibrationStateType"&gt;   &lt;xs:simpleContent&gt;     &lt;xs:extension base="CxF:ECalibrationStateType"&gt;       &lt;xs:attribute name="CalibrationDateTime" type="CxF:DateTimeWithTimeZoneType" use="optional"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:simpleContent&gt; &lt;/xs:complexType&gt; </pre>					

# attribute CalibrationStateType/@CalibrationDateTime

type	<a href="#">CxF:DateTimeWithTimeZoneType</a>
properties	isRef 0 use optional
facets	pattern .+T.+(Z [\-\.].+)
source	<pre> &lt;xs:attribute name="CalibrationDateTime" type="CxF:DateTimeWithTimeZoneType" use="optional"/&gt; </pre>

## complexType CollectionColorSpaceSpecificationType

diagram	 <p>Optinal color space specification(s) for all colors in a collection. Each color, by default, also contains a color space specification. If you want a color's color space specification to refer to this one instead, you must set this color space specification and set the color's color space specification to nil. Note that you can specify only one color space specification per type here, however for each color you can specify any number of color space specifications/values. Therefore, if using this parent setting all colors that use the same color space specification type must use the same color space specification. For instance, if you want to store Lab, RGB and Spectral data and use common parent color space specification, you will need to set two parent color space specifications here, one for Lab and RGB and one for Spectral. Therefore the RGB and Lab color space values will be using the same color space specifiaciton because they use the same color space specification type.</p> <p><b>CxF:ColorSpaceSpecificationSpectrumGeneric</b> Base color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</p> <p><b>CxF:ColorSpaceSpecificationSpectrumSpectral</b> Spectral color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</p> <p><b>CxF:ColorSpaceSpecificationSpectrumTristimulus</b> Three axis color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</p> <p><b>CxF:ColorSpaceSpecificationEmissiveGeneric</b> Generic emissive color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</p> <p><b>CxF:ColorSpaceSpecificationEmissiveSpectral</b> Spectral emissive color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</p> <p><b>CxF:ColorSpaceSpecificationEmissiveTristimulus</b> Three axis emissive color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</p>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
children	<a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumSpectral</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:ColorSpaceSpecificationEmissiveGeneric</a> <a href="#">CxF:ColorSpaceSpecificationEmissiveSpectral</a> <a href="#">CxF:ColorSpaceSpecificationEmissiveTristimulus</a>
used by	element <a href="#">CollectionColorSpaceSpecification</a>
annotation	<p>documentation</p> <p>Optinal color space specification(s) for all colors in a collection. Each color, by default, also contains a color space specification. If you want a color's color space specification to refer to this one instead, you must set this color space specification and set the color's color space specification to nil. Note that you can specify only one color space specification per type here, however for each color you can specify any number of color space specifications/values. Therefore, if using this parent setting all colors that use the same color space specification type must use the same color space specification. For instance, if you want to store Lab, RGB and Spectral data and use common parent color space specification, you will need to set two parent color space specifications here, one for Lab and RGB and one for Spectral. Therefore the RGB and Lab color space values will be using the same color space specifiaciton because they use the same color space specification type.</p>
source	<pre>&lt;xs:complexType name="CollectionColorSpaceSpecificationType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optinal color space specification(s) for all colors in a collection. Each color,</pre>

by default, also contains a color space specification. If you want a color's color space specification to refer to this one instead, you must set this color space specification and set the color's color space specification to nil. Note that you can specify only one color space specification per type here, however for each color you can specify any number of color space specifications/values. Therefore, if using this parent setting all colors that use the same color space specification type must use the same color space specification. For instance, if you want to store Lab, RGB and Spectral data and use common parent color space specification, you will need to set two parent color space specifications here, one for Lab and RGB and one for Spectral. Therefore the RGB and Lab color space values will be using the same color space specification because they use the same color space specification type.

```
</xs:annotation>
<xs:sequence>
  <xs:element name="ColorSpaceSpecificationSpectrumGeneric"
type="CxF:ColorSpaceSpecificationSpectrumGenericType" minOccurs="0">
```

```
    <xs:annotation>
      <xs:documentation>Base color space specification type. This is used to represent the static
part of a color space type, that is the part of the color space that is common across more than one
color space instance.</xs:documentation>
```

```
    </xs:annotation>
  </xs:element>
  <xs:element name="ColorSpaceSpecificationSpectrumSpectral"
type="CxF:ColorSpaceSpecificationSpectrumSpectralType" minOccurs="0">
```

```
    <xs:annotation>
      <xs:documentation>Spectral color space specification type. This is used to represent the
static part of a color space type, that is the part of the color space that is common across more than
one color space instance.</xs:documentation>
```

```
    </xs:annotation>
  </xs:element>
  <xs:element name="ColorSpaceSpecificationSpectrumTristimulus"
type="CxF:ColorSpaceSpecificationSpectrumTristimulusType" minOccurs="0">
```

```
    <xs:annotation>
      <xs:documentation>Three axis color space specification type. This is used to represent the
static part of a color space type, that is the part of the color space that is common across more than
one color space instance.</xs:documentation>
```

```
    </xs:annotation>
  </xs:element>
  <xs:element name="ColorSpaceSpecificationEmissiveGeneric"
type="CxF:ColorSpaceSpecificationEmissiveGenericType" minOccurs="0">
```

```
    <xs:annotation>
      <xs:documentation>Generic emissive color space specification type. This is used to
represent the static part of a color space type, that is the part of the color space that is common
across more than one color space instance.</xs:documentation>
```

```
    </xs:annotation>
  </xs:element>
  <xs:element name="ColorSpaceSpecificationEmissiveSpectral"
type="CxF:ColorSpaceSpecificationEmissiveSpectralType" minOccurs="0">
```

```
    <xs:annotation>
      <xs:documentation>Spectral emissive color space specification type. This is used to
represent the static part of a color space type, that is the part of the color space that is common
across more than one color space instance.</xs:documentation>
```

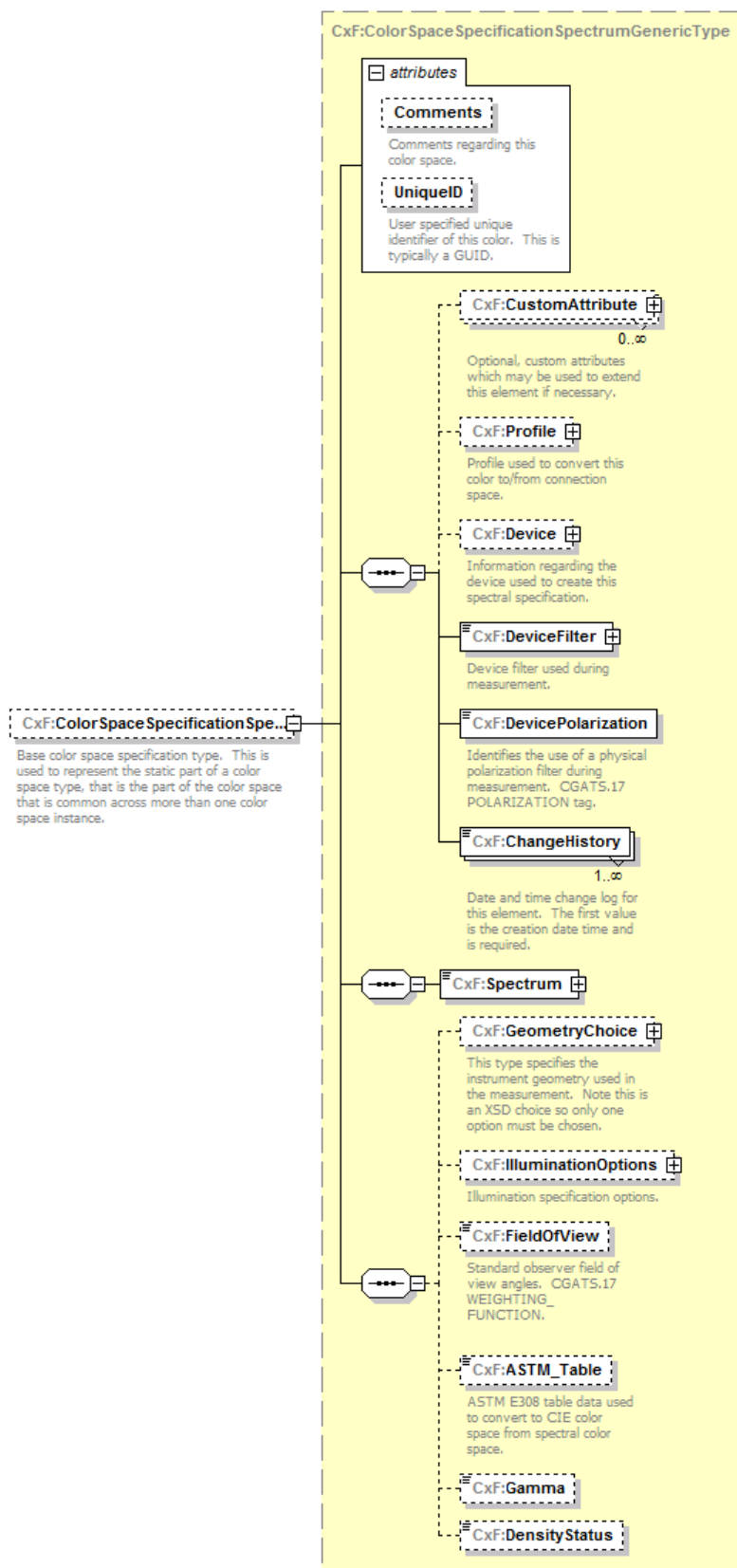
```
    </xs:annotation>
  </xs:element>
  <xs:element name="ColorSpaceSpecificationEmissiveTristimulus"
type="CxF:ColorSpaceSpecificationEmissiveTristimulusType" minOccurs="0">
```

```
    <xs:annotation>
      <xs:documentation>Three axis emissive color space specification type. This is used to
```

	<p>represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</p> <p>&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt;</p>
--	--

# element **CollectionColorSpaceSpecificationType/ColorSpaceSpecificationSpectrumGeneric**

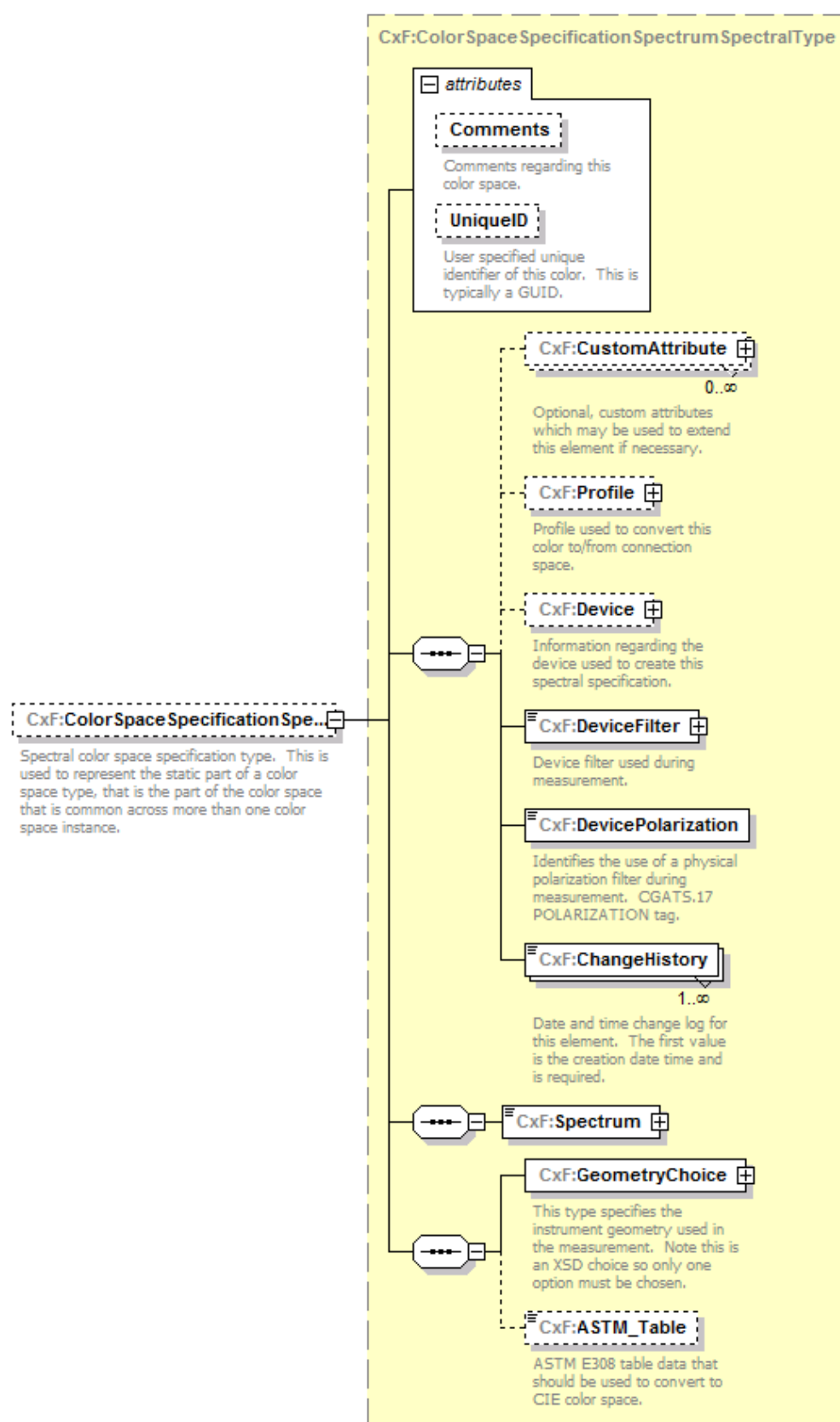
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceSpecificationSpectrumGenericType</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Spectrum</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:IlluminationOptions</a> <a href="#">CxF:FieldOfView</a> <a href="#">CxF:ASTM Table</a> <a href="#">CxF:Gamma</a> <a href="#">CxF:DensityStatus</a>					
used by	complexTypes	<a href="#">ColorSpaceCMYKType</a> <a href="#">ColorSpaceDensityType</a> <a href="#">ColorSpaceGenericType</a> <a href="#">ColorSpaceHSLType</a> <a href="#">ColorSpaceHSVType</a> <a href="#">ColorSpaceMunsellType</a> <a href="#">ColorSpaceNCSType</a> <a href="#">ColorSpacePANTONEHexachromeType</a> <a href="#">ColorSpaceRecipeType</a> <a href="#">ColorSpaceYBRType</a> <a href="#">ColorSpaceYIQType</a> <a href="#">ColorSpaceYUVType</a>				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	xs:string				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	xs:string				documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Base color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<xs:element name="ColorSpaceSpecificationSpectrumGeneric" type="CxF:ColorSpaceSpecificationSpectrumGenericType" minOccurs="0"> <xs:annotation> <xs:documentation>Base color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</xs:documentation> </xs:annotation> </xs:element>					

element **CollectionColorSpaceSpecificationType/ColorSpaceSpecificationSpectrumSpectral**

diagram

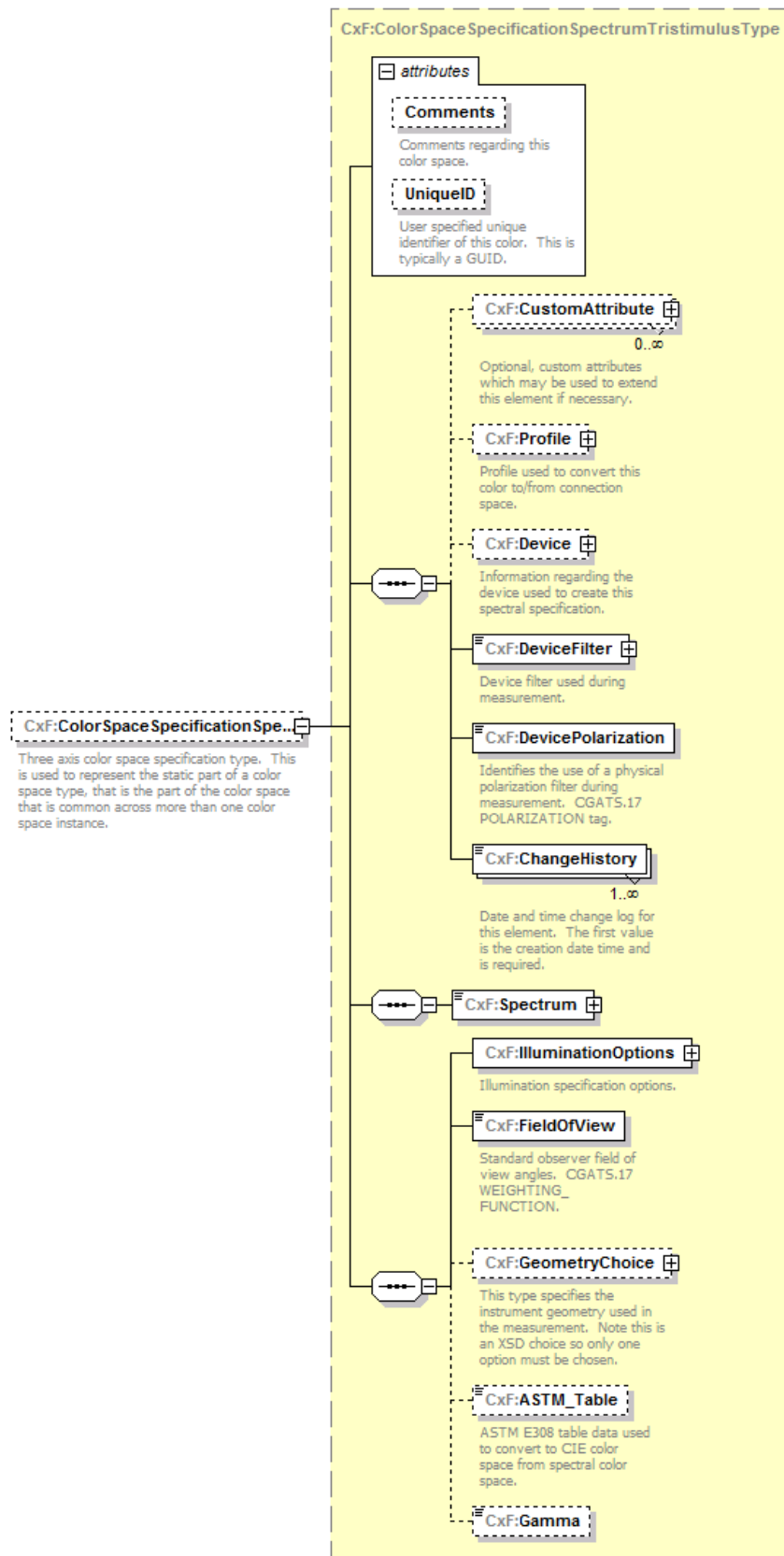




namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceSpecificationSpectrumSpectralType</a>					
properties	isRef 0 minOcc 0 maxOcc 1 content complex					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Spectrum</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:ASTM Table</a>					
used by	complexType <a href="#">ColorSpaceSpectralType</a>					
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>	Type <b>xs:string</b>  <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Spectral color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<pre> &lt;xs:element name="ColorSpaceSpecificationSpectrumSpectral" type="CxF:ColorSpaceSpecificationSpectrumSpectralType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Spectral color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

element **CollectionColorSpaceSpecificationType/ColorSpaceSpecificationSpectrumTristimulus**

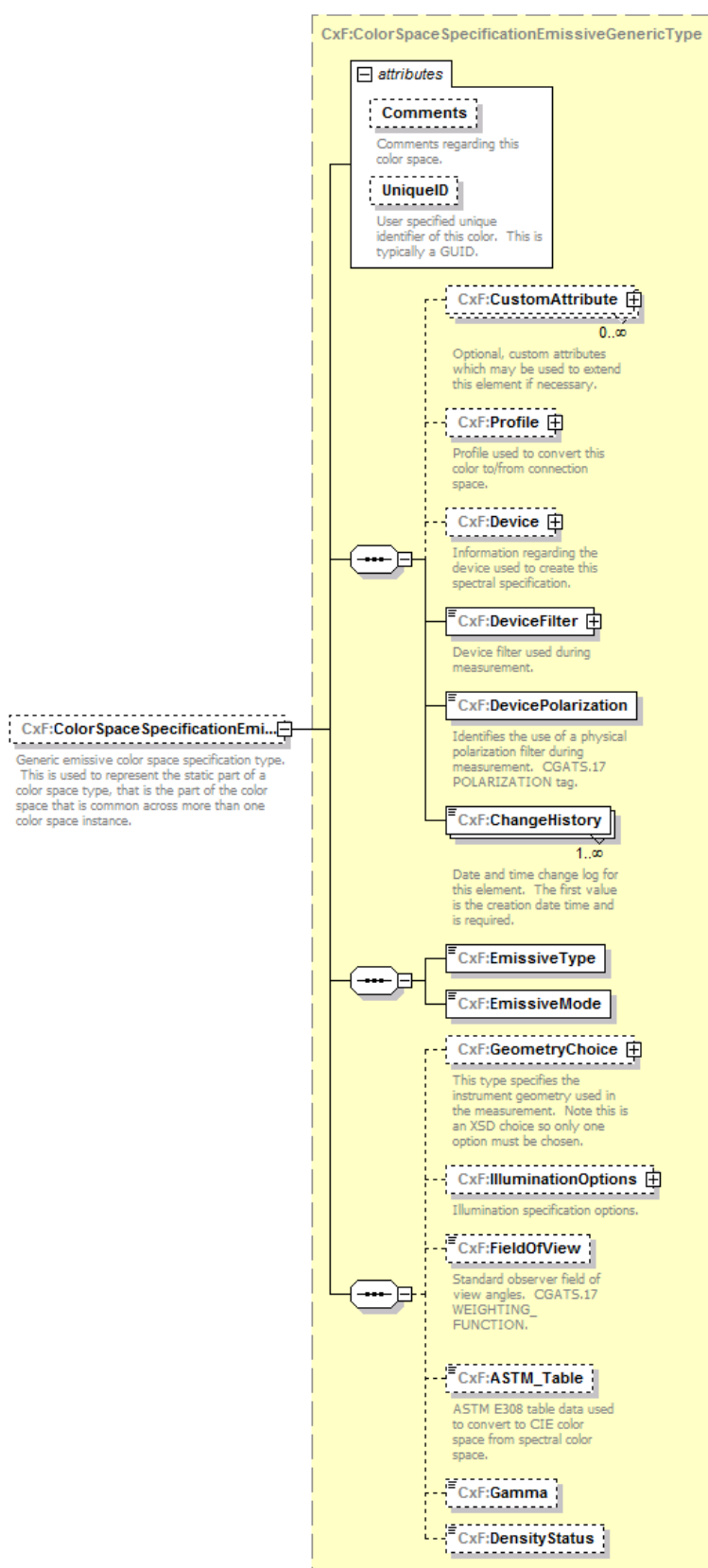
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulusType</a>					
properties	isRef 0 minOcc 0 maxOcc 1 content complex					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Spectrum</a> <a href="#">CxF:IlluminationOptions</a> <a href="#">CxF:FieldOfView</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:ASTM Table</a> <a href="#">CxF:Gamma</a>					
used by	complexTypes <a href="#">ColorSpaceAdobeRGBType</a> <a href="#">ColorSpaceAdobeWideGamutRGBType</a> <a href="#">ColorSpaceCIELabType</a> <a href="#">ColorSpaceCIELChType</a> <a href="#">ColorSpaceCIELuvType</a> <a href="#">ColorSpaceCIExyYType</a> <a href="#">ColorSpaceCIEXYZType</a> <a href="#">ColorSpaceRGBType</a> <a href="#">ColorSpaceSRGBType</a>					
attributes	Name <a href="#">Comments</a>   <a href="#">UniqueID</a>	Type <b>xs:string</b>   <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Three axis color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<pre> &lt;xs:element name="ColorSpaceSpecificationSpectrumTristimulus" type="CxF:ColorSpaceSpecificationSpectrumTristimulusType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Three axis color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

# element **CollectionColorSpaceSpecificationType/ColorSpaceSpecificationEmissiveGeneric**

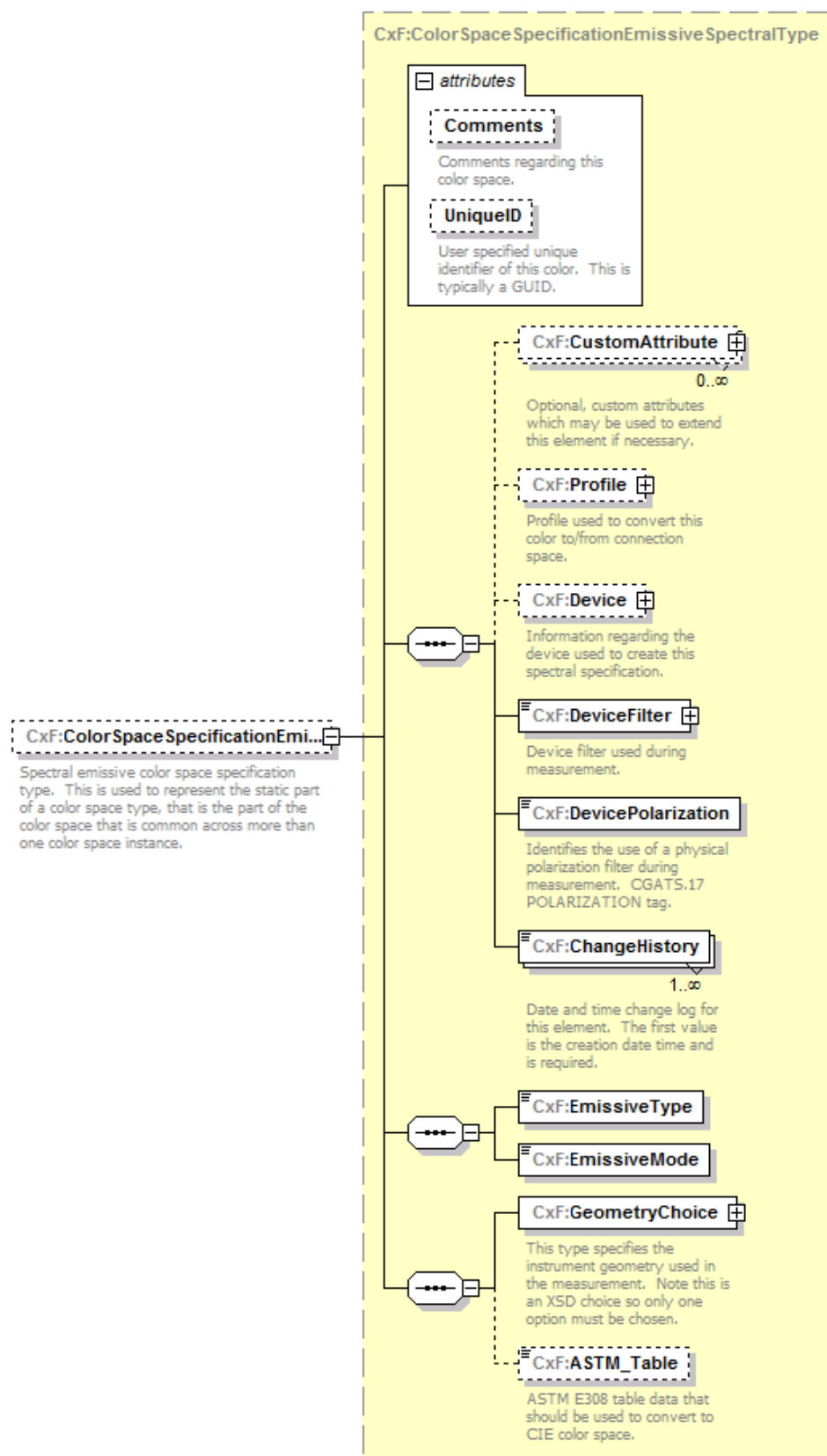
diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceSpecificationEmissiveGenericType</a>					
properties	isRef 0 minOcc 0 maxOcc 1 content complex					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:EmissiveType</a> <a href="#">CxF:EmissiveMode</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:IlluminationOptions</a> <a href="#">CxF:FieldOfView</a> <a href="#">CxF:ASTM Table</a> <a href="#">CxF:Gamma</a> <a href="#">CxF:DensityStatus</a>					
used by	complexType <a href="#">ColorSpaceEmissiveGenericType</a>					
attributes	Name <a href="#">Comments</a>   <a href="#">UniqueID</a>	Type <b>xs:string</b>   <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Generic emissive color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<pre> &lt;xs:element name="ColorSpaceSpecificationEmissiveGeneric" type="CxF:ColorSpaceSpecificationEmissiveGenericType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Generic emissive color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

# element **CollectionColorSpaceSpecificationType/ColorSpaceSpecificationEmissiveSpectral**

diagram



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSpaceSpecificationEmissiveSpectralType</a>					
properties	isRef 0 minOcc 0 maxOcc 1 content complex					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:EmissiveType</a> <a href="#">CxF:EmissiveMode</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:ASTM</a> <a href="#">Table</a>					
used by	complexType <a href="#">ColorSpaceEmissiveSpectralType</a>					
attributes	Name <a href="#">Comments</a>   <a href="#">UniqueID</a>	Type <b>xs:string</b>   <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Spectral emissive color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<pre> &lt;xs:element name="ColorSpaceSpecificationEmissiveSpectral" type="CxF:ColorSpaceSpecificationEmissiveSpectralType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Spectral emissive color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

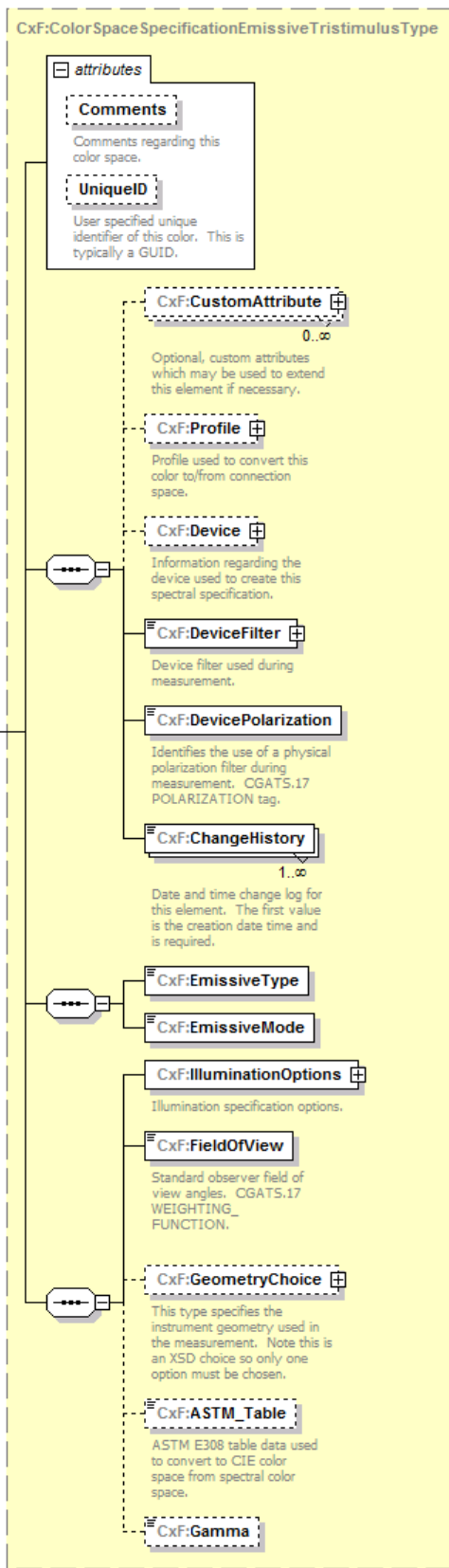


element **CollectionColorSpaceSpecificationType/ColorSpaceSpecificationEmissiveTristimulus**

diagram

**CxF:ColorSpaceSpecificationEmi...**

Three axis emissive color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.





	contribution percentage.
source	<pre> &lt;xs:complexType name="ColorantElementType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;This element represents a particular colorant/pigment portion of a formula, including its colorant/pigment description and contribution percentage.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="Colorant"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Required field used to specify the colorant.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:complexType&gt;         &lt;xs:sequence&gt;           &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Custom colorant attributes.&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;           &lt;xs:element name="Name"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;The name of the colorant, this is required. CGATS.17 COLORANT.&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;             &lt;xs:simpleType&gt;               &lt;xs:restriction base="xs:string"&gt;                 &lt;xs:minLength value="1"/&gt;               &lt;/xs:restriction&gt;             &lt;/xs:simpleType&gt;           &lt;/xs:element&gt;           &lt;xs:element name="Manufacturer"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Manufacturer of colorant, this is required.&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;             &lt;xs:simpleType&gt;               &lt;xs:restriction base="xs:string"&gt;                 &lt;xs:minLength value="1"/&gt;               &lt;/xs:restriction&gt;             &lt;/xs:simpleType&gt;           &lt;/xs:element&gt;           &lt;xs:element name="PartNumber"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Colorant part number (typically specified by manufacturer), this is required.&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;             &lt;xs:simpleType&gt;               &lt;xs:restriction base="xs:string"&gt;                 &lt;xs:minLength value="1"/&gt;               &lt;/xs:restriction&gt;             &lt;/xs:simpleType&gt;           &lt;/xs:element&gt;           &lt;xs:element name="Density" nillable="true"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Density specified as liters per kilogram. Element is nullable if data is not available.&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;         &lt;/xs:sequence&gt;       &lt;/xs:complexType&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>

	<pre>&lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:double"&gt;     &lt;xs:minExclusive value="0.0"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;xs:element name="Contribution"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required field used to specify the percentage contribution (by weight) of the specified element to the total formula (including optional base). Values are specified as %/100, valid values range from 0.0 to 1.0.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt;</pre>
--	---

element **ColorantElementType/Colorant**

diagram	
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 content complex

children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Name</a> <a href="#">CxF:Manufacturer</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Density</a>
annotation	documentation Required field used to specify the colorant.
source	<pre> &lt;xs:element name="Colorant"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required field used to specify the colorant.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Custom colorant attributes.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Name"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;The name of the colorant, this is required. CGATS.17 COLORANT.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:string"&gt;             &lt;xs:minLength value="1"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Manufacturer"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Manufacturer of colorant, this is required.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:string"&gt;             &lt;xs:minLength value="1"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:element&gt;       &lt;xs:element name="PartNumber"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Colorant part number (typically specified by manufacturer), this is required.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:string"&gt;             &lt;xs:minLength value="1"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Density" nillable="true"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Density specified as liters per kilogram. Element is nullable if data is not available.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:double"&gt;             &lt;xs:minExclusive value="0.0"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

	<pre> &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	--

element **ColorantElementType/Colorant/CustomAttribute**

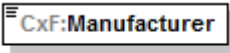
diagram									
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:CustomAttributeType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
isRef	0								
minOcc	0								
maxOcc	unbounded								
content	complex								
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>								
annotation	documentation Custom colorant attributes.								
source	<pre> &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Custom colorant attributes.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								

element **ColorantElementType/Colorant/Name**

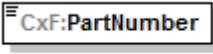
diagram					
namespace	http://colorexchangeformat.com/v2				
type	restriction of <b>xs:string</b>				
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	content	simple
isRef	0				
content	simple				
facets	<table> <tr><td>minLength</td><td>1</td></tr> </table>	minLength	1		
minLength	1				

annotation	documentation The name of the colorant, this is required. CGATS.17 COLORANT.
source	<pre> &lt;xs:element name="Name"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The name of the colorant, this is required. CGATS.17     COLORANT.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorantElementType/Colorant/Manufacturer**


diagram	 <p>Manufacturer of colorant, this is required.</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	minLength 1
annotation	documentation Manufacturer of colorant, this is required.
source	<pre> &lt;xs:element name="Manufacturer"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Manufacturer of colorant, this is required.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorantElementType/Colorant/PartNumber**

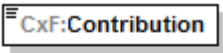
diagram	 <p>Colorant part number (typically specified by manufacturer), this is required.</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	minLength 1

annotation	documentation Colorant part number (typically specified by manufacturer), this is required.
source	<pre> &lt;xs:element name="PartNumber"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Colorant part number (typically specified by manufacturer), this is required.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorantElementType/Colorant/Density**

diagram	 <p>Density specified as liters per kilogram. Element is nullable if data is not available.</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple nillable true
facets	minExclusive 0.0
annotation	documentation Density specified as liters per kilogram. Element is nullable if data is not available.
source	<pre> &lt;xs:element name="Density" nillable="true"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Density specified as liters per kilogram. Element is nullable if data is not available.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minExclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorantElementType/Contribution**

diagram	 <p>Required field used to specify the percentage contribution (by weight) of the specified element to the total formula (including optional base). Values are specified as %/100, valid values range from 0.0 to 1.0.</p>
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namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Required field used to specify the percentage contribution (by weight) of the specified element to the total formula (including optional base). Values are specified as %/100, valid values range from 0.0 to 1.0.
source	<pre> &lt;xs:element name="Contribution"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required field used to specify the percentage contribution (by weight) of the specified element to the total formula (including optional base). Values are specified as %/100, valid values range from 0.0 to 1.0.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## complexType ColorQualityControlType

diagram

### ColorQualityControlType

Type used to specify color quality control. Each instance represents one physical sample and associated tolerancing. This physical sample may consist of a single patch, or it may consist of a target (array of patches) used to make profiles for instance.

#### attributes

##### Name

Optional, name of this color quality control instance.

##### Description

Optional, description of this color quality control instance.

##### UniqueID

Optional, unique ID of this color quality control instance.

##### Comments

Optional, comments for this color quality control instance.

#### CxF:CustomAttribute

0..∞

Optional, custom color quality control metadata, this should only be used when there is no standard element/attribute to store the required data.

#### CxF:ChangeHistory

1..∞

List of date/time changes made to this color quality control. The first entry is the creation date/time and is required.

#### CxF:StandardAndMeasurement

1..∞

Required set of standard(s) and measurement(s) for this color quality control instance. For each physical sample and global tolerance we have one or more sets of measurement data and reference colors.

#### CxF:PhysicalSample

Specification of the physical sample. This may take the form of a spot sample where you have a relatively uniform structure or an IT8 type target where by definition you have an organized set of colors/measurements.

#### CxF:Tolerance

0..∞

Optional field used to specify the tolerance of this color quality control instance as a whole. Individual tolerance(s) can also be specified for each standard.

namespace	http://colorexchangeformat.com/v2					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:StandardAndMeasurement</a> <a href="#">CxF:PhysicalSample</a> <a href="#">CxF:Tolerance</a>					
used by	element <a href="#">CxF/ColorQualityControl</a>					
attributes	Name <a href="#">Name</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Optional, name of this color quality control instance. documentation Optional, description of this color quality control instance. documentation Optional, unique ID of this color quality control instance. documentation Optional, comments for this color quality control instance.
	<a href="#">Description</a>	<b>xs:string</b>				
	<a href="#">UniqueID</a>	<b>xs:string</b>				
	<a href="#">Comments</a>	<b>xs:string</b>				
annotation	documentation Type used to specify color quality control. Each instance represents one physical sample and associated tolerancing. This physical sample may consist of a single patch, or it may consist of a target (array of patches) used to make profiles for instance.					
source	<pre> &lt;xs:complexType name="ColorQualityControlType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type used to specify color quality control. Each instance represents one physical sample and associated tolerancing. This physical sample may consist of a single patch, or it may consist of a target (array of patches) used to make profiles for instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional, custom color quality control metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ChangeHistory" type="CxF:DateTimeWithTimeZoneType" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;List of date/time changes made to this color quality control. The first entry is the creation date/time and is required.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="StandardAndMeasurement" type="CxF:StandardAndMeasurementType" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Required set of standard(s) and measurement(s) for this color quality control instance. For each physical sample and global tolerance we have one or more sets of measurement data and reference colors.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>					

	<pre> &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="PhysicalSample" type="CxF:PhysicalSampleType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Specification of the physical sample. This may take the form of a spot sample where you have a relatively uniform structure or an IT8 type target where by definition you have an orgainized set of colors/measurements.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="Tolerance" type="CxF:ToleranceType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional field used to specify the tolerance of this color quality control instance as a whole. Individual tolerance(s) can also be specified for each standard.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="Name" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, name of this color quality control instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="Description" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, description of this color quality controll instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="UniqueID" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, unique ID of this color quality control instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="Comments" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, comments for this color quality controll instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;/xs:complexType&gt; </pre>
--	--

attribute **ColorQualityControlType/@Name**

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation Optional, name of this color quality control instance.
source	<pre> &lt;xs:attribute name="Name" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, name of this color quality control instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### attribute **ColorQualityControlType/@Description**

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation Optional, description of this color quality control instance.
source	<pre> &lt;xs:attribute name="Description" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, description of this color quality control instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### attribute **ColorQualityControlType/@UniqueID**

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation Optional, unique ID of this color quality control instance.
source	<pre> &lt;xs:attribute name="UniqueID" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, unique ID of this color quality control instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### attribute **ColorQualityControlType/@Comments**

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation Optional, comments for this color quality control instance.
source	<pre> &lt;xs:attribute name="Comments" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, comments for this color quality control instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

## element ColorQualityControlType/CustomAttribute

diagram	<p><b>CxF:CustomAttribute</b> 0..∞ Optional, custom color quality control metadata, this should only be used when there is no standard element/attribute to store the required data.</p> <p><b>CxF:CustomAttributeType</b></p> <p><b>CxF:Name</b> Required field used to specify the name of this custom attribute.</p> <p><b>CxF:ValueChoice</b> Required field which allows one of several value choices to be specified. Note this is an XSD choice so only one option may be specified.</p>								
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:CustomAttributeType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
isRef	0								
minOcc	0								
maxOcc	unbounded								
content	complex								
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>								
annotation	<p>documentation</p> <p>Optional, custom color quality control metadata, this should only be used when there is no standard element/attribute to store the required data.</p>								
source	<pre>&lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, custom color quality control metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

## element ColorQualityControlType/ChangeHistory

diagram	<p><b>CxF:ChangeHistory</b> 1..∞ List of date/time changes made to this color quality control. The first entry is the creation date/time and is required.</p>								
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:DateTimeWithTimeZoneType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>1</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	1	maxOcc	unbounded	content	simple
isRef	0								
minOcc	1								
maxOcc	unbounded								
content	simple								
facets	<table> <tr><td>pattern</td><td>.+T.+(Z [+ -].+)</td></tr> </table>	pattern	.+T.+(Z [+ -].+)						
pattern	.+T.+(Z [+ -].+)								
annotation	<p>documentation</p> <p>List of date/time changes made to this color quality control. The first entry is the creation date/time and is required.</p>								
source	<pre>&lt;xs:element name="ChangeHistory" type="CxF:DateTimeWithTimeZoneType" maxOccurs="unbounded"&gt;</pre>								

	<code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;</code> List of date/time changes made to this color quality control. The first entry is the creation date/time and is required. <code>&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:element&gt;</code>
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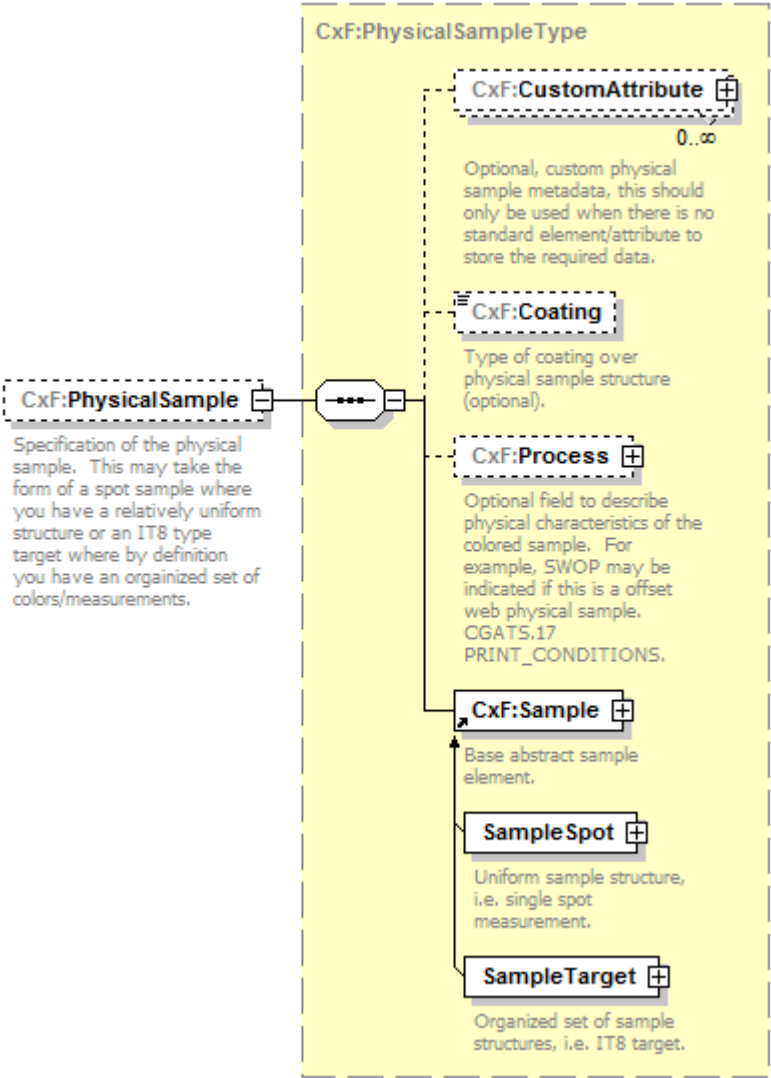
element **ColorQualityControlType/StandardAndMeasurement**

diagram	<p><b>CxF:StandardAndMeasurement</b> 1..∞</p> <p>Required set of standard(s) and measurement(s) for this color quality control instance. For each physical sample and global tolerance we have one or more sets of measurement data and reference colors.</p> <p><b>CxF:StandardAndMeasurementType</b> 0..∞</p> <p><b>CxF:CustomAttribute</b> 0..∞</p> <p>Optional, custom standard and measurement metadata, this should only be used when there is no standard element/attribute to store the required data.</p> <p><b>CxF:Measurement</b> 0..∞</p> <p>This element is a collection where each item in the collection represents a single measurement of the sample which will have one color but it may have more than one color space values (for instance, the device may have returned reflectance data for multiple angles or it might report spectral and CIE Lab.)</p> <p><b>CxF:Standard</b> 1..1</p> <p>Required field used to specify the standard color of a single item to be measured. This may be a patch in an IT8 target for instance. If you do not want to specify the standard in this document you may pass NULL for this element.</p>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:StandardAndMeasurementType</a>
properties	isRef 0 minOcc 1 maxOcc unbounded content complex
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Measurement</a> <a href="#">CxF:Standard</a>
annotation	documentation Required set of standard(s) and measurement(s) for this color quality control instance. For each physical sample and global tolerance we have one or more sets of measurement data and reference colors.
source	<code>&lt;xs:element name="StandardAndMeasurement" type="CxF:StandardAndMeasurementType" maxOccurs="unbounded"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;</code> Required set of standard(s) and measurement(s) for this color quality control

instance. For each physical sample and global tolerance we have one or more sets of measurement data and reference colors.</xs:documentation>  
</xs:annotation>  
</xs:element>

element ColorQualityControlType/PhysicalSample

diagram



namespace <http://colorexchangeformat.com/v2>

type [CxF:PhysicalSampleType](#)

properties  
isRef 0  
minOcc 0  
maxOcc 1  
content complex

children [CxF:CustomAttribute](#) [CxF:Coating](#) [CxF:Process](#) [CxF:Sample](#)

annotation  
documentation  
Specification of the physical sample. This may take the form of a spot sample where you have a relatively uniform structure or an IT8 type target where by definition you have an organized set of colors/measurements.

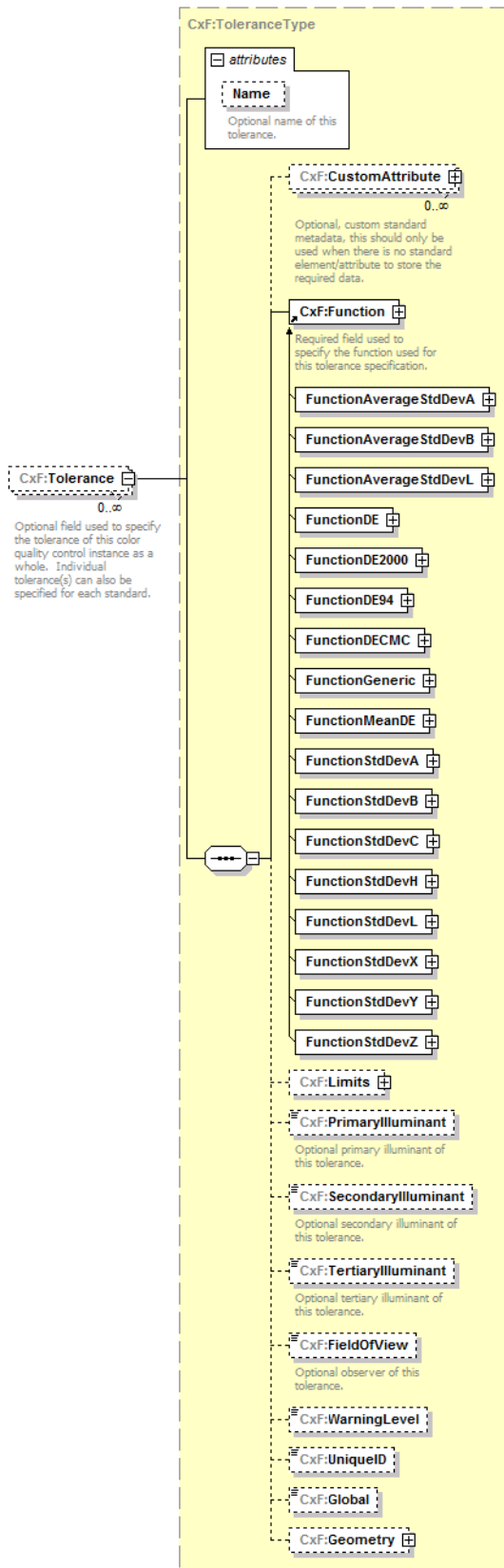
source `<xs:element name="PhysicalSample" type="CxF:PhysicalSampleType" minOccurs="0">`



	<pre>&lt;xs:annotation&gt;   &lt;xs:documentation&gt;Specification of the physical sample. This may take the form of a spot   sample where you have a relatively uniform structure or an IT8 type target where by definition you   have an orgainized set of colors/measurements.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>
--	---

# element ColorQualityControlType/Tolerance

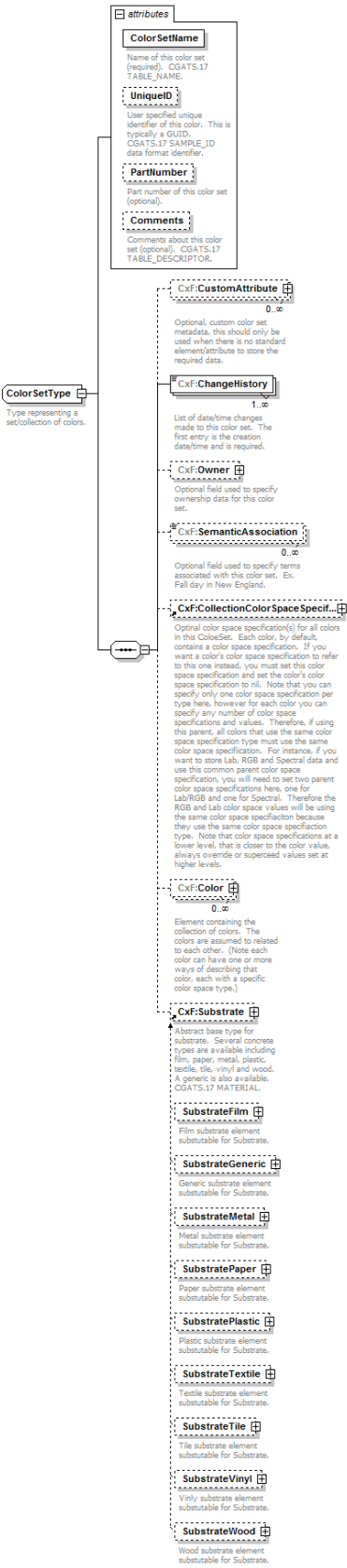
diagram



namespace	http://colorexchangeformat.com/v2							
type	<a href="#">CxF:ToleranceType</a>							
properties	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Function</a> <a href="#">CxF:Limits</a> <a href="#">CxF:PrimaryIlluminant</a> <a href="#">CxF:SecondaryIlluminant</a> <a href="#">CxF:TertiaryIlluminant</a> <a href="#">CxF:FieldOfView</a> <a href="#">CxF:WarningLevel</a> <a href="#">CxF:UniqueID</a> <a href="#">CxF:Global</a> <a href="#">CxF:Geometry</a>							
attributes	Name <a href="#">Name</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Optional name of this tolerance.		
annotation	documentation Optional field used to specify the tolerance of this color quality control instance as a whole. Individual tolerance(s) can also be specified for each standard.							
source	<pre>&lt;xs:element name="Tolerance" type="CxF:ToleranceType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional field used to specify the tolerance of this color quality control instance as a whole. Individual tolerance(s) can also be specified for each standard.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>							

complexType **ColorSetType**

diagram



namespace	http://colorexchangeformat.com/v2					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Owner</a> <a href="#">CxF:SemanticAssociation</a> <a href="#">CxF:CollectionColorSpaceSpecification</a> <a href="#">CxF:Color</a> <a href="#">CxF:Substrate</a>					
used by	element <a href="#">PaletteType/ColorSet</a>					
attributes	Name <a href="#">ColorSetName</a>	Type <b>xs:string</b>	Use required	Default	Fixed	annotation documentation Name of this color set (required). CGATS.17 TABLE_NAME. documentation User specified unique identifier of this color. This is typically a GUID. CGATS.17 SAMPLE_ID data format identifier. documentation Part number of this color set (optional). documentation Comments about this color set (optional). CGATS.17 TABLE_DESCRIPTOR.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID. CGATS.17 SAMPLE_ID data format identifier.
	<a href="#">PartNumber</a>	<b>xs:string</b>	optional			documentation Part number of this color set (optional).
	<a href="#">Comments</a>	<b>xs:string</b>				documentation Comments about this color set (optional). CGATS.17 TABLE_DESCRIPTOR.
annotation	documentation Type representing a set/collection of colors.					
source	<pre> &lt;xs:complexType name="ColorSetType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type representing a set/collection of colors.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional, custom color set metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ChangeHistory" type="CxF:DateTimeWithTimeZoneType" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;List of date/time changes made to this color set. The first entry is the creation date/time and is required.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Owner" type="CxF:OwnerType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional field used to specify ownership data for this color set.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="SemanticAssociation" type="xs:string" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional field used to specify terms associated with this color set. Ex. Fall day in New England.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>					

```

<xs:element ref="CxF:CollectionColorSpaceSpecification" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Optinal color space specification(s) for all colors in this ColoeSet. Each
    color, by default, contains a color space specification. If you want a color's color space
    specification to refer to this one instead, you must set this color space specification and set the
    color's color space specification to nil. Note that you can specify only one color space specification
    per type here, however for each color you can specify any number of color space specifications
    and values. Therefore, if using this parent, all colors that use the same color space specification
    type must use the same color space specifiication. For instance, if you want to store Lab, RGB and
    Spectral data and use this common parent color space specification, you will need to set two parent
    color space specifications here, one for Lab/RGB and one for Spectral. Therefore the RGB and
    Lab color space values will be using the same color space specifiaciton because they use the
    same color space specifiaciton type. Note that color space specifications at a lower level, that is
    closer to the color value, always override or superceed values set at higher
    levels.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Color" type="CxF:ColorType" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Element containing the collection of colors. The colors are assumed to
    related to each other. (Note each color can have one or more ways of describing that color, each
    with a specific color space type.)</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element ref="CxF:Substrate" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Abstract base type for substrate. Several concrete types are available
    including film, paper, metal, plastic, textile, tile, vinyl and wood. A generic is also available.
    CGATS.17 MATERIAL.</xs:documentation>
  </xs:annotation>
</xs:element>
</xs:sequence>
<xs:attribute name="ColorSetName" type="xs:string" use="required">
  <xs:annotation>
    <xs:documentation>Name of this color set (required). CGATS.17
    TABLE_NAME.</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="UniqueID" type="xs:string">
  <xs:annotation>
    <xs:documentation>User specified unique identifier of this color. This is typically a GUID.
    CGATS.17 SAMPLE_ID data format identifier.</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="PartNumber" type="xs:string" use="optional">
  <xs:annotation>
    <xs:documentation>Part number of this color set (optional).</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="Comments" type="xs:string">
  <xs:annotation>
    <xs:documentation>Comments about this color set (optional). CGATS.17
    TABLE_DESCRIPTOR.</xs:documentation>
  </xs:annotation>
</xs:attribute>

```

	</xs:complexType>
--	-------------------

#### attribute **ColorSetType**/@ColorSetName

type	<b>xs:string</b>
properties	isRef 0 use required
annotation	documentation Name of this color set (required). CGATS.17 TABLE_NAME.
source	<pre>&lt;xs:attribute name="ColorSetName" type="xs:string" use="required"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of this color set (required). CGATS.17     TABLE_NAME.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

#### attribute **ColorSetType**/@UniqueID

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation User specified unique identifier of this color. This is typically a GUID. CGATS.17 SAMPLE_ID data format identifier.
source	<pre>&lt;xs:attribute name="UniqueID" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;User specified unique identifier of this color. This is typically a GUID.     CGATS.17 SAMPLE_ID data format identifier.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

#### attribute **ColorSetType**/@PartNumber

type	<b>xs:string</b>
properties	isRef 0 use optional
annotation	documentation Part number of this color set (optional).
source	<pre>&lt;xs:attribute name="PartNumber" type="xs:string" use="optional"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Part number of this color set (optional).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

#### attribute **ColorSetType**/@Comments

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation Comments about this color set (optional). CGATS.17 TABLE_DESCRIPTOR.
source	<pre>&lt;xs:attribute name="Comments" type="xs:string"&gt;   &lt;xs:annotation&gt;</pre>



	<code>&lt;xs:documentation&gt;</code> Comments about this color set (optional). CGATS.17 <code>TABLE_DESCRIPTOR.&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:attribute&gt;</code>
--	--

### element ColorSetType/CustomAttribute

diagram	<p>Optional, custom color set metadata, this should only be used when there is no standard element/attribute to store the required data.</p>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:CustomAttributeType</a>
properties	isRef 0 minOcc 0 maxOcc unbounded content complex
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>
annotation	documentation Optional, custom color set metadata, this should only be used when there is no standard element/attribute to store the required data.
source	<code>&lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;</code> Optional, custom color set metadata, this should only be used when there is no standard element/attribute to store the required data. <code>&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:element&gt;</code>

### element ColorSetType/ChangeHistory

diagram	<p>List of date/time changes made to this color set. The first entry is the creation date/time and is required.</p>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:DateTimeWithTimeZoneType</a>
properties	isRef 0 minOcc 1 maxOcc unbounded


	content simple
facets	pattern .+T.+(Z [-\+].+)
annotation	documentation List of date/time changes made to this color set. The first entry is the creation date/time and is required.
source	<pre>&lt;xs:element name="ChangeHistory" type="CxF:DateTimeWithTimeZoneType" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;List of date/time changes made to this color set. The first entry is the creation date/time and is required.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element ColorSetType/Owner

diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:OwnerType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Person</a> <a href="#">CxF:Copyright</a> <a href="#">CxF:Company</a>
annotation	documentation Optional field used to specify ownership data for this color set.
source	<pre>&lt;xs:element name="Owner" type="CxF:OwnerType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional field used to specify ownership data for this color set.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;</pre>

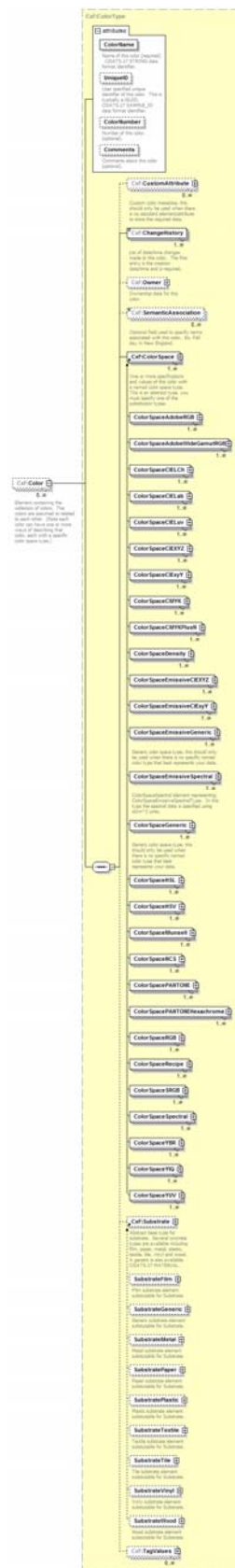
	<code>&lt;/xs:element&gt;</code>
--	----------------------------------

element **ColorSetType/SemanticAssociation**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc unbounded content simple
annotation	documentation Optional field used to specify terms associated with this color set. Ex. Fall day in New England.
source	<pre> &lt;xs:element name="SemanticAssociation" type="xs:string" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional field used to specify terms associated with this color set. Ex. Fall day in New England.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

element **ColorSetType/Color**

diagram



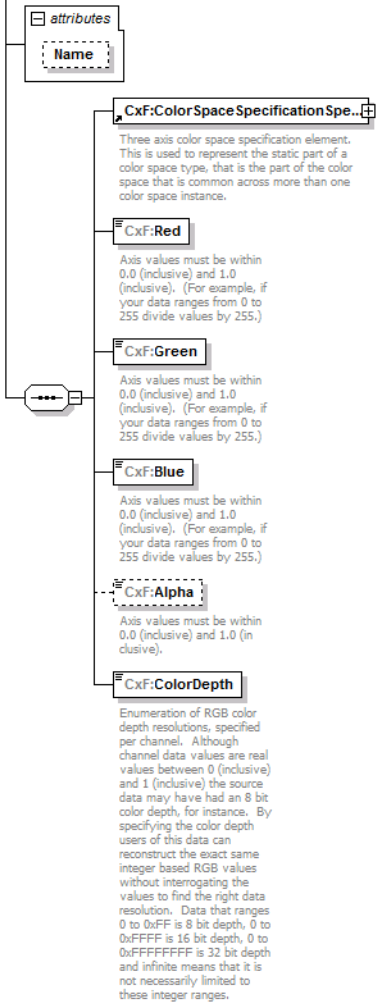
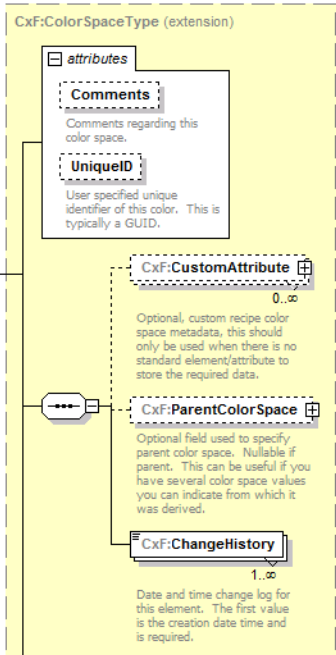
namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorType</a>					
properties	isRef 0 minOcc 0 maxOcc unbounded content complex					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Owner</a> <a href="#">CxF:SemanticAssociation</a> <a href="#">CxF:ColorSpace</a> <a href="#">CxF:Substrate</a> <a href="#">CxF:TagValues</a>					
attributes	Name <a href="#">ColorName</a>	Type <b>xs:string</b>	Use required	Default	Fixed	annotation documentation Name of this color (required). CGATS.17 STRING data format identifier. documentation User specified unique identifier of this color. This is typically a GUID. CGATS.17 SAMPLE_ID data format identifier. documentation Number of this color, (optional). documentation Comments about this color (optional).
	<a href="#">UniqueID</a>	<b>xs:string</b>				
	<a href="#">ColorNumber</a>	<b>xs:string</b>				
	<a href="#">Comments</a>	<b>xs:string</b>				
annotation	documentation Element containing the collection of colors. The colors are assumed to related to each other. (Note each color can have one or more ways of describing that color, each with a specific color space type.)					
source	<xs:element name="Color" type="CxF:ColorType" minOccurs="0" maxOccurs="unbounded"> <xs:annotation> <xs:documentation>Element containing the collection of colors. The colors are assumed to related to each other. (Note each color can have one or more ways of describing that color, each with a specific color space type.)</xs:documentation> </xs:annotation> </xs:element>					

complexType **ColorSpaceAdobeRGBType**

diagram

**ColorSpaceAdobeRGBType**

Adobe RGB colorspace type. This is the type of the ColorSpaceAdobeRGB element which belongs to the ColorSpace substitution group. This type may be used for any color depth. The RGB values and optionally the Alpha channel value are specified as floating point values were 1.0 represents full value range.








	<pre> &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="Blue"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:maxInclusive value="1.0"/&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="Alpha" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (in clusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="ColorDepth" type="CxF:EColorDepthType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of RGB color depth resolutions, specified per channel. Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source data may have had an 8 bit color depth, for instance. By specifying the color depth users of this data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer ranges.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
--	---


attribute **ColorSpaceAdobeRGBType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<b>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</b>

## element **ColorSpaceAdobeRGBType/Red**


diagram	 <p>Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0 maxInclusive 1.0
annotation	documentation Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)
source	<pre> &lt;xs:element name="Red"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## element **ColorSpaceAdobeRGBType/Green**


diagram	 <p>Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)
source	<pre> &lt;xs:element name="Green"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt; </pre>

	<pre> &lt;xs:minInclusive value="0.0"/&gt; &lt;xs:maxInclusive value="1.0"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
--	---

#### element **ColorSpaceAdobeRGBType/Blue**


diagram	 <p>Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)
source	<pre> &lt;xs:element name="Blue"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:maxInclusive value="1.0"/&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceAdobeRGBType/Alpha**

diagram	 <p>Axis values must be within 0.0 (inclusive) and 1.0 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Axis values must be within 0.0 (inclusive) and 1.0 (inclusive).

source	<pre> &lt;xs:element name="Alpha" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (in clusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
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## element **ColorSpaceAdobeRGBType/ColorDepth**

diagram	 <p>Enumeration of RGB color depth resolutions, specified per channel. Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source data may have had an 8 bit color depth, for instance. By specifying the color depth users of this data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer ranges.</p>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:ECOLORDepthType</a>
properties	isRef 0 content simple
facets	enumeration ColorDepth_Infinite enumeration ColorDepth_8 enumeration ColorDepth_16 enumeration ColorDepth_32
annotation	documentation Enumeration of RGB color depth resolutions, specified per channel. Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source data may have had an 8 bit color depth, for instance. By specifying the color depth users of this data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer ranges.
source	<pre> &lt;xs:element name="ColorDepth" type="CxF:ECOLORDepthType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of RGB color depth resolutions, specified per channel. Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source data may have had an 8 bit color depth, for instance. By specifying the color depth users of this data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer </pre>

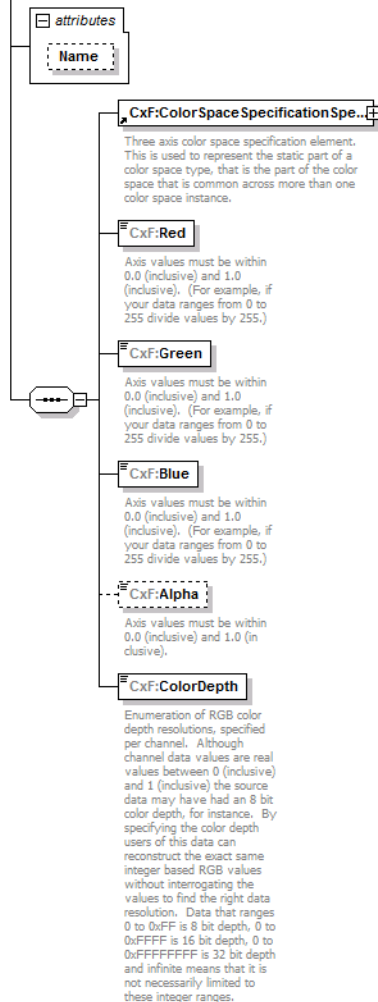
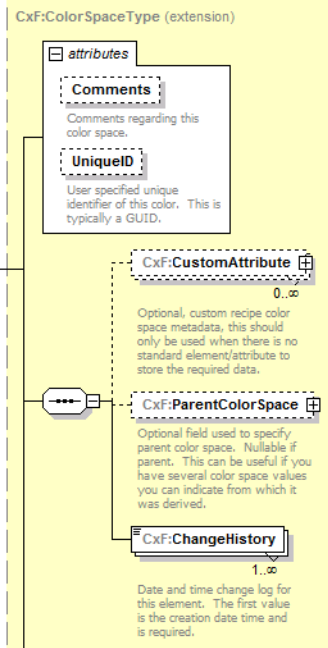
	<code>ranges.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt;</code>
--	--

complexType **ColorSpaceAdobeWideGamutRGBType**

diagram

**ColorSpaceAdobeWideGamutRG...**

Adobe Wide Gamut RGB colorspace type. This is the type of the ColorSpaceAdobeWideGamutRGB element which belongs to the ColorSpace substitution group. This type may be used for any color depth. The RGB values and optionally the Alpha channel value are specified as floating point values where 1.0 represents full value range.








	<pre>&lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="Blue"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:maxInclusive value="1.0"/&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="Alpha" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (in clusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="ColorDepth" type="CxF:EColorDepthType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of RGB color depth resolutions, specified per channel. Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source data may have had an 8 bit color depth, for instance. By specifying the color depth users of this data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer ranges.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>
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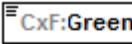
attribute **ColorSpaceAdobeWideGamutRGBType/@Name**

type	xs:string
properties	isRef 0 use optional
source	<xs:attribute name="Name" type="xs:string" use="optional"/>

## element **ColorSpaceAdobeWideGamutRGBType/Red**


diagram	 <p>Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0 maxInclusive 1.0
annotation	documentation Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)
source	<pre> &lt;xs:element name="Red"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## element **ColorSpaceAdobeWideGamutRGBType/Green**


diagram	 <p>Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)
source	<pre> &lt;xs:element name="Green"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt; </pre>

	<pre> &lt;xs:minInclusive value="0.0"/&gt; &lt;xs:maxInclusive value="1.0"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
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#### element **ColorSpaceAdobeWideGamutRGBType/Blue**


diagram	 <p>Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)
source	<pre> &lt;xs:element name="Blue"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:maxInclusive value="1.0"/&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceAdobeWideGamutRGBType/Alpha**

diagram	 <p>Axis values must be within 0.0 (inclusive) and 1.0 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Axis values must be within 0.0 (inclusive) and 1.0 (inclusive).

source	<pre> &lt;xs:element name="Alpha" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
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## element **ColorSpaceAdobeWideGamutRGBType/ColorDepth**

diagram	 <p>Enumeration of RGB color depth resolutions, specified per channel. Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source data may have had an 8 bit color depth, for instance. By specifying the color depth users of this data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer ranges.</p>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EColorDepthType</a>
properties	isRef 0 content simple
facets	enumeration ColorDepth_Infinite enumeration ColorDepth_8 enumeration ColorDepth_16 enumeration ColorDepth_32
annotation	documentation Enumeration of RGB color depth resolutions, specified per channel. Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source data may have had an 8 bit color depth, for instance. By specifying the color depth users of this data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer ranges.
source	<pre> &lt;xs:element name="ColorDepth" type="CxF:EColorDepthType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of RGB color depth resolutions, specified per channel.     Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source     data may have had an 8 bit color depth, for instance. By specifying the color depth users of this     data can reconstruct the exact same integer based RGB values without interrogating the values to     find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth,     0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer </pre>

	<code>ranges.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt;</code>
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## complexType ColorSpaceCIELabType

diagram

### ColorSpaceCIELabType

CIE  $L^*a^*b^*$  (CIELAB) is the most complete color model used conventionally to describe all the colors visible to the human eye. It was developed for this specific purpose by the International Commission on Illumination (Commission Internationale d'Eclairage, hence its CIE initialism). The asterisk (\*) after L, a and b are part of the full name, since they represent  $L^*$ ,  $a^*$  and  $b^*$ , to distinguish them from L, a and b. Because the Red/Green and yellow/blue opponent channels are computed as differences of Munsell-value-like transformations of (putative) cone responses, CIELAB is an Adams Chromatic Value Space.

The three basic coordinates represent the lightness of the color ( $L^*$ ,  $L^* = 0$  yields black and  $L^* = 100$  indicates white), its position between red/magenta and green ( $a^*$ , negative values indicate green while positive values indicate magenta) and its position between yellow and blue ( $b^*$ , negative values indicate blue and positive values indicate yellow).

The  $L^*a^*b^*$  color model has been created to serve as a device independent model to be used as a reference. Therefore it is crucial to realize that the visual representations of the full gamut of colors in this model are never accurate. They are there just to help in understanding the concept, but they are inherently inaccurate.

Since the  $L^*a^*b^*$  model is a three dimensional model, it can only be represented properly in a three dimensional space.

The " $L^*a^*b^*$ " model can also be expressed as " $L^*C^*h(a^*, b^*)$ ", which transforms  $a^*$  and  $b^*$  to a radial representation.

### CxF:ColorSpaceType (extension)

#### attributes

##### Comments

Comments regarding this color space.

##### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

#### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

#### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### attributes

##### Name

#### CxF:ColorSpaceSpecificationSpe...

Three axis color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

#### CxF:L

Axis values must be scaled within the range 0-100 (nominal), maximum 0.0 (inclusive) and 150.0 (inclusive).

#### CxF:A

Axis values must be scaled to and within -150.0 (inclusive) and 150.0 (inclusive).

#### CxF:B

Axis values must be scaled to and within -150.0 (inclusive) and 150.0 (inclusive).

namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base CxF:ColorSpaceType					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:L</a> <a href="#">CxF:A</a> <a href="#">CxF:B</a>					
used by	element <a href="#">ColorSpaceCIELab</a>					
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>  <a href="#">Name</a>	Type <b>xs:string</b>  <b>xs:string</b>  <b>xs:string</b>	Use   optional	Default   	Fixed   	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation CIE L*a*b* (CIELAB) is the most complete color model used conventionally to describe all the colors visible to the human eye. It was developed for this specific purpose by the International Commission on Illumination (Commission Internationale d'Eclairage, hence its CIE initialism). The asterisk (*) after L, a and b are part of the full name, since they represent L*, a* and b*, to distinguish them from L, a and b. Because the Red/Green and yellow/blue opponent channels are computed as differences of Munsell-value-like transformations of (putative) cone responses, CIELAB is an Adams Chromatic Value Space.  The three basic coordinates represent the lightness of the color (L*, L* = 0 yields black and L* = 100 indicates white), its position between red/magenta and green (a*, negative values indicate green while positive values indicate magenta) and its position between yellow and blue (b*, negative values indicate blue and positive values indicate yellow).  The L*a*b* color model has been created to serve as a device independent model to be used as a reference. Therefore it is crucial to realize that the visual representations of the full gamut of colors in this model are never accurate. They are there just to help in understanding the concept, but they are inherently inaccurate.  Since the L*a*b* model is a three dimensional model, it can only be represented properly in a three dimensional space.  The "L*a*b*" model can also be expressed as "L*C*h(a*, b*)", which transforms a* and b* to a radial representation.					
source	<xs:complexType name="ColorSpaceCIELabType"> <xs:annotation> <xs:documentation>CIE L*a*b* (CIELAB) is the most complete color model used conventionally to describe all the colors visible to the human eye. It was developed for this specific purpose by the International Commission on Illumination (Commission Internationale d'Eclairage, hence its CIE initialism). The asterisk (*) after L, a and b are part of the full name, since they represent L*, a* and b*, to distinguish them from L, a and b. Because the Red/Green and yellow/blue opponent channels are computed as differences of Munsell-value-like transformations of (putative) cone responses, CIELAB is an Adams Chromatic Value Space.  The three basic coordinates represent the lightness of the color (L*, L* = 0 yields black and L* = 100 indicates white), its position between red/magenta and green (a*, negative values indicate green while positive values indicate magenta) and its position between yellow and blue (b*, negative values indicate blue and positive values indicate yellow).  The L*a*b* color model has been created to serve as a device independent model to be used as a reference. Therefore it is crucial to realize that the visual representations of the full gamut of colors in this model are never accurate. They are there just to help in understanding the concept, but they are inherently inaccurate.					



Since the  $L^*a^*b^*$  model is a three dimensional model, it can only be represented properly in a three dimensional space.


The " $L^*a^*b^*$ " model can also be expressed as " $L^*C^*h(a^*, b^*)$ ", which transforms  $a^*$  and  $b^*$  to a radial representation.

```
</xs:documentation>
</xs:annotation>
<xs:complexContent>
  <xs:extension base="CxF:ColorSpaceType">
    <xs:sequence>
      <xs:element ref="CxF:ColorSpaceSpecificationSpectrumTristimulus"/>
      <xs:element name="L">
        <xs:annotation>
          <xs:documentation>Axis values must be scaled within the range 0-100 (nominal), maximum
0.0 (inclusive) and 150.0 (inclusive).</xs:documentation>
        </xs:annotation>
        <xs:simpleType>
          <xs:restriction base="xs:double">
            <xs:minInclusive value="0.0"/>
            <xs:maxInclusive value="150.0"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="A">
        <xs:annotation>
          <xs:documentation>Axis values must be scaled to and within -150.0 (inclusive) and 150.0
(inclusive).</xs:documentation>
        </xs:annotation>
        <xs:simpleType>
          <xs:restriction base="xs:double">
            <xs:minInclusive value="-150.0"/>
            <xs:maxInclusive value="150.0"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="B">
        <xs:annotation>
          <xs:documentation>Axis values must be scaled to and within -150.0 (inclusive) and 150.0
(inclusive).</xs:documentation>
        </xs:annotation>
        <xs:simpleType>
          <xs:restriction base="xs:double">
            <xs:minInclusive value="-150.0"/>
            <xs:maxInclusive value="150.0"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
    </xs:sequence>
    <xs:attribute name="Name" type="xs:string" use="optional"/>
  </xs:extension>
</xs:complexContent>
</xs:complexType>
```

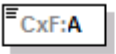
# attribute **ColorSpaceCIELabType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<code>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</code>

## element **ColorSpaceCIELabType/L**

diagram	 <p>Axis values must be scaled within the range 0-100 (nominal), maximum 0.0 (inclusive) and 150.0 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 150.0
annotation	documentation Axis values must be scaled within the range 0-100 (nominal), maximum 0.0 (inclusive) and 150.0 (inclusive).
source	<pre> &lt;xs:element name="L"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be scaled within the range 0-100 (nominal), maximum 0.0 (inclusive) and 150.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="150.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## element **ColorSpaceCIELabType/A**

diagram	 <p>Axis values must be scaled to and within -150.0 (inclusive) and 150.0 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive -150.0 maxInclusive 150.0
annotation	documentation Axis values must be scaled to and within -150.0 (inclusive) and 150.0 (inclusive).
source	<pre> &lt;xs:element name="A"&gt;   &lt;xs:annotation&gt; </pre>

	<pre> &lt;xs:documentation&gt;Axis values must be scaled to and within -150.0 (inclusive) and 150.0 (inclusive).&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:double"&gt;     &lt;xs:minInclusive value="-150.0"/&gt;     &lt;xs:maxInclusive value="150.0"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
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element **ColorSpaceCIELabType/B**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive -150.0 maxInclusive 150.0
annotation	documentation Axis values must be scaled to and within -150.0 (inclusive) and 150.0 (inclusive).
source	<pre> &lt;xs:element name="B"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be scaled to and within -150.0 (inclusive) and 150.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="-150.0"/&gt;       &lt;xs:maxInclusive value="150.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## complexType ColorSpaceCIELChType

diagram

### ColorSpaceCIELChType

CIE Lab, or more correctly CIE L\*a\*b\* is a (mostly) device independent color-space based on the measurements of hundreds of humans the CIE made in 1931 when they created the CIE XYZ color space. In 1976 the CIE created the Lab space to reflect the entire gamut or range of colors the human eye can typically see. The Lab space, unlike other CIE color spaces, is supposed to be perceptually uniform. That is, any movement within the space, in any direction, should result in an equally perceptible color shift. There are many who believe that the Lab space is not perceptually uniform but that is outside the scope of this glossary.

LCH is another way of measuring the same color space. (see LCH for more information) The Lab color space is not precisely device independant as it is defined relative to a reference white point. This white point is often based on the whitest point that can be generated by a device or a standard white point (like D50).

### CxF:ColorSpaceType (extension)

#### attributes

##### Comments

Comments regarding this color space.

##### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

#### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

#### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### attributes

##### Name

#### CxF:Color Space Specification Spe...

Three axis color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

#### CxF:L

Axis values must be scaled to and within 0.0 (inclusive) and 100.0 (inclusive).

#### CxF:C

Axis values must be scaled to and within 0.0 (inclusive) and 150.0 (inclusive).

#### CxF:H

Hue angle, axis values must be within 0.0 (inclusive) and 360.0 (exclusive).



	<pre> &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:double"&gt;     &lt;xs:minInclusive value="0.0"/&gt;     &lt;xs:maxInclusive value="100.0"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="C"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be scaled to and within 0.0 (inclusive) and 150.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="150.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="H"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Hue angle, axis values must be within 0.0 (inclusive) and 360.0 (exclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxExclusive value="360.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
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attribute **ColorSpaceCIELChType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<b>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</b>

element **ColorSpaceCIELChType/L**

diagram	 <p>Axis values must be scaled to and within 0.0 (inclusive) and 100.0 (inclusive).</p>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>

type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 100.0
annotation	documentation Axis values must be scaled to and within 0.0 (inclusive) and 100.0 (inclusive).
source	<pre> &lt;xs:element name="L"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be scaled to and within 0.0 (inclusive) and 100.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="100.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceCIELChType/C**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 150.0
annotation	documentation Axis values must be scaled to and within 0.0 (inclusive) and 150.0 (inclusive).
source	<pre> &lt;xs:element name="C"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be scaled to and within 0.0 (inclusive) and 150.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="150.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

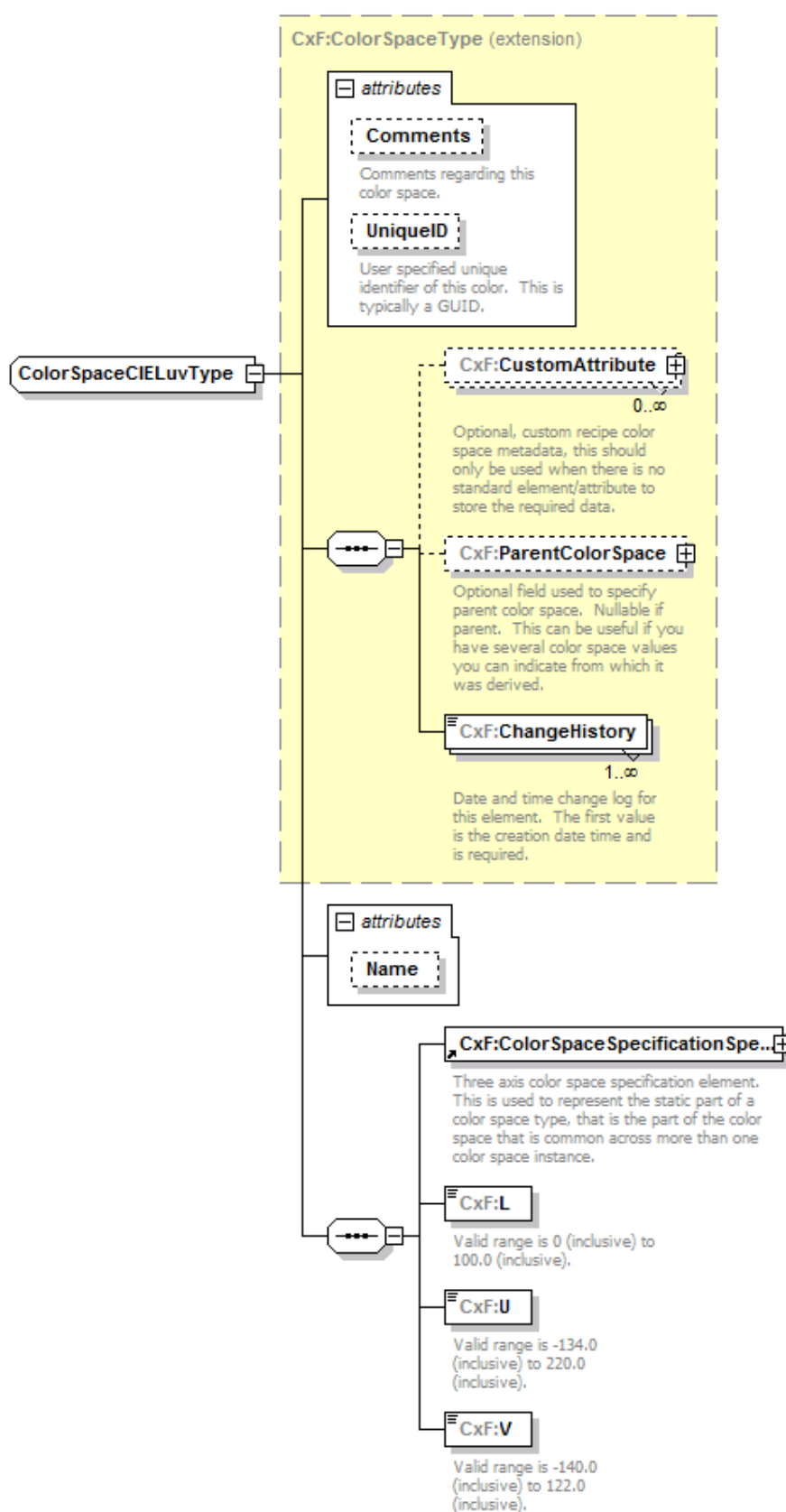
# element ColorSpaceCIELChType/H

diagram	<div> <div>CxF:H</div> <div> Hue angle, axis values must be within 0.0 (inclusive) and 360.0 (exclusive). </div> </div>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxExclusive 360.0
annotation	documentation Hue angle, axis values must be within 0.0 (inclusive) and 360.0 (exclusive).
source	<pre> &lt;xs:element name="H"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Hue angle, axis values must be within 0.0 (inclusive) and 360.0 (exclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxExclusive value="360.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>



complexType **ColorSpaceCIEluvType**

diagram



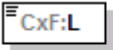
namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base	CxF:ColorSpaceType				
	abstract	false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:L</a> <a href="#">CxF:U</a> <a href="#">CxF:V</a>					
used by	element	<a href="#">ColorSpaceCIELuv</a>				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	xs:string				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	xs:string				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	xs:string	optional			
source	<pre>&lt;xs:complexType name="ColorSpaceCIELuvType" abstract="false"&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationSpectrumTristimulus"/&gt;         &lt;xs:element name="L"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 100.0 (inclusive).&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;               &lt;xs:maxInclusive value="100.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="U"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Valid range is -134.0 (inclusive) to 220.0 (inclusive).&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="-134.0"/&gt;               &lt;xs:maxInclusive value="220.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="V"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Valid range is -140.0 (inclusive) to 122.0 (inclusive).&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;</pre>					

	<pre> &lt;xs:minInclusive value="-140.0"/&gt; &lt;xs:maxInclusive value="122.0"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
--	--

#### attribute **ColorSpaceCIEluvType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<pre>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</pre>

#### element **ColorSpaceCIEluvType/L**

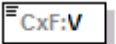
diagram	 <p>Valid range is 0 (inclusive) to 100.0 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 100.0
annotation	documentation Valid range is 0 (inclusive) to 100.0 (inclusive).
source	<pre> &lt;xs:element name="L"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 100.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="100.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceCIEluvType/U**

diagram	 <p>Valid range is -134.0 (inclusive) to 220.0 (inclusive).</p>
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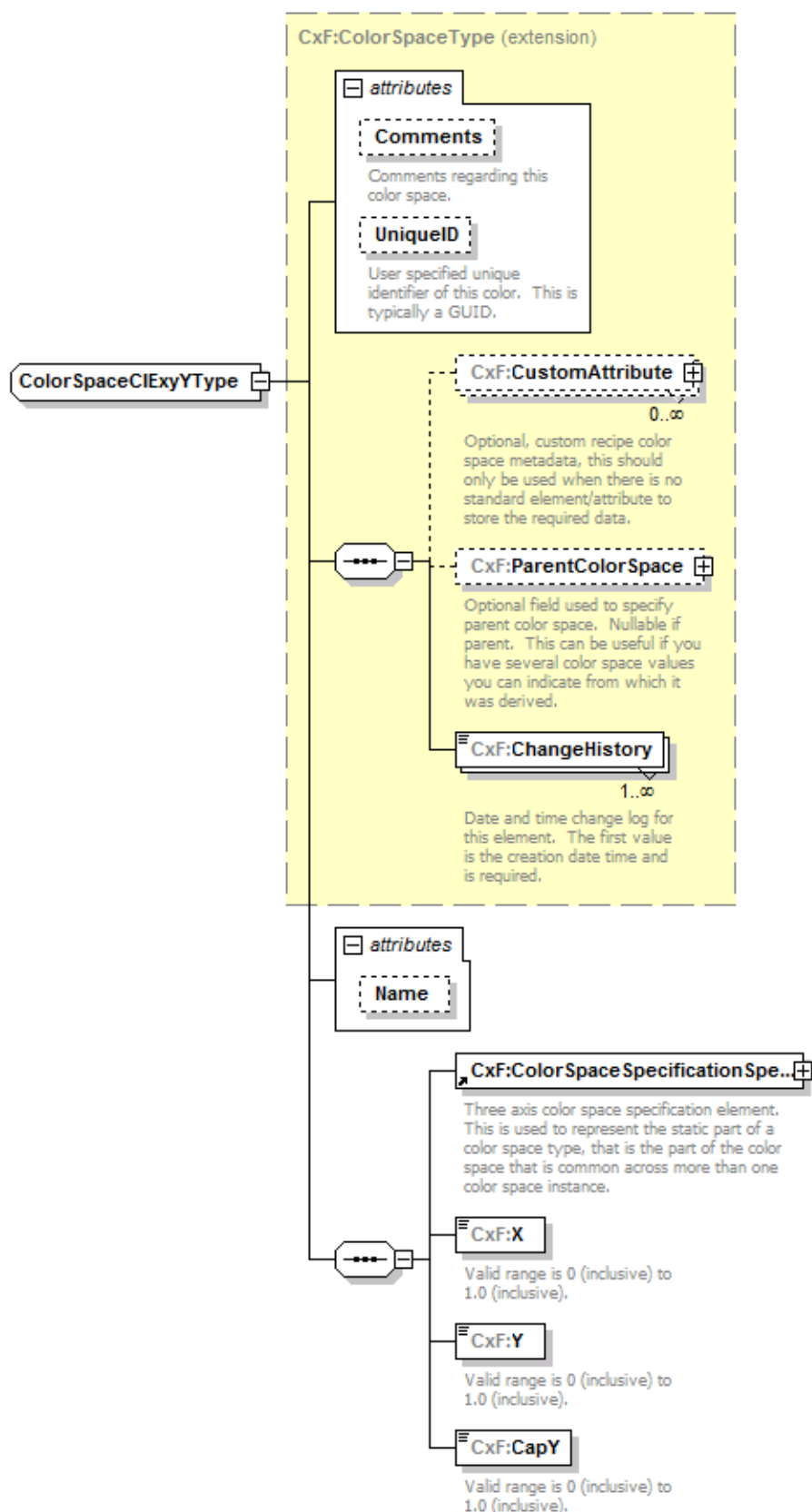
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive -134.0 maxInclusive 220.0
annotation	documentation Valid range is -134.0 (inclusive) to 220.0 (inclusive).
source	<pre> &lt;xs:element name="U"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is -134.0 (inclusive) to 220.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="-134.0"/&gt;       &lt;xs:maxInclusive value="220.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceCIEluvType/V**

diagram	 <p>Valid range is -140.0 (inclusive) to 122.0 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive -140.0 maxInclusive 122.0
annotation	documentation Valid range is -140.0 (inclusive) to 122.0 (inclusive).
source	<pre> &lt;xs:element name="V"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is -140.0 (inclusive) to 122.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="-140.0"/&gt;       &lt;xs:maxInclusive value="122.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## complexType ColorSpaceCIExyYType

diagram




namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base abstract	CxF:ColorSpaceType false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:X</a> <a href="#">CxF:Y</a> <a href="#">CxF:CapY</a>					
used by	element	<a href="#">ColorSpaceCIExyY</a>				
attributes	Name <a href="#">Comments</a>   <a href="#">UniqueID</a>    <a href="#">Name</a>	Type <b>xs:string</b>   <b>xs:string</b>    <b>xs:string</b>	Use       optional	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
source	<pre>&lt;xs:complexType name="ColorSpaceCIExyYType" abstract="false"&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationSpectrumTristimulus"/&gt;         &lt;xs:element name="X"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;               &lt;xs:maxInclusive value="1.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="Y"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;               &lt;xs:maxInclusive value="1.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="CapY"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;               &lt;xs:maxInclusive value="1.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

	<pre> &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
--	---


#### attribute **ColorSpaceCIExyYType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<pre>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</pre>

#### element **ColorSpaceCIExyYType/X**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Valid range is 0 (inclusive) to 1.0 (inclusive).
source	<pre> &lt;xs:element name="X"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

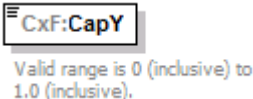
#### element **ColorSpaceCIExyYType/Y**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>



properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Valid range is 0 (inclusive) to 1.0 (inclusive).
source	<pre> &lt;xs:element name="Y"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element ColorSpaceCIExyYType/CapY

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Valid range is 0 (inclusive) to 1.0 (inclusive).
source	<pre> &lt;xs:element name="CapY"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## complexType ColorSpaceCIEXYZType

diagram

### ColorSpaceCIEXYZType

In the study of the perception of color, one of the first mathematically defined color spaces was the CIE 1931 XYZ color space (also known as CIE 1931 color space), created by the International Commission on Illumination (CIE) in 1931.

The human eye has receptors (called cone cells) for short (S), middle (M), and long (L) wavelengths. Thus in principle, three parameters describe a color sensation. Any specific method for associating three numbers (or tristimulus values) with each color is called a color space; the CIE 1931 color space is one of many such spaces. The CIE XYZ color space is special, however, because it is based on direct measurements of human visual perception, and serves as the basis from which many other color spaces are defined.

The CIE XYZ color space was derived from a series of experiments done in the late 1920s by W. David Wright (Wright 1928) and John Guild (Guild 1931). Their experimental results were combined into the specification of the CIE RGB color space, from which the CIE XYZ color space was derived. This article is concerned with both of these color spaces.

In the CIE XYZ color space, the tristimulus values are not the S, M, and L stimuli of the human eye, but rather a set of tristimulus values called X, Y, and Z, which are roughly red, green and blue, respectively, and are calculated using the CIE 1931 XYZ color matching functions. Two light sources, made up of different mixtures of various wavelengths, may appear to be the same color. This is called metamerism. When two light sources have the same apparent color to a standard observer (the CIE 1931 standard colorimetric observer), they will have the same tristimulus values, no matter what spectral distributions of light were used to produce them.

### CxF:ColorSpaceType (extension)

#### attributes

#### Comments

Comments regarding this color space.

#### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

#### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

#### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### attributes

#### Name

#### CxF:ColorSpaceSpecificationSpe...

Three axis color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

#### CxF:X

Valid range is 0 (inclusive) to 1.0 (inclusive).

#### CxF:Y

Valid range is 0 (inclusive) to 1.0 (inclusive).

#### CxF:Z

Valid range is 0 (inclusive) to 1.0 (inclusive).

namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base abstract	CxF:ColorSpaceType false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:X</a> <a href="#">CxF:Y</a> <a href="#">CxF:Z</a>					
used by	element	<a href="#">ColorSpaceCIEXYZ</a>				
attributes	Name <a href="#">Comments</a>   <a href="#">UniqueID</a>   <a href="#">Name</a>	Type <b>xs:string</b>   <b>xs:string</b>   <b>xs:string</b>	Use      optional	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation In the study of the perception of color, one of the first mathematically defined color spaces was the CIE 1931 XYZ color space (also known as CIE 1931 color space), created by the International Commission on Illumination (CIE) in 1931.  The human eye has receptors (called cone cells) for short (S), middle (M), and long (L) wavelengths. Thus in principle, three parameters describe a color sensation. Any specific method for associating three numbers (or tristimulus values) with each color is called a color space; the CIE 1931 color space is one of many such spaces. The CIE XYZ color space is special, however, because it is based on direct measurements of human visual perception, and serves as the basis from which many other color spaces are defined.  The CIE XYZ color space was derived from a series of experiments done in the late 1920s by W. David Wright (Wright 1928) and John Guild (Guild 1931). Their experimental results were combined into the specification of the CIE RGB color space, from which the CIE XYZ color space was derived. This article is concerned with both of these color spaces.  In the CIE XYZ color space, the tristimulus values are not the S, M, and L stimuli of the human eye, but rather a set of tristimulus values called X, Y, and Z, which are roughly red, green and blue, respectively, and are calculated using the CIE 1931 XYZ color matching functions. Two light sources, made up of different mixtures of various wavelengths, may appear to be the same color. This is called metamerism. When two light sources have the same apparent color to a standard observer (the CIE 1931 standard colorimetric observer), they will have the same tristimulus values, no matter what spectral distributions of light were used to produce them.					
source	<xs:complexType name="ColorSpaceCIEXYZType" abstract="false"> <xs:annotation> <xs:documentation>In the study of the perception of color, one of the first mathematically defined color spaces was the CIE 1931 XYZ color space (also known as CIE 1931 color space), created by the International Commission on Illumination (CIE) in 1931.  The human eye has receptors (called cone cells) for short (S), middle (M), and long (L) wavelengths. Thus in principle, three parameters describe a color sensation. Any specific method for associating three numbers (or tristimulus values) with each color is called a color space; the CIE 1931 color space is one of many such spaces. The CIE XYZ color space is special, however, because it is based on direct measurements of human visual perception, and serves as the basis from which many other color spaces are defined.  The CIE XYZ color space was derived from a series of experiments done in the late 1920s by W. David Wright (Wright 1928) and John Guild (Guild 1931). Their experimental results were combined into the specification of the CIE RGB color space, from which the CIE XYZ color space was derived. This article is concerned with both of these color spaces.					

In the CIE XYZ color space, the tristimulus values are not the S, M, and L stimuli of the human eye, but rather a set of tristimulus values called X, Y, and Z, which are roughly red, green and blue, respectively, and are calculated using the CIE 1931 XYZ color matching functions. Two light sources, made up of different mixtures of various wavelengths, may appear to be the same color. This is called metamerism. When two light sources have the same apparent color to a standard observer (the CIE 1931 standard colorimetric observer), they will have the same tristimulus values, no matter what spectral distributions of light were used to produce them.


```
</xs:documentation>
</xs:annotation>
<xs:complexContent>
  <xs:extension base="CxF:ColorSpaceType">
    <xs:sequence>
      <xs:element ref="CxF:ColorSpaceSpecificationSpectrumTristimulus"/>
      <xs:element name="X">
        <xs:annotation>
          <xs:documentation>Valid range is 0 (inclusive) to 1.0 (inclusive).</xs:documentation>
        </xs:annotation>
        <xs:simpleType>
          <xs:restriction base="xs:double">
            <xs:minInclusive value="0.0"/>
            <xs:maxInclusive value="1.0"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="Y">
        <xs:annotation>
          <xs:documentation>Valid range is 0 (inclusive) to 1.0 (inclusive).</xs:documentation>
        </xs:annotation>
        <xs:simpleType>
          <xs:restriction base="xs:double">
            <xs:minInclusive value="0.0"/>
            <xs:maxInclusive value="1.0"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="Z">
        <xs:annotation>
          <xs:documentation>Valid range is 0 (inclusive) to 1.0 (inclusive).</xs:documentation>
        </xs:annotation>
        <xs:simpleType>
          <xs:restriction base="xs:double">
            <xs:minInclusive value="0.0"/>
            <xs:maxInclusive value="1.0"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
    </xs:sequence>
    <xs:attribute name="Name" type="xs:string" use="optional"/>
  </xs:extension>
</xs:complexContent>
</xs:complexType>
```

attribute **ColorSpaceCIEXYZType/@Name**


type	xs:string
------	-----------

properties	isRef 0 use optional
source	<code>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</code>

### element **ColorSpaceCIEXYZType/X**


diagram	 <p>Valid range is 0 (inclusive) to 1.0 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Valid range is 0 (inclusive) to 1.0 (inclusive).
source	<pre> &lt;xs:element name="X"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

### element **ColorSpaceCIEXYZType/Y**

diagram	 <p>Valid range is 0 (inclusive) to 1.0 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Valid range is 0 (inclusive) to 1.0 (inclusive).
source	<pre> &lt;xs:element name="Y"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

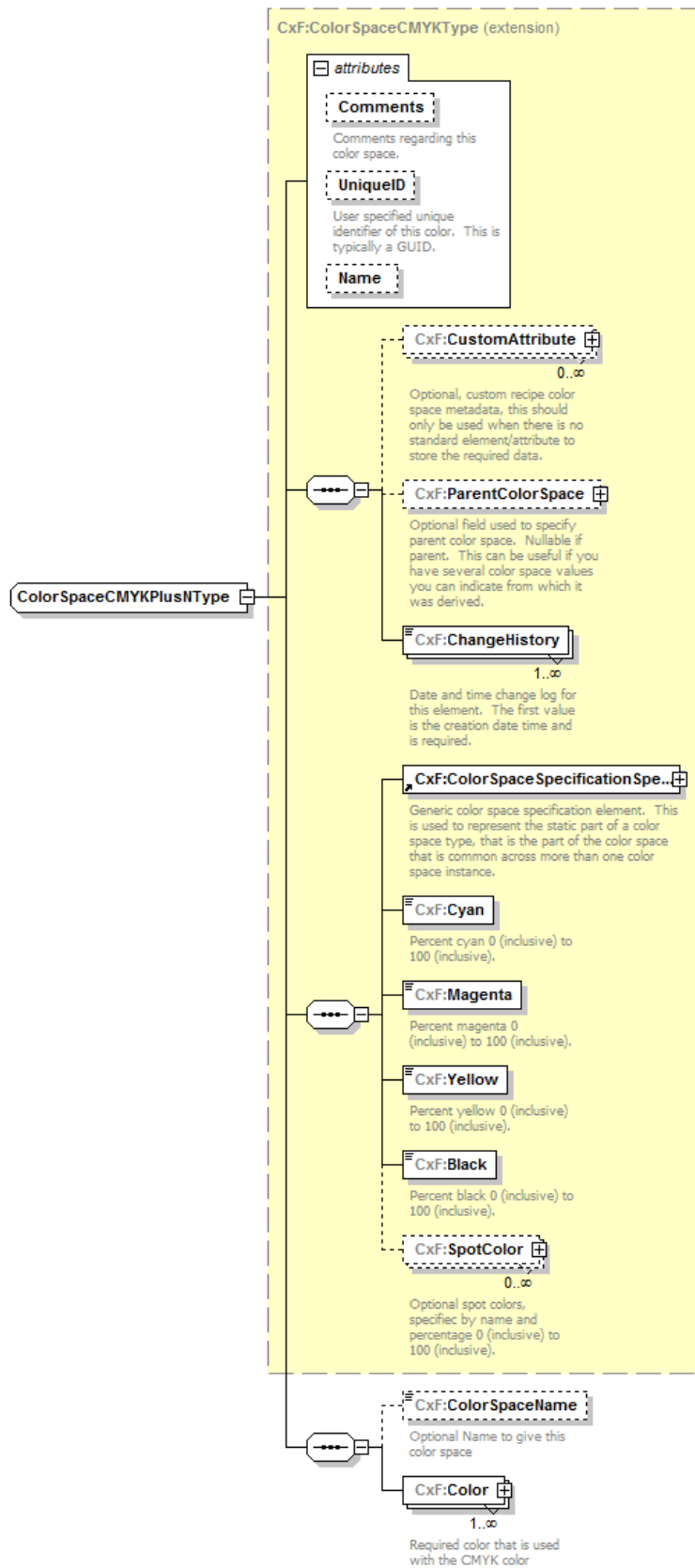
	</xs:simpleType> </xs:element>
--	-----------------------------------

element **ColorSpaceCIEXYZType/Z**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Valid range is 0 (inclusive) to 1.0 (inclusive).
source	<pre> &lt;xs:element name="Z"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## complexType ColorSpaceCMYKPlusNType

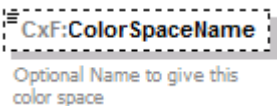
diagram



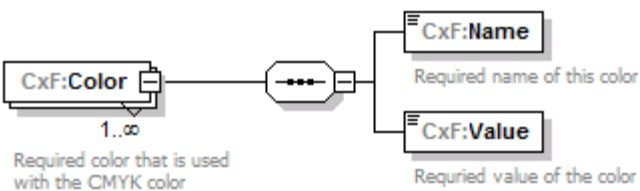
namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceCMYKType</a>					
properties	base CxF:ColorSpaceCMYKType					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Cyan</a> <a href="#">CxF:Magenta</a> <a href="#">CxF:Yellow</a> <a href="#">CxF:Black</a> <a href="#">CxF:SpotColor</a> <a href="#">CxF:ColorSpaceName</a> <a href="#">CxF:Color</a>					
used by	element <a href="#">ColorSpaceCMYKPlusN</a>					
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>   <a href="#">Name</a>	Type <b>xs:string</b>  <b>xs:string</b>   <b>xs:string</b>	Use     optional	Default     	Fixed     	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
source	<pre> &lt;xs:complexType name="ColorSpaceCMYKPlusNType"&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceCMYKType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="ColorSpaceName" type="xs:string" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Optional Name to give this color space&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="Color" maxOccurs="unbounded"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Required color that is used with the CMYK color&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:complexType&gt;             &lt;xs:sequence&gt;               &lt;xs:element name="Name" type="xs:string"&gt;                 &lt;xs:annotation&gt;                   &lt;xs:documentation&gt;Required name of this color&lt;/xs:documentation&gt;                 &lt;/xs:annotation&gt;               &lt;/xs:element&gt;               &lt;xs:element name="Value" type="xs:double"&gt;                 &lt;xs:annotation&gt;                   &lt;xs:documentation&gt;Required value of the color&lt;/xs:documentation&gt;                 &lt;/xs:annotation&gt;               &lt;/xs:element&gt;             &lt;/xs:sequence&gt;           &lt;/xs:complexType&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>					



# element ColorSpaceCMYKPlusNType/ColorSpaceName


diagram	
namespace	http://colorexchangeformat.com/v2
type	xs:string
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Optional Name to give this color space
source	<pre> &lt;xs:element name="ColorSpaceName" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional Name to give this color space&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

# element ColorSpaceCMYKPlusNType/Color


diagram	
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 minOcc 1 maxOcc unbounded content complex
children	<a href="#">CxF:Name</a> <a href="#">CxF:Value</a>
annotation	documentation Required color that is used with the CMYK color
source	<pre> &lt;xs:element name="Color" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required color that is used with the CMYK color&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="Name" type="xs:string"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Required name of this color&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Value" type="xs:double"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Required value of the color&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; </pre>

	</xs:element>
--	---------------

#### element ColorSpaceCMYKPlusNType/Color/Name

diagram	 <p>Required name of this color</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Required name of this color
source	<pre>&lt;xs:element name="Name" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required name of this color&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element ColorSpaceCMYKPlusNType/Color/Value

diagram	 <p>Required value of the color</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 content simple
annotation	documentation Required value of the color
source	<pre>&lt;xs:element name="Value" type="xs:double"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required value of the color&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## complexType ColorSpaceCMYKType

diagram

### ColorSpaceCMYKType

CMYK (short for cyan, magenta, yellow, and key (black)), [1] and often referred to as process color or four color) is a subtractive color model, used in color printing, also used to describe the printing process itself. Though it varies by print house, press operator, press manufacturer and press run, ink is typically applied in the order of the acronym.[2]

The CMYK model works by partially or entirely masking certain colors on the typically white background (that is, absorbing particular wavelengths of light). Such a model is called subtractive because inks "subtract" brightness from white.

In additive color models such as RGB, white is the "additive" combination of all primary colored lights, while black is the absence of light. In the CMYK model, it is just the opposite: white is the natural color of the paper or other background, while black results from a full combination of colored inks. To save money on ink, and to produce deeper black tones, unsaturated and dark colors are produced by substituting black ink for the combination of cyan, magenta and yellow.

### CxF:ColorSpaceType (extension)

#### attributes

##### Comments

Comments regarding this color space.

##### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

#### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

#### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### attributes

##### Name

#### CxF:ColorSpaceSpecificationSpe...

Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

#### CxF:Cyan

Percent cyan 0 (inclusive) to 100 (inclusive).

#### CxF:Magenta

Percent magenta 0 (inclusive) to 100 (inclusive).

#### CxF:Yellow

Percent yellow 0 (inclusive) to 100 (inclusive).

#### CxF:Black

Percent black 0 (inclusive) to 100 (inclusive).

#### CxF:SpotColor

0..∞

Optional spot colors, specific by name and percentage 0 (inclusive) to 100 (inclusive).

namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base	CxF:ColorSpaceType				
	abstract	false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Cyan</a> <a href="#">CxF:Magenta</a> <a href="#">CxF:Yellow</a> <a href="#">CxF:Black</a> <a href="#">CxF:SpotColor</a>					
used by	element	<a href="#">ColorSpaceCMYK</a>				
	complexType	<a href="#">ColorSpaceCMYKPlusNType</a>				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	xs:string				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	xs:string				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	xs:string	optional			
annotation	<div>documentation</div> <p>CMYK (short for cyan, magenta, yellow, and key (black)),[1] and often referred to as process color or four color) is a subtractive color model, used in color printing, also used to describe the printing process itself. Though it varies by print house, press operator, press manufacturer and press run, ink is typically applied in the order of the acronym.[2]</p> <p>The CMYK model works by partially or entirely masking certain colors on the typically white background (that is, absorbing particular wavelengths of light). Such a model is called subtractive because inks “subtract” brightness from white.</p> <p>In additive color models such as RGB, white is the “additive” combination of all primary colored lights, while black is the absence of light. In the CMYK model, it is just the opposite: white is the natural color of the paper or other background, while black results from a full combination of colored inks. To save money on ink, and to produce deeper black tones, unsaturated and dark colors are produced by substituting black ink for the combination of cyan, magenta and yellow.</p>					
source	<pre>&lt;xs:complexType name="ColorSpaceCMYKType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;CMYK (short for cyan, magenta, yellow, and key (black)),[1] and often referred to as process color or four color) is a subtractive color model, used in color printing, also used to describe the printing process itself. Though it varies by print house, press operator, press manufacturer and press run, ink is typically applied in the order of the acronym.[2]  The CMYK model works by partially or entirely masking certain colors on the typically white background (that is, absorbing particular wavelengths of light). Such a model is called subtractive because inks “subtract” brightness from white.  In additive color models such as RGB, white is the “additive” combination of all primary colored lights, while black is the absence of light. In the CMYK model, it is just the opposite: white is the natural color of the paper or other background, while black results from a full combination of colored inks. To save money on ink, and to produce deeper black tones, unsaturated and dark colors are produced by substituting black ink for the combination of cyan, magenta and yellow.      &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationSpectrumGeneric"/&gt;         &lt;xs:element name="Cyan"&gt;           &lt;xs:annotation&gt;</pre>					

```

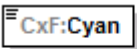
    <xs:documentation>Percent cyan 0 (inclusive) to 100 (inclusive).</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:double">
      <xs:minInclusive value="0.0"/>
      <xs:maxInclusive value="100.0"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="Magenta">
  <xs:annotation>
    <xs:documentation>Percent magenta 0 (inclusive) to 100 (inclusive).</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:double">
      <xs:minInclusive value="0.0"/>
      <xs:maxInclusive value="100.0"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="Yellow">
  <xs:annotation>
    <xs:documentation>Percent yellow 0 (inclusive) to 100 (inclusive).</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:double">
      <xs:minInclusive value="0.0"/>
      <xs:maxInclusive value="100.0"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="Black">
  <xs:annotation>
    <xs:documentation>Percent black 0 (inclusive) to 100 (inclusive).</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:double">
      <xs:minInclusive value="0.0"/>
      <xs:maxInclusive value="100.0"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="SpotColor" type="CxF:SpotColorType" minOccurs="0"
maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Optional spot colors, specifec by name and percentage 0 (inclusive) to
100 (inclusive).</xs:documentation>
  </xs:annotation>
</xs:element>
</xs:sequence>
<xs:attribute name="Name" type="xs:string" use="optional"/>
</xs:extension>
</xs:complexContent>
</xs:complexType>

```

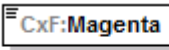
### attribute **ColorSpaceCMYKType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<code>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</code>

### element **ColorSpaceCMYKType/Cyan**

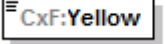
diagram	 <p>Percent cyan 0 (inclusive) to 100 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 100.0
annotation	documentation Percent cyan 0 (inclusive) to 100 (inclusive).
source	<pre> &lt;xs:element name="Cyan"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Percent cyan 0 (inclusive) to 100 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="100.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

### element **ColorSpaceCMYKType/Magenta**


diagram	 <p>Percent magenta 0 (inclusive) to 100 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 100.0
annotation	documentation Percent magenta 0 (inclusive) to 100 (inclusive).
source	<pre> &lt;xs:element name="Magenta"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Percent magenta 0 (inclusive) to 100 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt; </pre>

	<pre> &lt;xs:restriction base="xs:double"&gt;   &lt;xs:minInclusive value="0.0"/&gt;   &lt;xs:maxInclusive value="100.0"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
--	---

#### element **ColorSpaceCMYKType/Yellow**

diagram	 <p>Percent yellow 0 (inclusive) to 100 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 100.0
annotation	documentation Percent yellow 0 (inclusive) to 100 (inclusive).
source	<pre> &lt;xs:element name="Yellow"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Percent yellow 0 (inclusive) to 100 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="100.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceCMYKType/Black**

diagram	 <p>Percent black 0 (inclusive) to 100 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 100.0
annotation	documentation Percent black 0 (inclusive) to 100 (inclusive).
source	<pre> &lt;xs:element name="Black"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Percent black 0 (inclusive) to 100 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt; </pre>

	<pre> &lt;xs:minInclusive value="0.0"/&gt; &lt;xs:maxInclusive value="100.0"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
--	---

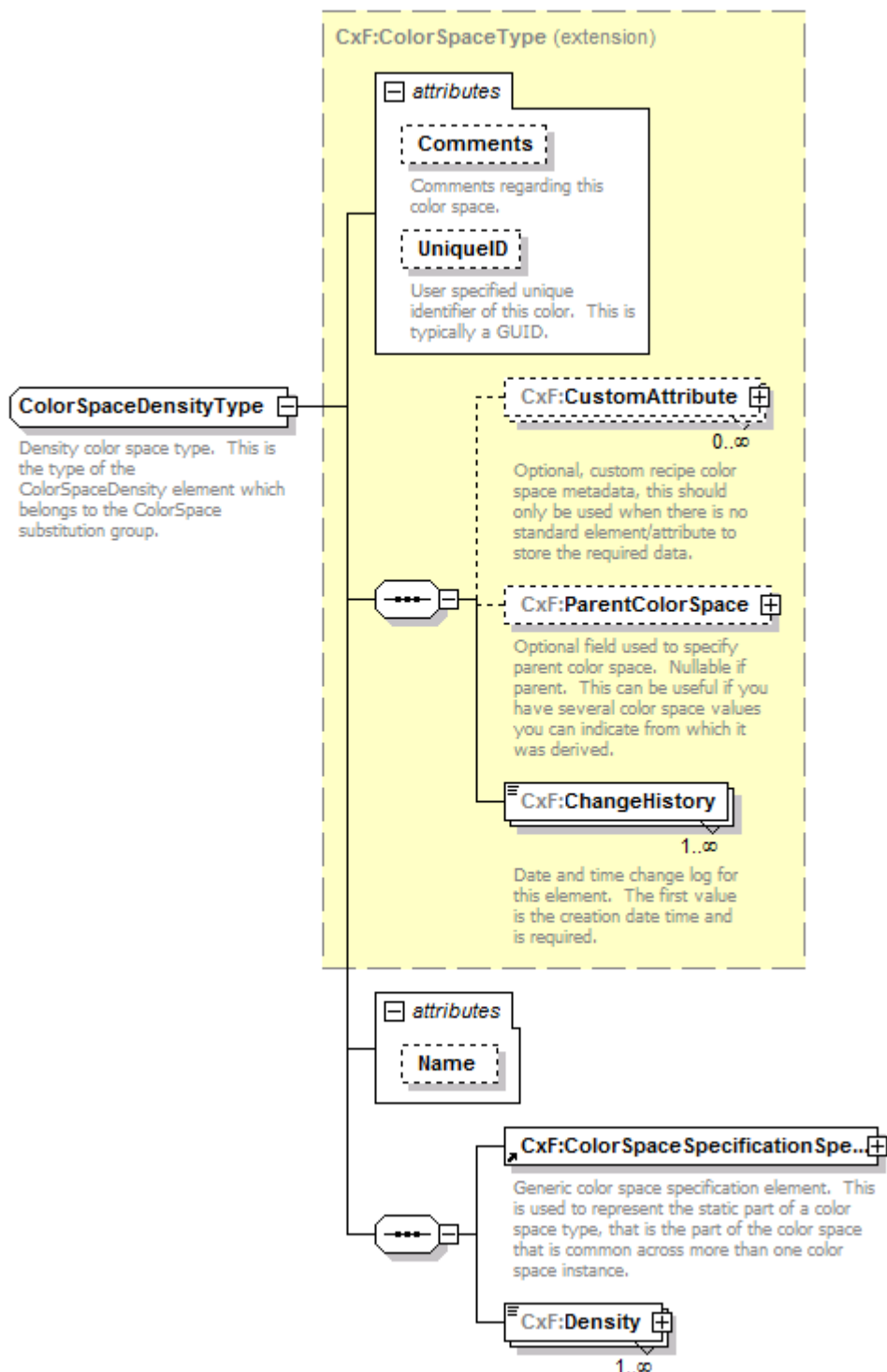
element **ColorSpaceCMYKType/SpotColor**

diagram									
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:SpotColorType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
isRef	0								
minOcc	0								
maxOcc	unbounded								
content	complex								
children	<a href="#">CxF:Name</a> <a href="#">CxF:Percentage</a>								
annotation	documentation Optional spot colors, specifec by name and percentage 0 (inclusive) to 100 (inclusive).								
source	<pre> &lt;xs:element name="SpotColor" type="CxF:SpotColorType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional spot colors, specifec by name and percentage 0 (inclusive) to 100 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								



# complexType **ColorSpaceDensityType**

diagram



namespace <http://colorexchangeformat.com/v2>

type extension of [CxF:ColorSpaceType](#)

properties base CxF:ColorSpaceType

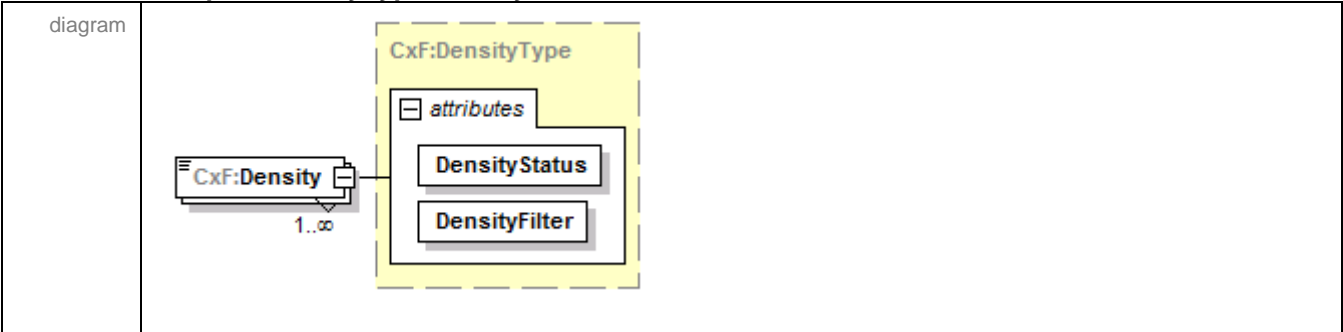
children [CxF:CustomAttribute](#) [CxF:ParentColorSpace](#) [CxF:ChangeHistory](#) [CxF:ColorSpaceSpecificationSpectrumGeneric](#)

	<a href="#">CxF:Density</a>					
used by	element <a href="#">ColorSpaceDensity</a>					
attributes	Name	Type	Use	Default	Fixed	annotation documentation Comments regarding this color space. User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Comments</a>	xs:string				
	<a href="#">UniquelD</a>	xs:string				
	<a href="#">Name</a>	xs:string	optional			
annotation	documentation Density color space type. This is the type of the ColorSpaceDensity element which belongs to the ColorSpace substitution group.					
source	<pre> &lt;xs:complexType name="ColorSpaceDensityType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Density color space type. This is the type of the ColorSpaceDensity     element which belongs to the ColorSpace substitution group. &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationSpectrumGeneric"/&gt;         &lt;xs:element name="Density" type="CxF:DensityType" maxOccurs="unbounded"/&gt;       &lt;/xs:sequence&gt;         &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;       &lt;/xs:extension&gt;     &lt;/xs:complexContent&gt;   &lt;/xs:complexType&gt; </pre>					

attribute **ColorSpaceDensityType/@Name**

type	xs:string
properties	isRef 0 use optional
source	<pre> &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt; </pre>

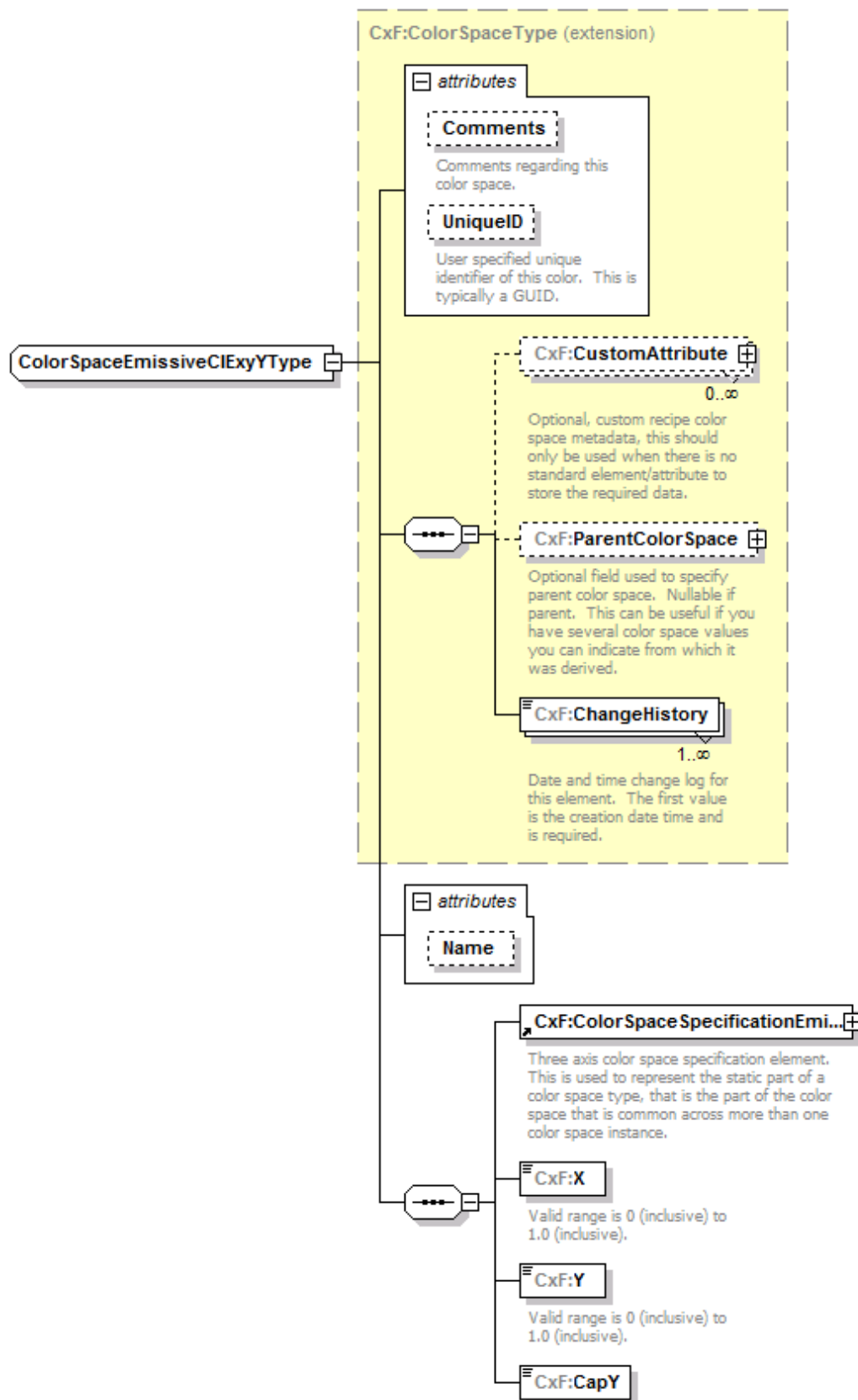
element **ColorSpaceDensityType/Density**



namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:DensityType</a>					
properties	isRef	0				
	minOcc	1				
	maxOcc	unbounded				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">DensityStatus</a>	<a href="#">CxF:EDensityStatusType</a>	required			
	<a href="#">DensityFilter</a>	<a href="#">CxF:EDensityFilterType</a>	required			
source	<xs:element name="Density" type="CxF:DensityType" maxOccurs="unbounded"/>					

complexType **ColorSpaceEmissiveCIExyYType**

diagram




namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base	CxF:ColorSpaceType				
	abstract	false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationEmissiveTristimulus</a> <a href="#">CxF:X</a> <a href="#">CxF:Y</a> <a href="#">CxF:CapY</a>					
used by	element	<a href="#">ColorSpaceEmissiveCIExyY</a>				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	xs:string				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	xs:string				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	xs:string	optional			
source	<pre>&lt;xs:complexType name="ColorSpaceEmissiveCIExyYType" abstract="false"&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationEmissiveTristimulus"/&gt;         &lt;xs:element name="X"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;               &lt;xs:maxInclusive value="1.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="Y"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;               &lt;xs:maxInclusive value="1.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="CapY"&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

	<pre> &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
--	---


#### attribute **ColorSpaceEmissiveCIExyYType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<pre> &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt; </pre>

#### element **ColorSpaceEmissiveCIExyYType/X**


diagram	 <p>Valid range is 0 (inclusive) to 1.0 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Valid range is 0 (inclusive) to 1.0 (inclusive).
source	<pre> &lt;xs:element name="X"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceEmissiveCIExyYType/Y**

diagram	 <p>Valid range is 0 (inclusive) to 1.0 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Valid range is 0 (inclusive) to 1.0 (inclusive).

source	<pre> &lt;xs:element name="Y"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
--------	--

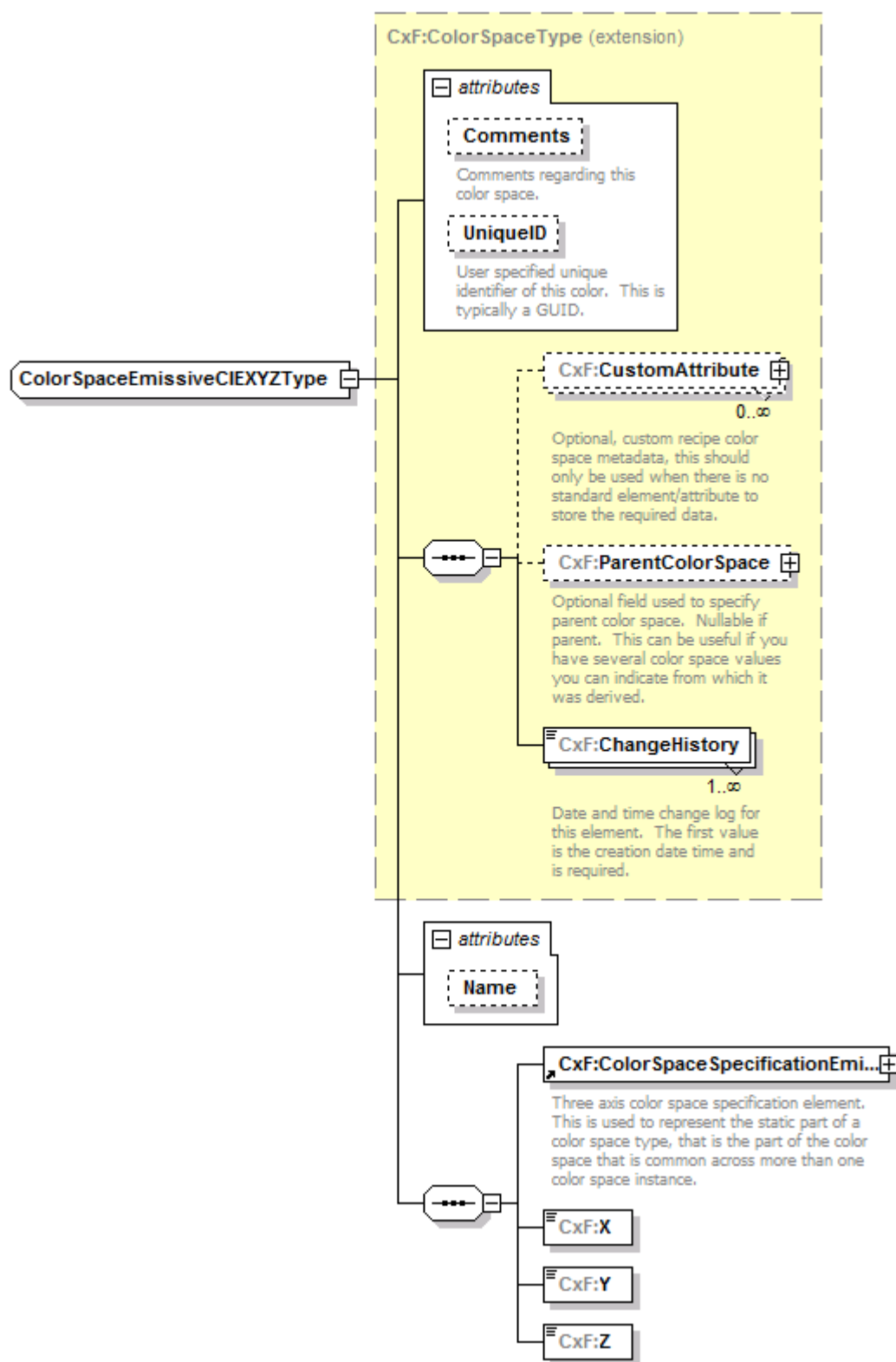
element **ColorSpaceEmissiveCIExyYType/CapY**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0
source	<pre> &lt;xs:element name="CapY"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>



# complexType **ColorSpaceEmissiveCIEXYZType**

diagram



namespace <http://colorexchangeformat.com/v2>

type extension of [CxF:ColorSpaceType](#)


properties	<div> <div>base</div> <div>CxF:ColorSpaceType</div> </div> <div> <div>abstract</div> <div>false</div> </div>					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationEmissiveTristimulus</a> <a href="#">CxF:X</a> <a href="#">CxF:Y</a> <a href="#">CxF:Z</a>					
used by	<div> <div>element</div> <div><a href="#">ColorSpaceEmissiveCIEXYZ</a></div> </div>					
attributes	<div> <div>Name</div> <div><a href="#">Comments</a></div> </div> <div> <div>UniqueID</div> <div><a href="#">Name</a></div> </div>	<div> <div>Type</div> <div><b>xs:string</b></div> </div> <div> <div><b>xs:string</b></div> <div><b>xs:string</b></div> </div>	<div>Use</div> <div>optional</div>	<div>Default</div>	<div>Fixed</div>	<div> <div>annotation</div> <div>documentation</div> <div>Comments</div> <div>regarding this color space.</div> <div>documentation</div> <div>User specified unique identifier of this color.</div> <div>This is typically a GUID.</div> </div>
source	<pre> &lt;xs:complexType name="ColorSpaceEmissiveCIEXYZType" abstract="false"&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationEmissiveTristimulus"/&gt;         &lt;xs:element name="X"&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="Y"&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="Z"&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;       &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>					

#### attribute **ColorSpaceEmissiveCIEXYZType/@Name**


type	<b>xs:string</b>	
properties	isRef	0
	use	optional

source	<code>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</code>
--------	--

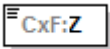
#### element **ColorSpaceEmissiveCIEXYZType/X**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0
source	<pre> &lt;xs:element name="X"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceEmissiveCIEXYZType/Y**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0
source	<pre> &lt;xs:element name="Y"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceEmissiveCIEXYZType/Z**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0
source	<pre> &lt;xs:element name="Z"&gt; </pre>

	<pre>&lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:double"&gt;     &lt;xs:minInclusive value="0.0"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt;</pre>
--	--

## complexType ColorSpaceEmissiveGenericType

diagram

### ColorSpaceEmissiveGenericType

Generic color space type, suitable for use when no specific color space type exists for your specific type. This is the type of the ColorSpaceGeneric element which belongs to the ColorSpace substitution group.

### CxF:ColorSpaceType (extension)

#### attributes

#### Comments

Comments regarding this color space.

#### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

#### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

#### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### attributes

#### Name

#### CxF:Color Space SpecificationEmi...

Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

#### CxF:Axis

1..∞

Generic axis specification for this type. Both axis name and value are required. The axis value may be either a string or floating point value.

namespace <http://colorexchangeformat.com/v2>

type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base CxF:ColorSpaceType					
children	<a href="#">CxF:CustomAttributes</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationEmissiveGeneric</a> <a href="#">CxF:Axis</a>					
used by	element <a href="#">ColorSpaceEmissiveGeneric</a>					
attributes	Name <a href="#">Comments</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">UniquelD</a>	<b>xs:string</b>				
	<a href="#">Name</a>	<b>xs:string</b>	required			
annotation	documentation Generic color space type, suitable for use when no specific color space type exists for your specific type. This is the type of the ColorSpaceGeneric element which belongs to the ColorSpace substitution group.					
source	<pre> &lt;xs:complexType name="ColorSpaceEmissiveGenericType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Generic color space type, suitable for use when no specific color space type exists for your specific type. This is the type of the ColorSpaceGeneric element which belongs to the ColorSpace substitution group. &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationEmissiveGeneric"/&gt;         &lt;xs:element name="Axis" type="CxF:AxisType" maxOccurs="unbounded"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Generic axis specification for this type. Both axis name and value are required. The axis value may be either a string or floating point value.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;       &lt;xs:attribute name="Name" type="xs:string" use="required"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>					

#### attribute **ColorSpaceEmissiveGenericType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use required
source	<pre>&lt;xs:attribute name="Name" type="xs:string" use="required"/&gt;</pre>

# element **ColorSpaceEmissiveGenericType/Axis**

diagram	<p>Generic axis specification for this type. Both axis name and value are required. The axis value may be either a string or floating point value.</p> <p>Value of this axis. The axis value may be either a string or floating point value.</p>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:AxisType</a>
properties	isRef 0 minOcc 1 maxOcc unbounded content complex
children	<a href="#">CxF:AxisName</a> <a href="#">CxF:AxisValueChoice</a>
annotation	documentation Generic axis specification for this type. Both axis name and value are required. The axis value may be either a string or floating point value.
source	<pre> &lt;xs:element name="Axis" type="CxF:AxisType" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Generic axis specification for this type. Both axis name and value are required. The axis value may be either a string or floating point value.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## complexType ColorSpaceEmissiveSpectralType

diagram

### ColorSpaceEmissiveSpectralType

Spectral colorspace type. The spectral values are specified as floating point values where 1.0 represents full range. For reflectance this is 100%. The wavelength (nm) is specified as a floating point value.

### CxF:ColorSpaceType (extension)

#### attributes

#### Comments

Comments regarding this color space.

#### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

#### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

#### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### attributes

#### Name

#### CxF:Color Space SpecificationEmi...

Spectral color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

#### CxF:Emissive SpectralPoint

1..∞

Required set of reflectance points where each point is specified as a response value  $cd/m^2$  at a wavelength (nm.)

namespace <http://colorexchangeformat.com/v2>

type extension of [CxF:ColorSpaceType](#)

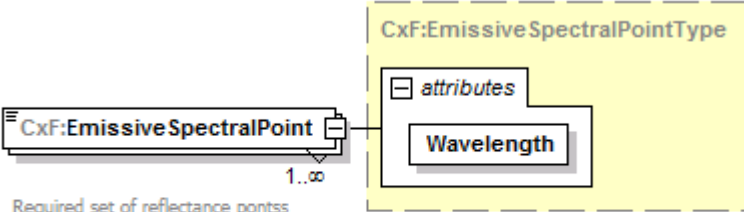


properties	base CxF:ColorSpaceType					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationEmissiveSpectral</a> <a href="#">CxF:EmissiveSpectralPoint</a>					
used by	element <a href="#">ColorSpaceEmissiveSpectral</a>					
attributes	Name <a href="#">Comments</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">UniqueID</a>	<b>xs:string</b>				
	<a href="#">Name</a>	<b>xs:string</b>	optional			
annotation	documentation Spectral colorspace type. The spectral values are specified as floating point values where 1.0 represents full range. For reflectance this is 100%. The wavelength (nm) is specified as a floating point value.					
source	<pre> &lt;xs:complexType name="ColorSpaceEmissiveSpectralType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Spectral colorspace type. The spectral values are specified as floating point values where 1.0 represents full range. For reflectance this is 100%. The wavelength (nm) is specified as a floating point value.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationEmissiveSpectral"/&gt;         &lt;xs:element name="EmissiveSpectralPoint" type="CxF:EmissiveSpectralPointType" maxOccurs="unbounded"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Required set of reflectance pontss where each point is specified as a response value cd/m^2 at a wavelength (nm.)&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;       &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>					

#### attribute ColorSpaceEmissiveSpectralType/@Name

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<pre>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</pre>

# element **ColorSpaceEmissiveSpectralType/EmissiveSpectralPoint**

diagram	 <p>Required set of reflectance pontss where each point is specified as a response value <math>\text{cd/m}^2</math> at a wavelength (nm.)</p>					
namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:EmissiveSpectralPointType</a>					
properties	isRef	0	minOcc	1	maxOcc	unbounded
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Wavelength</a>	derived by: <b>xs:double</b>	required			
annotation	documentation Required set of reflectance pontss where each point is specified as a response value $\text{cd/m}^2$ at a wavelength (nm.)					
source	<pre> &lt;xs:element name="EmissiveSpectralPoint" type="CxF:EmissiveSpectralPointType" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required set of reflectance pontss where each point is specified as a response value <math>\text{cd/m}^2</math> at a wavelength (nm.) &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

## complexType ColorSpaceGenericType

diagram

### ColorSpaceGenericType

Generic color space type, suitable for use when no specific color space type exists for your specific type. This is the type of the ColorSpaceGeneric element which belongs to the ColorSpace substitution group.

### CxF:ColorSpaceType (extension)

#### attributes

#### Comments

Comments regarding this color space.

#### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

#### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

#### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### attributes

#### Name

#### CxF:Color Space Specification Spe...

Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

#### CxF:Axis

1..∞

Generic axis specification for this type. Both axis name and value are required. The axis value may be either a string or floating point value.

namespace

<http://colorexchangeformat.com/v2>

type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base <a href="#">CxF:ColorSpaceType</a>					
children	<a href="#">CxF:CustomAttributes</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Axis</a>					
used by	element <a href="#">ColorSpaceGeneric</a>					
attributes	Name <a href="#">Comments</a>   <a href="#">UniquelD</a>   <a href="#">Name</a>	Type <b>xs:string</b>   <b>xs:string</b>   <b>xs:string</b>	Use      required	Default      	Fixed      	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Generic color space type, suitable for use when no specific color space type exists for your specific type. This is the type of the ColorSpaceGeneric element which belongs to the ColorSpace substitution group.					
source	<pre> &lt;xs:complexType name="ColorSpaceGenericType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Generic color space type, suitable for use when no specific color space type exists for your specific type. This is the type of the ColorSpaceGeneric element which belongs to the ColorSpace substitution group. &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationSpectrumGeneric"/&gt;         &lt;xs:element name="Axis" type="CxF:AxisType" maxOccurs="unbounded"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Generic axis specification for this type. Both axis name and value are required. The axis value may be either a string or floating point value.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;       &lt;xs:attribute name="Name" type="xs:string" use="required"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>					

#### attribute [ColorSpaceGenericType/@Name](#)

type	<b>xs:string</b>
properties	isRef 0 use required
source	<pre>&lt;xs:attribute name="Name" type="xs:string" use="required"/&gt;</pre>

# element **ColorSpaceGenericType/Axis**

diagram	<p>Generic axis specification for this type. Both axis name and value are required. The axis value may be either a string or floating point value.</p>								
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:AxisType</a>								
properties	<table> <tr> <td>isRef</td> <td>0</td> </tr> <tr> <td>minOcc</td> <td>1</td> </tr> <tr> <td>maxOcc</td> <td>unbounded</td> </tr> <tr> <td>content</td> <td>complex</td> </tr> </table>	isRef	0	minOcc	1	maxOcc	unbounded	content	complex
isRef	0								
minOcc	1								
maxOcc	unbounded								
content	complex								
children	<a href="#">CxF:AxisName</a> <a href="#">CxF:AxisValueChoice</a>								
annotation	<p>documentation</p> <p>Generic axis specification for this type. Both axis name and value are required. The axis value may be either a string or floating point value.</p>								
source	<pre> &lt;xs:element name="Axis" type="CxF:AxisType" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Generic axis specification for this type. Both axis name and value are required. The axis value may be either a string or floating point value.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								

## complexType ColorSpaceHSLType

diagram

### ColorSpaceHSLType

HSL and HSV (also called HSB) are two related representations of points in an RGB color space, which attempt to describe perceptual color relationships more accurately than RGB, while remaining computationally simple. HSL stands for hue, saturation, lightness, while HSV stands for hue, saturation, value and HSB stands for hue, saturation, brightness.

Both HSL and HSV describe colors as points in a cylinder whose central axis ranges from black at the bottom to white at the top with neutral colors between them, where angle around the axis corresponds to "hue", distance from the axis corresponds to "saturation", and distance along the axis corresponds to "lightness", "value", or "brightness".

The two representations are similar in purpose, but differ somewhat in approach. Both are mathematically cylindrical, but while HSV (hue, saturation, value) can be thought of conceptually as an inverted cone of colors (with a black point at the bottom, and fully-saturated colors around a circle at the top), HSL conceptually represents a double-cone or sphere (with white at the top, black at the bottom, and the fully-saturated colors around the edge of a horizontal cross-section with middle gray at its center). Note that while "hue" in HSL and HSV refers to the same attribute, their definitions of "saturation" differ dramatically.

Because HSL and HSV are simple transformations of device-dependent RGB, the color defined by a (h, s, l) or (h, s, v) triplet depends on the particular color of red, green, and blue "primaries" used. Each unique RGB device therefore has unique HSL and HSV spaces to accompany it. An (h, s, l) or (h, s, v) triplet can however become definite when it is tied to a particular RGB color space, such as sRGB.

The HSV model was created in 1978 by Alvy Ray Smith.

### CxF:ColorSpaceType (extension)

#### attributes

##### Comments

Comments regarding this color space.

##### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

#### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

#### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### attributes

##### Name

#### CxF:Color Space Specification Spe...

Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

#### CxF:Hue

Hue angle, axis values must be within 0.0 (inclusive) and 360.0 (exclusive).

#### CxF:Saturation

Saturation refers to the intensity of a specific color. Axis values must be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).

#### CxF:Lightness

Lightness of a specific color. Axis values must be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).

namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base CxF:ColorSpaceType					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Hue</a> <a href="#">CxF:Saturation</a> <a href="#">CxF:Lightness</a>					
used by	element <a href="#">ColorSpaceHSL</a>					
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>  <a href="#">Name</a>	Type <b>xs:string</b>  <b>xs:string</b>  <b>xs:string</b>	Use   optional	Default   	Fixed   	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation HSL and HSV (also called HSB) are two related representations of points in an RGB color space, which attempt to describe perceptual color relationships more accurately than RGB, while remaining computationally simple. HSL stands for hue, saturation, lightness, while HSV stands for hue, saturation, value and HSB stands for hue, saturation, brightness.  Both HSL and HSV describe colors as points in a cylinder whose central axis ranges from black at the bottom to white at the top with neutral colors between them, where angle around the axis corresponds to "hue", distance from the axis corresponds to "saturation", and distance along the axis corresponds to "lightness", "value", or "brightness".  The two representations are similar in purpose, but differ somewhat in approach. Both are mathematically cylindrical, but while HSV (hue, saturation, value) can be thought of conceptually as an inverted cone of colors (with a black point at the bottom, and fully-saturated colors around a circle at the top), HSL conceptually represents a double-cone or sphere (with white at the top, black at the bottom, and the fully-saturated colors around the edge of a horizontal cross-section with middle gray at its center). Note that while "hue" in HSL and HSV refers to the same attribute, their definitions of "saturation" differ dramatically.  Because HSL and HSV are simple transformations of device-dependent RGB, the color defined by a (h, s, l) or (h, s, v) triplet depends on the particular color of red, green, and blue "primaries" used. Each unique RGB device therefore has unique HSL and HSV spaces to accompany it. An (h, s, l) or (h, s, v) triplet can however become definite when it is tied to a particular RGB color space, such as sRGB.  The HSV model was created in 1978 by Alvy Ray Smith.					
source	<pre>&lt;xs:complexType name="ColorSpaceHSLType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;HSL and HSV (also called HSB) are two related representations of points in an RGB color space, which attempt to describe perceptual color relationships more accurately than RGB, while remaining computationally simple. HSL stands for hue, saturation, lightness, while HSV stands for hue, saturation, value and HSB stands for hue, saturation, brightness.  Both HSL and HSV describe colors as points in a cylinder whose central axis ranges from black at the bottom to white at the top with neutral colors between them, where angle around the axis corresponds to "hue", distance from the axis corresponds to "saturation", and distance along the axis corresponds to "lightness", "value", or "brightness".  The two representations are similar in purpose, but differ somewhat in approach. Both are mathematically cylindrical, but while HSV (hue, saturation, value) can be thought of conceptually as an inverted cone of colors (with a black point at the bottom, and fully-saturated colors around a circle at the top), HSL conceptually represents a double-cone or sphere (with white at the top, black at the bottom, and the fully-saturated colors around the edge of a horizontal cross-section with</pre>					

middle gray at its center). Note that while “hue” in HSL and HSV refers to the same attribute, their definitions of “saturation” differ dramatically.

Because HSL and HSV are simple transformations of device-dependent RGB, the color defined by a (h, s, l) or (h, s, v) triplet depends on the particular color of red, green, and blue “primaries” used. Each unique RGB device therefore has unique HSL and HSV spaces to accompany it. An (h, s, l) or (h, s, v) triplet can however become definite when it is tied to a particular RGB color space, such as sRGB.

The HSV model was created in 1978 by Alvy Ray Smith.

```
</xs:documentation>
</xs:annotation>
<xs:complexContent>
  <xs:extension base="CxF:ColorSpaceType">
    <xs:sequence>
      <xs:element ref="CxF:ColorSpaceSpecificationSpectrumGeneric"/>
      <xs:element name="Hue">
        <xs:annotation>
          <xs:documentation>Hue angle, axis values must be within 0.0 (inclusive) and 360.0
(exclusive).</xs:documentation>
        </xs:annotation>
        <xs:simpleType>
          <xs:restriction base="xs:double">
            <xs:minInclusive value="0.0"/>
            <xs:maxExclusive value="360.0"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="Saturation">
        <xs:annotation>
          <xs:documentation>Saturation refers to the intensity of a specific color. Axis values must
be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).</xs:documentation>
        </xs:annotation>
        <xs:simpleType>
          <xs:restriction base="xs:double">
            <xs:minInclusive value="0.0"/>
            <xs:maxInclusive value="1.0"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="Lightness">
        <xs:annotation>
          <xs:documentation>Lightness of a specific color. Axis values must be scaled to and within
0.0 (inclusive) and 1.0 (inclusive).</xs:documentation>
        </xs:annotation>
        <xs:simpleType>
          <xs:restriction base="xs:double">
            <xs:minInclusive value="0.0"/>
            <xs:maxInclusive value="1.0"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
    </xs:sequence>
    <xs:attribute name="Name" type="xs:string" use="optional"/>
  </xs:extension>
</xs:complexContent>
```




	<code>&lt;/xs:complexType&gt;</code>
--	--------------------------------------

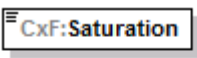
#### attribute **ColorSpaceHSLType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<code>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</code>

#### element **ColorSpaceHSLType/Hue**

diagram	 <p>Hue angle, axis values must be within 0.0 (inclusive) and 360.0 (exclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxExclusive 360.0
annotation	documentation Hue angle, axis values must be within 0.0 (inclusive) and 360.0 (exclusive).
source	<pre> &lt;xs:element name="Hue"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Hue angle, axis values must be within 0.0 (inclusive) and 360.0 (exclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxExclusive value="360.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceHSLType/Saturation**

diagram	 <p>Saturation refers to the intensity of a specific color. Axis values must be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0

annotation	documentation Saturation refers to the intensity of a specific color. Axis values must be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).
source	<pre> &lt;xs:element name="Saturation"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Saturation refers to the intensity of a specific color. Axis values must be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

### element **ColorSpaceHSLType/Lightness**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Lightness of a specific color. Axis values must be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).
source	<pre> &lt;xs:element name="Lightness"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Lightness of a specific color. Axis values must be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## complexType ColorSpaceHSVType

diagram

### ColorSpaceHSVType

HSL and HSV (also called HSB) are two related representations of points in an RGB color space, which attempt to describe perceptual color relationships more accurately than RGB, while remaining computationally simple. HSL stands for hue, saturation, lightness, while HSV stands for hue, saturation, value and HSB stands for hue, saturation, brightness.

Both HSL and HSV describe colors as points in a cylinder whose central axis ranges from black at the bottom to white at the top with neutral colors between them, where angle around the axis corresponds to "hue", distance from the axis corresponds to "saturation", and distance along the axis corresponds to "lightness", "value", or "brightness".

The two representations are similar in purpose, but differ somewhat in approach. Both are mathematically cylindrical, but while HSV (hue, saturation, value) can be thought of conceptually as an inverted cone of colors (with a black point at the bottom, and fully-saturated colors around a circle at the top), HSL conceptually represents a double-cone or sphere (with white at the top, black at the bottom, and the fully-saturated colors around the edge of a horizontal cross-section with middle gray at its center). Note that while "hue" in HSL and HSV refers to the same attribute, their definitions of "saturation" differ dramatically.

Because HSL and HSV are simple transformations of device-dependent RGB, the color defined by a (h, s, l) or (h, s, v) triplet depends on the particular color of red, green, and blue "primaries" used. Each unique RGB device therefore has unique HSL and HSV spaces to accompany it. An (h, s, l) or (h, s, v) triplet can however become definite when it is tied to a particular RGB color space, such as sRGB.

The HSV model was created in 1978 by Alvy Ray Smith.

### CxF:ColorSpaceType (extension)

#### attributes

##### Comments

Comments regarding this color space.

##### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

#### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

#### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### attributes

##### Name

#### CxF:ColorSpaceSpecificationSpe...

Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

#### CxF:Hue

Hue angle, axis values must be within 0.0 (inclusive) and 360.0 (exclusive).

#### CxF:Saturation

Saturation refers to the intensity of a specific color. Axis values must be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).

#### CxF:Value

Lightness of a specific color. Axis values must be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).

namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base abstract	CxF:ColorSpaceType false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Hue</a> <a href="#">CxF:Saturation</a> <a href="#">CxF:Value</a>					
used by	element	<a href="#">ColorSpaceHSV</a>				
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>  <a href="#">Name</a>	Type <b>xs:string</b>  <b>xs:string</b>  <b>xs:string</b>	Use    optional	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	<p>documentation</p> <p>HSL and HSV (also called HSB) are two related representations of points in an RGB color space, which attempt to describe perceptual color relationships more accurately than RGB, while remaining computationally simple. HSL stands for hue, saturation, lightness, while HSV stands for hue, saturation, value and HSB stands for hue, saturation, brightness.</p> <p>Both HSL and HSV describe colors as points in a cylinder whose central axis ranges from black at the bottom to white at the top with neutral colors between them, where angle around the axis corresponds to "hue", distance from the axis corresponds to "saturation", and distance along the axis corresponds to "lightness", "value", or "brightness".</p> <p>The two representations are similar in purpose, but differ somewhat in approach. Both are mathematically cylindrical, but while HSV (hue, saturation, value) can be thought of conceptually as an inverted cone of colors (with a black point at the bottom, and fully-saturated colors around a circle at the top), HSL conceptually represents a double-cone or sphere (with white at the top, black at the bottom, and the fully-saturated colors around the edge of a horizontal cross-section with middle gray at its center). Note that while "hue" in HSL and HSV refers to the same attribute, their definitions of "saturation" differ dramatically.</p> <p>Because HSL and HSV are simple transformations of device-dependent RGB, the color defined by a (h, s, l) or (h, s, v) triplet depends on the particular color of red, green, and blue "primaries" used. Each unique RGB device therefore has unique HSL and HSV spaces to accompany it. An (h, s, l) or (h, s, v) triplet can however become definite when it is tied to a particular RGB color space, such as sRGB.</p> <p>The HSV model was created in 1978 by Alvy Ray Smith.</p>					
source	<pre>&lt;xs:complexType name="ColorSpaceHSVType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;HSL and HSV (also called HSB) are two related representations of points in an RGB color space, which attempt to describe perceptual color relationships more accurately than RGB, while remaining computationally simple. HSL stands for hue, saturation, lightness, while HSV stands for hue, saturation, value and HSB stands for hue, saturation, brightness.  Both HSL and HSV describe colors as points in a cylinder whose central axis ranges from black at the bottom to white at the top with neutral colors between them, where angle around the axis corresponds to "hue", distance from the axis corresponds to "saturation", and distance along the axis corresponds to "lightness", "value", or "brightness".  The two representations are similar in purpose, but differ somewhat in approach. Both are mathematically cylindrical, but while HSV (hue, saturation, value) can be thought of conceptually as an inverted cone of colors (with a black point at the bottom, and fully-saturated colors around a circle at the top), HSL conceptually represents a double-cone or sphere (with white at the top, black at the bottom, and the fully-saturated colors around the edge of a horizontal cross-section with</pre>					

middle gray at its center). Note that while “hue” in HSL and HSV refers to the same attribute, their definitions of “saturation” differ dramatically.

Because HSL and HSV are simple transformations of device-dependent RGB, the color defined by a (h, s, l) or (h, s, v) triplet depends on the particular color of red, green, and blue “primaries” used. Each unique RGB device therefore has unique HSL and HSV spaces to accompany it. An (h, s, l) or (h, s, v) triplet can however become definite when it is tied to a particular RGB color space, such as sRGB.

The HSV model was created in 1978 by Alvy Ray Smith.


```
</xs:documentation>
</xs:annotation>
<xs:complexContent>
  <xs:extension base="CxF:ColorSpaceType">
    <xs:sequence>
      <xs:element ref="CxF:ColorSpaceSpecificationSpectrumGeneric"/>
      <xs:element name="Hue">
        <xs:annotation>
          <xs:documentation>Hue angle, axis values must be within 0.0 (inclusive) and 360.0
(exclusive).</xs:documentation>
        </xs:annotation>
        <xs:simpleType>
          <xs:restriction base="xs:double">
            <xs:minInclusive value="0.0"/>
            <xs:maxExclusive value="360.0"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="Saturation">
        <xs:annotation>
          <xs:documentation>Saturation refers to the intensity of a specific color. Axis values must
be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).</xs:documentation>
        </xs:annotation>
        <xs:simpleType>
          <xs:restriction base="xs:double">
            <xs:minInclusive value="0.0"/>
            <xs:maxInclusive value="1.0"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="Value">
        <xs:annotation>
          <xs:documentation>Lightness of a specific color. Axis values must be scaled to and within
0.0 (inclusive) and 1.0 (inclusive).</xs:documentation>
        </xs:annotation>
        <xs:simpleType>
          <xs:restriction base="xs:double">
            <xs:minInclusive value="0.0"/>
            <xs:maxInclusive value="1.0"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
    </xs:sequence>
    <xs:attribute name="Name" type="xs:string" use="optional"/>
  </xs:extension>
</xs:complexContent>
```

	<code>&lt;/xs:complexType&gt;</code>
--	--------------------------------------

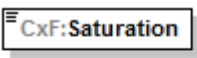
#### attribute **ColorSpaceHSVType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<code>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</code>

#### element **ColorSpaceHSVType/Hue**


diagram	 <p>Hue angle, axis values must be within 0.0 (inclusive) and 360.0 (exclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxExclusive 360.0
annotation	documentation Hue angle, axis values must be within 0.0 (inclusive) and 360.0 (exclusive).
source	<pre> &lt;xs:element name="Hue"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Hue angle, axis values must be within 0.0 (inclusive) and 360.0 (exclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxExclusive value="360.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceHSVType/Saturation**

diagram	 <p>Saturation refers to the intensity of a specific color. Axis values must be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0

annotation	documentation Saturation refers to the intensity of a specific color. Axis values must be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).
source	<pre> &lt;xs:element name="Saturation"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Saturation refers to the intensity of a specific color. Axis values must be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

### element **ColorSpaceHSVType/Value**

diagram	 <p>Lightness of a specific color. Axis values must be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).</p>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Lightness of a specific color. Axis values must be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).
source	<pre> &lt;xs:element name="Value"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Lightness of a specific color. Axis values must be scaled to and within 0.0 (inclusive) and 1.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

# complexType ColorSpaceMunsellType

diagram

## ColorSpaceMunsellType

Munsell color space type. The system consists of three independent dimensions which can be represented cylindrically in three dimensions as an irregular color solid; hue, measured by degrees around horizontal circles; chroma, measured radially outward from the neutral (gray) vertical axis; and value, measured vertically from 0 (black) to 10 (white). Munsell determined the spacing of colors along these dimensions by taking measurements of human visual responses. In each dimension, Munsell colors are as close to perceptually uniform as he could make them, which makes the resulting shape quite irregular. Note that Munsell requires the illuminant to be C, the field of view to be 2 degrees and the spectral source to be Sphere excluded.

## CxF:ColorSpaceType (extension)

### attributes

#### Comments

Comments regarding this color space.

#### UniqueID

User specified unique identifier of this color. This is typically a GUID.

### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

### attributes

#### Name

### CxF:Color Space Specification Spe...

Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

### CxF:CollectionName

Munsell collection name, i.e. glossy, matte, soil, etc.

### CxF:ColorName

Munsell full color name, i.e. 5B 6/7.

namespace

<http://colorexchangeformat.com/v2>




type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base abstract	CxF:ColorSpaceType false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:CollectionName</a> <a href="#">CxF:ColorName</a>					
used by	element	<a href="#">ColorSpaceMunsell</a>				
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>  <a href="#">Name</a>	Type <b>xs:string</b>  <b>xs:string</b>  <b>xs:string</b>	Use    optional	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Munsell color space type. The system consists of three independent dimensions which can be represented cylindrically in three dimensions as an irregular color solid: hue, measured by degrees around horizontal circles; chroma, measured radially outward from the neutral (gray) vertical axis; and value, measured vertically from 0 (black) to 10 (white). Munsell determined the spacing of colors along these dimensions by taking measurements of human visual responses. In each dimension, Munsell colors are as close to perceptually uniform as he could make them, which makes the resulting shape quite irregular. Note that Munsell requires the illuminant to be C, the field of view to be 2 degrees and the spectral source to be Sphere specular excluded.					
source	<pre>&lt;xs:complexType name="ColorSpaceMunsellType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Munsell color space type. The system consists of three independent dimensions which can be represented cylindrically in three dimensions as an irregular color solid: hue, measured by degrees around horizontal circles; chroma, measured radially outward from the neutral (gray) vertical axis; and value, measured vertically from 0 (black) to 10 (white). Munsell determined the spacing of colors along these dimensions by taking measurements of human visual responses. In each dimension, Munsell colors are as close to perceptually uniform as he could make them, which makes the resulting shape quite irregular. Note that Munsell requires the illuminant to be C, the field of view to be 2 degrees and the spectral source to be Sphere specular excluded.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationSpectrumGeneric"/&gt;         &lt;xs:element name="CollectionName"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Munsell collection name, i.e. glossy, matte, soil, etc.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:string"&gt;               &lt;xs:minLength value="1"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="ColorName"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Munsell full color name, i.e. 5B 6/7.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

	<pre> &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:minLength value="1"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
--	--

#### attribute **ColorSpaceMunsellType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<pre>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</pre>

#### element **ColorSpaceMunsellType/CollectionName**

diagram	 <pre> classDiagram     class CxFCollectionName["CxF:CollectionName"]     CxFCollectionName --&gt; "Munsell collection name, i.e. glossy, matte, soil, etc." </pre>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	minLength 1
annotation	documentation Munsell collection name, i.e. glossy, matte, soil, etc.
source	<pre> &lt;xs:element name="CollectionName"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Munsell collection name, i.e. glossy, matte, soil, etc.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceMunsellType/ColorName**

diagram	 <pre> classDiagram     class CxFColorName["CxF:ColorName"]     CxFColorName --&gt; "Munsell full color name, i.e. 5B 6/7." </pre>
---------	---

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	minLength 1
annotation	documentation Munsell full color name, i.e. 5B 6/7.
source	<pre> &lt;xs:element name="ColorName"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Munsell full color name, i.e. 5B 6/7.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

complexType **ColorSpaceNCSType**

diagram

**ColorSpaceNCSType**

The Natural Color System® (NCS) is a proprietary perceptual color model published by the Scandinavian Colour Institute (Sjandnaviska Färginstitutet AB) of Stockholm, Sweden. It is based on the color opponency description of color vision, first proposed by German physiologist Ewald Hering. The system is usually used for matching colors (using printed reference cards), rather than mixing colors.

The underlying physiological mechanisms involved in color opponency include the bipolar and ganglion cells in the retina, which process the signal originated by the retinal cones before it is sent to the brain. A model like RGB describes what happens at the lower, retinal cone level, and thus is very well fitted for the task of "fooling the eye" as done by TV sets and computer displays. The NCS model, for its part, describes the organization of the color sensations as perceived at the upper, brain level, and thus is much better fitted than RGB to deal with how humans experience and describe their color sensations (hence the "natural" part of its name); but it would be useless, for example, for describing the behaviour of mixing lights and pigments.

The NCS is based on the six elementary color percepts of human vision as described by color opponency—white, black, red, yellow, green, and blue—which are difficult to define perceptually in terms of others (for example, one cannot describe color red as looking "like a yellow and magenta mixture", even though you will in fact get a red pigment by mixing yellow and magenta pigments). These six elementary colors are frequently chosen to paint educational toys, or for designs that try to appeal from their simplicity (such as the Olympic flag and the Microsoft Windows logo). All the other perceptual colors are composite perceptions that can be defined in terms of those six (for example, turquoise looks like "blue-green", orange like "a color that is both reddish and yellowish", and brown looks like "a very dark orange", that is, like a mixture of red, yellow and black). This all means the appearance of a color can be readily predicted from its NCS notation, whereas its notation in systems such as RGB often looks unintuitive (for example, yellow does not look like "a reddish-greenish color" at all, even though the yellow on an RGB monitor is obtained by mixing red and green lights). Note also that, under normal viewing circumstances, there is no hue that must be described as a mixture of opponent hues; that is, as a hue looking "redgreen" or "yellowblue" (see note in the color opponents article).

Colors in the NCS are defined by three values, specifying the amount of blackness (darkness), chromaticity (saturation), and a percentage value between two of the colours red, yellow, green or blue (hue). The blackness and the chromaticity together add up to less than or equal to 100%—their remainder from 100%, if any, gives the amount of whiteness. The complete NCS color notations can also be tagged with a letter giving the version of the NCS color standard that was used to specify the color.

**CxF:ColorSpaceType (extension)**

**attributes**

**Comments**

Comments regarding this color space.

**UniqueID**

User specified unique identifier of this color. This is typically a GUID.

**CxF:CustomAttribute**

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

**CxF:ParentColorSpace**

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

**CxF:ChangeHistory**

Date and time change log for this element. The first value is the creation date time and is required.

**attributes**

**Name**

**CxF:ColorSpaceSpecificationSpec**

Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

**CxF:ColorName**

Color expressed as string. Example: Yellow - NCS 0580-Y10R (= 5% darkness, 80% saturation, 90% yellow + 10% red = very slightly darkish mostly saturated yellow with a slight orangish tinge)

namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base abstract	CxF:ColorSpaceType false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:ColorName</a>					
used by	element	<a href="#">ColorSpaceNCS</a>				
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>  <a href="#">Name</a>	Type <b>xs:string</b>  <b>xs:string</b>  <b>xs:string</b>	Use    optional	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	<div>documentation</div> <p>The Natural Color System® (NCS) is a proprietary perceptual color model published by the Scandinavian Colour Institute (Skandinaviska Färginstitutet AB) of Stockholm, Sweden. It is based on the color opponency description of color vision, first proposed by German physiologist Ewald Hering. The system is usually used for matching colors (using printed reference cards), rather than mixing colors.</p> <p>The underlying physiological mechanisms involved in color opponency include the bipolar and ganglion cells in the retina, which process the signal originated by the retinal cones before it is sent to the brain. A model like RGB describes what happens at the lower, retinal cone level, and thus is very well fitted for the task of "fooling the eye" as done by TV sets and computer displays. The NCS model, for its part, describes the organization of the color sensations as perceived at the upper, brain level, and thus is much better fitted than RGB to deal with how humans experience and describe their color sensations (hence the "natural" part of its name); but it would be useless, for example, for describing the behaviour of mixing lights and pigments.</p> <p>The NCS is based on the six elementary color percepts of human vision as described by color opponency—white, black, red, yellow, green, and blue—which are difficult to define perceptually in terms of others (for example, one cannot describe color red as looking "like a yellow and magenta mixture", even though you will in fact get a red pigment by mixing yellow and magenta pigments). These six elementary colors are frequently chosen to paint educational toys, or for designs that try to appeal from their simplicity (such as the Olympic flag and the Microsoft Windows logo). All the other perceptual colors are composite perceptions that can be defined in terms of those six (for example, turquoise looks like "blue-green", orange like "a color that is both reddish and yellowish", and brown looks like "a very dark orange", that is, like a mixture of red, yellow and black). This all means the appearance of a color can be readily predicted from its NCS notation, whereas its notation in systems such as RGB often looks unintuitive (for example, yellow does not look like "a reddish-greenish color" at all, even though the yellow on an RGB monitor is obtained by mixing red and green lights). Note also that, under normal viewing circumstances, there is no hue that must be described as a mixture of opponent hues; that is, as a hue looking "redgreen" or "yellowblue" (see note in the color opponents article).</p> <p>Colors in the NCS are defined by three values, specifying the amount of blackness (darkness), chromaticity (saturation), and a percentage value between two of the colours red, yellow, green or blue (hue). The blackness and the chromaticity together add up to less than or equal to 100%--their remainder from 100%, if any, gives the amount of whiteness. The complete NCS color notations can also be tagged with a letter giving the version of the NCS color standard that was used to specify the color.</p>					
source	<pre>&lt;xs:complexType name="ColorSpaceNCSType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The Natural Color System® (NCS) is a proprietary perceptual color model published by the Scandinavian Colour Institute (Skandinaviska Färginstitutet AB) of Stockholm, Sweden. It is based on the color opponency description of color vision, first proposed by German physiologist Ewald Hering. The system is usually used for matching colors (using printed reference cards), rather than mixing colors.  The underlying physiological mechanisms involved in color opponency include the bipolar and</pre>					


	<p>ganglion cells in the retina, which process the signal originated by the retinal cones before it is sent to the brain. A model like RGB describes what happens at the lower, retinal cone level, and thus is very well fitted for the task of "fooling the eye" as done by TV sets and computer displays. The NCS model, for its part, describes the organization of the color sensations as perceived at the upper, brain level, and thus is much better fitted than RGB to deal with how humans experience and describe their color sensations (hence the "natural" part of its name); but it would be useless, for example, for describing the behaviour of mixing lights and pigments.</p> <p>The NCS is based on the six elementary color percepts of human vision as described by color opponency—white, black, red, yellow, green, and blue—which are difficult to define perceptually in terms of others (for example, one cannot describe color red as looking "like a yellow and magenta mixture", even though you will in fact get a red pigment by mixing yellow and magenta pigments). These six elementary colors are frequently chosen to paint educational toys, or for designs that try to appeal from their simplicity (such as the Olympic flag and the Microsoft Windows logo). All the other perceptual colors are composite perceptions that can be defined in terms of those six (for example, turquoise looks like "blue-green", orange like "a color that is both reddish and yellowish", and brown looks like "a very dark orange", that is, like a mixture of red, yellow and black). This all means the appearance of a color can be readily predicted from its NCS notation, whereas its notation in systems such as RGB often looks unintuitive (for example, yellow does not look like "a reddish-greenish color" at all, even though the yellow on an RGB monitor is obtained by mixing red and green lights). Note also that, under normal viewing circumstances, there is no hue that must be described as a mixture of opponent hues; that is, as a hue looking "redgreen" or "yellowblue" (see note in the color opponents article).</p> <p>Colors in the NCS are defined by three values, specifying the amount of blackness (darkness), chromaticity (saturation), and a percentage value between two of the colours red, yellow, green or blue (hue). The blackness and the chromaticity together add up to less than or equal to 100%--their remainder from 100%, if any, gives the amount of whiteness. The complete NCS color notations can also be tagged with a letter giving the version of the NCS color standard that was used to specify the color.</p> <pre>&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:complexContent&gt;   &lt;xs:extension base="CxF:ColorSpaceType"&gt;     &lt;xs:sequence&gt;       &lt;xs:element ref="CxF:ColorSpaceSpecificationSpectrumGeneric"/&gt;       &lt;xs:element name="ColorName" type="xs:string"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Color expressed as string. Example: Yellow - NCS 0580-Y10R (= 5% darkness, 80% saturation, 90% yellow + 10% red = very slightly darkish mostly saturated yellow with a slight orangish tinge)         &lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;     &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;   &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>
--	--

attribute **ColorSpaceNCSType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional

source	<xs:attribute name="Name" type="xs:string" use="optional"/>
--------	---

element **ColorSpaceNCSType/ColorName**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Color expressed as string. Example: Yellow - NCS 0580-Y10R (= 5% darkness, 80% saturation, 90% yellow + 10% red = very slightly darkish mostly saturated yellow with a slight orangish tinge)
source	<pre> &lt;xs:element name="ColorName" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Color expressed as string. Example: Yellow - NCS 0580-Y10R (= 5% darkness, 80% saturation, 90% yellow + 10% red = very slightly darkish mostly saturated yellow with a slight orangish tinge)     &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>



## complexType ColorSpacePANTONEHexachromeType

diagram

### ColorSpacePANTONEHexachrom...

Whether it's for greater product shelf appeal or faithful reproduction of art or photographs, printing in Hexachrome® six-color process delivers. Its combination of purer CMYK plus PANTONE Hexachrome Orange and PANTONE Hexachrome Green inks extends the gamut dramatically when compared to four-color process printing. And in most areas of the color spectrum, it either meets or exceeds the gamut of RGB. This means that designs created on-screen can be reproduced in print. Unlike CMYK printing, Hexachrome employs an RGB workflow so that color gamut is not compressed. At the outset, it is critical to develop an RGB and color managed workflow to maximize the extended color advantage. PANTONE HEXWARE® plug-ins are used in conjunction with Adobe® Photoshop® and Adobe Illustrator® to color-correct files, separate into six channels and soft-proof images while QuarkXPress™ is Hexachrome enabled. Our Hexachrome Designer Primer, available as a PDF download, provides an easy to understand overview on preparing files for printing in Hexachrome. Lastly, in addition to a six-color press and access to six-color proofing system, specially formulated Hexachrome inks are required.

### CxF:ColorSpaceType (extension)

#### attributes

##### Comments

Comments regarding this color space.

##### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

#### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

#### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### attributes

##### Name

#### CxF:ColorSpaceSpecificationSpe...

Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

#### CxF:Cyan

Percent cyan 0 (inclusive) to 100 (inclusive).

#### CxF:Magenta

Percent magenta 0 (inclusive) to 100 (inclusive).

#### CxF:Yellow

Percent yellow 0 (inclusive) to 100 (inclusive).

#### CxF:Black

Percent black 0 (inclusive) to 100 (inclusive).

#### CxF:Orange

Percent orange 0 (inclusive) to 100 (inclusive).

#### CxF:Green

Percent green 0 (inclusive) to 100 (inclusive).

#### CxF:SpotColor

0..∞

Optional spot colors, specific by name and percentage 0 (inclusive) to 100 (inclusive).

namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base	CxF:ColorSpaceType				
	abstract	false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Cyan</a> <a href="#">CxF:Magenta</a> <a href="#">CxF:Yellow</a> <a href="#">CxF:Black</a> <a href="#">CxF:Orange</a> <a href="#">CxF:Green</a> <a href="#">CxF:SpotColor</a>					
used by	element	<a href="#">ColorSpacePANTONEHexachrome</a>				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	xs:string				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	xs:string				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	xs:string	optional			
annotation	documentation Whether it's for greater product shelf appeal or faithful reproduction of art or photographs, printing in Hexachrome® six-color process delivers. Its combination of purer CMYK plus PANTONE Hexachrome Orange and PANTONE Hexachrome Green inks extends the gamut dramatically when compared to four-color process printing. And in most areas of the color spectrum, it either meets or exceeds the gamut of RGB. This means that designs created on-screen can be reproduced in print. Unlike CMYK printing, Hexachrome employs an RGB workflow so that color gamut is not compressed. At the outset, it is critical to develop an RGB and color managed workflow to maximize the extended color advantage. PANTONE HEXWARE® plug-ins are used in conjunction with Adobe® Photoshop® and Adobe Illustrator® to color-correct files, separate into six channels and soft-proof images while QuarkXPress™ is Hexachrome enabled. Our Hexachrome Designer Primer, available as a PDF download, provides an easy to understand overview on preparing files for printing in Hexachrome. Lastly, in addition to a six-color press and access to six-color proofing system, specially formulated Hexachrome inks are required.					
source	<pre>&lt;xs:complexType name="ColorSpacePANTONEHexachromeType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Whether it's for greater product shelf appeal or faithful reproduction of art or photographs, printing in Hexachrome® six-color process delivers. Its combination of purer CMYK plus PANTONE Hexachrome Orange and PANTONE Hexachrome Green inks extends the gamut dramatically when compared to four-color process printing. And in most areas of the color spectrum, it either meets or exceeds the gamut of RGB. This means that designs created on-screen can be reproduced in print. Unlike CMYK printing, Hexachrome employs an RGB workflow so that color gamut is not compressed. At the outset, it is critical to develop an RGB and color managed workflow to maximize the extended color advantage. PANTONE HEXWARE® plug-ins are used in conjunction with Adobe® Photoshop® and Adobe Illustrator® to color-correct files, separate into six channels and soft-proof images while QuarkXPress™ is Hexachrome enabled. Our Hexachrome Designer Primer, available as a PDF download, provides an easy to understand overview on preparing files for printing in Hexachrome. Lastly, in addition to a six-color press and access to six-color proofing system, specially formulated Hexachrome inks are required.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationSpectrumGeneric"/&gt;         &lt;xs:element name="Cyan"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Percent cyan 0 (inclusive) to 100 (inclusive).&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

```

<xs:restriction base="xs:double">
  <xs:minInclusive value="0.0"/>
  <xs:maxInclusive value="100.0"/>
</xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="Magenta">
  <xs:annotation>
    <xs:documentation>Percent magenta 0 (inclusive) to 100 (inclusive).</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:double">
      <xs:minInclusive value="0.0"/>
      <xs:maxInclusive value="100.0"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="Yellow">
  <xs:annotation>
    <xs:documentation>Percent yellow 0 (inclusive) to 100 (inclusive).</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:double">
      <xs:minInclusive value="0.0"/>
      <xs:maxInclusive value="100.0"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="Black">
  <xs:annotation>
    <xs:documentation>Percent black 0 (inclusive) to 100 (inclusive).</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:double">
      <xs:minInclusive value="0.0"/>
      <xs:maxInclusive value="100.0"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="Orange">
  <xs:annotation>
    <xs:documentation>Percent orange 0 (inclusive) to 100 (inclusive).</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:double">
      <xs:minInclusive value="0.0"/>
      <xs:maxInclusive value="100.0"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="Green">
  <xs:annotation>
    <xs:documentation>Percent green 0 (inclusive) to 100 (inclusive).</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:double">


```

	<pre> &lt;xs:minInclusive value="0.0"/&gt; &lt;xs:maxInclusive value="100.0"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="SpotColor" type="CxF:SpotColorType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional spot colors, specifiec by name and percentage 0 (inclusive) to 100 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
--	---

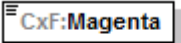
#### attribute **ColorSpacePANTONEHexachromeType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<pre>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</pre>

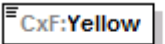
#### element **ColorSpacePANTONEHexachromeType/Cyan**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 100.0
annotation	documentation Percent cyan 0 (inclusive) to 100 (inclusive).
source	<pre> &lt;xs:element name="Cyan"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Percent cyan 0 (inclusive) to 100 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="100.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>


# element ColorSpacePANTONEHexachromeType/Magenta

diagram	 <p>Percent magenta 0 (inclusive) to 100 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 100.0
annotation	documentation Percent magenta 0 (inclusive) to 100 (inclusive).
source	<pre> &lt;xs:element name="Magenta"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Percent magenta 0 (inclusive) to 100 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="100.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>


# element ColorSpacePANTONEHexachromeType/Yellow

diagram	 <p>Percent yellow 0 (inclusive) to 100 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 100.0
annotation	documentation Percent yellow 0 (inclusive) to 100 (inclusive).
source	<pre> &lt;xs:element name="Yellow"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Percent yellow 0 (inclusive) to 100 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="100.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

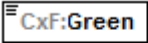
# element ColorSpacePANTONEHexachromeType/Black

diagram	 <p>Percent black 0 (inclusive) to 100 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 100.0
annotation	documentation Percent black 0 (inclusive) to 100 (inclusive).
source	<pre> &lt;xs:element name="Black"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Percent black 0 (inclusive) to 100 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="100.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

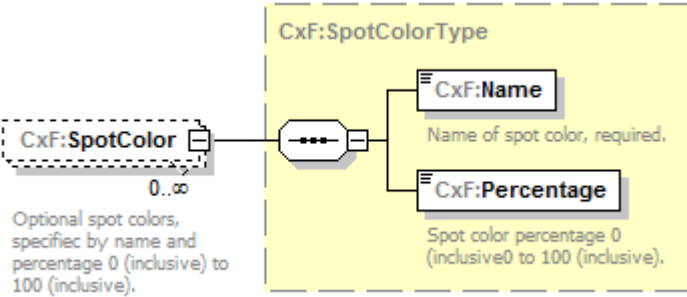
# element ColorSpacePANTONEHexachromeType/Orange

diagram	 <p>Percent orange 0 (inclusive) to 100 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 100.0
annotation	documentation Percent orange 0 (inclusive) to 100 (inclusive).
source	<pre> &lt;xs:element name="Orange"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Percent orange 0 (inclusive) to 100 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="100.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

# element ColorSpacePANTONEHexachromeType/Green

diagram	 <p>Percent green 0 (inclusive) to 100 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 100.0
annotation	documentation Percent green 0 (inclusive) to 100 (inclusive).
source	<pre>&lt;xs:element name="Green"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Percent green 0 (inclusive) to 100 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="100.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt;</pre>

# element ColorSpacePANTONEHexachromeType/SpotColor

diagram	 <p>Optional spot colors, specific by name and percentage 0 (inclusive) to 100 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:SpotColorType</a>
properties	isRef 0 minOcc 0 maxOcc unbounded content complex
children	<a href="#">CxF:Name</a> <a href="#">CxF:Percentage</a>
annotation	documentation Optional spot colors, specific by name and percentage 0 (inclusive) to 100 (inclusive).
source	<pre>&lt;xs:element name="SpotColor" type="CxF:SpotColorType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional spot colors, specific by name and percentage 0 (inclusive) to 100 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;</pre>

	</xs:element>
--	---------------



## complexType ColorSpacePANTONEType

diagram

### ColorSpacePANTONEType

PANTONE color space type. This is the type of the ColorSpacePantone element which belongs to the ColorSpace substitution group.

#### CxF:ColorSpaceType (extension)

##### attributes

###### Comments

Comments regarding this color space.

###### UniqueID

User specified unique identifier of this color. This is typically a GUID.

##### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

##### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

##### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

##### attributes

###### Name

##### CxF:FamilyName

Family name of this color.

##### CxF:ColorName

Name of this color.

##### CxF:Page

Page where this color can be located.

##### CxF:Gamut

Gamut this color can be created in, specified via string enumeration.

##### CxF:Recipe

Ink formulation recipe for this color.

##### CxF:ColorAndFinish

0..∞

Specification of the spectral color with specified finish applied to printed material.

namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base abstract	CxF:ColorSpaceType false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:FamilyName</a> <a href="#">CxF:ColorName</a> <a href="#">CxF:Page</a> <a href="#">CxF:Gamut</a> <a href="#">CxF:Recipe</a> <a href="#">CxF:ColorAndFinish</a>					
used by	element	<a href="#">ColorSpacePANTONE</a>				
attributes	Name <a href="#">Comments</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	<b>xs:string</b>	optional			
annotation	documentation PANTONE color space type. This is the type of the ColorSpacePantone element which belongs to the ColorSpace substitution group.					
source	<pre>&lt;xs:complexType name="ColorSpacePANTONEType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;PANTONE color space type. This is the type of the ColorSpacePantone element which belongs to the ColorSpace substitution group. &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="FamilyName" type="xs:string"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Family name of this color.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="ColorName"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Name of this color.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:complexType&gt;           &lt;xs:sequence&gt;             &lt;xs:element name="PrefixName" type="xs:string"&gt;               &lt;xs:annotation&gt;                 &lt;xs:documentation&gt;Color name prefix, i.e. PANTONE&lt;/xs:documentation&gt;               &lt;/xs:annotation&gt;             &lt;/xs:element&gt;             &lt;xs:element name="BaseName" type="xs:string"&gt;               &lt;xs:annotation&gt;                 &lt;xs:documentation&gt;Color name base, i.e. 100&lt;/xs:documentation&gt;               &lt;/xs:annotation&gt;             &lt;/xs:element&gt;             &lt;xs:element name="SuffixName" type="xs:string"&gt;               &lt;xs:annotation&gt;                 &lt;xs:documentation&gt;Color name suffix, i.e. C&lt;/xs:documentation&gt;               &lt;/xs:annotation&gt;             &lt;/xs:element&gt;           &lt;/xs:sequence&gt;         &lt;/xs:complexType&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

```

</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="Page" type="xs:string">
  <xs:annotation>
    <xs:documentation>Page where this color can be located.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Gamut">
  <xs:annotation>
    <xs:documentation>Gamut this color can be created in, specified via string
enumeration.</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:enumeration value="Gamut_AdobeRGB"/>
      <xs:enumeration value="Gamut_sRGB"/>
      <xs:enumeration value="Gamut_CMYK"/>
      <xs:enumeration value="Gamut_HEXachrome"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="Recipe" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Ink formulation recipe for this color.</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="ColorantElement" maxOccurs="unbounded">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="Colorant">
              <xs:complexType>
                <xs:sequence>
                  <xs:element name="CustomAttributes" minOccurs="0" maxOccurs="unbounded">
                    <xs:annotation>
                      <xs:documentation>Custom colorant attributes.</xs:documentation>
                    </xs:annotation>
                    <xs:complexType>
                      <xs:sequence>
                        <xs:element name="CustomAttribute" type="CxF:CustomAttributeType"/>
                      </xs:sequence>
                    </xs:complexType>
                  </xs:element>
                  <xs:element name="Name">
                    <xs:annotation>
                      <xs:documentation>The name of the colorant, this is
required.</xs:documentation>
                    </xs:annotation>
                    <xs:simpleType>
                      <xs:restriction base="xs:string">
                        <xs:minLength value="1"/>
                      </xs:restriction>
                    </xs:simpleType>
                  </xs:element>

```

```

<xs:element name="Manufacturer" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Manufacturer of colorant, this is
required.</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:minLength value="1"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="PartNumber" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Colorant part number (typically specified by manufacturer),
this is required.</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:minLength value="1"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="Density" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Density specified as liters per kilogram.</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:double">
      <xs:minExclusive value="0.0"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="Contribution">
  <xs:annotation>
    <xs:documentation>Percentage contribution (by weight) of the specified
FormulaElement to the total formula (including optional base).</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:double">
      <xs:minInclusive value="0.0"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="ColorAndFinish" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Specification of the spectral color with specified finish applied to printed
material.</xs:documentation>

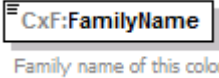
```

	<pre> &lt;/xs:annotation&gt; &lt;xs:complexType&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="Finish" type="CxF:EFinishType"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Enumeration of finish applied to printed material.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element ref="CxF:ColorSpaceSpectral"/&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
--	---

#### attribute **ColorSpacePANTONEType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<pre>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</pre>

#### element **ColorSpacePANTONEType/FamilyName**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Family name of this color.
source	<pre> &lt;xs:element name="FamilyName" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Family name of this color.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

# element ColorSpacePANTONEType/ColorName


diagram	
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 content complex
children	<a href="#">CxF:PrefixName</a> <a href="#">CxF:BaseName</a> <a href="#">CxF:SuffixName</a>
annotation	documentation Name of this color.
source	<pre> &lt;xs:element name="ColorName"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of this color.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="PrefixName" type="xs:string"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Color name prefix, i.e. PANTONE&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="BaseName" type="xs:string"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Color name base, i.e. 100&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="SuffixName" type="xs:string"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Color name suffix, i.e. C&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

## element ColorSpacePANTONEType/ColorName/PrefixName

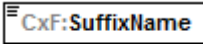
diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 content simple

annotation	documentation Color name prefix, i.e. PANTONE
source	<pre> &lt;xs:element name="PrefixName" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Color name prefix, i.e. PANTONE&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>


#### element ColorSpacePANTONEType/ColorName/BaseName

diagram	 <p>Color name base, i.e. 100</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Color name base, i.e. 100
source	<pre> &lt;xs:element name="BaseName" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Color name base, i.e. 100&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

#### element ColorSpacePANTONEType/ColorName/SuffixName

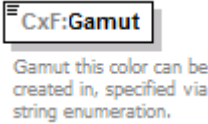
diagram	 <p>Color name suffix, i.e. C</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Color name suffix, i.e. C
source	<pre> &lt;xs:element name="SuffixName" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Color name suffix, i.e. C&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

#### element ColorSpacePANTONEType/Page

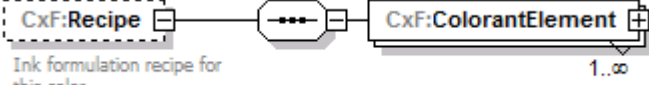
diagram	 <p>Page where this color can be located.</p>
namespace	http://colorexchangeformat.com/v2

type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Page where this color can be located.
source	<pre> &lt;xs:element name="Page" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Page where this color can be located.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

### element ColorSpacePANTONEType/Gamut

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	enumeration Gamut_AdobeRGB enumeration Gamut_sRGB enumeration Gamut_CMYK enumeration Gamut_HEXachrome
annotation	documentation Gamut this color can be created in, specified via string enumeration.
source	<pre> &lt;xs:element name="Gamut"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Gamut this color can be created in, specified via string enumeration.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="Gamut_AdobeRGB"/&gt;       &lt;xs:enumeration value="Gamut_sRGB"/&gt;       &lt;xs:enumeration value="Gamut_CMYK"/&gt;       &lt;xs:enumeration value="Gamut_HEXachrome"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

### element ColorSpacePANTONEType/Recipe

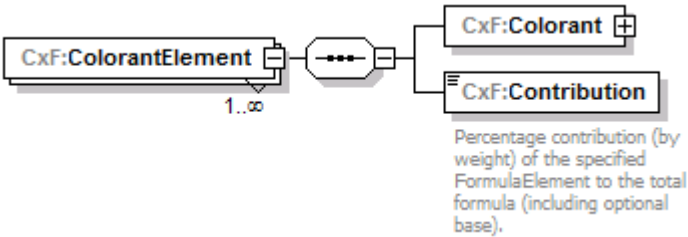
diagram	
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 minOcc 0 maxOcc 1 content complex



children	<a href="#">CxF:ColorantElement</a>
annotation	documentation Ink formulation recipe for this color.
source	<pre> &lt;xs:element name="Recipe" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Ink formulation recipe for this color.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="ColorantElement" maxOccurs="unbounded"&gt;         &lt;xs:complexType&gt;           &lt;xs:sequence&gt;             &lt;xs:element name="Colorant"&gt;               &lt;xs:complexType&gt;                 &lt;xs:sequence&gt;                   &lt;xs:element name="CustomAttributes" minOccurs="0" maxOccurs="unbounded"&gt;                     &lt;xs:annotation&gt;                       &lt;xs:documentation&gt;Custom colorant attributes.&lt;/xs:documentation&gt;                     &lt;/xs:annotation&gt;                     &lt;xs:complexType&gt;                       &lt;xs:sequence&gt;                         &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType"/&gt;                       &lt;/xs:sequence&gt;                     &lt;/xs:complexType&gt;                   &lt;/xs:element&gt;                   &lt;xs:element name="Name"&gt;                     &lt;xs:annotation&gt;                       &lt;xs:documentation&gt;The name of the colorant, this is required.&lt;/xs:documentation&gt;                     &lt;/xs:annotation&gt;                     &lt;xs:simpleType&gt;                       &lt;xs:restriction base="xs:string"&gt;                         &lt;xs:minLength value="1"/&gt;                       &lt;/xs:restriction&gt;                     &lt;/xs:simpleType&gt;                   &lt;/xs:element&gt;                   &lt;xs:element name="Manufacturer" minOccurs="0"&gt;                     &lt;xs:annotation&gt;                       &lt;xs:documentation&gt;Manufacturer of colorant, this is required.&lt;/xs:documentation&gt;                     &lt;/xs:annotation&gt;                     &lt;xs:simpleType&gt;                       &lt;xs:restriction base="xs:string"&gt;                         &lt;xs:minLength value="1"/&gt;                       &lt;/xs:restriction&gt;                     &lt;/xs:simpleType&gt;                   &lt;/xs:element&gt;                   &lt;xs:element name="PartNumber" minOccurs="0"&gt;                     &lt;xs:annotation&gt;                       &lt;xs:documentation&gt;Colorant part number (typically specified by manufacturer), this is required.&lt;/xs:documentation&gt;                     &lt;/xs:annotation&gt;                     &lt;xs:simpleType&gt;                       &lt;xs:restriction base="xs:string"&gt;                         &lt;xs:minLength value="1"/&gt;                       &lt;/xs:restriction&gt;                     &lt;/xs:simpleType&gt;                 &lt;/xs:sequence&gt;               &lt;/xs:complexType&gt;             &lt;/xs:element&gt;           &lt;/xs:sequence&gt;         &lt;/xs:complexType&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

	<pre>&lt;/xs:element&gt; &lt;xs:element name="Density" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Density specified as liters per kilogram.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minExclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;xs:element name="Contribution"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Percentage contribution (by weight) of the specified FormulaElement to the total formula (including optional base).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt;</pre>
--	--

element **ColorSpacePANTONEType/Recipe/ColorantElement**

diagram									
namespace	http://colorexchangeformat.com/v2								
properties	<table><tr><td>isRef</td><td>0</td></tr><tr><td>minOcc</td><td>1</td></tr><tr><td>maxOcc</td><td>unbounded</td></tr><tr><td>content</td><td>complex</td></tr></table>	isRef	0	minOcc	1	maxOcc	unbounded	content	complex
isRef	0								
minOcc	1								
maxOcc	unbounded								
content	complex								
children	<a href="#">CxF:Colorant</a> <a href="#">CxF:Contribution</a>								
source	<pre>&lt;xs:element name="ColorantElement" maxOccurs="unbounded"&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="Colorant"&gt;         &lt;xs:complexType&gt;           &lt;xs:sequence&gt;</pre>								

```

<xs:element name="CustomAttributes" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Custom colorant attributes.</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="CustomAttribute" type="CxF:CustomAttributeType"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="Name">
  <xs:annotation>
    <xs:documentation>The name of the colorant, this is required.</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:minLength value="1"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="Manufacturer" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Manufacturer of colorant, this is required.</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:minLength value="1"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="PartNumber" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Colorant part number (typically specified by manufacturer), this is
required.</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:minLength value="1"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="Density" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Density specified as liters per kilogram.</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:double">
      <xs:minExclusive value="0.0"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="Contribution">
  <xs:annotation>

```

	<pre> &lt;xs:documentation&gt;Percentage contribution (by weight) of the specified FormulaElement to the total formula (including optional base).&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:double"&gt;     &lt;xs:minInclusive value="0.0"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
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element **ColorSpacePANTONEType/Recipe/ColorantElement/Colorant**

diagram	<p>The diagram illustrates the structure of the <b>CxF:Colorant</b> element. It is a container for a sequence of five child elements:</p> <ul style="list-style-type: none"> <li><b>CxF:CustomAttributes</b>: Custom colorant attributes. (Range: 0..∞)</li> <li><b>CxF:Name</b>: The name of the colorant, this is required.</li> <li><b>CxF:Manufacturer</b>: Manufacturer of colorant, this is required.</li> <li><b>CxF:PartNumber</b>: Colorant part number (typically specified by manufacturer), this is required.</li> <li><b>CxF:Density</b>: Density specified as liters per kilogram.</li> </ul>				
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>				
properties	<table> <tr> <td>isRef</td> <td>0</td> </tr> <tr> <td>content</td> <td>complex</td> </tr> </table>	isRef	0	content	complex
isRef	0				
content	complex				
children	<a href="#">CxF:CustomAttributes</a> <a href="#">CxF:Name</a> <a href="#">CxF:Manufacturer</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Density</a>				
source	<pre> &lt;xs:element name="Colorant"&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="CustomAttributes" minOccurs="0" maxOccurs="unbounded"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Custom colorant attributes.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:complexType&gt;           &lt;xs:sequence&gt;             &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType"/&gt;           &lt;/xs:sequence&gt;         &lt;/xs:complexType&gt;       &lt;/xs:element&gt; </pre>				

	<pre>&lt;xs:element name="Name"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The name of the colorant, this is required.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="Manufacturer" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Manufacturer of colorant, this is required.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="PartNumber" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Colorant part number (typically specified by manufacturer), this is required.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="Density" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Density specified as liters per kilogram.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minExclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt;</pre>
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element **ColorSpacePANTONEType/Recipe/ColorantElement/Colorant/CustomAttributes**

diagram	<p>Custom colorant attributes.</p> <p>0..∞</p>
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 minOcc 0

	maxOcc content	unbounded complex
children	<a href="#">CxF:CustomAttribute</a>	
annotation	documentation Custom colorant attributes.	
source	<pre>&lt;xs:element name="CustomAttributes" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Custom colorant attributes.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType"/&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt;</pre>	

element

**ColorSpacePANTONEType/Recipe/ColorantElement/Colorant/CustomAttributes/CustomAttribute**

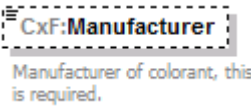
diagram		
namespace	http://colorexchangeformat.com/v2	
type	<a href="#">CxF:CustomAttributeType</a>	
properties	isRef content	0 complex
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>	
source	<pre>&lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType"/&gt;</pre>	

element **ColorSpacePANTONEType/Recipe/ColorantElement/Colorant/Name**

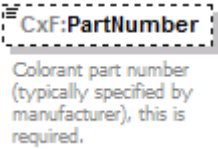
diagram		
namespace	http://colorexchangeformat.com/v2	
type	restriction of <b>xs:string</b>	
properties	isRef content	0 simple
facets	minLength	1

annotation	documentation The name of the colorant, this is required.
source	<pre> &lt;xs:element name="Name"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The name of the colorant, this is required.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element ColorSpacePANTONEType/Recipe/ColorantElement/Colorant/Manufacturer

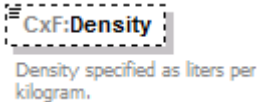
diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	minLength 1
annotation	documentation Manufacturer of colorant, this is required.
source	<pre> &lt;xs:element name="Manufacturer" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Manufacturer of colorant, this is required.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element ColorSpacePANTONEType/Recipe/ColorantElement/Colorant/PartNumber

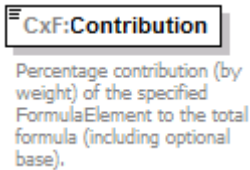
diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple

facets	minLength 1
annotation	documentation Colorant part number (typically specified by manufacturer), this is required.
source	<pre> &lt;xs:element name="PartNumber" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Colorant part number (typically specified by manufacturer), this is required.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element ColorSpacePANTONEType/Recipe/ColorantElement/Colorant/Density

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	minExclusive 0.0
annotation	documentation Density specified as liters per kilogram.
source	<pre> &lt;xs:element name="Density" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Density specified as liters per kilogram.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minExclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element ColorSpacePANTONEType/Recipe/ColorantElement/Contribution

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>




properties	isRef 0 content simple
facets	minInclusive 0.0
annotation	documentation Percentage contribution (by weight) of the specified FormulaElement to the total formula (including optional base).
source	<pre> &lt;xs:element name="Contribution"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Percentage contribution (by weight) of the specified FormulaElement to the total formula (including optional base).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## element ColorSpacePANTONEType/ColorAndFinish

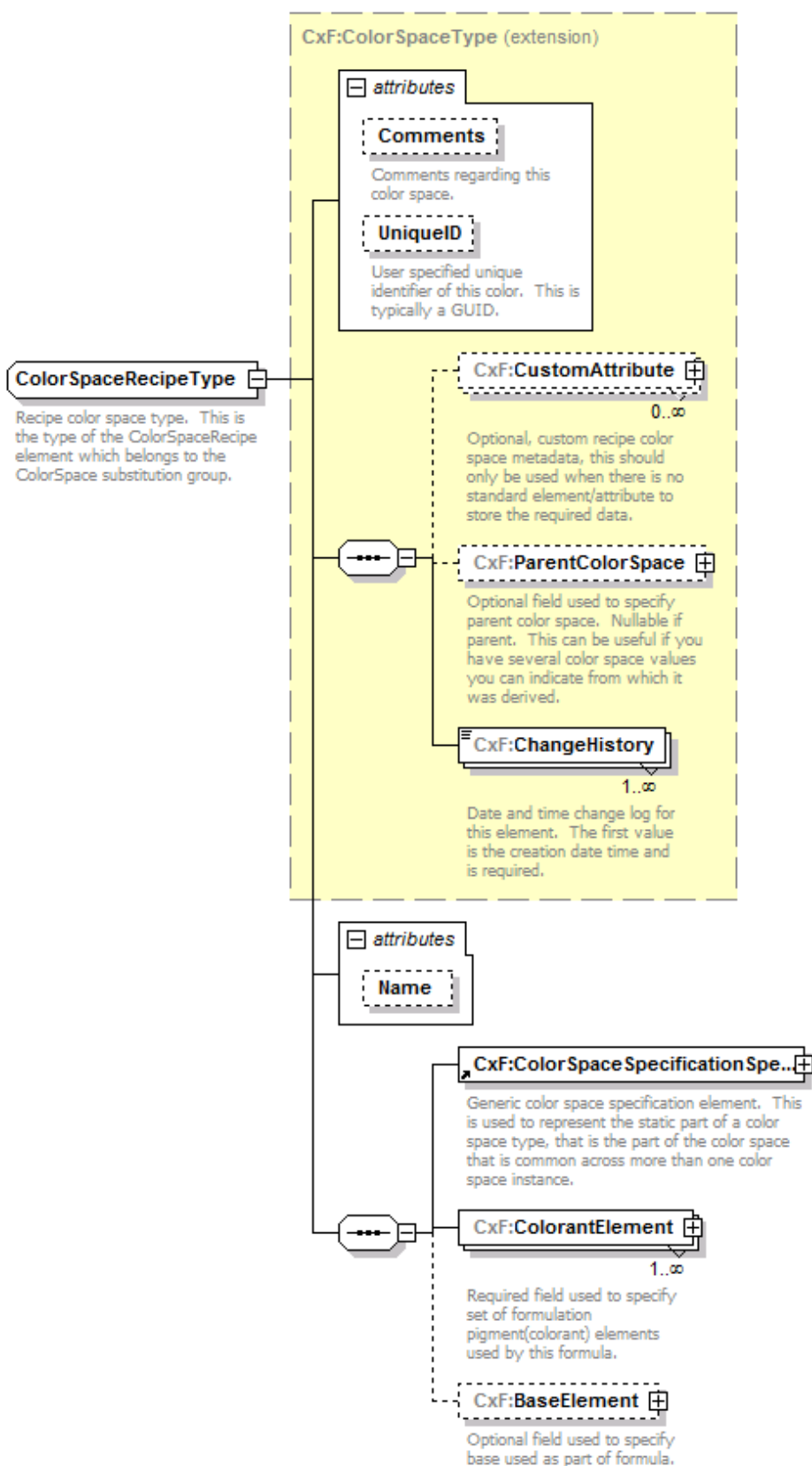
diagram	<p>0..∞</p> <p>Specification of the spectral color with specified finish applied to printed material.</p>
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 minOcc 0 maxOcc unbounded content complex
children	<a href="#">CxF:Finish</a> <a href="#">CxF:ColorSpaceSpectral</a>
annotation	documentation Specification of the spectral color with specified finish applied to printed material.
source	<pre> &lt;xs:element name="ColorAndFinish" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Specification of the spectral color with specified finish applied to printed material.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="Finish" type="CxF:EFinishType"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Enumeration of finish applied to printed material.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element ref="CxF:ColorSpaceSpectral"/&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

element **ColorSpacePANTONEType/ColorAndFinish/Finish**

diagram	 <p>Enumeration of finish applied to printed material.</p>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EFinishType</a>
properties	isRef 0 content simple
facets	enumeration Finish_Coated enumeration Finish_Uncoated enumeration Finish_Matte
annotation	documentation Enumeration of finish applied to printed material.
source	<pre> &lt;xs:element name="Finish" type="CxF:EFinishType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of finish applied to printed material.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## complexType ColorSpaceRecipeType

diagram



namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base abstract	CxF:ColorSpaceType false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:ColorantElement</a> <a href="#">CxF:BaseElement</a>					
used by	element	<a href="#">ColorSpaceRecipe</a>				
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>  <a href="#">Name</a>	Type <b>xs:string</b>  <b>xs:string</b>  <b>xs:string</b>	Use    optional	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Recipe color space type. This is the type of the ColorSpaceRecipe element which belongs to the ColorSpace substitution group.					
source	<pre>&lt;xs:complexType name="ColorSpaceRecipeType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Recipe color space type. This is the type of the ColorSpaceRecipe element which belongs to the ColorSpace substitution group. &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationSpectrumGeneric"/&gt;         &lt;xs:element name="ColorantElement" type="CxF:ColorantElementType" maxOccurs="unbounded"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Required field used to specify set of formulation pigment(colorant) elements used by this formula.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;/xs:element&gt;           &lt;xs:element name="BaseElement" type="CxF:BaseElementType" minOccurs="0"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Optional field used to specify base used as part of formula.&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;             &lt;xs:appinfo&gt;               &lt;jxb:property&gt;                 &lt;jxb:javadoc&gt;Optional field used to specify base used as part of formula.&lt;/jxb:javadoc&gt;               &lt;/jxb:property&gt;             &lt;/xs:appinfo&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;       &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

# attribute ColorSpaceRecipeType/@Name

type	xs:string
properties	isRef 0 use optional
source	<xs:attribute name="Name" type="xs:string" use="optional"/>

## element ColorSpaceRecipeType/ColorantElement

diagram	<p><b>CxF:ColorantElement</b> 1..∞ Required field used to specify set of formulation pigment(colorant) elements used by this formula.</p> <p><b>CxF:ColorantElementType</b></p> <ul style="list-style-type: none"> <li><b>CxF:Colorant</b> (+) Required field used to specify the colorant.</li> <li><b>CxF:Contribution</b> (=) Required field used to specify the percentage contribution (by weight) of the specified element to the total formula (including optional base). Values are specified as %/100, valid values range from 0.0 to 1.0.</li> </ul>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:ColorantElementType</a>
properties	isRef 0 minOcc 1 maxOcc unbounded content complex
children	<a href="#">CxF:Colorant</a> <a href="#">CxF:Contribution</a>
annotation	documentation Required field used to specify set of formulation pigment(colorant) elements used by this formula.
source	<pre> &lt;xs:element name="ColorantElement" type="CxF:ColorantElementType" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required field used to specify set of formulation pigment(colorant) elements used by this formula.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

# element ColorSpaceRecipeType/BaseElement

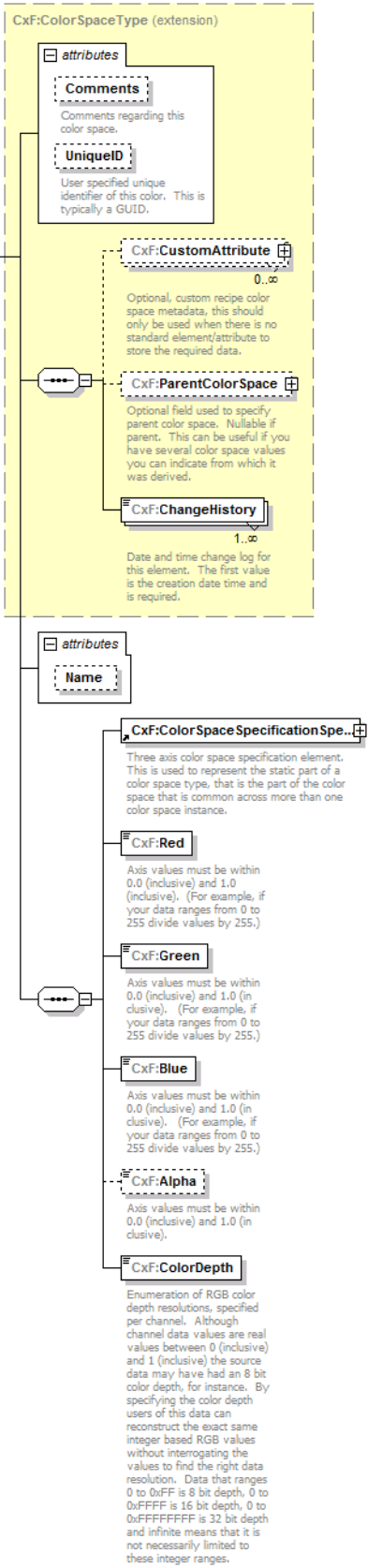
diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:BaseElementType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">CxF:Base</a> <a href="#">CxF:Contribution</a>
annotation	documentation Optional field used to specify base used as part of formula. appinfo <jxb:property> <jxb:javadoc>Optional field used to specify base used as part of formula.</jxb:javadoc> </jxb:property>
source	<pre> &lt;xs:element name="BaseElement" type="CxF:BaseElementType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional field used to specify base used as part of formula.&lt;/xs:documentation&gt;     &lt;xs:appinfo&gt;       &lt;jxb:property&gt;         &lt;jxb:javadoc&gt;Optional field used to specify base used as part of formula.&lt;/jxb:javadoc&gt;       &lt;/jxb:property&gt;     &lt;/xs:appinfo&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

complexType **ColorSpaceRGBType**

diagram

**ColorSpaceRGBType**

RGB color space type. This is the type of the ColorSpaceRGB element which belongs to the ColorSpace substitution group. An RGB color space is any additive color space based on the RGB color model. A particular RGB color space is defined by the three chromaticities of the red, green, and blue additive primaries, and can produce any chromaticity that is the triangle defined by those primary colors. The complete specification of an RGB color space also requires a white point chromaticity and a gamma correction curve. This type may be used for any color depth. The RGB values and optionally the Alpha channel value are specified as floating point values were 1.0 represents full value range.





namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base abstract	CxF:ColorSpaceType false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:Red</a> <a href="#">CxF:Green</a> <a href="#">CxF:Blue</a> <a href="#">CxF:Alpha</a> <a href="#">CxF:ColorDepth</a>					
used by	element	<a href="#">ColorSpaceRGB</a>				
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>  <a href="#">Name</a>	Type <b>xs:string</b>  <b>xs:string</b>  <b>xs:string</b>	Use    optional	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation RGB color space type. This is the type of the ColorSpaceRGB element which belongs to the ColorSpace substitution group. An RGB color space is any additive color space based on the RGB color model. A particular RGB color space is defined by the three chromaticities of the red, green, and blue additive primaries, and can produce any chromaticity that is the triangle defined by those primary colors. The complete specification of an RGB color space also requires a white point chromaticity and a gamma correction curve. This type may be used for any color depth. The RGB values and optionally the Alpha channel value are specified as floating point values were 1.0 represents full value range.					
source	<pre>&lt;xs:complexType name="ColorSpaceRGBType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;RGB color space type. This is the type of the ColorSpaceRGB element which belongs to the ColorSpace substitution group. An RGB color space is any additive color space based on the RGB color model. A particular RGB color space is defined by the three chromaticities of the red, green, and blue additive primaries, and can produce any chromaticity that is the triangle defined by those primary colors. The complete specification of an RGB color space also requires a white point chromaticity and a gamma correction curve. This type may be used for any color depth. The RGB values and optionally the Alpha channel value are specified as floating point values were 1.0 represents full value range.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationSpectrumTristimulus"/&gt;         &lt;xs:element name="Red"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0"/&gt;               &lt;xs:maxInclusive value="1.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="Green"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (in clusive). (For</pre>					

```

example, if your data ranges from 0 to 255 divide values by 255.)</xs:documentation>
</xs:annotation>
<xs:simpleType>
  <xs:restriction base="xs:double">
    <xs:minInclusive value="0.0"/>
    <xs:maxInclusive value="1.0"/>
  </xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="Blue">
  <xs:annotation>
    <xs:documentation>Axis values must be within 0.0 (inclusive) and 1.0 (in clusive). (For
example, if your data ranges from 0 to 255 divide values by 255.)</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:double">
      <xs:maxInclusive value="1.0"/>
      <xs:minInclusive value="0.0"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="Alpha" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Axis values must be within 0.0 (inclusive) and 1.0 (in clusive).
</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:double">
      <xs:minInclusive value="0.0"/>
      <xs:maxInclusive value="1.0"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="ColorDepth" type="CxF:EColorDepthType">
  <xs:annotation>
    <xs:documentation>Enumeration of RGB color depth resolutions, specified per channel.
Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source
data may have had an 8 bit color depth, for instance. By specifying the color depth users of this
data can reconstruct the exact same integer based RGB values without interrogating the values to
find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth,
0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer
ranges.</xs:documentation>
  </xs:annotation>
</xs:element>
</xs:sequence>
<xs:attribute name="Name" type="xs:string" use="optional"/>
</xs:extension>
</xs:complexContent>
</xs:complexType>


```

attribute **ColorSpaceRGBType/@Name**


type	xs:string
properties	isRef 0 use optional

source	<code>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</code>
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### element **ColorSpaceRGBType/Red**

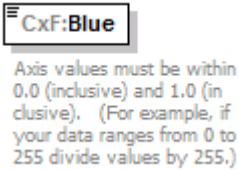
diagram	 <p>Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0 maxInclusive 1.0
annotation	documentation Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)
source	<pre> &lt;xs:element name="Red"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

### element **ColorSpaceRGBType/Green**

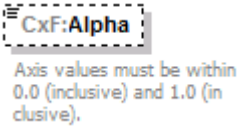
diagram	 <p>Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)
source	<pre> &lt;xs:element name="Green"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For </pre>

	example, if your data ranges from 0 to 255 divide values by 255.)</xs:documentation> </xs:annotation> <xs:simpleType> <xs:restriction base="xs:double"> <xs:minInclusive value="0.0"/> <xs:maxInclusive value="1.0"/> </xs:restriction> </xs:simpleType> </xs:element>
--	--

#### element ColorSpaceRGBType/Blue


diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Axis values must be within 0.0 (inclusive) and 1.0 (in clusive). (For example, if your data ranges from 0 to 255 divide values by 255.)
source	<xs:element name="Blue"> <xs:annotation> <xs:documentation>Axis values must be within 0.0 (inclusive) and 1.0 (in clusive). (For example, if your data ranges from 0 to 255 divide values by 255.)</xs:documentation> </xs:annotation> <xs:simpleType> <xs:restriction base="xs:double"> <xs:maxInclusive value="1.0"/> <xs:minInclusive value="0.0"/> </xs:restriction> </xs:simpleType> </xs:element>

#### element ColorSpaceRGBType/Alpha

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple

facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Axis values must be within 0.0 (inclusive) and 1.0 (in clusive).
source	<pre> &lt;xs:element name="Alpha" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (in clusive).   &lt;/xs:documentation&gt; &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## element ColorSpaceRGBType/ColorDepth

diagram	 <p>Enumeration of RGB color depth resolutions, specified per channel. Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source data may have had an 8 bit color depth, for instance. By specifying the color depth users of this data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer ranges.</p>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EColorDepthType</a>
properties	isRef 0 content simple
facets	enumeration ColorDepth_Infinite enumeration ColorDepth_8 enumeration ColorDepth_16 enumeration ColorDepth_32
annotation	documentation Enumeration of RGB color depth resolutions, specified per channel. Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source data may have had an 8 bit color depth, for instance. By specifying the color depth users of this data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer ranges.
source	<pre> &lt;xs:element name="ColorDepth" type="CxF:EColorDepthType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of RGB color depth resolutions, specified per channel.     Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source     data may have had an 8 bit color depth, for instance. By specifying the color depth users of this </pre>

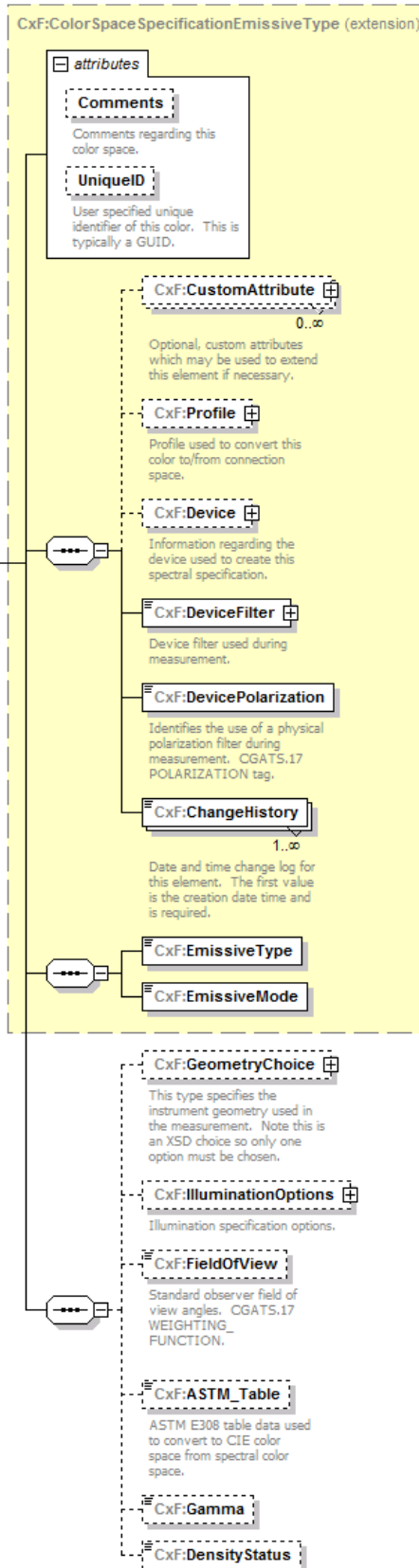
	<p>data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer ranges.</p> <p>&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt;</p>
--	--

# complexType ColorSpaceSpecificationEmissiveGenericType

diagram

**ColorSpaceSpecificationEmissiv...**

Generic color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.



namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceSpecificationEmissiveType</a>					
properties	base abstract	CxF:ColorSpaceSpecificationEmissiveType false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:EmissiveType</a> <a href="#">CxF:EmissiveMode</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:IlluminationOptions</a> <a href="#">CxF:FieldOfView</a> <a href="#">CxF:ASTM_Table</a> <a href="#">CxF:Gamma</a> <a href="#">CxF:DensityStatus</a>					
used by	elements	<a href="#">ColorSpaceSpecificationEmissiveGeneric</a> <a href="#">CollectionColorSpaceSpecificationType/ColorSpaceSpecificationEmissiveGeneric</a>				
attributes	Name <a href="#">Comments</a>  <a href="#">UniquelD</a>	Type <b>xs:string</b>  <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Generic color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<pre>&lt;xs:complexType name="ColorSpaceSpecificationEmissiveGenericType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Generic color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceSpecificationEmissiveType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="GeometryChoice" type="CxF:GeometryChoiceType" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="IlluminationOptions" type="CxF:IlluminationOptionsType" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Illumination specification options.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="FieldOfView" type="CxF:EFieldOfViewType" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Standard observer field of view angles. CGATS.17 WEIGHTING_ FUNCTION.           &lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="ASTM_Table" type="CxF:EAstmTableType" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;ASTM E308 table data used to convert to CIE color space from spectral color space.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					



	<pre> &lt;/xs:element&gt; &lt;xs:element name="Gamma" type="xs:double" minOccurs="0"/&gt; &lt;xs:element name="DensityStatus" type="CxF:EDensityStatusType" minOccurs="0"/&gt; &lt;/xs:sequence&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
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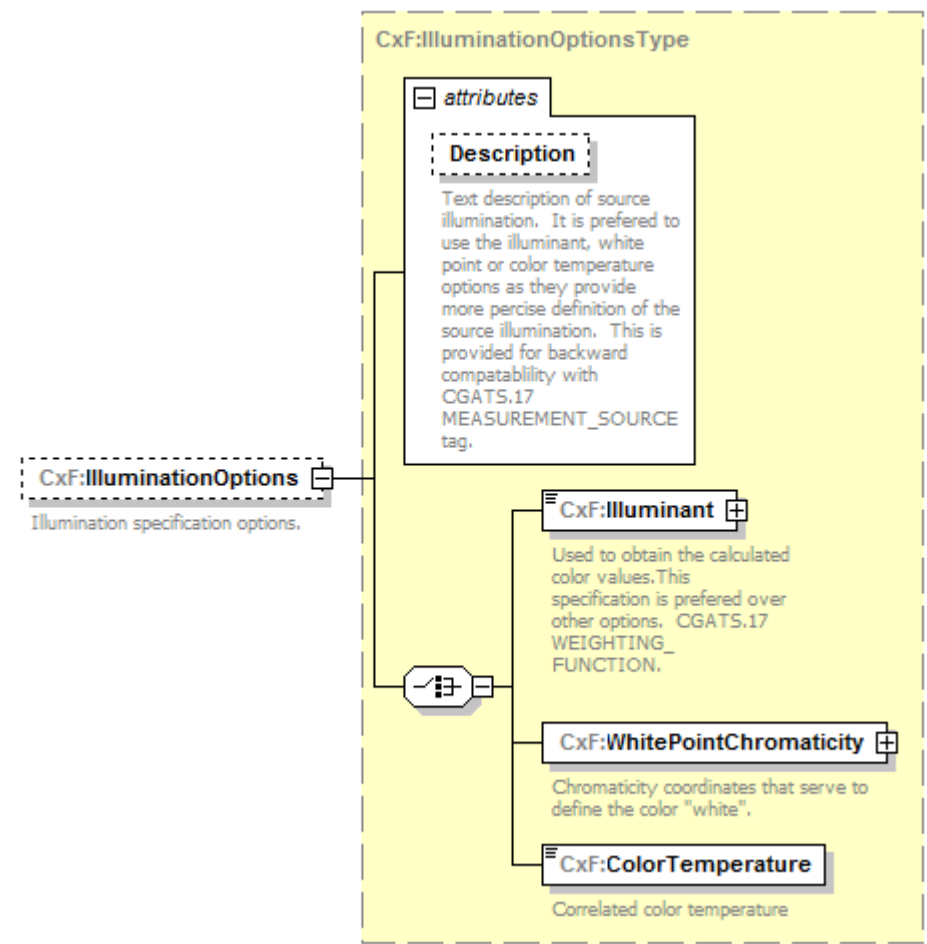
element **ColorSpaceSpecificationEmissiveGenericType/GeometryChoice**

diagram	<p><b>CxF:GeometryChoiceType</b></p> <p><b>CxF:GeometryChoice</b> This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.</p> <ul style="list-style-type: none"> <li><b>CxF:SphereGeometry</b> Specification of sphere included or excluded.</li> <li><b>CxF:Angle</b> Specification of angle in degrees, i.e. 45.0.</li> <li><b>CxF:UnknownGeometry</b> This option should not be used unless the geometry is truly not known and there is no way to accurately specify the geometry type. Most users will not be able to use data tagged with an unknown geometry so be very careful using this tag. Note that you must specify a string describing this unknown geometry.</li> <li><b>CxF:BSDFAngle</b> BSDF, also known as BRDF, XDNA. This type of angle has three parts. The Illuminatinat of the light source, Aspecular Azimuth. This will only be populated with the MA98 instrument</li> </ul>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:GeometryChoiceType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">CxF:SphereGeometry</a> <a href="#">CxF:Angle</a> <a href="#">CxF:UnknownGeometry</a> <a href="#">CxF:BSDFAngle</a>
annotation	documentation This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.
source	<pre> &lt;xs:element name="GeometryChoice" type="CxF:GeometryChoiceType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; </pre>

</xs:element>

element **ColorSpaceSpecificationEmissiveGenericType/IlluminationOptions**

diagram



namespace <http://colorexchangeformat.com/v2>

type [CxF:IlluminationOptionsType](#)

properties

isRef	0
minOcc	0
maxOcc	1
content	complex

children [CxF:Illuminant](#) [CxF:WhitePointChromaticity](#) [CxF:ColorTemperature](#)

attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Description</a>	xs:string				documentation Text description of source illumination. It is preferred to use the illuminant, white point or color temperature options as they provide more precise definition of the source illumination. This is provided for backward compatibility with CGATS.17 MEASUREMENT_SOURCE tag.

annotation	documentation Illumination specification options.
source	<pre>&lt;xs:element name="IlluminationOptions" type="CxF:IlluminationOptionsType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Illumination specification options.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **ColorSpaceSpecificationEmissiveGenericType/FieldOfView**


diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EFieldOfViewType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration FieldOfView_2_Degree enumeration FieldOfView_10_Degree
annotation	documentation Standard observer field of view angles. CGATS.17 WEIGHTING_ FUNCTION.
source	<pre>&lt;xs:element name="FieldOfView" type="CxF:EFieldOfViewType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Standard observer field of view angles. CGATS.17 WEIGHTING_     FUNCTION.     &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **ColorSpaceSpecificationEmissiveGenericType/ASTM\_Table**

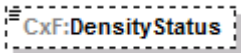
diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EAstmTableType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration E308_Table5 enumeration E308_Table6
annotation	documentation ASTM E308 table data used to convert to CIE color space from spectral color space.

source	<pre> &lt;xs:element name="ASTM_Table" type="CxF:EAsmTableType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;ASTM E308 table data used to convert to CIE color space from spectral color space.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>
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#### element **ColorSpaceSpecificationEmissiveGenericType/Gamma**

diagram									
namespace	http://colorexchangeformat.com/v2								
type	<b>xs:double</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
source	<pre> &lt;xs:element name="Gamma" type="xs:double" minOccurs="0"/&gt; </pre>								

#### element **ColorSpaceSpecificationEmissiveGenericType/DensityStatus**

diagram																									
namespace	http://colorexchangeformat.com/v2																								
type	<a href="#">CxF:EDensityStatusType</a>																								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple																
isRef	0																								
minOcc	0																								
maxOcc	1																								
content	simple																								
facets	<table> <tr><td>enumeration</td><td>Status_A</td></tr> <tr><td>enumeration</td><td>Status_E</td></tr> <tr><td>enumeration</td><td>Status_T</td></tr> <tr><td>enumeration</td><td>Status_I</td></tr> <tr><td>enumeration</td><td>Status_SpectralX</td></tr> <tr><td>enumeration</td><td>Status_Spectral</td></tr> <tr><td>enumeration</td><td>Status_HiFi</td></tr> <tr><td>enumeration</td><td>Status_Hex</td></tr> <tr><td>enumeration</td><td>Status_Txp</td></tr> <tr><td>enumeration</td><td>Status_Ex</td></tr> <tr><td>enumeration</td><td>Status_DIN</td></tr> <tr><td>enumeration</td><td>Status_DIN-NB</td></tr> </table>	enumeration	Status_A	enumeration	Status_E	enumeration	Status_T	enumeration	Status_I	enumeration	Status_SpectralX	enumeration	Status_Spectral	enumeration	Status_HiFi	enumeration	Status_Hex	enumeration	Status_Txp	enumeration	Status_Ex	enumeration	Status_DIN	enumeration	Status_DIN-NB
enumeration	Status_A																								
enumeration	Status_E																								
enumeration	Status_T																								
enumeration	Status_I																								
enumeration	Status_SpectralX																								
enumeration	Status_Spectral																								
enumeration	Status_HiFi																								
enumeration	Status_Hex																								
enumeration	Status_Txp																								
enumeration	Status_Ex																								
enumeration	Status_DIN																								
enumeration	Status_DIN-NB																								
source	<pre> &lt;xs:element name="DensityStatus" type="CxF:EDensityStatusType" minOccurs="0"/&gt; </pre>																								

# complexType ColorSpaceSpecificationEmissiveSpectralType

diagram

## ColorSpaceSpecificationEmissiv...

Spectral color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

## CxF:ColorSpaceSpecificationEmissiveType (extension)

### attributes

#### Comments

Comments regarding this color space.

#### UniqueID

User specified unique identifier of this color. This is typically a GUID.

### CxF:CustomAttribute

0..∞

Optional, custom attributes which may be used to extend this element if necessary.

### CxF:Profile

Profile used to convert this color to/from connection space.

### CxF:Device

Information regarding the device used to create this spectral specification.

### CxF:DeviceFilter

Device filter used during measurement.

### CxF:DevicePolarization

Identifies the use of a physical polarization filter during measurement. CGATS.17 POLARIZATION tag.

### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

### CxF:EmissiveType

### CxF:EmissiveMode

### CxF:GeometryChoice

This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.

### CxF:ASTM\_Table

ASTM E308 table data that should be used to convert to CIE color space.

namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceSpecificationEmissiveType</a>					
properties	base	CxF:ColorSpaceSpecificationEmissiveType				
	abstract	false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:EmissiveType</a> <a href="#">CxF:EmissiveMode</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:ASTM_Table</a>					
used by	elements	<a href="#">ColorSpaceSpecificationEmissiveSpectral</a> <a href="#">CollectionColorSpaceSpecificationType/ColorSpaceSpecificationEmissiveSpectral</a>				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	xs:string				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	xs:string				documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Spectral color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<pre>&lt;xs:complexType name="ColorSpaceSpecificationEmissiveSpectralType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Spectral color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceSpecificationEmissiveType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="GeometryChoice" type="CxF:GeometryChoiceType"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="ASTM_Table" type="CxF:EASTmTableType" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;ASTM E308 table data that should be used to convert to CIE color space.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

element **ColorSpaceSpecificationEmissiveSpectralType/GeometryChoice**

diagram	<p>The diagram illustrates the <b>CxF:GeometryChoiceType</b> as an XSD choice element. It is represented by a central box with a choice icon (three vertical bars and a circle) connected to four child elements:</p> <ul style="list-style-type: none"> <li><b>CxF:SphereGeometry</b>: Specification of sphere included or excluded.</li> <li><b>CxF:Angle</b>: Specification of angle in degrees, i.e. 45.0.</li> <li><b>CxF:UnknownGeometry</b>: This option should not be used unless the geometry is truly not known and there is no way to accurately specify the geometry type. Most users will not be able to use data tagged with an unknown geometry so be very careful using this tag. Note that you must specify a string describing this unknown geometry.</li> <li><b>CxF:BSDFAngle</b>: BSDF, also known as BRDF, XDNA. This type of angle has three parts. The Illuminatin of the light source, Aspecular Azimuth. This will only be populated with the MA98 instrument.</li> </ul> <p>The main <b>CxF:GeometryChoice</b> box is described as: "This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen."</p>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:GeometryChoiceType</a>
properties	isRef 0 content complex
children	<a href="#">CxF:SphereGeometry</a> <a href="#">CxF:Angle</a> <a href="#">CxF:UnknownGeometry</a> <a href="#">CxF:BSDFAngle</a>
annotation	documentation This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.
source	<pre>&lt;xs:element name="GeometryChoice" type="CxF:GeometryChoiceType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

element **ColorSpaceSpecificationEmissiveSpectralType/ASTM\_Table**

diagram	<p>The diagram shows the <b>CxF:ASTM_Table</b> element, which is a simple box representing the element. Below it, the text states: "ASTM E308 table data that should be used to convert to CIE color space."</p>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>

type	<a href="#">CxF:EAstmTableType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration E308_Table5 enumeration E308_Table6
annotation	documentation ASTM E308 table data that should be used to convert to CIE color space.
source	<pre> &lt;xs:element name="ASTM_Table" type="CxF:EAstmTableType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;ASTM E308 table data that should be used to convert to CIE color space.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>



# complexType ColorSpaceSpecificationEmissiveTristimulusType

diagram

## ColorSpaceSpecificationEmissiv...

Three axis color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

## CxF:ColorSpaceSpecificationEmissiveType (extension)

### attributes

#### Comments

Comments regarding this color space.

#### UniqueID

User specified unique identifier of this color. This is typically a GUID.

### CxF:CustomAttribute

0..∞

Optional, custom attributes which may be used to extend this element if necessary.

### CxF:Profile

Profile used to convert this color to/from connection space.

### CxF:Device

Information regarding the device used to create this spectral specification.

### CxF:DeviceFilter

Device filter used during measurement.

### CxF:DevicePolarization

Identifies the use of a physical polarization filter during measurement. CGATS.17 POLARIZATION tag.

### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

### CxF:EmissiveType

### CxF:EmissiveMode

### CxF:IlluminationOptions

Illumination specification options.

### CxF:FieldOfView

Standard observer field of view angles. CGATS.17 WEIGHTING\_FUNCTION.

### CxF:GeometryChoice

This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.

### CxF:ASTM\_Table

ASTM E308 table data used to convert to CIE color space from spectral color space.

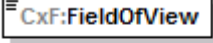
### CxF:Gamma

namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceSpecificationEmissiveType</a>					
properties	base abstract	CxF:ColorSpaceSpecificationEmissiveType false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:EmissiveType</a> <a href="#">CxF:EmissiveMode</a> <a href="#">CxF:IlluminationOptions</a> <a href="#">CxF:FieldOfView</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:ASTM_Table</a> <a href="#">CxF:Gamma</a>					
used by	elements	<a href="#">ColorSpaceSpecificationEmissiveTristimulus</a> <a href="#">CollectionColorSpaceSpecificationType/ColorSpaceSpecificationEmissiveTristimulus</a>				
attributes	Name <a href="#">Comments</a>   <					



	with CGATS.17 MEASUREMENT_SOURCE tag.
annotation	documentation Illumination specification options.
source	<pre>&lt;xs:element name="IlluminationOptions" type="CxF:IlluminationOptionsType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Illumination specification options.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **ColorSpaceSpecificationEmissiveTristimulusType/FieldOfView**

diagram	 <p>Standard observer field of view angles. CGATS.17 WEIGHTING_ FUNCTION.</p>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EFieldOfViewType</a>
properties	isRef 0 content simple
facets	enumeration FieldOfView_2_Degree enumeration FieldOfView_10_Degree
annotation	documentation Standard observer field of view angles. CGATS.17 WEIGHTING_ FUNCTION.
source	<pre>&lt;xs:element name="FieldOfView" type="CxF:EFieldOfViewType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Standard observer field of view angles. CGATS.17 WEIGHTING_     FUNCTION.     &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

element **ColorSpaceSpecificationEmissiveTristimulusType/GeometryChoice**

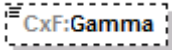
diagram	<p><b>CxF:GeometryChoice</b></p> <p>This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.</p> <p><b>CxF:GeometryChoiceType</b></p> <ul style="list-style-type: none"> <li><b>CxF:SphereGeometry</b> Specification of sphere included or excluded.</li> <li><b>CxF:Angle</b> Specification of angle in degrees, i.e. 45.0.</li> <li><b>CxF:UnknownGeometry</b> This option should not be used unless the geometry is truly not known and there is no way to accurately specify the geometry type. Most users will not be able to use data tagged with an unknown geometry so be very careful using this tag. Note that you must specify a string describing this unknown geometry.</li> <li><b>CxF:BSDFAngle</b> BSDF, also known as BRDF, XDNA. This type of angle has three parts. The Illuminatin of the light source, Aspecular Azimuth. This will only be populated with the MA98 instrument</li> </ul>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:GeometryChoiceType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">CxF:SphereGeometry</a> <a href="#">CxF:Angle</a> <a href="#">CxF:UnknownGeometry</a> <a href="#">CxF:BSDFAngle</a>
annotation	documentation This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.
source	<pre>&lt;xs:element name="GeometryChoice" type="CxF:GeometryChoiceType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

element **ColorSpaceSpecificationEmissiveTristimulusType/ASTM\_Table**

diagram	<p><b>CxF:ASTM_Table</b></p> <p>ASTM E308 table data used to convert to CIE color space from spectral color space.</p>
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namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EAsmTableType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration E308_Table5 enumeration E308_Table6
annotation	documentation ASTM E308 table data used to convert to CIE color space from spectral color space.
source	<pre>&lt;xs:element name="ASTM_Table" type="CxF:EAsmTableType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;ASTM E308 table data used to convert to CIE color space from spectral color space.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **ColorSpaceSpecificationEmissiveTristimulusType/Gamma**


diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
source	<pre>&lt;xs:element name="Gamma" type="xs:double" minOccurs="0"/&gt;</pre>

# complexType **ColorSpaceSpecificationEmissiveType**

diagram	<p><b>ColorSpaceSpecificationEmissive...</b></p> <p>Base color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</p> <p><b>CxF:ColorSpaceSpecificationType (extension)</b></p> <p><b>attributes</b></p> <p><b>Comments</b> Comments regarding this color space.</p> <p><b>UniqueID</b> User specified unique identifier of this color. This is typically a GUID.</p> <p><b>CxF:CustomAttribute</b> 0..∞ Optional, custom attributes which may be used to extend this element if necessary.</p> <p><b>CxF:Profile</b> 1 Profile used to convert this color to/from connection space.</p> <p><b>CxF:Device</b> 1 Information regarding the device used to create this spectral specification.</p> <p><b>CxF:DeviceFilter</b> 1 Device filter used during measurement.</p> <p><b>CxF:DevicePolarization</b> 1 Identifies the use of a physical polarization filter during measurement. CGATS.17 POLARIZATION tag.</p> <p><b>CxF:ChangeHistory</b> 1..∞ Date and time change log for this element. The first value is the creation date time and is required.</p> <p><b>CxF:EmissiveType</b> 1</p> <p><b>CxF:EmissiveMode</b> 1</p>
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:ColorSpaceSpecificationType</a>
properties	<div>base</div> <div>CxF:ColorSpaceSpecificationType</div> <div>abstract</div> <div>false</div>

children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:EmissiveType</a> <a href="#">CxF:EmissiveMode</a>					
used by	element complexType	<a href="#">ColorSpaceSpecificationEmissive</a> <a href="#">ColorSpaceSpecificationEmissiveGenericType</a> <a href="#">ColorSpaceSpecificationEmissiveSpectralType</a> <a href="#">ColorSpaceSpecificationEmissiveTristimulusType</a>				
attributes	Name <a href="#">Comments</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">UniqueID</a>	<b>xs:string</b>				
annotation	documentation Base color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<pre> &lt;xs:complexType name="ColorSpaceSpecificationEmissiveType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Base color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceSpecificationType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="EmissiveType" type="CxF:EEmissiveType"/&gt;         &lt;xs:element name="EmissiveMode" type="CxF:EEmissiveModeType"/&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>					

#### element **ColorSpaceSpecificationEmissiveType/EmissiveType**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EEmissiveType</a>
properties	isRef 0 content simple
facets	enumeration Emissive_Spot enumeration Emissive_SpotAmbient enumeration Emissive_ScanningFlash
source	<pre>&lt;xs:element name="EmissiveType" type="CxF:EEmissiveType"/&gt;</pre>

#### element **ColorSpaceSpecificationEmissiveType/EmissiveMode**

diagram	
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namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EEmissiveModeType</a>
properties	isRef 0 content simple
facets	enumeration EmissiveMode_Diffuser enumeration EmissiveMode_NA
source	<xs:element name="EmissiveMode" type="CxF:EEmissiveModeType"/>

# complexType **ColorSpaceSpecificationSpectrumGenericType**

diagram

## **ColorSpaceSpecificationSpectru...**

Generic color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

## CxF:ColorSpaceSpecificationSpectrumType (extension)

### attributes

#### Comments

Comments regarding this color space.

#### UniqueID

User specified unique identifier of this color. This is typically a GUID.

### CxF:CustomAttribute

0..∞

Optional, custom attributes which may be used to extend this element if necessary.

### CxF:Profile

Profile used to convert this color to/from connection space.

### CxF:Device

Information regarding the device used to create this spectral specification.

### CxF:DeviceFilter

Device filter used during measurement.

### CxF:DevicePolarization

Identifies the use of a physical polarization filter during measurement. CGATS.17 POLARIZATION tag.

### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

### CxF:Spectrum

### CxF:GeometryChoice

This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.

### CxF:IlluminationOptions

Illumination specification options.

### CxF:FieldOfView

Standard observer field of view angles. CGATS.17 WEIGHTING\_FUNCTION.

### CxF:ASTM\_Table

ASTM E308 table data used to convert to CIE color space from spectral color space.

### CxF:Gamma

### CxF:DensityStatus

namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceSpecificationSpectrumType</a>					
properties	base abstract	CxF:ColorSpaceSpecificationSpectrumType false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Spectrum</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:IlluminationOptions</a> <a href="#">CxF:FieldOfView</a> <a href="#">CxF:ASTM Table</a> <a href="#">CxF:Gamma</a> <a href="#">CxF:DensityStatus</a>					
used by	elements	<a href="#">ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CollectionColorSpaceSpecificationType/ColorSpaceSpecificationSpectrumGeneric</a>				
attributes	Name <a href="#">Comments</a>  <a href="#">UniquelD</a>	Type <b>xs:string</b>  <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Generic color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<pre>&lt;xs:complexType name="ColorSpaceSpecificationSpectrumGenericType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Generic color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceSpecificationSpectrumType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="GeometryChoice" type="CxF:GeometryChoiceType" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="IlluminationOptions" type="CxF:IlluminationOptionsType" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Illumination specification options.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="FieldOfView" type="CxF:EFieldOfViewType" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Standard observer field of view angles. CGATS.17 WEIGHTING_ FUNCTION.           &lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="ASTM_Table" type="CxF:EAsmTableType" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;ASTM E308 table data used to convert to CIE color space from spectral color space.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

	<pre> &lt;/xs:element&gt; &lt;xs:element name="Gamma" type="xs:double" minOccurs="0"/&gt; &lt;xs:element name="DensityStatus" type="CxF:EDensityStatusType" minOccurs="0"/&gt; &lt;/xs:sequence&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
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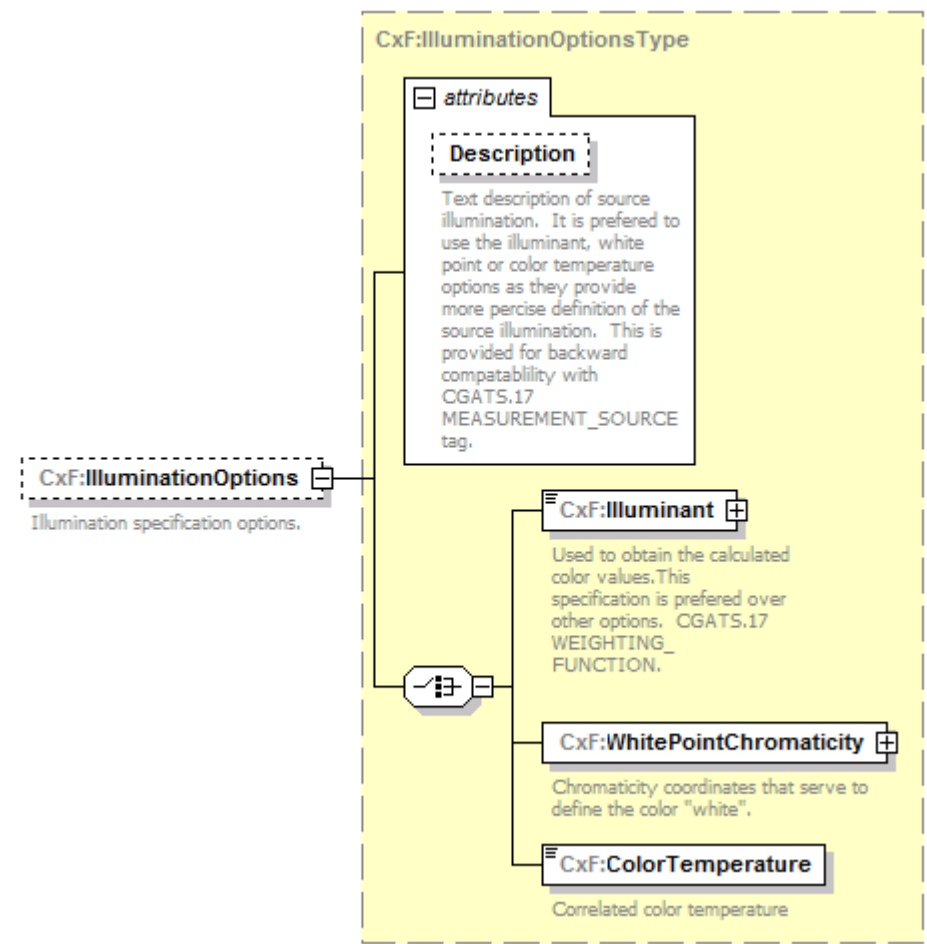
element **ColorSpaceSpecificationSpectrumGenericType/GeometryChoice**

diagram	<p>The diagram illustrates the <b>CxF:GeometryChoiceType</b> as an XSD choice. On the left, a dashed box labeled <b>CxF:GeometryChoice</b> contains the text: "This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen." A central connector symbol (a circle with a plus sign) links this choice to a yellow-shaded box on the right titled <b>CxF:GeometryChoiceType</b>. Inside this box, four options are listed vertically, each with a small icon to its left: <ul style="list-style-type: none"> <li><b>CxF:SphereGeometry</b>: Specification of sphere included or excluded.</li> <li><b>CxF:Angle</b>: Specification of angle in degrees, i.e. 45.0.</li> <li><b>CxF:UnknownGeometry</b>: This option should not be used unless the geometry is truly not known and there is no way to accurately specify the geometry type. Most users will not be able to use data tagged with an unknown geometry so be very careful using this tag. Note that you must specify a string describing this unknown geometry.</li> <li><b>CxF:BSDFAngle</b>: BSDF, also known as BRDF, XDNA. This type of angle has three parts. The Illuminat of the light source, Aspecular Azimuth. This will only be populated with the MA98 instrument.</li> </ul> </p>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:GeometryChoiceType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">CxF:SphereGeometry</a> <a href="#">CxF:Angle</a> <a href="#">CxF:UnknownGeometry</a> <a href="#">CxF:BSDFAngle</a>
annotation	documentation This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.
source	<pre> &lt;xs:element name="GeometryChoice" type="CxF:GeometryChoiceType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; </pre>

</xs:element>

element **ColorSpaceSpecificationSpectrumGenericType/IlluminationOptions**

diagram



namespace	http://colorexchangeformat.com/v2							
type	<a href="#">CxF:IlluminationOptionsType</a>							
properties	isRef	0	minOcc	0	maxOcc	1	content	complex
children	<a href="#">CxF:Illuminant</a> <a href="#">CxF:WhitePointChromaticity</a> <a href="#">CxF:ColorTemperature</a>							
attributes	Name	Type	Use	Default	Fixed	annotation		
	<a href="#">Description</a>	xs:string				documentation	Text description of source illumination. It is preferred to use the illuminant, white point or color temperature options as they provide more precise definition of the source illumination. This is provided for backward compatibility with CGATS.17 MEASUREMENT_SOURCE tag.	

annotation	documentation Illumination specification options.
source	<pre>&lt;xs:element name="IlluminationOptions" type="CxF:IlluminationOptionsType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Illumination specification options.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **ColorSpaceSpecificationSpectrumGenericType/FieldOfView**


diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EFieldOfViewType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration FieldOfView_2_Degree enumeration FieldOfView_10_Degree
annotation	documentation Standard observer field of view angles. CGATS.17 WEIGHTING_ FUNCTION.
source	<pre>&lt;xs:element name="FieldOfView" type="CxF:EFieldOfViewType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Standard observer field of view angles. CGATS.17 WEIGHTING_ FUNCTION.     &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **ColorSpaceSpecificationSpectrumGenericType/ASTM\_Table**

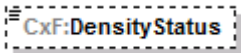
diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EASTmTableType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration E308_Table5 enumeration E308_Table6
annotation	documentation ASTM E308 table data used to convert to CIE color space from spectral color space.

source	<pre>&lt;xs:element name="ASTM_Table" type="CxF:EAsmTableType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;ASTM E308 table data used to convert to CIE color space from spectral color space.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>
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#### element **ColorSpaceSpecificationSpectrumGenericType/Gamma**

diagram									
namespace	http://colorexchangeformat.com/v2								
type	<b>xs:double</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
source	<pre>&lt;xs:element name="Gamma" type="xs:double" minOccurs="0"/&gt;</pre>								

#### element **ColorSpaceSpecificationSpectrumGenericType/DensityStatus**

diagram																									
namespace	http://colorexchangeformat.com/v2																								
type	<a href="#">CxF:EDensityStatusType</a>																								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple																
isRef	0																								
minOcc	0																								
maxOcc	1																								
content	simple																								
facets	<table> <tr><td>enumeration</td><td>Status_A</td></tr> <tr><td>enumeration</td><td>Status_E</td></tr> <tr><td>enumeration</td><td>Status_T</td></tr> <tr><td>enumeration</td><td>Status_I</td></tr> <tr><td>enumeration</td><td>Status_SpectralX</td></tr> <tr><td>enumeration</td><td>Status_Spectral</td></tr> <tr><td>enumeration</td><td>Status_HiFi</td></tr> <tr><td>enumeration</td><td>Status_Hex</td></tr> <tr><td>enumeration</td><td>Status_Txp</td></tr> <tr><td>enumeration</td><td>Status_Ex</td></tr> <tr><td>enumeration</td><td>Status_DIN</td></tr> <tr><td>enumeration</td><td>Status_DIN-NB</td></tr> </table>	enumeration	Status_A	enumeration	Status_E	enumeration	Status_T	enumeration	Status_I	enumeration	Status_SpectralX	enumeration	Status_Spectral	enumeration	Status_HiFi	enumeration	Status_Hex	enumeration	Status_Txp	enumeration	Status_Ex	enumeration	Status_DIN	enumeration	Status_DIN-NB
enumeration	Status_A																								
enumeration	Status_E																								
enumeration	Status_T																								
enumeration	Status_I																								
enumeration	Status_SpectralX																								
enumeration	Status_Spectral																								
enumeration	Status_HiFi																								
enumeration	Status_Hex																								
enumeration	Status_Txp																								
enumeration	Status_Ex																								
enumeration	Status_DIN																								
enumeration	Status_DIN-NB																								
source	<pre>&lt;xs:element name="DensityStatus" type="CxF:EDensityStatusType" minOccurs="0"/&gt;</pre>																								

# complexType ColorSpaceSpecificationSpectrumSpectralType

diagram

## Color Space Specification Spectru...

Spectral color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

## CxF:ColorSpaceSpecificationSpectrumType (extension)

### attributes

#### Comments

Comments regarding this color space.

#### UniqueID

User specified unique identifier of this color. This is typically a GUID.

### CxF:CustomAttribute

0..∞

Optional, custom attributes which may be used to extend this element if necessary.

### CxF:Profile

Profile used to convert this color to/from connection space.

### CxF:Device

Information regarding the device used to create this spectral specification.

### CxF:DeviceFilter

Device filter used during measurement.

### CxF:DevicePolarization

Identifies the use of a physical polarization filter during measurement. CGATS.17 POLARIZATION tag.

### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

### CxF:Spectrum

### CxF:GeometryChoice

This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.

### CxF:ASTM\_Table

ASTM E308 table data that should be used to convert to CIE color space.



namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>					
type	extension of <a href="#">CxF:ColorSpaceSpecificationSpectrumType</a>					
properties	base abstract	CxF:ColorSpaceSpecificationSpectrumType false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Spectrum</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:ASTM_Table</a>					
used by	elements	<a href="#">ColorSpaceSpecificationSpectrumSpectralCollectionColorSpaceSpecificationType/ColorSpaceSpecificationSpectrumSpectral</a>				
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>	Type <b>xs:string</b>  <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Spectral color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<pre>&lt;xs:complexType name="ColorSpaceSpecificationSpectrumSpectralType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Spectral color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceSpecificationSpectrumType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="GeometryChoice" type="CxF:GeometryChoiceType"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="ASTM_Table" type="CxF:EAsmTableType" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;ASTM E308 table data that should be used to convert to CIE color space.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

element **ColorSpaceSpecificationSpectrumSpectralType/GeometryChoice**

diagram	<p>The diagram illustrates the <b>CxF:GeometryChoiceType</b> as an XSD choice. A central box labeled <b>CxF:GeometryChoice</b> is connected to a dashed box labeled <b>CxF:GeometryChoiceType</b>. Inside this dashed box, four options are listed, each with a small icon indicating its role in the choice:</p> <ul style="list-style-type: none"> <li><b>CxF:SphereGeometry</b>: Specification of sphere included or excluded.</li> <li><b>CxF:Angle</b>: Specification of angle in degrees, i.e. 45.0.</li> <li><b>CxF:UnknownGeometry</b>: This option should not be used unless the geometry is truly not known and there is no way to accurately specify the geometry type. Most users will not be able to use data tagged with an unknown geometry so be very careful using this tag. Note that you must specify a string describing this unknown geometry.</li> <li><b>CxF:BSDFAngle</b>: BSDF, also known as BRDF, XDNA. This type of angle has three parts. The Illuminatinat of the light source, Aspecular Azimuth. This will only be populated with the MA98 instrument.</li> </ul> <p>The <b>CxF:GeometryChoice</b> box contains the text: "This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen."</p>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:GeometryChoiceType</a>
properties	isRef 0 content complex
children	<a href="#">CxF:SphereGeometry</a> <a href="#">CxF:Angle</a> <a href="#">CxF:UnknownGeometry</a> <a href="#">CxF:BSDFAngle</a>
annotation	documentation This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.
source	<pre> &lt;xs:element name="GeometryChoice" type="CxF:GeometryChoiceType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

element **ColorSpaceSpecificationSpectrumSpectralType/ASTM\_Table**

diagram	<p>The diagram shows a box labeled <b>CxF:ASTM_Table</b> with a dashed border. Below the box, it states: "ASTM E308 table data that should be used to convert to CIE color space."</p>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>

type	<a href="#">CxF:EAstmTableType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration E308_Table5 enumeration E308_Table6
annotation	documentation ASTM E308 table data that should be used to convert to CIE color space.
source	<pre> &lt;xs:element name="ASTM_Table" type="CxF:EAstmTableType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;ASTM E308 table data that should be used to convert to CIE color space.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

# complexType ColorSpaceSpecificationSpectrumTristimulusType

diagram

**Color Space Specification Spectru...**

Three axis color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

CxF:ColorSpaceSpecificationSpectrumType (extension)

attributes

**Comments**

Comments regarding this color space.

**UniqueID**

User specified unique identifier of this color. This is typically a GUID.

CxF:CustomAttribute

0..∞

Optional, custom attributes which may be used to extend this element if necessary.

CxF:Profile

Profile used to convert this color to/from connection space.

CxF:Device

Information regarding the device used to create this spectral specification.

CxF:DeviceFilter

Device filter used during measurement.

CxF:DevicePolarization

Identifies the use of a physical polarization filter during measurement. CGATS.17 POLARIZATION tag.

CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

CxF:Spectrum

CxF:IlluminationOptions

Illumination specification options.

CxF:FieldOfView

Standard observer field of view angles. CGATS.17 WEIGHTING\_FUNCTION.

CxF:GeometryChoice

This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.

CxF:ASTM\_Table

ASTM E308 table data used to convert to CIE color space from spectral color space.

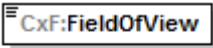
CxF:Gamma

namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceSpecificationSpectrumType</a>					
properties	base	CxF:ColorSpaceSpecificationSpectrumType				
	abstract	false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Spectrum</a> <a href="#">CxF:IlluminationOptions</a> <a href="#">CxF:FieldOfView</a> <a href="#">CxF:GeometryChoice</a> <a href="#">CxF:ASTM</a> <a href="#">Table</a> <a href="#">CxF:Gamma</a>					
used by	elements	<a href="#">ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CollectionColorSpaceSpecificationType/ColorSpaceSpecificationSpectrumTristimulus</a>				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	xs:string				documentation Comments regarding this color space. documentation
	<a href="#">UniqueID</a>	xs:string				User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Three axis color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<pre>&lt;xs:complexType name="ColorSpaceSpecificationSpectrumTristimulusType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Three axis color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceSpecificationSpectrumType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="IlluminationOptions" type="CxF:IlluminationOptionsType"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Illumination specification options.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="FieldOfView" type="CxF:EFieldOfViewType"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Standard observer field of view angles. CGATS.17 WEIGHTING_ FUNCTION.           &lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="GeometryChoice" type="CxF:GeometryChoiceType" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="ASTM_Table" type="CxF:EAstmTableType" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;ASTM E308 table data used to convert to CIE color space from spectral color space.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="Gamma" type="xs:double" minOccurs="0"/&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					



	tag.
annotation	documentation Illumination specification options.
source	<pre> &lt;xs:element name="IlluminationOptions" type="CxF:IlluminationOptionsType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Illumination specification options.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceSpecificationSpectrumTristimulusType/FieldOfView**

diagram	 <p>Standard observer field of view angles. CGATS.17 WEIGHTING_ FUNCTION.</p>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:EFieldOfViewType</a>
properties	isRef 0 content simple
facets	enumeration FieldOfView_2_Degree enumeration FieldOfView_10_Degree
annotation	documentation Standard observer field of view angles. CGATS.17 WEIGHTING_ FUNCTION.
source	<pre> &lt;xs:element name="FieldOfView" type="CxF:EFieldOfViewType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Standard observer field of view angles. CGATS.17 WEIGHTING_ FUNCTION.   &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

element **ColorSpaceSpecificationSpectrumTristimulusType/GeometryChoice**

diagram	<p><b>CxF:GeometryChoice</b></p> <p>This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.</p> <p><b>CxF:GeometryChoiceType</b></p> <ul style="list-style-type: none"> <li><b>CxF:SphereGeometry</b> Specification of sphere included or excluded.</li> <li><b>CxF:Angle</b> Specification of angle in degrees, i.e. 45.0.</li> <li><b>CxF:UnknownGeometry</b> This option should not be used unless the geometry is truly not known and there is no way to accurately specify the geometry type. Most users will not be able to use data tagged with an unknown geometry so be very careful using this tag. Note that you must specify a string describing this unknown geometry.</li> <li><b>CxF:BSDFAngle</b> BSDF, also known as BRDF, XDNA. This type of angle has three parts. The Illuminatin of the light source, Aspecular Azimuth. This will only be populated with the MA98 instrument</li> </ul>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:GeometryChoiceType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">CxF:SphereGeometry</a> <a href="#">CxF:Angle</a> <a href="#">CxF:UnknownGeometry</a> <a href="#">CxF:BSDFAngle</a>
annotation	documentation This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.
source	<pre>&lt;xs:element name="GeometryChoice" type="CxF:GeometryChoiceType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;This type specifies the instrument geometry used in the measurement. Note this is an XSD choice so only one option must be chosen.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

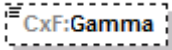
element **ColorSpaceSpecificationSpectrumTristimulusType/ASTM\_Table**

diagram	<p><b>CxF:ASTM_Table</b></p> <p>ASTM E308 table data used to convert to CIE color space from spectral color space.</p>
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namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EAsmTableType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration E308_Table5 enumeration E308_Table6
annotation	documentation ASTM E308 table data used to convert to CIE color space from spectral color space.
source	<pre>&lt;xs:element name="ASTM_Table" type="CxF:EAsmTableType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;ASTM E308 table data used to convert to CIE color space from spectral color space.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **ColorSpaceSpecificationSpectrumTristimulusType/Gamma**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
source	<pre>&lt;xs:element name="Gamma" type="xs:double" minOccurs="0"/&gt;</pre>

## complexType ColorSpaceSpecificationSpectrumType

diagram	<p><b>ColorSpaceSpecificationSpectrumType</b></p> <p>Base color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</p> <p><b>CxF:ColorSpaceSpecificationType (extension)</b></p> <ul style="list-style-type: none"> <li><b>attributes</b> <ul style="list-style-type: none"> <li><b>Comments</b>: Comments regarding this color space.</li> <li><b>UniqueID</b>: User specified unique identifier of this color. This is typically a GUID.</li> </ul> </li> <li><b>CxF:CustomAttribute</b> (0..∞): Optional, custom attributes which may be used to extend this element if necessary.</li> <li><b>CxF:Profile</b> (+): Profile used to convert this color to/from connection space.</li> <li><b>CxF:Device</b> (+): Information regarding the device used to create this spectral specification.</li> <li><b>CxF:DeviceFilter</b> (+): Device filter used during measurement.</li> <li><b>CxF:DevicePolarization</b> (+): Identifies the use of a physical polarization filter during measurement. CGATS.17 POLARIZATION tag.</li> <li><b>CxF:ChangeHistory</b> (1..∞): Date and time change log for this element. The first value is the creation date time and is required.</li> <li><b>CxF:Spectrum</b> (+)</li> </ul>				
namespace	http://colorexchangeformat.com/v2				
type	extension of <a href="#">CxF:ColorSpaceSpecificationType</a>				
properties	<table> <tr> <td>base</td><td>CxF:ColorSpaceSpecificationType</td></tr> <tr> <td>abstract</td><td>false</td></tr> </table>	base	CxF:ColorSpaceSpecificationType	abstract	false
base	CxF:ColorSpaceSpecificationType				
abstract	false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Spectrum</a>				

used by	<a href="#">element ColorSpaceSpecificationSpectrum</a> <a href="#">complexType ColorSpaceSpecificationSpectrumGenericType</a> <a href="#">ColorSpaceSpecificationSpectrumSpectralType</a> <a href="#">ColorSpaceSpecificationSpectrumTristimulusType</a>					
attributes	Name <a href="#">Comments</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">UniqueID</a>	<b>xs:string</b>				
annotation	documentation Base color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.					
source	<pre>&lt;xs:complexType name="ColorSpaceSpecificationSpectrumType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Base color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceSpecificationType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="Spectrum" type="CxF:SpectrumType"/&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

#### element **ColorSpaceSpecificationSpectrumType/Spectrum**

diagram						
namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:SpectrumType</a>					
properties	isRef 0 content complex					
facets	enumeration Spectrum_Reflectance enumeration Spectrum_Transmittance enumeration Spectrum_TotalTransmittance enumeration Spectrum_Custom					
attributes	Name <a href="#">CustomTypeName</a>	Type <b>xs:string</b>	Use optional	Default	Fixed	annotation
source	<pre>&lt;xs:element name="Spectrum" type="CxF:SpectrumType"/&gt;</pre>					

## complexType ColorSpaceSpecificationType

diagram	<p><b>ColorSpaceSpecificationType</b></p> <p>Base color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.</p> <p><b>attributes</b></p> <p><b>Comments</b> Comments regarding this color space.</p> <p><b>UniqueID</b> User specified unique identifier of this color. This is typically a GUID.</p> <p><b>CxF:CustomAttribute</b> 0..∞ Optional, custom attributes which may be used to extend this element if necessary.</p> <p><b>CxF:Profile</b> Profile used to convert this color to/from connection space.</p> <p><b>CxF:Device</b> Information regarding the device used to create this spectral specification.</p> <p><b>CxF:DeviceFilter</b> Device filter used during measurement.</p> <p><b>CxF:DevicePolarization</b> Identifies the use of a physical polarization filter during measurement. CGATS.17 POLARIZATION tag.</p> <p><b>CxF:ChangeHistory</b> 1..∞ Date and time change log for this element. The first value is the creation date time and is required.</p>					
namespace	http://colorexchangeformat.com/v2					
properties	abstract true					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Profile</a> <a href="#">CxF:Device</a> <a href="#">CxF:DeviceFilter</a> <a href="#">CxF:DevicePolarization</a> <a href="#">CxF:ChangeHistory</a>					
used by	element <a href="#">ColorSpaceSpecification</a> complexTypes <a href="#">ColorSpaceSpecificationEmissiveType</a> <a href="#">ColorSpaceSpecificationSpectrumType</a>					
attributes	Name	Type	Use	Default	Fixed	annotation documentation
	<a href="#">Comments</a>	xs:string				Comments regarding this color space.
	<a href="#">UniqueID</a>	xs:string				User specified

		unique identifier of this color. This is typically a GUID.
annotation	documentation	Base color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.
source	<pre> &lt;xs:complexType name="ColorSpaceSpecificationType" abstract="true"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Base color space specification type. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional, custom attributes which may be used to extend this element if necessary.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Profile" type="CxF:ProfileType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Profile used to convert this color to/from connection space.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Device" type="CxF:DeviceType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Information regarding the device used to create this spectral specification.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="DeviceFilter" type="CxF:DeviceFilterType" nillable="true"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Device filter used during measurement.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="DevicePolarization" type="xs:boolean" nillable="true"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Identifies the use of a physical polarization filter during measurement. CGATS.17 POLARIZATION tag.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ChangeHistory" type="CxF:DateTimeWithTimeZoneType" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Date and time change log for this element. The first value is the creation date time and is required.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt;   &lt;xs:attribute name="Comments" type="xs:string"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Comments regarding this color space.&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:attribute&gt; </pre>	

	<pre> &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="UniqueID" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;User specified unique identifier of this color. This is typically a     GUID.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;/xs:complexType&gt; </pre>
--	---

attribute **ColorSpaceSpecificationType/@Comments**

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation Comments regarding this color space.
source	<pre> &lt;xs:attribute name="Comments" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Comments regarding this color space.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

attribute **ColorSpaceSpecificationType/@UniqueID**

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation User specified unique identifier of this color. This is typically a GUID.
source	<pre> &lt;xs:attribute name="UniqueID" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;User specified unique identifier of this color. This is typically a     GUID.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

element **ColorSpaceSpecificationType/CustomAttribute**

diagram	<p>The diagram illustrates the structure of the <b>CxF:CustomAttribute</b> element. It is shown as an optional element with a cardinality of 0..∞. The element contains two required fields: <b>CxF:Name</b> and <b>CxF:ValueChoice</b>. The <b>CxF:Name</b> field is described as a required field used to specify the name of this custom attribute. The <b>CxF:ValueChoice</b> field is described as a required field which allows one of several value choices to be specified, noting that this is an XSD choice so only one option may be specified.</p>
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namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:CustomAttributeType</a>
properties	isRef 0 minOcc 0 maxOcc unbounded content complex
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>
annotation	documentation Optional, custom attributes which may be used to extend this element if necessary.
source	<pre> &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, custom attributes which may be used to extend this element if necessary.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

### element ColorSpaceSpecificationType/Profile

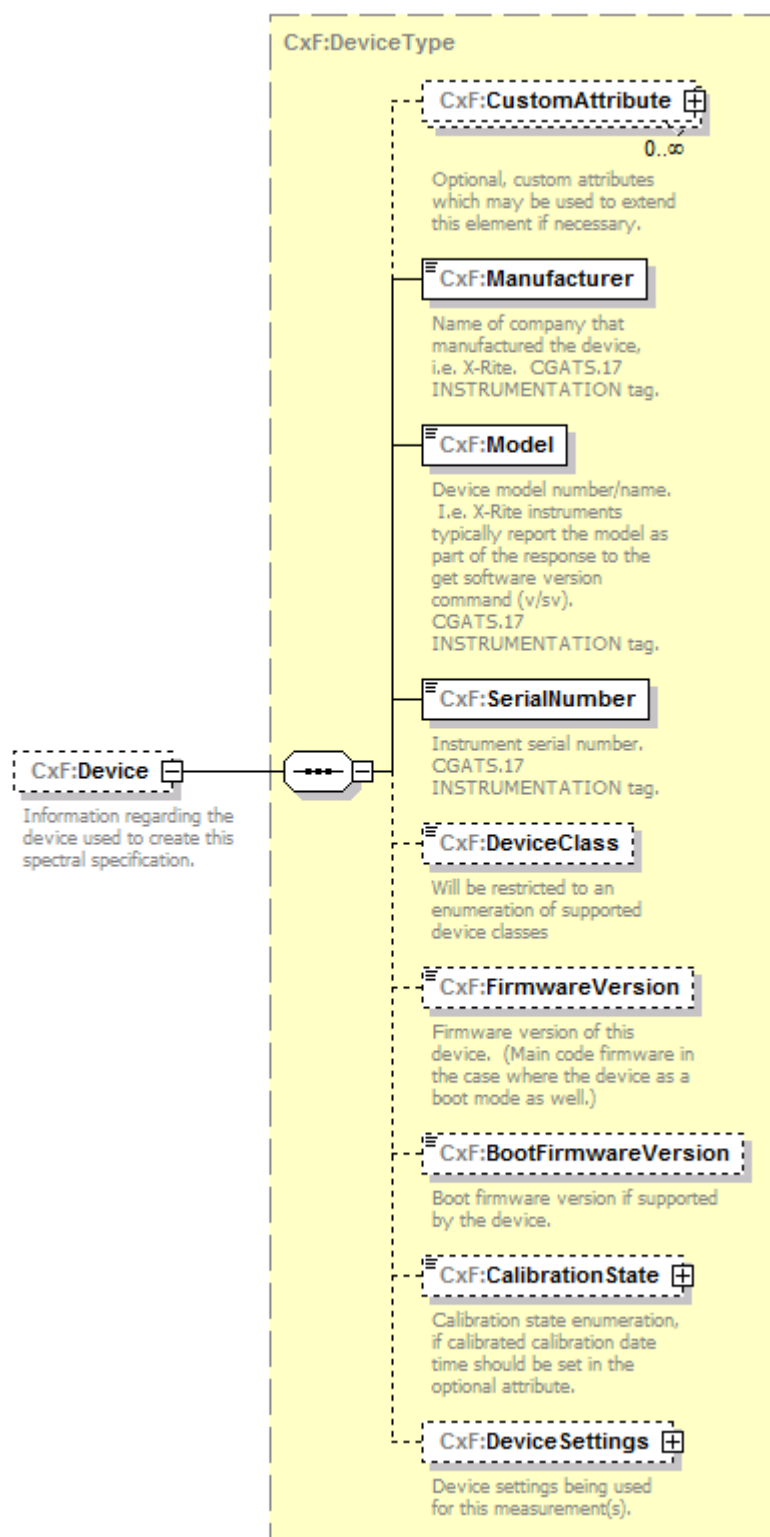
diagram						
namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ProfileType</a>					
properties	isRef 0 minOcc 0 maxOcc 1 content complex					
children	<a href="#">CxF:ProfileChoice</a> <a href="#">CxF:Parameters</a> <a href="#">CxF:Created</a>					
attributes	Name <a href="#">Direction</a>	Type derived by: <b>xs:string</b>	Use required	Default	Fixed	annotation
annotation	documentation Profile used to convert this color to/from connection space.					
source	<pre> &lt;xs:element name="Profile" type="CxF:ProfileType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Profile used to convert this color to/from connection space.&lt;/xs:documentation&gt; </pre>					

	<pre>&lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>
--	---



# element **ColorSpaceSpecificationType/Device**

diagram

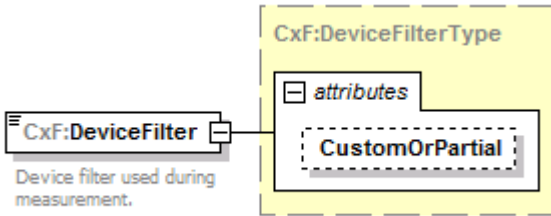


namespace <http://colorexchangeformat.com/v2>

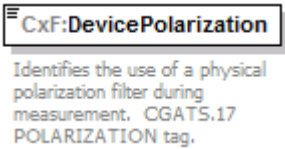
type [CxF:DeviceType](#)

properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Manufacturer</a> <a href="#">CxF:Model</a> <a href="#">CxF:SerialNumber</a> <a href="#">CxF:DeviceClass</a> <a href="#">CxF:FirmwareVersion</a> <a href="#">CxF:BootFirmwareVersion</a> <a href="#">CxF:CalibrationState</a> <a href="#">CxF:DeviceSettings</a>
annotation	documentation Information regarding the device used to create this spectral specification.
source	<pre> &lt;xs:element name="Device" type="CxF:DeviceType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Information regarding the device used to create this spectral specification.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

### element ColorSpaceSpecificationType/DeviceFilter

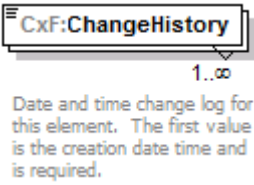
diagram						
namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:DeviceFilterType</a>					
properties	isRef	0				
	content	complex				
	nillable	true				
facets	enumeration	Filter_None				
	enumeration	Filter_UVExcluded				
	enumeration	Filter_UVD65				
	enumeration	Filter_Partial				
	enumeration	Filter_Custom				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">CustomOrPartial</a>	xs:string	optional			
annotation	documentation Device filter used during measurement.					
source	<pre>&lt;xs:element name="DeviceFilter" type="CxF:DeviceFilterType" nillable="true"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Device filter used during measurement.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

### element ColorSpaceSpecificationType/DevicePolarization

diagram						
namespace	http://colorexchangeformat.com/v2					

type	<b>xs:boolean</b>
properties	isRef 0 content simple nillable true
annotation	documentation Identifies the use of a physical polarization filter during measurement. CGATS.17 POLARIZATION tag.
source	<pre> &lt;xs:element name="DevicePolarization" type="xs:boolean" nillable="true"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Identifies the use of a physical polarization filter during measurement. CGATS.17 POLARIZATION tag.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceSpecificationType/ChangeHistory**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:DateTimeWithTimeZoneType</a>
properties	isRef 0 minOcc 1 maxOcc unbounded content simple
facets	pattern .+T.+(Z [-\+].+.)
annotation	documentation Date and time change log for this element. The first value is the creation date time and is required.
source	<pre> &lt;xs:element name="ChangeHistory" type="CxF:DateTimeWithTimeZoneType" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Date and time change log for this element. The first value is the creation date time and is required.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

# complexType ColorSpaceSpectralType

diagram

## ColorSpaceSpectralType

Spectral colorspace type. The spectral values are specified as floating point values where 1.0 represents full range. For reflectance this is 100%. The wavelength (nm) is specified as a floating point value.

### CxF:ColorSpaceType (extension)

#### attributes

#### Comments

Comments regarding this color space.

#### UniqueID

User specified unique identifier of this color. This is typically a GUID.

#### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

#### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

#### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### attributes

#### Name

#### CxF:Color Space Specification Spe...

Spectral color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

#### CxF:ReflectancePoint

1..∞

Required set of reflectance points where each point is specified as a response value (0..1) at a wavelength (nm.) Reflectance is scaled such that 100%=1.0 where all emission is scaled such that 1000=1.0.

namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base CxF:ColorSpaceType					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumSpectral</a> <a href="#">CxF:ReflectancePoint</a>					
used by	element <a href="#">ColorSpaceSpectral</a>					
attributes	Name <a href="#">Comments</a>   <a href="#">UniqueID</a>   <a href="#">Name</a>	Type <b>xs:string</b>   <b>xs:string</b>   <b>xs:string</b>	Use      optional	Default      	Fixed      	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Spectral colorspace type. The spectral values are specified as floating point values where 1.0 represents full range. For reflectance this is 100%. The wavelength (nm) is specified as a floating point value.					
source	<pre> &lt;xs:complexType name="ColorSpaceSpectralType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Spectral colorspace type. The spectral values are specified as floating point values where 1.0 represents full range. For reflectance this is 100%. The wavelength (nm) is specified as a floating point value.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationSpectrumSpectral"/&gt;         &lt;xs:element name="ReflectancePoint" type="CxF:ReflectancePointType" maxOccurs="unbounded"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Required set of reflectance pontss where each point is specified as a response value (0..1) at a wavelength (nm.) Reflectance is scaled such that 100%=1.0 where all emission is scaled such that 1000=1.0.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;       &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>					

#### attribute **ColorSpaceSpectralType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<pre>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</pre>

# element ColorSpaceSpectralType/ReflectancePoint

diagram	<p>Required set of reflectance pontss where each point is specified as a response value (0..1) at a wavelength (nm.) Reflectance is scaled such that 100%=1.0 where all emission is scaled such that 1000=1.0.</p>					
namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ReflectancePointType</a>					
properties	isRef	0	minOcc	1	maxOcc	unbounded
	content	complex				
facets	minExclusive	-1	maxExclusive	10		
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Wavelength</a>	<b>derived by:</b> <b>xs:double</b>	required			documentation Required wavelength (nm.) appinfo <jxb:property> <jxb:javadoc>Required wavelength (nm.)</jxb:javadoc> </jxb:property>
annotation	documentation Required set of reflectance pontss where each point is specified as a response value (0..1) at a wavelength (nm.) Reflectance is scaled such that 100%=1.0 where all emission is scaled such that 1000=1.0.					
source	<pre> &lt;xs:element name="ReflectancePoint" type="CxF:ReflectancePointType" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required set of reflectance pontss where each point is specified as a response value (0..1) at a wavelength (nm.) Reflectance is scaled such that 100%=1.0 where all emission is scaled such that 1000=1.0.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

complexType **ColorSpaceSRGBType**

diagram

#### ColorSpaceSRGBType

SRGB colorspace type. This is the type of the ColorSpaceSRGB element which belongs to the ColorSpace substitution group. This type may be used for any color depth. The RGB values and optionally the Alpha channel value are specified as floating point values were 1.0 represents full value range.

#### CxF:ColorSpaceType (extension)

##### attributes

###### Comments

Comments regarding this color space.

###### UniqueID

User specified unique identifier of this color. This is typically a GUID.

##### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

##### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

##### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

##### attributes

###### Name

##### CxF:ColorSpaceSpecificationSpe...

Three axis color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

##### CxF:Red

Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)

##### CxF:Green

Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)

##### CxF:Blue

Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)

##### CxF:Alpha

Axis values must be within 0.0 (inclusive) and 1.0 (inclusive).

##### CxF:ColorDepth

Enumeration of RGB color depth resolutions, specified per channel. Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source data may have had an 8 bit color depth, for instance. By specifying the color depth users of this data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer ranges.




namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base abstract	CxF:ColorSpaceType false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumTristimulus</a> <a href="#">CxF:Red</a> <a href="#">CxF:Green</a> <a href="#">CxF:Blue</a> <a href="#">CxF:Alpha</a> <a href="#">CxF:ColorDepth</a>					
used by	element	<a href="#">ColorSpaceSRGB</a>				
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>  <a href="#">Name</a>	Type <b>xs:string</b>  <b>xs:string</b>  <b>xs:string</b>	Use    optional	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation SRGB colorspace type. This is the type of the ColorSpaceSRGB element which belongs to the ColorSpace substitution group. This type may be used for any color depth. The RGB values and optionally the Alpha channel value are specified as floating point values were 1.0 represents full value range.					
source	<pre>&lt;xs:complexType name="ColorSpaceSRGBType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;SRGB colorspace type. This is the type of the ColorSpaceSRGB element which belongs to the ColorSpace substitution group. This type may be used for any color depth. The RGB values and optionally the Alpha channel value are specified as floating point values were 1.0 represents full value range.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationSpectrumTristimulus"/&gt;         &lt;xs:element name="Red"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0"/&gt;               &lt;xs:maxInclusive value="1.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="Green"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;               &lt;xs:maxInclusive value="1.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

	<pre>&lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="Blue"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:maxInclusive value="1.0"/&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="Alpha" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (in clusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="ColorDepth" type="CxF:EColorDepthType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of RGB color depth resolutions, specified per channel. Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source data may have had an 8 bit color depth, for instance. By specifying the color depth users of this data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer ranges.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>
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attribute **ColorSpaceSRGBType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<b>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</b>

## element **ColorSpaceSRGBType/Red**


diagram	 <p>Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0 maxInclusive 1.0
annotation	documentation Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)
source	<pre> &lt;xs:element name="Red"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## element **ColorSpaceSRGBType/Green**

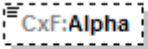
diagram	 <p>Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)
source	<pre> &lt;xs:element name="Green"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt; </pre>

	<pre> &lt;xs:minInclusive value="0.0"/&gt; &lt;xs:maxInclusive value="1.0"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
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#### element **ColorSpaceSRGBType/Blue**

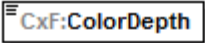
diagram	 <p>Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)
source	<pre> &lt;xs:element name="Blue"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (inclusive). (For example, if your data ranges from 0 to 255 divide values by 255.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:maxInclusive value="1.0"/&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceSRGBType/Alpha**

diagram	 <p>Axis values must be within 0.0 (inclusive) and 1.0 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Axis values must be within 0.0 (inclusive) and 1.0 (inclusive).

source	<pre> &lt;xs:element name="Alpha" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Axis values must be within 0.0 (inclusive) and 1.0 (in clusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
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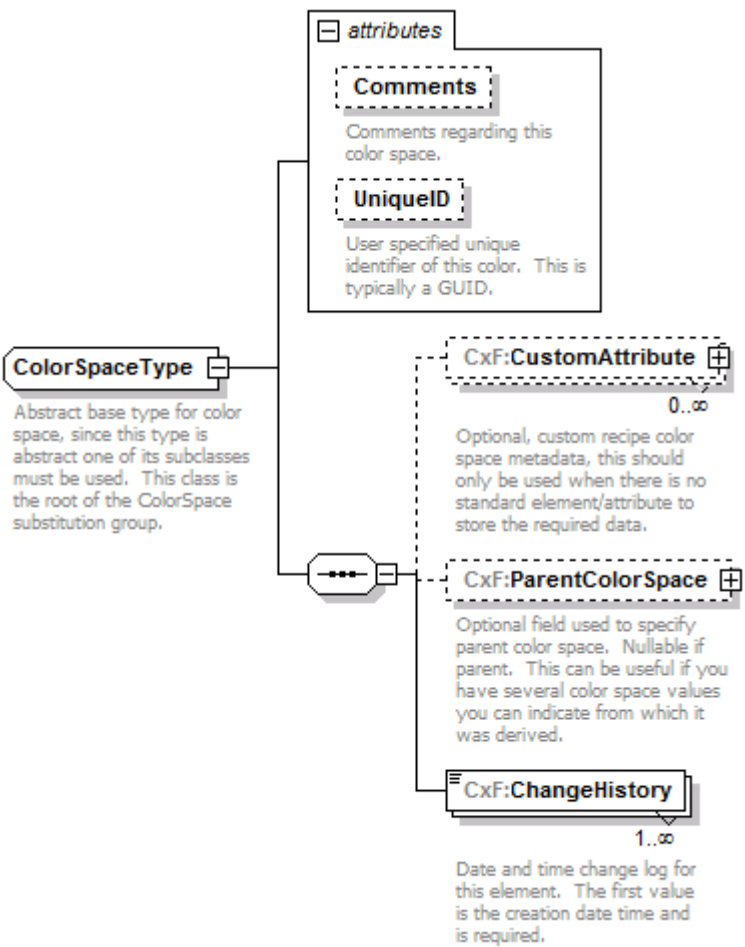
## element **ColorSpaceSRGBType/ColorDepth**

diagram	 <p>Enumeration of RGB color depth resolutions, specified per channel. Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source data may have had an 8 bit color depth, for instance. By specifying the color depth users of this data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer ranges.</p>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:ECOLORDepthType</a>
properties	isRef 0 content simple
facets	enumeration ColorDepth_Infinite enumeration ColorDepth_8 enumeration ColorDepth_16 enumeration ColorDepth_32
annotation	documentation Enumeration of RGB color depth resolutions, specified per channel. Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source data may have had an 8 bit color depth, for instance. By specifying the color depth users of this data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer ranges.
source	<pre> &lt;xs:element name="ColorDepth" type="CxF:ECOLORDepthType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of RGB color depth resolutions, specified per channel. Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source data may have had an 8 bit color depth, for instance. By specifying the color depth users of this data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer </pre>

```
ranges.</xs:documentation>
</xs:annotation>
</xs:element>
```

complexType **ColorSpaceType**

diagram



namespace <http://colorexchangeformat.com/v2>

properties abstract true

children [CxF:CustomAttribute](#) [CxF:ParentColorSpace](#) [CxF:ChangeHistory](#)

used by element complexTypes [ColorSpace](#) [ColorSpaceAdobeRGBType](#) [ColorSpaceAdobeWideGamutRGBType](#) [ColorSpaceCIELabType](#) [ColorSpaceCIELChType](#) [ColorSpaceCIELuvType](#) [ColorSpaceCIExyYType](#) [ColorSpaceCIEXYZType](#) [ColorSpaceCMYKType](#) [ColorSpaceDensityType](#) [ColorSpaceEmissiveCIExyYType](#) [ColorSpaceEmissiveCIEXYZType](#) [ColorSpaceEmissiveGenericType](#) [ColorSpaceEmissiveSpectralType](#) [ColorSpaceGenericType](#) [ColorSpaceHSLType](#) [ColorSpaceHSVType](#) [ColorSpaceMunsellType](#) [ColorSpaceNCSType](#) [ColorSpacePANTONEHexachromeType](#) [ColorSpacePANTONEType](#) [ColorSpaceRecipeType](#) [ColorSpaceRGBType](#) [ColorSpaceSpectralType](#) [ColorSpaceSRGBType](#) [ColorSpaceYBRTType](#) [ColorSpaceYIQType](#) [ColorSpaceYUVType](#)

attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	xs:string				documentation Comments regarding this color space.

	<a href="#">UniqueID</a> <b>xs:string</b>	documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation Abstract base type for color space, since this type is abstract one of its subclasses must be used. This class is the root of the ColorSpace substitution group.	
source	<pre> &lt;xs:complexType name="ColorSpaceType" abstract="true"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Abstract base type for color space, since this type is abstract one of its subclasses must be used. This class is the root of the ColorSpace substitution group.   &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ParentColorSpace" nillable="true" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:complexType&gt;         &lt;xs:sequence&gt;           &lt;xs:element ref="CxF:ColorSpace"/&gt;         &lt;/xs:sequence&gt;       &lt;/xs:complexType&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ChangeHistory" type="CxF:DateTimeWithTimeZoneType" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Date and time change log for this element. The first value is the creation date time and is required.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt;   &lt;xs:attribute name="Comments" type="xs:string"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Comments regarding this color space.&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:attribute&gt;   &lt;xs:attribute name="UniqueID" type="xs:string"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;User specified unique identifier of this color. This is typically a GUID.&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:attribute&gt; &lt;/xs:complexType&gt; </pre>	

#### attribute **ColorSpaceType/@Comments**

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation Comments regarding this color space.
source	<pre> &lt;xs:attribute name="Comments" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Comments regarding this color space.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### attribute **ColorSpaceType/@UniqueID**

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation User specified unique identifier of this color. This is typically a GUID.
source	<pre> &lt;xs:attribute name="UniqueID" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;User specified unique identifier of this color. This is typically a GUID.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### element **ColorSpaceType/CustomAttribute**

diagram	<p>Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.</p> <p><b>CxF:CustomAttributeType</b></p> <p><b>CxF:Name</b> Required field used to specify the name of this custom attribute.</p> <p><b>CxF:ValueChoice</b> Required field which allows one of several value choices to be specified. Note this is an XSD choice so only one option may be specified.</p>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:CustomAttributeType</a>
properties	isRef 0 minOcc 0 maxOcc unbounded content complex
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>
annotation	documentation Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to



	store the required data.
source	<pre>&lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element ColorSpaceType/ParentColorSpace

diagram

CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

----

CxF:ColorSpace

ColorSpace element representing ColorSpaceType. This is the base element of all color spaces.

ColorSpaceAdobeRGB

ColorSpaceAdobeWideGamutRGB

ColorSpaceCIElCh

ColorSpaceCIElLab

ColorSpaceCIElUv

ColorSpaceCIEXYZ

ColorSpaceCIExyY

ColorSpaceCMYK

ColorSpaceCMYKPlusN

ColorSpaceDensity

ColorSpaceEmissiveCIEXYZ

ColorSpaceEmissiveCIExyY

ColorSpaceEmissiveGeneric

Generic color space type, this should only be used when there is no specific named color type that best represents your data.

ColorSpaceEmissiveSpectral

ColorSpaceSpectral element representing ColorSpaceEmissiveSpectralType. In this type the spectral data is specified using  $\text{cd/m}^2$  units.

ColorSpaceGeneric

Generic color space type, this should only be used when there is no specific named color type that best represents your data.

ColorSpaceHSL

ColorSpaceHSV

ColorSpaceMunsell

ColorSpaceNCs

ColorSpacePANTONE

ColorSpacePANTONEHexachrome

ColorSpaceRGB

ColorSpaceRecipe

ColorSpaceSRGB

ColorSpaceSpectral

ColorSpaceYBR

ColorSpaceYIQ

ColorSpaceYUV

namespace	http://colorexchangeformat.com/v2
properties	isRef 0 minOcc 0 maxOcc 1 content complex nillable true
children	<a href="#">CxF:ColorSpace</a>
annotation	documentation Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.
source	<pre> &lt;xs:element name="ParentColorSpace" nillable="true" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element ref="CxF:ColorSpace"/&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceType/ChangeHistory**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:DateTimeWithTimeZoneType</a>
properties	isRef 0 minOcc 1 maxOcc unbounded content simple
facets	pattern .+T.+(Z [\-\.].+)
annotation	documentation Date and time change log for this element. The first value is the creation date time and is required.
source	<pre> &lt;xs:element name="ChangeHistory" type="CxF:DateTimeWithTimeZoneType" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Date and time change log for this element. The first value is the creation date time and is required.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

# complexType **ColorSpaceYBRType**

diagram

## **ColorSpaceYBRType**

YBR is compressed, normalized RGB values (Y=Luminance, RB are the normalized Red and Blue components).

### **CxF:ColorSpaceType** (extension)

#### **attributes**

#### **Comments**

Comments regarding this color space.

#### **UniqueID**

User specified unique identifier of this color. This is typically a GUID.

#### **CxF:CustomAttribute**

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

#### **CxF:ParentColorSpace**

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

#### **CxF:ChangeHistory**

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

#### **attributes**

#### **Name**

#### **CxF:Color Space Specification Spe...**

Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

#### **CxF:Y**

Luminance

#### **CxF:B**

#### **CxF:R**

namespace <http://colorexchangeformat.com/v2>


type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base abstract	CxF:ColorSpaceType false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Y</a> <a href="#">CxF:B</a> <a href="#">CxF:R</a>					
used by	element	<a href="#">ColorSpaceYBR</a>				
attributes	Name <a href="#">Comments</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	<b>xs:string</b>	optional			
annotation	documentation YBR is compressed, normalized RGB values (Y=Luminance, RB are the normalized Red and Blue components).					
source	<pre>&lt;xs:complexType name="ColorSpaceYBRTYPE" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;YBR is compressed, normalized RGB values (Y=Luminance, RB are the normalized Red and Blue components).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationSpectrumGeneric"/&gt;         &lt;xs:element name="Y"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Luminance&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;               &lt;xs:maxInclusive value="1.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="B"&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;               &lt;xs:maxInclusive value="1.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="R"&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;               &lt;xs:maxInclusive value="1.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

	<pre> &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
--	--


#### attribute **ColorSpaceYBRType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<pre>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</pre>

#### element **ColorSpaceYBRType/Y**


diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Luminance
source	<pre> &lt;xs:element name="Y"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Luminance&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **ColorSpaceYBRType/B**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
source	<pre>&lt;xs:element name="B"&gt;</pre>

	<pre> &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:double"&gt;     &lt;xs:minInclusive value="0.0"/&gt;     &lt;xs:maxInclusive value="1.0"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
--	---

element **ColorSpaceYBRType/R**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
source	<pre> &lt;xs:element name="R"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

complexType **ColorSpaceYIQType**



diagram

### ColorSpaceYIQType

YIQ is the color space used by the NTSC color TV system, employed mainly in North and Central America, and Japan. In the U.S., currently federally mandated for analog over-the-air TV broadcasting as shown in this excerpt of the current FCC rules and regulations part 73 "TV transmission standard":

#### CxF:ColorSpaceType (extension)

##### attributes

###### Comments

Comments regarding this color space.

###### UniqueID

User specified unique identifier of this color. This is typically a GUID.

##### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

##### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

##### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

##### attributes

###### Name

##### CxF:ColorSpaceSpecificationSpe...

Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

##### CxF:Y

Valid range is 0 (inclusive) to 1.0 (inclusive).

##### CxF:I

Valid range is -0.5957 (inclusive) to 0.5957 (inclusive).

##### CxF:Q

Valid range is -0.5226 (inclusive) to 0.5226 (inclusive).


namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base	CxF:ColorSpaceType				
	abstract	false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Y</a> <a href="#">CxF:I</a> <a href="#">CxF:Q</a>					
used by	element	<a href="#">ColorSpaceYIQ</a>				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Comments</a>	<b>xs:string</b>				documentation Comments regarding this color space.
	<a href="#">UniqueID</a>	<b>xs:string</b>				documentation User specified unique identifier of this color. This is typically a GUID.
	<a href="#">Name</a>	<b>xs:string</b>	optional			
annotation	documentation YIQ is the color space used by the NTSC color TV system, employed mainly in North and Central America, and Japan. In the U.S., currently federally mandated for analog over-the-air TV broadcasting as shown in this excerpt of the current FCC rules and regulations part 73 "TV transmission standard":					
source	<pre>&lt;xs:complexType name="ColorSpaceYIQType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;YIQ is the color space used by the NTSC color TV system, employed mainly in North and Central America, and Japan. In the U.S., currently federally mandated for analog over- the-air TV broadcasting as shown in this excerpt of the current FCC rules and regulations part 73 "TV transmission standard":&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:ColorSpaceType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element ref="CxF:ColorSpaceSpecificationSpectrumGeneric"/&gt;         &lt;xs:element name="Y"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;               &lt;xs:maxInclusive value="1.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="I"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Valid range is -0.5957 (inclusive) to 0.5957 (inclusive).&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="-0.5957"/&gt;               &lt;xs:maxInclusive value="0.5957"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

	<pre> &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="Q"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is -0.5226 (inclusive) to 0.5226 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="-0.5226"/&gt;       &lt;xs:maxInclusive value="0.5226"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
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#### attribute **ColorSpaceYIQType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<pre>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</pre>

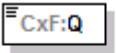
#### element **ColorSpaceYIQType/Y**

diagram	 <p>Valid range is 0 (inclusive) to 1.0 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Valid range is 0 (inclusive) to 1.0 (inclusive).
source	<pre> &lt;xs:element name="Y"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## element **ColorSpaceYIQType/I**

diagram	 <p>Valid range is -0.5957 (inclusive) to 0.5957 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive -0.5957 maxInclusive 0.5957
annotation	documentation Valid range is -0.5957 (inclusive) to 0.5957 (inclusive).
source	<pre> &lt;xs:element name="I"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is -0.5957 (inclusive) to 0.5957 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="-0.5957"/&gt;       &lt;xs:maxInclusive value="0.5957"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## element **ColorSpaceYIQType/Q**

diagram	 <p>Valid range is -0.5226 (inclusive) to 0.5226 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive -.5226 maxInclusive .5226
annotation	documentation Valid range is -0.5226 (inclusive) to 0.5226 (inclusive).
source	<pre> &lt;xs:element name="Q"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is -0.5226 (inclusive) to 0.5226 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="-.5226"/&gt;       &lt;xs:maxInclusive value=".5226"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

	</xs:element>
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complexType **ColorSpaceYUVType**

diagram

## ColorSpaceYUVType

The YUV model defines a color space in terms of one luma and two chrominance components. The YUV color model is used in the PAL, NTSC, and SECAM composite color video standards. Previous black-and-white systems used only luma (Y) information and color information (U and V) was added so that a black-and-white receiver would still be able to display a color picture as a normal black and white picture.

YUV models human perception of color in a different way than the standard RGB model used in computer graphics hardware.

Y stands for the luma component (the brightness) and U and V are the chrominance (color) components. The YPbPr color model used in analog component video and its digital version YCbCr used in digital video are more or less derived from it (Cb/Pb and Cr/Pr are deviations from grey on blue-yellow and red-cyan axes, whereas U and V are blue-luminance and red-luminance differences), and are sometimes inaccurately called "YUV". The YIQ color space used in the analog NTSC television broadcasting system is related to it, although in a more complex way.

## CxF:ColorSpaceType (extension)

### attributes

#### Comments

Comments regarding this color space.

#### UniqueID

User specified unique identifier of this color. This is typically a GUID.

### CxF:CustomAttribute

0..∞

Optional, custom recipe color space metadata, this should only be used when there is no standard element/attribute to store the required data.

### CxF:ParentColorSpace

Optional field used to specify parent color space. Nullable if parent. This can be useful if you have several color space values you can indicate from which it was derived.

### CxF:ChangeHistory

1..∞

Date and time change log for this element. The first value is the creation date time and is required.

### attributes

#### Name

### CxF:Color Space Specification Spe...

Generic color space specification element. This is used to represent the static part of a color space type, that is the part of the color space that is common across more than one color space instance.

### CxF:Y

Valid range is 0 (inclusive) to 1.0 (inclusive).

### CxF:U

Valid range is -0.436 (inclusive) to 0.436 (inclusive).

### CxF:V

Valid range is -0.615 (inclusive) to 0.615 (inclusive).

namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:ColorSpaceType</a>					
properties	base abstract	CxF:ColorSpaceType false				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ParentColorSpace</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:ColorSpaceSpecificationSpectrumGeneric</a> <a href="#">CxF:Y</a> <a href="#">CxF:U</a> <a href="#">CxF:V</a>					
used by	element	<a href="#">ColorSpaceYUV</a>				
attributes	Name <a href="#">Comments</a>  <a href="#">UniqueID</a>  <a href="#">Name</a>	Type <b>xs:string</b>  <b>xs:string</b>  <b>xs:string</b>	Use    optional	Default	Fixed	annotation documentation Comments regarding this color space. documentation User specified unique identifier of this color. This is typically a GUID.
annotation	documentation The YUV model defines a color space in terms of one luma and two chrominance components. The YUV color model is used in the PAL, NTSC, and SECAM composite color video standards. Previous black-and-white systems used only luma (Y) information and color information (U and V) was added so that a black-and-white receiver would still be able to display a color picture as a normal black and white picture.  YUV models human perception of color in a different way than the standard RGB model used in computer graphics hardware.  Y stands for the luma component (the brightness) and U and V are the chrominance (color) components. The YPbPr color model used in analog component video and its digital version YCbCr used in digital video are more or less derived from it (Cb/Pb and Cr/Pr are deviations from grey on blue-yellow and red-cyan axes, whereas U and V are blue-luminance and red-luminance differences), and are sometimes inaccurately called "YUV". The YIQ color space used in the analog NTSC television broadcasting system is related to it, although in a more complex way.					
source	<xs:complexType name="ColorSpaceYUVType" abstract="false"> <xs:annotation> <xs:documentation>The YUV model defines a color space in terms of one luma and two chrominance components. The YUV color model is used in the PAL, NTSC, and SECAM composite color video standards. Previous black-and-white systems used only luma (Y) information and color information (U and V) was added so that a black-and-white receiver would still be able to display a color picture as a normal black and white picture.  YUV models human perception of color in a different way than the standard RGB model used in computer graphics hardware.  Y stands for the luma component (the brightness) and U and V are the chrominance (color) components. The YPbPr color model used in analog component video and its digital version YCbCr used in digital video are more or less derived from it (Cb/Pb and Cr/Pr are deviations from grey on blue-yellow and red-cyan axes, whereas U and V are blue-luminance and red-luminance differences), and are sometimes inaccurately called "YUV". The YIQ color space used in the analog NTSC television broadcasting system is related to it, although in a more complex way. </xs:documentation> </xs:annotation> <xs:complexContent> <xs:extension base="CxF:ColorSpaceType"> <xs:sequence> <xs:element ref="CxF:ColorSpaceSpecificationSpectrumGeneric"/> </xs:sequence> </xs:extension> </xs:complexContent> </xs:complexType>					




	<pre> &lt;xs:element name="Y"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="U"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is -0.436 (inclusive) to 0.436 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="-0.436"/&gt;       &lt;xs:maxInclusive value="0.436"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="V"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is -0.615 (inclusive) to 0.615 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="-0.615"/&gt;       &lt;xs:maxInclusive value="0.615"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
--	--


attribute **ColorSpaceYUVType/@Name**

type	<b>xs:string</b>
properties	isRef 0 use optional
source	<b>&lt;xs:attribute name="Name" type="xs:string" use="optional"/&gt;</b>


## element **ColorSpaceYUVType/Y**

diagram	 <p>Valid range is 0 (inclusive) to 1.0 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
annotation	documentation Valid range is 0 (inclusive) to 1.0 (inclusive).
source	<pre> &lt;xs:element name="Y"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is 0 (inclusive) to 1.0 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## element **ColorSpaceYUVType/U**

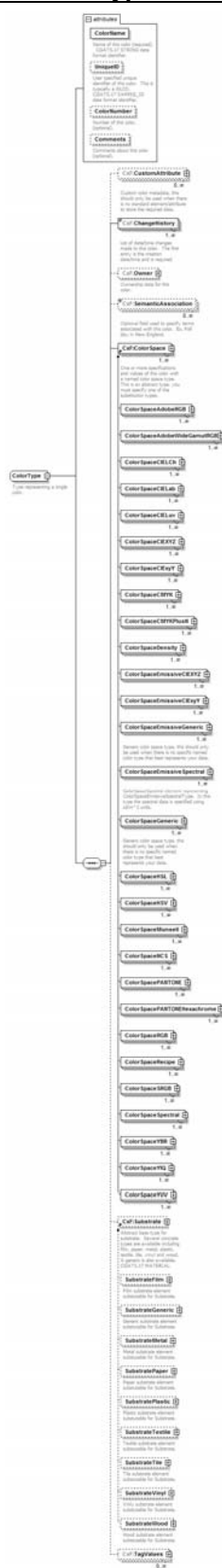
diagram	 <p>Valid range is -0.436 (inclusive) to 0.436 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive -0.436 maxInclusive 0.436
annotation	documentation Valid range is -0.436 (inclusive) to 0.436 (inclusive).
source	<pre> &lt;xs:element name="U"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is -0.436 (inclusive) to 0.436 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="-0.436"/&gt;       &lt;xs:maxInclusive value="0.436"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

# element ColorSpaceYUVType/V

diagram	 <p>Valid range is -0.615 (inclusive) to 0.615 (inclusive).</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive -0.615 maxInclusive 0.615
annotation	documentation Valid range is -0.615 (inclusive) to 0.615 (inclusive).
source	<pre> &lt;xs:element name="V"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Valid range is -0.615 (inclusive) to 0.615 (inclusive).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="-0.615"/&gt;       &lt;xs:maxInclusive value="0.615"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## complexType **ColorType**

diagram



namespace	http://colorexchangeformat.com/v2																																			
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Owner</a> <a href="#">CxF:SemanticAssociation</a> <a href="#">CxF:ColorSpace</a> <a href="#">CxF:Substrate</a> <a href="#">CxF:TagValues</a>																																			
used by	elements	<a href="#">CxF/Color</a> <a href="#">Measurement/Color</a> <a href="#">Standard/Color</a> <a href="#">SubstrateType/Color</a> <a href="#">ColorSetType/Color</a>																																		
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>annotation</th></tr></thead><tbody><tr><td><a href="#">ColorName</a></td><td>xs:string</td><td>required</td><td></td><td></td><td>documentation Name of this color (required). CGATS.17 STRING data format identifier.</td></tr><tr><td><a href="#">UniqueID</a></td><td>xs:string</td><td></td><td></td><td></td><td>documentation User specified unique identifier of this color. This is typically a GUID. CGATS.17 SAMPLE_ID data format identifier.</td></tr><tr><td><a href="#">ColorNumber</a></td><td>xs:string</td><td></td><td></td><td></td><td>documentation Number of this color, (optional).</td></tr><tr><td><a href="#">Comments</a></td><td>xs:string</td><td></td><td></td><td></td><td>documentation Comments about this color (optional).</td></tr></tbody></table>	Name	Type	Use	Default	Fixed	annotation	<a href="#">ColorName</a>	xs:string	required			documentation Name of this color (required). CGATS.17 STRING data format identifier.	<a href="#">UniqueID</a>	xs:string				documentation User specified unique identifier of this color. This is typically a GUID. CGATS.17 SAMPLE_ID data format identifier.	<a href="#">ColorNumber</a>	xs:string				documentation Number of this color, (optional).	<a href="#">Comments</a>	xs:string				documentation Comments about this color (optional).					
Name	Type	Use	Default	Fixed	annotation																															
<a href="#">ColorName</a>	xs:string	required			documentation Name of this color (required). CGATS.17 STRING data format identifier.																															
<a href="#">UniqueID</a>	xs:string				documentation User specified unique identifier of this color. This is typically a GUID. CGATS.17 SAMPLE_ID data format identifier.																															
<a href="#">ColorNumber</a>	xs:string				documentation Number of this color, (optional).																															
<a href="#">Comments</a>	xs:string				documentation Comments about this color (optional).																															
annotation	documentation Type representing a single color.																																			
source	<pre>&lt;xs:complexType name="ColorType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type representing a single color.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Custom color metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ChangeHistory" type="CxF:DateTimeWithTimeZoneType" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;List of date/time changes made to this color. The first entry is the creation date/time and is required.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Owner" type="CxF:OwnerType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Ownership data for this color.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt;</pre>																																			

	<pre> &lt;xs:element name="SemanticAssociation" type="xs:string" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional field used to specify terms associated with this color. Ex. Fall day in New England.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element ref="CxF:ColorSpace" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;One or more specifications and values of this color with a named color space type. This is an abstract type, you must specify one of the substitution types.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element ref="CxF:Substrate" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Abstract base type for substrate. Several concrete types are available including film, paper, metal, plastic, textile, tile, vinyl and wood. A generic is also available. CGATS.17 MATERIAL.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="TagValues" type="CxF:TagValue" minOccurs="0" maxOccurs="unbounded"/&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="ColorName" type="xs:string" use="required"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of this color (required). CGATS.17 STRING data format identifier.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="UniqueID" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;User specified unique identifier of this color. This is typically a GUID. CGATS.17 SAMPLE_ID data format identifier.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="ColorNumber" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Number of this color, (optional).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="Comments" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Comments about this color (optional).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;/xs:complexType&gt; </pre>
--	---

attribute **ColorType/@ColorName**

type	<b>xs:string</b>
properties	isRef 0 use required
annotation	documentation Name of this color (required). CGATS.17 STRING data format identifier.

source	<pre> &lt;xs:attribute name="ColorName" type="xs:string" use="required"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of this color (required).  CGATS.17 STRING data format     identifier.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>
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#### attribute **ColorType**/@UniqueID

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation User specified unique identifier of this color. This is typically a GUID.  CGATS.17 SAMPLE_ID data format identifier.
source	<pre> &lt;xs:attribute name="UniqueID" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;User specified unique identifier of this color. This is typically a GUID.     CGATS.17 SAMPLE_ID data format identifier.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

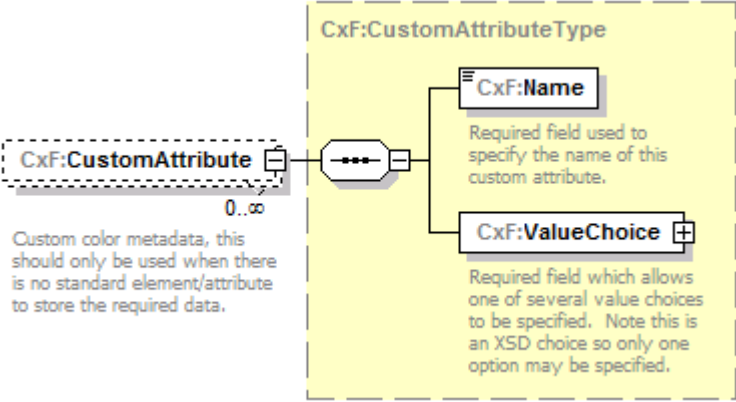
#### attribute **ColorType**/@ColorNumber

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation Number of this color, (optional).
source	<pre> &lt;xs:attribute name="ColorNumber" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Number of this color, (optional).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

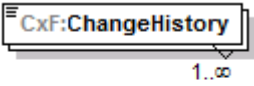
#### attribute **ColorType**/@Comments

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation Comments about this color (optional).
source	<pre> &lt;xs:attribute name="Comments" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Comments about this color (optional).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

## element ColorType/CustomAttribute

diagram	 <p>Custom color metadata, this should only be used when there is no standard element/attribute to store the required data.</p>								
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:CustomAttributeType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
isRef	0								
minOcc	0								
maxOcc	unbounded								
content	complex								
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>								
annotation	<p>documentation</p> <p>Custom color metadata, this should only be used when there is no standard element/attribute to store the required data.</p>								
source	<pre>&lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Custom color metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

## element ColorType/ChangeHistory

diagram	 <p>List of date/time changes made to this color. The first entry is the creation date/time and is required.</p>								
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:DateTimeWithTimeZoneType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>1</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	1	maxOcc	unbounded	content	simple
isRef	0								
minOcc	1								
maxOcc	unbounded								
content	simple								
facets	<table> <tr><td>pattern</td><td>.+T.+(Z[+ -].+)</td></tr> </table>	pattern	.+T.+(Z[+ -].+)						
pattern	.+T.+(Z[+ -].+)								
annotation	<p>documentation</p> <p>List of date/time changes made to this color. The first entry is the creation date/time and is required.</p>								
source	<pre>&lt;xs:element name="ChangeHistory" type="CxF:DateTimeWithTimeZoneType" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;</pre>								

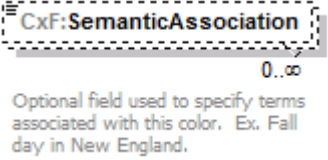


	<code>&lt;xs:documentation&gt;</code> List of date/time changes made to this color. The first entry is the creation date/time and is required. <code>&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:element&gt;</code>
--	--

# element **ColorType/Owner**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:OwnerType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Person</a> <a href="#">CxF:Copyright</a> <a href="#">CxF:Company</a>
annotation	documentation Ownership data for this color.
source	<code>&lt;xs:element name="Owner" type="CxF:OwnerType" minOccurs="0"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;</code> Ownership data for this color. <code>&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:element&gt;</code>

## element ColorType/SemanticAssociation

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc unbounded content simple
annotation	documentation Optional field used to specify terms associated with this color. Ex. Fall day in New England.
source	<pre>&lt;xs:element name="SemanticAssociation" type="xs:string" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional field used to specify terms associated with this color. Ex. Fall day in New England.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element ColorType/TagValues


diagram													
namespace	http://colorexchangeformat.com/v2												
type	<a href="#">CxF:TagValue</a>												
properties	isRef 0 minOcc 0 maxOcc unbounded content complex												
children	<a href="#">CxF:Tag</a> <a href="#">CxF:TextValue</a> <a href="#">CxF:NumberValue</a>												
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>annotation</th></tr></thead><tbody><tr><td><a href="#">UniqueID</a></td><td><b>xs:string</b></td><td></td><td></td><td></td><td></td></tr></tbody></table>	Name	Type	Use	Default	Fixed	annotation	<a href="#">UniqueID</a>	<b>xs:string</b>				
Name	Type	Use	Default	Fixed	annotation								
<a href="#">UniqueID</a>	<b>xs:string</b>												
source	<xs:element name="TagValues" type="CxF:TagValue" minOccurs="0" maxOccurs="unbounded"/>												

## complexType CustomAttributeType

diagram	
namespace	http://colorexchangeformat.com/v2
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>
used by	<p>elements</p> <p><a href="#">BaseElementType/Base/CustomAttribute</a> <a href="#">ColorantElementType/Colorant/CustomAttribute</a> <a href="#">ColorQualityControlType/CustomAttribute</a> <a href="#">PaletteType/CustomAttribute</a> <a href="#">ColorSetType/CustomAttribute</a> <a href="#">ColorType/CustomAttribute</a> <a href="#">StandardAndMeasurementType/CustomAttribute</a> <a href="#">LimitsType/CustomAttribute</a> <a href="#">PhysicalSampleType/CustomAttribute</a> <a href="#">ToleranceType/CustomAttribute</a> <a href="#">OwnerType/CustomAttribute</a> <a href="#">DeviceType/DeviceSettings/CustomAttribute</a> <a href="#">DeviceType/CustomAttribute</a> <a href="#">FunctionType/CustomAttribute</a> <a href="#">SampleType/CustomAttribute</a> <a href="#">ColorSpaceSpecificationType/CustomAttribute</a> <a href="#">ColorSpacePANTONEType/Recipe/ColorantElement/Colorant/CustomAttributes/CustomAttribute</a> <a href="#">ColorSpaceType/CustomAttribute</a> <a href="#">SubstrateType/CustomAttribute</a> <a href="#">Standard/CustomAttribute</a> <a href="#">Measurement/CustomAttribute</a> <a href="#">CxF/Preamble/Version/CustomAttribute</a> <a href="#">CxF/Preamble/Header/CustomAttribute</a></p>
annotation	<p>documentation</p> <p>Type representing a custom name value pair.</p>
source	<pre> &lt;xs:complexType name="CustomAttributeType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type representing a custom name value pair.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="Name"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Required field used to specify the name of this custom attribute. &lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:simpleType&gt;         &lt;xs:restriction base="xs:string"&gt;           &lt;xs:minLength value="1"/&gt;         &lt;/xs:restriction&gt;       &lt;/xs:simpleType&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ValueChoice"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Required field which allows one of several value choices to be specified. Note this is an XSD choice so only one option may be specified.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:complexType&gt;         &lt;xs:choice&gt;           &lt;xs:element name="DoubleValue" type="xs:double"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Value of custom attribute (double).&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;           &lt;xs:element name="IntegerValue" type="xs:int"&gt; </pre>

	<pre> &lt;xs:annotation&gt;   &lt;xs:documentation&gt;Value of custom attribute (integer).&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="StringValue" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Value of custom attribute (string).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:choice&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>
--	--

element CustomAttributeType/Name

diagram	 <p>Required field used to specify the name of this custom attribute.</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	minLength 1
annotation	documentation Required field used to specify the name of this custom attribute.
source	<pre> &lt;xs:element name="Name"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required field used to specify the name of this custom attribute.   &lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:minLength value="1"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## element CustomAttributeType/ValueChoice

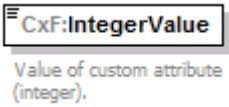
diagram	<pre> classDiagram     class CxFValueChoice {         &lt;&lt;required&gt;&gt;     }     class CxFDoubleValue {         Value of custom attribute (double).     }     class CxFIntegerValue {         Value of custom attribute (integer).     }     class CxFStringValue {         Value of custom attribute (string).     }     CxFValueChoice -- &gt; CxFDoubleValue     CxFValueChoice -- &gt; CxFIntegerValue     CxFValueChoice -- &gt; CxFStringValue         </pre> <p>Required field which allows one of several value choices to be specified. Note this is an XSD choice so only one option may be specified.</p>
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 content complex
children	<a href="#">CxF:DoubleValue</a> <a href="#">CxF:IntegerValue</a> <a href="#">CxF:StringValue</a>
annotation	documentation Required field which allows one of several value choices to be specified. Note this is an XSD choice so only one option may be specified.
source	<pre> &lt;xs:element name="ValueChoice"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required field which allows one of several value choices to be specified.     Note this is an XSD choice so only one option may be specified.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:choice&gt;       &lt;xs:element name="DoubleValue" type="xs:double"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Value of custom attribute (double).&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="IntegerValue" type="xs:int"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Value of custom attribute (integer).&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="StringValue" type="xs:string"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Value of custom attribute (string).&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;     &lt;/xs:choice&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt;         </pre>

## element CustomAttributeType/ValueChoice/DoubleValue

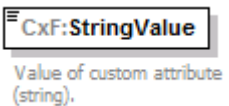
diagram	<pre> classDiagram     class CxFDoubleValue {         Value of custom attribute (double).     }         </pre>
namespace	http://colorexchangeformat.com/v2

type	<b>xs:double</b>
properties	isRef 0 content simple
annotation	documentation Value of custom attribute (double).
source	<pre>&lt;xs:element name="DoubleValue" type="xs:double"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Value of custom attribute (double).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

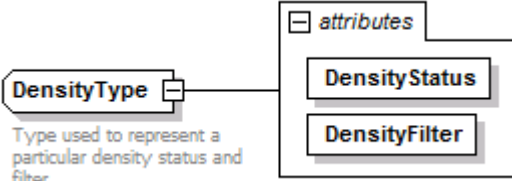
#### element CustomAttributeType/ValueChoice/IntegerValue

diagram	 <p>The diagram shows a box labeled <b>CxF:IntegerValue</b> with a description below it: "Value of custom attribute (integer)."</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:int</b>
properties	isRef 0 content simple
annotation	documentation Value of custom attribute (integer).
source	<pre>&lt;xs:element name="IntegerValue" type="xs:int"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Value of custom attribute (integer).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element CustomAttributeType/ValueChoice/StringValue

diagram	 <p>The diagram shows a box labeled <b>CxF:StringValue</b> with a description below it: "Value of custom attribute (string)."</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Value of custom attribute (string).
source	<pre>&lt;xs:element name="StringValue" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Value of custom attribute (string).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## complexType **DensityType**

diagram						
namespace	http://colorexchangeformat.com/v2					
type	extension of <b>xs:double</b>					
properties	base <b>xs:double</b>					
used by	element <a href="#">ColorSpaceDensityType/Density</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">DensityStatus</a>	<a href="#">CxF:EDensityStatusType</a>	required			
	<a href="#">DensityFilter</a>	<a href="#">CxF:EDensityFilterType</a>	required			
annotation	documentation Type used to represent a particular density status and filter.					
source	<pre>&lt;xs:complexType name="DensityType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type used to represent a particular density status and filter.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleContent&gt;     &lt;xs:extension base="xs:double"&gt;       &lt;xs:attribute name="DensityStatus" type="CxF:EDensityStatusType" use="required"/&gt;       &lt;xs:attribute name="DensityFilter" type="CxF:EDensityFilterType" use="required"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:simpleContent&gt; &lt;/xs:complexType&gt;</pre>					

## attribute **DensityType/@DensityStatus**

type	<a href="#">CxF:EDensityStatusType</a>
properties	isRef 0 use required
facets	enumeration Status_A enumeration Status_E enumeration Status_T enumeration Status_I enumeration Status_SpectralX enumeration Status_Spectral enumeration Status_HiFi enumeration Status_Hex enumeration Status_Txp enumeration Status_Ex enumeration Status_DIN enumeration Status_DIN-NB
source	<pre>&lt;xs:attribute name="DensityStatus" type="CxF:EDensityStatusType" use="required"/&gt;</pre>

## attribute **DensityType/@DensityFilter**

type	<a href="#">CxF:EDensityFilterType</a>
------	--

properties	isRef 0 use required
facets	enumeration Filter_Visual enumeration Filter_Cyan enumeration Filter_Magenta enumeration Filter_Yellow enumeration Filter_Black enumeration Filter_Red enumeration Filter_Green enumeration Filter_Blue enumeration Filter_A enumeration Filter_B
source	<xs:attribute name="DensityFilter" type="CxF:EDensityFilterType" use="required"/>

### complexType DeviceFilterType

diagram						
namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:EFilterType</a>					
properties	base CxF:EFilterType					
used by	element <a href="#">ColorSpaceSpecificationType/DeviceFilter</a>					
facets	enumeration Filter_None enumeration Filter_UVEExcluded enumeration Filter_UVD65 enumeration Filter_Partial enumeration Filter_Custom					
attributes	Name <a href="#">CustomOrPartial</a>	Type xs:string	Use optional	Default	Fixed	annotation
source	<pre>&lt;xs:complexType name="DeviceFilterType"&gt;   &lt;xs:simpleContent&gt;     &lt;xs:extension base="CxF:EFilterType"&gt;       &lt;xs:attribute name="CustomOrPartial" type="xs:string" use="optional"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:simpleContent&gt; &lt;/xs:complexType&gt;</pre>					

### attribute DeviceFilterType/@CustomOrPartial

type	xs:string
properties	isRef 0 use optional
source	<xs:attribute name="CustomOrPartial" type="xs:string" use="optional"/>



## complexType DeviceType

diagram	<p><b>DeviceType</b> Specification of the device used.</p> <ul style="list-style-type: none"> <li><b>CxF:CustomAttribute</b>  0..∞ Optional, custom attributes which may be used to extend this element if necessary.</li> <li><b>CxF:Manufacturer</b> Name of company that manufactured the device, i.e. X-Rite. CGATS.17 INSTRUMENTATION tag.</li> <li><b>CxF:Model</b> Device model number/name. I.e. X-Rite instruments typically report the model as part of the response to the get software version command (v/sv). CGATS.17 INSTRUMENTATION tag.</li> <li><b>CxF:SerialNumber</b> Instrument serial number. CGATS.17 INSTRUMENTATION tag.</li> <li><b>CxF:DeviceClass</b> Will be restricted to an enumeration of supported device classes</li> <li><b>CxF:FirmwareVersion</b> Firmware version of this device. (Main code firmware in the case where the device as a boot mode as well.)</li> <li><b>CxF:BootFirmwareVersion</b> Boot firmware version if supported by the device.</li> <li><b>CxF:CalibrationState</b>  Calibration state enumeration, if calibrated calibration date time should be set in the optional attribute.</li> <li><b>CxF:DeviceSettings</b>  Device settings being used for this measurement(s).</li> </ul>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Manufacturer</a> <a href="#">CxF:Model</a> <a href="#">CxF:SerialNumber</a> <a href="#">CxF:DeviceClass</a> <a href="#">CxF:FirmwareVersion</a> <a href="#">CxF:BootFirmwareVersion</a> <a href="#">CxF:CalibrationState</a> <a href="#">CxF:DeviceSettings</a>
used by	elements <a href="#">Measurement/Device</a> <a href="#">Standard/Device</a> <a href="#">ColorSpaceSpecificationType/Device</a>
annotation	documentation Specification of the device used.

source

```
<xs:complexType name="DeviceType">
  <xs:annotation>
    <xs:documentation>Specification of the device used.</xs:documentation>
  </xs:annotation>
  <xs:sequence>
    <xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0"
maxOccurs="unbounded">
      <xs:annotation>
        <xs:documentation>Optional, custom attributes which may be used to extend this element if
necessary.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="Manufacturer" type="xs:string">
      <xs:annotation>
        <xs:documentation>Name of company that manufactured the device, i.e. X-Rite. CGATS.17
INSTRUMENTATION tag.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="Model" type="xs:string">
      <xs:annotation>
        <xs:documentation>Device model number/name. I.e. X-Rite instruments typically report the
model as part of the response to the get software version command (v/sv). CGATS.17
INSTRUMENTATION tag.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="SerialNumber">
      <xs:annotation>
        <xs:documentation>Instrument serial number. CGATS.17 INSTRUMENTATION
tag.</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string"/>
      </xs:simpleType>
    </xs:element>
    <xs:element name="DeviceClass" minOccurs="0">
      <xs:annotation>
        <xs:documentation>Will be restricted to an enumeration of supported device
classes</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="CxF:EDeviceClassType"/>
      </xs:simpleType>
    </xs:element>
    <xs:element name="FirmwareVersion" type="xs:string" minOccurs="0">
      <xs:annotation>
        <xs:documentation>Firmware version of this device. (Main code firmware in the case where
the device as a boot mode as well.)</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="BootFirmwareVersion" type="xs:string" minOccurs="0">
      <xs:annotation>
        <xs:documentation>Boot firmware version if supported by the device.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="CalibrationState" type="CxF:CalibrationStateType" minOccurs="0">
```

```

<xs:annotation>
  <xs:documentation>Calibration state enumeration, if calibrated calibration date time should be
set in the optional attribute.</xs:documentation>
</xs:annotation>
</xs:element>
<xs:element name="DeviceSettings" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Device settings being used for this measurement(s).</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0"
maxOccurs="unbounded">
        <xs:annotation>
          <xs:documentation>Optional, custom attributes which may be used to extend this element
if necessary.</xs:documentation>
        </xs:annotation>
        </xs:element>
        <xs:element name="Aperture" minOccurs="0">
          <xs:annotation>
            <xs:documentation>Aperture diameter being used (mm).</xs:documentation>
          </xs:annotation>
          <xs:simpleType>
            <xs:restriction base="xs:int">
              <xs:minExclusive value="0"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
        <xs:element name="LensPosition" type="xs:int" minOccurs="0"/>
        <xs:element name="GlassCompensation" type="xs:boolean" minOccurs="0"/>
        <xs:element name="GlossCompensation" minOccurs="0">
          <xs:complexType>
            <xs:simpleContent>
              <xs:extension base="xs:boolean">
                <xs:attribute name="CompensationValue" type="xs:double" use="required"/>
              </xs:extension>
            </xs:simpleContent>
          </xs:complexType>
        </xs:element>
        <xs:element name="Averaging" minOccurs="0">
          <xs:annotation>
            <xs:documentation>If measurement averaging is enabled you must specify the quantity of
measurements being averaged in the AveragingValue attribute.</xs:documentation>
          </xs:annotation>
          <xs:complexType>
            <xs:simpleContent>
              <xs:extension base="xs:boolean">
                <xs:attribute name="AveragingValue" use="required">
                  <xs:simpleType>
                    <xs:restriction base="xs:int">
                      <xs:minInclusive value="2"/>
                      <xs:maxInclusive value="99"/>
                    </xs:restriction>
                  </xs:simpleType>
                </xs:attribute>
              </xs:extension>
            </xs:simpleContent>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>

```

	<pre> &lt;/xs:simpleContent&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;xs:element name="NetProfiler" type="xs:boolean" minOccurs="0"/&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>
--	---

element **DeviceType/CustomAttribute**

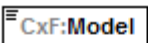
diagram									
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:CustomAttributeType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
isRef	0								
minOcc	0								
maxOcc	unbounded								
content	complex								
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>								
annotation	<p>documentation</p> <p>Optional, custom attributes which may be used to extend this element if necessary.</p>								
source	<pre> &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, custom attributes which may be used to extend this element if necessary.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								

element **DeviceType/Manufacturer**

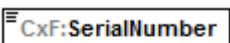
diagram	
namespace	http://colorexchangeformat.com/v2

type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Name of company that manufactured the device, i.e. X-Rite. CGATS.17 INSTRUMENTATION tag.
source	<pre> &lt;xs:element name="Manufacturer" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of company that manufactured the device, i.e. X-Rite. CGATS.17 INSTRUMENTATION tag.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

#### element DeviceType/Model

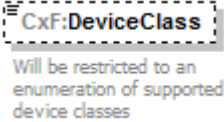
diagram	 <p>Device model number/name. I.e. X-Rite instruments typically report the model as part of the response to the get software version command (v/sv). CGATS.17 INSTRUMENTATION tag.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Device model number/name. I.e. X-Rite instruments typically report the model as part of the response to the get software version command (v/sv). CGATS.17 INSTRUMENTATION tag.
source	<pre> &lt;xs:element name="Model" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Device model number/name. I.e. X-Rite instruments typically report the model as part of the response to the get software version command (v/sv). CGATS.17 INSTRUMENTATION tag.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

#### element DeviceType/SerialNumber

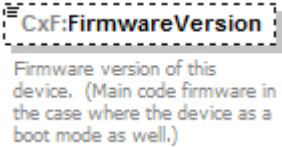
diagram	 <p>Instrument serial number. CGATS.17 INSTRUMENTATION tag.</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Instrument serial number. CGATS.17 INSTRUMENTATION tag.
source	<pre> &lt;xs:element name="SerialNumber"&gt;   &lt;xs:annotation&gt; </pre>

	<pre> &lt;xs:documentation&gt;Instrument serial number.  CGATS.17 INSTRUMENTATION tag.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:string"/&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
--	---

#### element **DeviceType/DeviceClass**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <a href="#">CxF:EDeviceClassType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration DeviceClass_Spot enumeration DeviceClass_Scanning enumeration DeviceClass_Other
annotation	documentation Will be restricted to an enumeration of supported device classes
source	<pre> &lt;xs:element name="DeviceClass" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Will be restricted to an enumeration of supported device classes&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="CxF:EDeviceClassType"/&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **DeviceType/FirmwareVersion**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Firmware version of this device. (Main code firmware in the case where the device as a boot mode as well.)
source	<pre> &lt;xs:element name="FirmwareVersion" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt; </pre>

	<pre> &lt;xs:documentation&gt;Firmware version of this device. (Main code firmware in the case where the device as a boot mode as well.)&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>
--	---

#### element DeviceType/BootFirmwareVersion

diagram									
namespace	http://colorexchangeformat.com/v2								
type	<b>xs:string</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	documentation Boot firmware version if supported by the device.								
source	<pre> &lt;xs:element name="BootFirmwareVersion" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Boot firmware version if supported by the device.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								

#### element DeviceType/CalibrationState

diagram	<p>CxF:CalibrationState</p> <p>Calibration state enumeration, if calibrated calibration date time should be set in the optional attribute.</p> <p>CxF:CalibrationStateType</p> <p>attributes</p> <p>CalibrationDateTime</p>												
namespace	http://colorexchangeformat.com/v2												
type	<u>CxF:CalibrationStateType</u>												
properties	<table><tr><td>isRef</td><td>0</td></tr><tr><td>minOcc</td><td>0</td></tr><tr><td>maxOcc</td><td>1</td></tr><tr><td>content</td><td>complex</td></tr></table>	isRef	0	minOcc	0	maxOcc	1	content	complex				
isRef	0												
minOcc	0												
maxOcc	1												
content	complex												
facets	<table><tr><td>enumeration</td><td>CalibrationState_NotCalibrated</td></tr><tr><td>enumeration</td><td>CalibrationState_Calibrated</td></tr><tr><td>enumeration</td><td>CalibrationState_NA</td></tr></table>	enumeration	CalibrationState_NotCalibrated	enumeration	CalibrationState_Calibrated	enumeration	CalibrationState_NA						
enumeration	CalibrationState_NotCalibrated												
enumeration	CalibrationState_Calibrated												
enumeration	CalibrationState_NA												
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>annotation</th></tr><tr><td><u>CalibrationDateTime</u></td><td><u>CxF:DateTimeWithTimeZoneType</u></td><td>optional</td><td></td><td></td><td></td></tr></table>	Name	Type	Use	Default	Fixed	annotation	<u>CalibrationDateTime</u>	<u>CxF:DateTimeWithTimeZoneType</u>	optional			
Name	Type	Use	Default	Fixed	annotation								
<u>CalibrationDateTime</u>	<u>CxF:DateTimeWithTimeZoneType</u>	optional											
annotation	<p>documentation</p> <p>Calibration state enumeration, if calibrated calibration date time should be set in the optional attribute.</p>												
source	<pre>&lt;xs:element name="CalibrationState" type="CxF:CalibrationStateType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Calibration state enumeration, if calibrated calibration date time should be set in the optional attribute.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>												

	<code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:element&gt;</code>
--	---

# element DeviceType/DeviceSettings

diagram	<p><b>CxF:DeviceSettings</b> Device settings being used for this measurement(s).</p> <p><b>CxF:CustomAttribute</b> Optional, custom attributes which may be used to extend this element if necessary.</p> <p><b>CxF:Aperture</b> Aperture diameter being used (mm).</p> <p><b>CxF:LensPosition</b></p> <p><b>CxF:GlassCompensation</b></p> <p><b>CxF:GlossCompensation</b> If measurement averaging is enabled you must specify the quantity of measurements being averaged in the AveragingValue attribute.</p> <p><b>CxF:Averaging</b></p> <p><b>CxF:NetProfiler</b></p>								
namespace	http://colorexchangeformat.com/v2								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	complex
isRef	0								
minOcc	0								
maxOcc	1								
content	complex								
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Aperture</a> <a href="#">CxF:LensPosition</a> <a href="#">CxF:GlassCompensation</a> <a href="#">CxF:GlossCompensation</a> <a href="#">CxF:Averaging</a> <a href="#">CxF:NetProfiler</a>								
annotation	documentation Device settings being used for this measurement(s).								
source	<pre> &lt;xs:element name="DeviceSettings" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Device settings being used for this measurement(s).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Optional, custom attributes which may be used to extend this element if necessary.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Aperture" minOccurs="0"&gt;         &lt;xs:annotation&gt; </pre>								

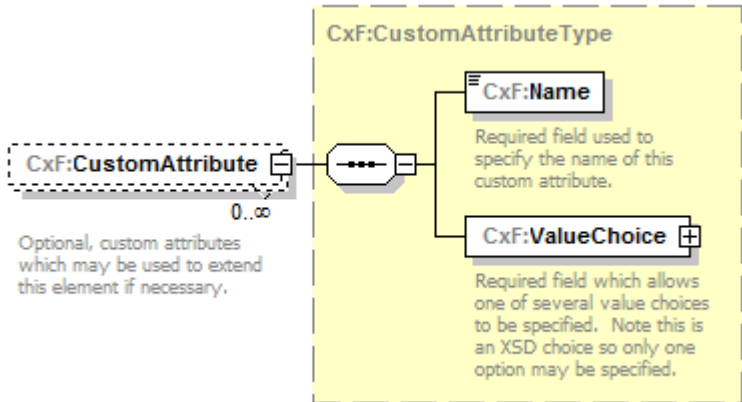


```


<xs:documentation>Aperture diameter being used (mm).</xs:documentation>
</xs:annotation>
<xs:simpleType>
  <xs:restriction base="xs:int">
    <xs:minExclusive value="0"/>
  </xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="LensPosition" type="xs:int" minOccurs="0"/>
<xs:element name="GlassCompensation" type="xs:boolean" minOccurs="0"/>
<xs:element name="GlossCompensation" minOccurs="0">
  <xs:complexType>
    <xs:simpleContent>
      <xs:extension base="xs:boolean">
        <xs:attribute name="CompensationValue" type="xs:double" use="required"/>
      </xs:extension>
    </xs:simpleContent>
  </xs:complexType>
</xs:element>
<xs:element name="Averaging" minOccurs="0">
  <xs:annotation>
    <xs:documentation>If measurement averaging is enabled you must specify the quantity of
measurements being averaged in the AveragingValue attribute.</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:simpleContent>
      <xs:extension base="xs:boolean">
        <xs:attribute name="AveragingValue" use="required">
          <xs:simpleType>
            <xs:restriction base="xs:int">
              <xs:minInclusive value="2"/>
              <xs:maxInclusive value="99"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:attribute>
      </xs:extension>
    </xs:simpleContent>
  </xs:complexType>
</xs:element>
<xs:element name="NetProfiler" type="xs:boolean" minOccurs="0"/>
</xs:sequence>
</xs:complexType>
</xs:element>

```

## element DeviceType/DeviceSettings/CustomAttribute

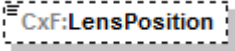
diagram									
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:CustomAttributeType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
isRef	0								
minOcc	0								
maxOcc	unbounded								
content	complex								
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>								
annotation	documentation Optional, custom attributes which may be used to extend this element if necessary.								
source	<pre> &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, custom attributes which may be used to extend this element if necessary.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								

## element DeviceType/DeviceSettings/Aperture

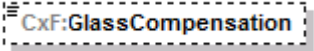
diagram									
namespace	http://colorexchangeformat.com/v2								
type	restriction of <b>xs:int</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
facets	minExclusive 0								
annotation	documentation Aperture diameter being used (mm).								
source	<pre> &lt;xs:element name="Aperture" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Aperture diameter being used (mm).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:int"&gt; </pre>								

	<pre> &lt;xs:minExclusive value="0"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
--	--

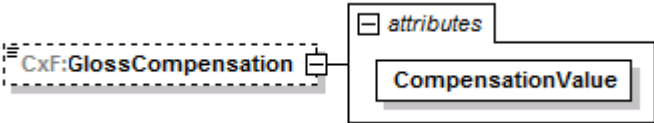
#### element DeviceType/DeviceSettings/LensPosition

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:int</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
source	<pre>&lt;xs:element name="LensPosition" type="xs:int" minOccurs="0"/&gt;</pre>

#### element DeviceType/DeviceSettings/GlassCompensation

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:boolean</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
source	<pre>&lt;xs:element name="GlassCompensation" type="xs:boolean" minOccurs="0"/&gt;</pre>

#### element DeviceType/DeviceSettings/GlossCompensation

diagram						
namespace	http://colorexchangeformat.com/v2					
type	extension of <b>xs:boolean</b>					
properties	isRef 0 minOcc 0 maxOcc 1 content complex					
attributes	Name <a href="#">CompensationValue</a>	Type <b>xs:double</b>	Use required	Default	Fixed	annotation
source	<pre> &lt;xs:element name="GlossCompensation" minOccurs="0"&gt;   &lt;xs:complexType&gt;     &lt;xs:simpleContent&gt;       &lt;xs:extension base="xs:boolean"&gt;         &lt;xs:attribute name="CompensationValue" type="xs:double" use="required"/&gt;       &lt;/xs:extension&gt;     &lt;/xs:simpleContent&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>					

	<code>&lt;/xs:extension&gt;</code> <code>&lt;/xs:simpleContent&gt;</code> <code>&lt;/xs:complexType&gt;</code> <code>&lt;/xs:element&gt;</code>
--	--

attribute **DeviceType/DeviceSettings/GlossCompensation/@CompensationValue**

type	<b>xs:double</b>
properties	isRef 0 use required
source	<code>&lt;xs:attribute name="CompensationValue" type="xs:double" use="required"/&gt;</code>

element **DeviceType/DeviceSettings/Averaging**


diagram	<p>If measurement averaging is enabled you must specify the quantity of measurements being averaged in the AveragingValue attribute.</p>					
namespace	http://colorexchangeformat.com/v2					
type	extension of <b>xs:boolean</b>					
properties	isRef 0 minOcc 0 maxOcc 1 content complex					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">AveragingValue</a>	derived by: <b>xs:int</b>	required			
annotation	documentation If measurement averaging is enabled you must specify the quantity of measurements being averaged in the AveragingValue attribute.					
source	<pre> &lt;xs:element name="Averaging" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If measurement averaging is enabled you must specify the quantity of measurements being averaged in the AveragingValue attribute.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:simpleContent&gt;       &lt;xs:extension base="xs:boolean"&gt;         &lt;xs:attribute name="AveragingValue" use="required"&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:int"&gt;               &lt;xs:minInclusive value="2"/&gt;               &lt;xs:maxInclusive value="99"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:attribute&gt;       &lt;/xs:extension&gt;     &lt;/xs:simpleContent&gt;   &lt;/xs:complexType&gt; </pre>					

	</xs:element>
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attribute **DeviceType/DeviceSettings/Averaging/@AveragingValue**

type	restriction of <b>xs:int</b>
properties	isRef 0 use required
facets	minInclusive 2 maxInclusive 99
source	<pre>&lt;xs:attribute name="AveragingValue" use="required"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:int"&gt;       &lt;xs:minInclusive value="2"/&gt;       &lt;xs:maxInclusive value="99"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt;</pre>

element **DeviceType/DeviceSettings/NetProfiler**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:boolean</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
source	<pre>&lt;xs:element name="NetProfiler" type="xs:boolean" minOccurs="0"/&gt;</pre>

complexType **EmissiveSpectralPointType**

diagram	 <p>Emissive spectral data type for a spectral data point. Each spectral data point is a reflectance value at a specified wavelength (nm). Reflectance is scaled such that 100%=1.0 where all emission is scaled such that 1000=1.0.</p>					
namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:EmissiveType</a>					
properties	base CxF:EmissiveType					
used by	element <a href="#">ColorSpaceEmissiveSpectralType/EmissiveSpectralPoint</a>					
attributes	Name <a href="#">Wavelength</a>	Type derived by: <b>xs:double</b>	Use required	Default	Fixed	annotation
annotation	documentation Emissive spectral data type for a spectral data point. Each spectral data point is a reflectance value at a specified					

	wavelength (nm). Reflectance is scaled such that 100%=1.0 where all emission is scaled such that 1000=1.0.
source	<pre> &lt;xs:complexType name="EmissiveSpectralPointType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Emissive spectral data type for a spectral data point. Each spectral data point is a reflectance value at a specified wavelength (nm). Reflectance is scaled such that 100%=1.0 where all emission is scaled such that 1000=1.0.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleContent&gt;     &lt;xs:extension base="CxF:EmissiveType"&gt;       &lt;xs:attribute name="Wavelength" use="required"&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:double"&gt;             &lt;xs:minExclusive value="0"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:attribute&gt;     &lt;/xs:extension&gt;   &lt;/xs:simpleContent&gt; &lt;/xs:complexType&gt; </pre>

#### attribute **EmissiveSpectralPointType/@Wavelength**

type	restriction of <b>xs:double</b>
properties	isRef 0 use required
facets	minExclusive 0
source	<pre> &lt;xs:attribute name="Wavelength" use="required"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minExclusive value="0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

## complexType FloatingPointValueType

diagram	<div><div><div><div><div></div><div>attributes</div></div><div><div>AxisNominalMax</div><div>Maximum value (inclusive) for the axis value. Note this is normally the nominal maximum as some color spaces do not have hard absolute bounds limits but always do have range limits that represent full range.</div></div><div><div>AxisNominalMin</div><div>Minimum value (inclusive) for the axis value. Note this is normally the nominal minimum as some color spaces do not have hard absolute bounds limits but always do have range limits that represent zero range.</div></div><div><div>AxisNominalScale</div><div>Enumeration of valid axis scales, defaults to Linear.</div></div></div><div><div>FloatingPointValueType</div><div>Floating point (double) axis value type where axis limits are specified by the user. User must specify the axis name and nominal min and max axis values as well as optionally the axis scale.</div></div></div></div>						
namespace	http://colorexchangeformat.com/v2						
type	extension of <b>xs:double</b>						
properties	base <b>xs:double</b>						
used by	element <a href="#">AxisType/AxisValueChoice/AxisFloatingPointValue</a>						
attributes	Name	Type	Use	Default	Fixed	annotation	
	<a href="#">AxisNominalMax</a>	<b>xs:double</b>	required			documentation Maximum value (inclusive) for the axis value. Note this is normally the nominal maximum as some color spaces do not have hard absolute bounds limits but always do have range limits that represent full range. appinfo <jxb:property> <jxb:javaDoc>Maximum value (inclusive) for the axis value. Note this is normally the nominal maximum as some color spaces do not have hard absolute bounds limits but always do have range limits that represent full range.</jxb:javaDoc> </jxb:property>	
	<a href="#">AxisNominalMin</a>	<b>xs:double</b>	required			documentation Minimum value (inclusive) for the axis value. Note this is normally the nominal minimum as some color spaces do not have hard absolute bounds limits but always do have range limits that represent zero range. appinfo <jxb:property> <jxb:javaDoc>Minimum value (inclusive) for the axis	

	<p><a href="#">AxisNominalScale</a> derived by: <a href="#">Scale_Linear</a>  <a href="#">CxF:EScaleType</a></p> <p>value. Note this is normally the nominal minimum as some color spaces to not have hard absolute bounds limits but always do have range limits that represent zero range.&lt;/jxb:javadoc&gt;  &lt;/jxb:property&gt;  documentation  Enumeration of valid axis scales, defaults to Linear.</p>
annotation	<p>documentation  Floating point (double) axis value type where axis limits are specified by the user. User must specify the axis name and nominal min and max axis values as well as optionally the axis scale.</p>
source	<pre> &lt;xs:complexType name="FloatingPointValueType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Floating point (double) axis value type where axis limits are specified by the user. User must specify the axis name and nominal min and max axis values as well as optionally the axis scale.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleContent&gt;     &lt;xs:extension base="xs:double"&gt;       &lt;xs:attribute name="AxisNominalMax" type="xs:double" use="required"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Maximum value (inclusive) for the axis value. Note this is normally the nominal maximum as some color spaces do not have hard absolute bounds limits but always do have range limits that represent full range. &lt;/xs:documentation&gt;         &lt;xs:appinfo&gt;           &lt;jxb:property&gt;             &lt;jxb:javadoc&gt;Maximum value (inclusive) for the axis value. Note this is normally the nominal maximum as some color spaces do not have hard absolute bounds limits but always do have range limits that represent full range.&lt;/jxb:javadoc&gt;           &lt;/jxb:property&gt;         &lt;/xs:appinfo&gt;       &lt;/xs:annotation&gt;     &lt;/xs:attribute&gt;     &lt;xs:attribute name="AxisNominalMin" type="xs:double" use="required"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Minimum value (inclusive) for the axis value. Note this is normally the nominal minimum as some color spaces to not have hard absolute bounds limits but always do have range limits that represent zero range.&lt;/xs:documentation&gt;       &lt;xs:appinfo&gt;         &lt;jxb:property&gt;           &lt;jxb:javadoc&gt;Minimum value (inclusive) for the axis value. Note this is normally the nominal minimum as some color spaces to not have hard absolute bounds limits but always do have range limits that represent zero range.&lt;/jxb:javadoc&gt;         &lt;/jxb:property&gt;       &lt;/xs:appinfo&gt;     &lt;/xs:annotation&gt;   &lt;/xs:attribute&gt;   &lt;xs:attribute name="AxisNominalScale" default="Scale_Linear"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Enumeration of valid axis scales, defaults to Linear.&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:simpleType&gt;   &lt;xs:restriction base="CxF:EScaleType"/&gt; &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; &lt;/xs:extension&gt; </pre>



	<code>&lt;/xs:simpleContent&gt;</code> <code>&lt;/xs:complexType&gt;</code>
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#### attribute **FloatingPointValueType/@AxisNominalMax**

type	<b>xs:double</b>
properties	isRef 0 use required
annotation	documentation Maximum value (inclusive) for the axis value. Note this is normally the nominal maximum as some color spaces do not have hard absolute bounds limits but always do have range limits that represent full range. appinfo <jxb:property> <jxb:javadoc>Maximum value (inclusive) for the axis value. Note this is normally the nominal maximum as some color spaces do not have hard absolute bounds limits but always do have range limits that represent full range.</jxb:javadoc> </jxb:property>
source	<code>&lt;xs:attribute name="AxisNominalMax" type="xs:double" use="required"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;</code> Maximum value (inclusive) for the axis value. Note this is normally the nominal maximum as some color spaces do not have hard absolute bounds limits but always do have range limits that represent full range. <code>&lt;/xs:documentation&gt;</code> <code>&lt;xs:appinfo&gt;</code> <code>&lt;jxb:property&gt;</code> <code>&lt;jxb:javadoc&gt;</code> Maximum value (inclusive) for the axis value. Note this is normally the nominal maximum as some color spaces do not have hard absolute bounds limits but always do have range limits that represent full range. <code>&lt;/jxb:javadoc&gt;</code> <code>&lt;/jxb:property&gt;</code> <code>&lt;/xs:appinfo&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:attribute&gt;</code>

#### attribute **FloatingPointValueType/@AxisNominalMin**

type	<b>xs:double</b>
properties	isRef 0 use required
annotation	documentation Minimum value (inclusive) for the axis value. Note this is normally the nominal minimum as some color spaces to not have hard absolute bounds limits but always do have range limits that represent zero range. appinfo <jxb:property> <jxb:javadoc>Minimum value (inclusive) for the axis value. Note this is normally the nominal minimum as some color spaces to not have hard absolute bounds limits but always do have range limits that represent zero range.</jxb:javadoc> </jxb:property>
source	<code>&lt;xs:attribute name="AxisNominalMin" type="xs:double" use="required"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;</code> Minimum value (inclusive) for the axis value. Note this is normally the nominal minimum as some color spaces to not have hard absolute bounds limits but always do have range limits that represent zero range.</xs:documentation> <code>&lt;xs:appinfo&gt;</code> <code>&lt;jxb:property&gt;</code> <code>&lt;jxb:javadoc&gt;</code> Minimum value (inclusive) for the axis value. Note this is normally the nominal minimum as some color spaces to not have hard absolute bounds limits but always do have range limits that represent zero range.</jxb:javadoc> <code>&lt;/jxb:property&gt;</code> <code>&lt;/xs:appinfo&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:attribute&gt;</code>

	<pre> &lt;/xs:appinfo&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>
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### attribute **FloatingPointValueType/@AxisNominalScale**

type	restriction of <a href="#">CxF:EScaleType</a>
properties	isRef 0 default Scale_Linear
facets	enumeration Scale_Linear enumeration Scale_Log enumeration Scale_Other
annotation	documentation Enumeration of valid axis scales, defaults to Linear.
source	<pre> &lt;xs:attribute name="AxisNominalScale" default="Scale_Linear"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of valid axis scales, defaults to Linear.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="CxF:EScaleType"/&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

### complexType **FunctionAverageStdDevAType**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	extension of <a href="#">CxF:FunctionType</a>
properties	base CxF:FunctionType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
used by	element <a href="#">FunctionAverageStdDevA</a>
annotation	documentation Average standard deviation of a (Lab color space).
source	<pre> &lt;xs:complexType name="FunctionAverageStdDevAType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Average standard deviation of a (Lab color space).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt; </pre>

	<pre> &lt;xs:extension base="CxF:FunctionType"/&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
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complexType **FunctionAverageStdDevBType**

diagram	
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:FunctionType</a>
properties	base CxF:FunctionType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
used by	element <a href="#">FunctionAverageStdDevB</a>
annotation	documentation Average standard deviation of b (Lab color space).
source	<pre> &lt;xs:complexType name="FunctionAverageStdDevBType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Average standard deviation of b (Lab color space).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"/&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

## complexType **FunctionAverageStdDevLType**

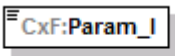
diagram	
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:FunctionType</a>
properties	base CxF:FunctionType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
used by	element <a href="#">FunctionAverageStdDevL</a>
annotation	documentation Average standard deviation of L (Lab color space).
source	<pre> &lt;xs:complexType name="FunctionAverageStdDevLType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Average standard deviation of L (Lab color space).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"/&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

## complexType FunctionDE2000Type

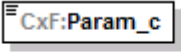
diagram	
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:FunctionType</a>
properties	base <a href="#">CxF:FunctionType</a>
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a> <a href="#">CxF:Param_l</a> <a href="#">CxF:Param_c</a> <a href="#">CxF:Param_h</a>
used by	element <a href="#">FunctionDE2000</a>
annotation	documentation DE2000 function defaulting to using standard l=2.0, c=1.0 and h=1.0 constants.
source	<pre> &lt;xs:complexType name="FunctionDE2000Type"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;DE2000 function defaulting to using standard l=2.0, c=1.0 and h=1.0 constants.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="Param_l" default="2.0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;l constant value, defaults to 2.0.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="Param_c" default="1.0"&gt; </pre>

	<pre> &lt;xs:annotation&gt;   &lt;xs:documentation&gt;c constant value, defaults to 1.0.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:double"&gt;     &lt;xs:minInclusive value="0.0"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="Param_h" default="1.0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;h constant value, defaults to 1.0.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
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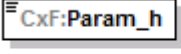
element **FunctionDE2000Type/Param\_I**

diagram	 <p>I constant value, defaults to 2.0.</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple default 2.0
facets	minInclusive 0.0
annotation	documentation I constant value, defaults to 2.0.
source	<pre> &lt;xs:element name="Param_I" default="2.0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;I constant value, defaults to 2.0.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

# element **FunctionDE2000Type/Param\_c**

diagram	 <p>c constant value, defaults to 1.0.</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple default 1.0
facets	minInclusive 0.0
annotation	documentation c constant value, defaults to 1.0.
source	<pre> &lt;xs:element name="Param_c" default="1.0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;c constant value, defaults to 1.0.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

# element **FunctionDE2000Type/Param\_h**

diagram	 <p>h constant value, defaults to 1.0.</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple default 1.0
facets	minInclusive 0.0
annotation	documentation h constant value, defaults to 1.0.
source	<pre> &lt;xs:element name="Param_h" default="1.0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;h constant value, defaults to 1.0.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

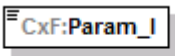
## complexType FunctionDE94Type

diagram	<p><b>FunctionDE94Type</b> DE94 function defaulting to using standard l=2.0, c=1.0 and h=1.0 constants.</p> <p><b>CxF:FunctionType (extension)</b></p> <ul style="list-style-type: none"> <li><b>CxF:CustomAttribute</b> (0..∞) Optional, custom function type metadata, this should only be used when there is no standard element/attribute to store the required data.</li> <li><b>CxF:Result</b> Optional result of function. CGATS.17 LAB_DE_XXX.</li> <li><b>CxF:Param_l</b> l constant value, defaults to 2.0.</li> <li><b>CxF:Param_c</b> c constant value, defaults to 1.0.</li> <li><b>CxF:Param_h</b> h constant value, defaults to 1.0.</li> </ul>
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:FunctionType</a>
properties	base CxF:FunctionType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a> <a href="#">CxF:Param_l</a> <a href="#">CxF:Param_c</a> <a href="#">CxF:Param_h</a>
used by	element <a href="#">FunctionDE94</a>
annotation	documentation DE94 function defaulting to using standard l=2.0, c=1.0 and h=1.0 constants.
source	<pre> &lt;xs:complexType name="FunctionDE94Type"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;DE94 function defaulting to using standard l=2.0, c=1.0 and h=1.0 constants.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="Param_l" default="2.0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;l constant value, defaults to 2.0.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="Param_c" default="1.0"&gt; </pre>

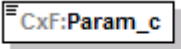


	<pre> &lt;xs:annotation&gt;   &lt;xs:documentation&gt;c constant value, defaults to 1.0.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:double"&gt;     &lt;xs:minInclusive value="0.0"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="Param_h" default="1.0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;h constant value, defaults to 1.0.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
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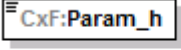
element **FunctionDE94Type/Param\_I**

diagram	 <p>I constant value, defaults to 2.0.</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple default 2.0
facets	minInclusive 0.0
annotation	documentation I constant value, defaults to 2.0.
source	<pre> &lt;xs:element name="Param_I" default="2.0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;I constant value, defaults to 2.0.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

# element **FunctionDE94Type/Param\_c**

diagram	 <p>c constant value, defaults to 1.0.</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple default 1.0
facets	minInclusive 0.0
annotation	documentation c constant value, defaults to 1.0.
source	<pre> &lt;xs:element name="Param_c" default="1.0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;c constant value, defaults to 1.0.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

# element **FunctionDE94Type/Param\_h**

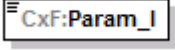
diagram	 <p>h constant value, defaults to 1.0.</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple default 1.0
facets	minInclusive 0.0
annotation	documentation h constant value, defaults to 1.0.
source	<pre> &lt;xs:element name="Param_h" default="1.0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;h constant value, defaults to 1.0.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## complexType FunctionDEcmcType

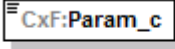
diagram	<p><b>FunctionDEcmcType</b> DEcmc function defaulting to using standard l=2.0 and c=1.0 constants.</p> <p><b>CxF:FunctionType (extension)</b></p> <p><b>CxF:CustomAttribute</b> 0..∞ Optional, custom function type metadata, this should only be used when there is no standard element/attribute to store the required data.</p> <p><b>CxF:Result</b> Optional result of function. CGATS.17 LAB_DE_XXX.</p> <p><b>CxF:Param_l</b> l constant value, defaults to 2.0.</p> <p><b>CxF:Param_c</b> c constant value, defaults to 1.0.</p>
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:FunctionType</a>
properties	base CxF:FunctionType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a> <a href="#">CxF:Param_l</a> <a href="#">CxF:Param_c</a>
used by	element <a href="#">FunctionDECMC</a>
annotation	documentation DEcmc function defaulting to using standard l=2.0 and c=1.0 constants.
source	<pre> &lt;xs:complexType name="FunctionDEcmcType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;DEcmc function defaulting to using standard l=2.0 and c=1.0     constants.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="Param_l" default="2.0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;l constant value, defaults to 2.0.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:double"&gt;               &lt;xs:minInclusive value="0.0"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="Param_c" default="1.0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;c constant value, defaults to 1.0.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt; </pre>

	<pre> &lt;xs:restriction base="xs:double"&gt;   &lt;xs:minInclusive value="0.0"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
--	--

#### element **FunctionDEcmcType/Param\_l**

diagram	 <p>l constant value, defaults to 2.0.</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple default 2.0
facets	minInclusive 0.0
annotation	documentation l constant value, defaults to 2.0.
source	<pre> &lt;xs:element name="Param_l" default="2.0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;l constant value, defaults to 2.0.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **FunctionDEcmcType/Param\_c**

diagram	 <p>c constant value, defaults to 1.0.</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple default 1.0
facets	minInclusive 0.0
annotation	documentation c constant value, defaults to 1.0.
source	<pre> &lt;xs:element name="Param_c" default="1.0"&gt;   &lt;xs:annotation&gt; </pre>

	<pre> &lt;xs:documentation&gt;c constant value, defaults to 1.0.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:double"&gt;     &lt;xs:minInclusive value="0.0"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
--	---

### complexType **FunctionDEType**

diagram	
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:FunctionType</a>
properties	base CxF:FunctionType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
used by	element <a href="#">FunctionDE</a>
annotation	documentation Standard DE(Lab) function.
source	<pre> &lt;xs:complexType name="FunctionDEType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Standard DE(Lab) function.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"/&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

## complexType FunctionGenericType

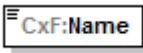
diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	extension of <a href="#">CxF:FunctionType</a>
properties	base CxF:FunctionType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a> <a href="#">CxF:Name</a> <a href="#">CxF:Parameters</a>
used by	element <a href="#">FunctionGeneric</a>
annotation	documentation Generic function type where parameter(s) may be specified.
source	<pre> &lt;xs:complexType name="FunctionGenericType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Generic function type where parameter(s) may be specified.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="Name"&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:string"&gt;               &lt;xs:minLength value="1"/&gt;               &lt;xs:whiteSpace value="collapse"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;         &lt;xs:element name="Parameters" minOccurs="0" maxOccurs="unbounded"&gt;           &lt;xs:annotation&gt; </pre>

```

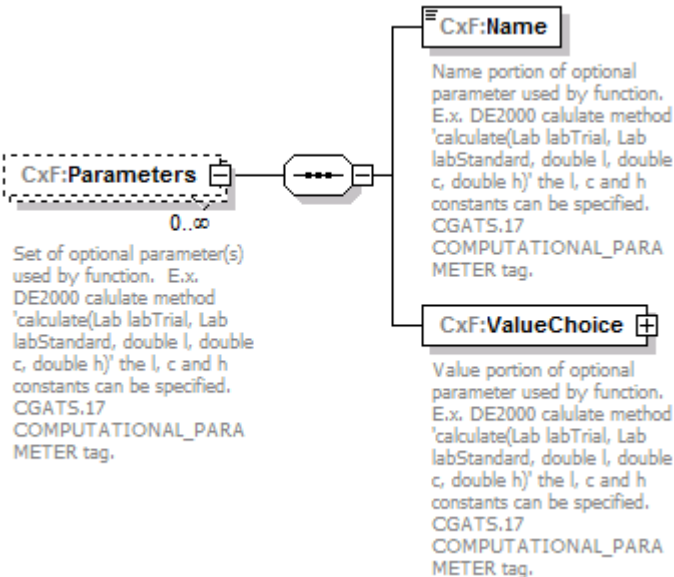
<xs:documentation>Set of optional parameter(s) used by function. E.x. DE2000 calculate
method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h
constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER
tag.</xs:documentation>
</xs:annotation>
<xs:complexType>
<xs:sequence>
<xs:element name="Name" type="xs:string">
<xs:annotation>
<xs:documentation>Name portion of optional parameter used by function. E.x. DE2000
calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and
h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER
tag.</xs:documentation>
</xs:annotation>
</xs:element>
<xs:element name="ValueChoice">
<xs:annotation>
<xs:documentation>Value portion of optional parameter used by function. E.x. DE2000
calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and
h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER
tag.</xs:documentation>
</xs:annotation>
<xs:complexType>
<xs:choice>
<xs:element name="Double" type="xs:double">
<xs:annotation>
<xs:documentation>Floating-point choice of value portion of optional parameter
used by function. Note, this is preferred over the string option if as expected the data type is
numeric. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c,
double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER
tag.</xs:documentation>
</xs:annotation>
</xs:element>
<xs:element name="String" type="xs:string">
<xs:annotation>
<xs:documentation>String choice of value portion of optional parameter used by
function. Note, if the data value is numeric, which is most typical, use the Double value choice.
E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double
h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER
tag.</xs:documentation>
</xs:annotation>
</xs:element>
</xs:choice>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:extension>
</xs:complexContent>
</xs:complexType>

```

## element **FunctionGenericType/Name**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	minLength 1 whiteSpace collapse
source	<pre> &lt;xs:element name="Name"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;       &lt;xs:whiteSpace value="collapse"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## element **FunctionGenericType/Parameters**

diagram	 <p>Set of optional parameter(s) used by function. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.</p> <p>Name portion of optional parameter used by function. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.</p> <p>Value portion of optional parameter used by function. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.</p>
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 minOcc 0 maxOcc unbounded content complex
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>
annotation	documentation Set of optional parameter(s) used by function. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.
source	<pre> &lt;xs:element name="Parameters" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Set of optional parameter(s) used by function. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can </pre>




be specified. CGATS.17 COMPUTATIONAL\_PARAMETER tag.

```

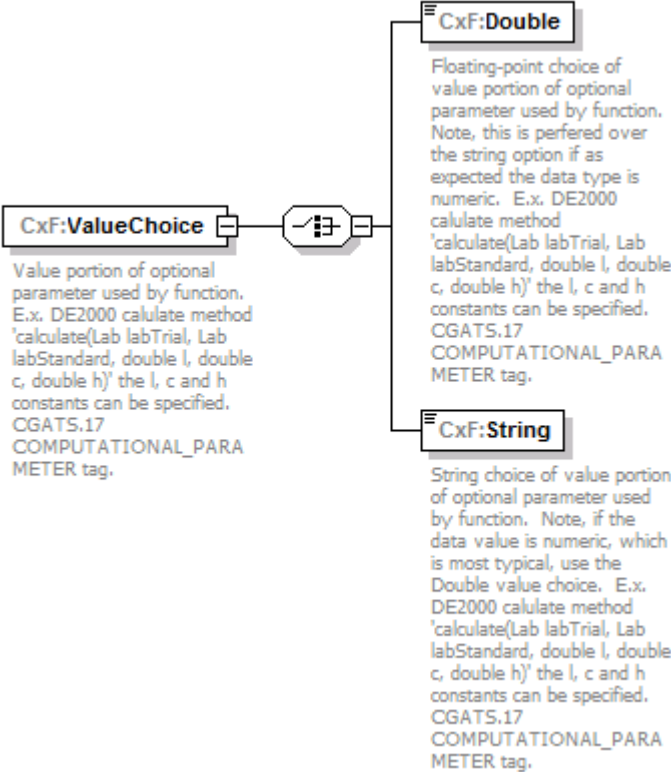
</xs:documentation>
</xs:annotation>
<xs:complexType>
  <xs:sequence>
    <xs:element name="Name" type="xs:string">
      <xs:annotation>
        <xs:documentation>Name portion of optional parameter used by function. E.x. DE2000
calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and
h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER
tag.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="ValueChoice">
      <xs:annotation>
        <xs:documentation>Value portion of optional parameter used by function. E.x. DE2000
calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and
h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER
tag.</xs:documentation>
      </xs:annotation>
      <xs:complexType>
        <xs:choice>
          <xs:element name="Double" type="xs:double">
            <xs:annotation>
              <xs:documentation>Floating-point choice of value portion of optional parameter used by
function. Note, this is preferred over the string option if as expected the data type is numeric. E.x.
DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the
l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER
tag.</xs:documentation>
            </xs:annotation>
          </xs:element>
          <xs:element name="String" type="xs:string">
            <xs:annotation>
              <xs:documentation>String choice of value portion of optional parameter used by function.
Note, if the data value is numeric, which is most typical, use the Double value choice. E.x. DE2000
calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and
h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER
tag.</xs:documentation>
            </xs:annotation>
          </xs:element>
        </xs:choice>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>
</xs:element>

```

element **FunctionGenericType/Parameters/Name**

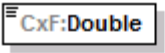
diagram	 <p>Name portion of optional parameter used by function. E.x. DE2000 calulate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Name portion of optional parameter used by function. E.x. DE2000 calulate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.
source	<pre>&lt;xs:element name="Name" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name portion of optional parameter used by function. E.x. DE2000 calulate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

# element **FunctionGenericType/Parameters/ValueChoice**


diagram	 <p><b>CxF:ValueChoice</b> Value portion of optional parameter used by function. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.</p> <p><b>CxF:Double</b> Floating-point choice of value portion of optional parameter used by function. Note, this is perfered over the string option if as expected the data type is numeric. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.</p> <p><b>CxF:String</b> String choice of value portion of optional parameter used by function. Note, if the data value is numeric, which is most typical, use the Double value choice. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.</p>
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 content complex
children	<a href="#">CxF:Double</a> <a href="#">CxF:String</a>
annotation	documentation Value portion of optional parameter used by function. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.
source	<pre> &lt;xs:element name="ValueChoice"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Value portion of optional parameter used by function. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:choice&gt;       &lt;xs:element name="Double" type="xs:double"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Floating-point choice of value portion of optional parameter used by function. Note, this is perfered over the string option if as expected the data type is numeric. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="String" type="xs:string"&gt;         &lt;xs:annotation&gt; </pre>

	<p><b>&lt;xs:documentation&gt;</b>String choice of value portion of optional parameter used by function. Note, if the data value is numeric, which is most typical, use the Double value choice. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.<b>&lt;/xs:documentation&gt;</b></p> <p><b>&lt;/xs:annotation&gt;</b></p> <p><b>&lt;/xs:element&gt;</b></p> <p><b>&lt;/xs:choice&gt;</b></p> <p><b>&lt;/xs:complexType&gt;</b></p> <p><b>&lt;/xs:element&gt;</b></p>
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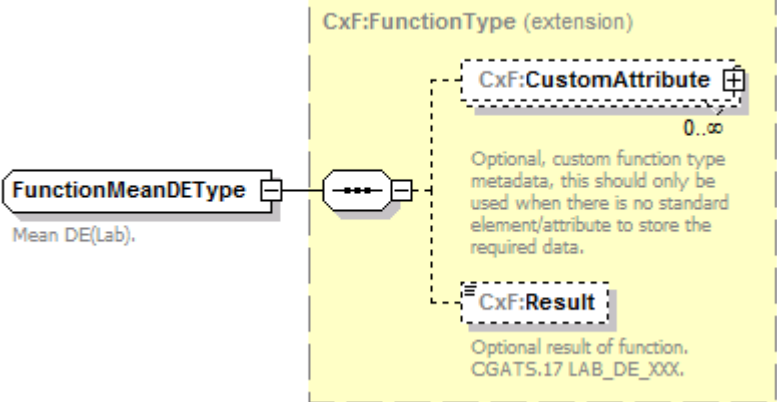
element **FunctionGenericType/Parameters/ValueChoice/Double**

diagram	 <p>Floating-point choice of value portion of optional parameter used by function. Note, this is perfered over the string option if as expected the data type is numeric. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 content simple
annotation	documentation Floating-point choice of value portion of optional parameter used by function. Note, this is perfered over the string option if as expected the data type is numeric. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.
source	<p><b>&lt;xs:element name="Double" type="xs:double"&gt;</b></p> <p><b>&lt;xs:annotation&gt;</b></p> <p><b>&lt;xs:documentation&gt;</b>Floating-point choice of value portion of optional parameter used by function. Note, this is perfered over the string option if as expected the data type is numeric. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.<b>&lt;/xs:documentation&gt;</b></p> <p><b>&lt;/xs:annotation&gt;</b></p> <p><b>&lt;/xs:element&gt;</b></p>

## element **FunctionGenericType/Parameters/ValueChoice/String**

diagram	 <p>String choice of value portion of optional parameter used by function. Note, if the data value is numeric, which is most typical, use the Double value choice. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation String choice of value portion of optional parameter used by function. Note, if the data value is numeric, which is most typical, use the Double value choice. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.
source	<pre>&lt;xs:element name="String" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;String choice of value portion of optional parameter used by function. Note, if the data value is numeric, which is most typical, use the Double value choice. E.x. DE2000 calculate method 'calculate(Lab labTrial, Lab labStandard, double l, double c, double h)' the l, c and h constants can be specified. CGATS.17 COMPUTATIONAL_PARAMETER tag.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## complexType **FunctionMeanDEType**

diagram	 <p>The diagram shows the <b>FunctionMeanDEType</b> complex type, which is an extension of <b>CxF:FunctionType</b>. It contains two optional elements: <b>CxF:CustomAttribute</b> (0..∞ occurrences) and <b>CxF:Result</b> (1 occurrence). The <b>CxF:CustomAttribute</b> element is described as optional metadata to be used when there is no standard element/attribute to store the required data. The <b>CxF:Result</b> element is described as the optional result of the function, specifically for CGATS.17 LAB_DE_XXX.</p>
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:FunctionType</a>
properties	base CxF:FunctionType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>

used by	element <a href="#">FunctionMeanDE</a>
annotation	documentation Mean DE(Lab).
source	<pre> &lt;xs:complexType name="FunctionMeanDEType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Mean DE(Lab).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"/&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

### complexType **FunctionStdDevAType**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	extension of <a href="#">CxF:FunctionType</a>
properties	base <a href="#">CxF:FunctionType</a>
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
used by	element <a href="#">FunctionStdDevA</a>
annotation	documentation Standard deviation of a (Lab color space).
source	<pre> &lt;xs:complexType name="FunctionStdDevAType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Standard deviation of a (Lab color space).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"/&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

## complexType **FunctionStdDevBType**

diagram	
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:FunctionType</a>
properties	base CxF:FunctionType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
used by	element <a href="#">FunctionStdDevB</a>
annotation	documentation Standard deviation of b (Lab color space).
source	<pre> &lt;xs:complexType name="FunctionStdDevBType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Standard deviation of b (Lab color space).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"/&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

## complexType **FunctionStdDevCType**

diagram	
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:FunctionType</a>
properties	base CxF:FunctionType

children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
used by	element <a href="#">FunctionStdDevC</a>
annotation	documentation Standard deviation of C (LCh color space).
source	<pre> &lt;xs:complexType name="FunctionStdDevCTYPE"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Standard deviation of C (LCh color space).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"/&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

### complexType FunctionStdDevHType

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	extension of <a href="#">CxF:FunctionType</a>
properties	base <a href="#">CxF:FunctionType</a>
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
used by	element <a href="#">FunctionStdDevH</a>
annotation	documentation Standard deviation of h (LCh color space).
source	<pre> &lt;xs:complexType name="FunctionStdDevHType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Standard deviation of h (LCh color space).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"/&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>



## complexType FunctionStdDevLType

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	extension of <a href="#">CxF:FunctionType</a>
properties	base <a href="#">CxF:FunctionType</a>
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
used by	element <a href="#">FunctionStdDevL</a>
annotation	documentation Standard deviation of L (Lab color space).
source	<pre> &lt;xs:complexType name="FunctionStdDevLType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Standard deviation of L (Lab color space).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"/&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

## complexType FunctionStdDevXType

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	extension of <a href="#">CxF:FunctionType</a>
properties	base <a href="#">CxF:FunctionType</a>

children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
used by	element <a href="#">FunctionStdDevX</a>
annotation	documentation Standard deviation of X (XYZ color space).
source	<pre> &lt;xs:complexType name="FunctionStdDevXType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Standard deviation of X (XYZ color space).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"/&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

### complexType **FunctionStdDevYType**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	extension of <a href="#">CxF:FunctionType</a>
properties	base <a href="#">CxF:FunctionType</a>
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
used by	element <a href="#">FunctionStdDevY</a>
annotation	documentation Standard deviation of Y (XYZ color space).
source	<pre> &lt;xs:complexType name="FunctionStdDevYType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Standard deviation of Y (XYZ color space).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"/&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

## complexType FunctionStdDevZType

diagram	
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:FunctionType</a>
properties	base CxF:FunctionType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
used by	element <a href="#">FunctionStdDevZ</a>
annotation	documentation Standard deviation of Z (XYZ color space).
source	<pre> &lt;xs:complexType name="FunctionStdDevZType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Standard deviation of Z (XYZ color space).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"/&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

## complexType FunctionTolerance

diagram	<p><b>FunctionTolerance</b> A more general tolerance that can have EToleranceTypes and EToleranceParameter so that we have one type of function, not 20+</p> <p><b>CxF:FunctionType (extension)</b></p> <p><b>CxF:CustomAttribute</b> Optional, custom function type metadata, this should only be used when there is no standard element/attribute to store the required data. 0..∞</p> <p><b>CxF:Result</b> Optional result of function. CGATS.17 LAB_DE_XXX. 1..∞</p> <p><b>CxF:ToleranceType</b></p> <p><b>CxF:Parameters</b> 1..∞</p>
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:FunctionType</a>
properties	base CxF:FunctionType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a> <a href="#">CxF:ToleranceType</a> <a href="#">CxF:Parameters</a>
annotation	<p>documentation</p> <p>A more general tolerance that can have EToleranceTypes and EToleranceParameter so that we have one type of function, not 20+</p>
source	<pre> &lt;xs:complexType name="FunctionTolerance"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A more general tolerance that can have EToleranceTypes and EToleranceParameter so that we have one type of function, not 20+&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:FunctionType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="ToleranceType" type="CxF:EToleranceType"/&gt;         &lt;xs:element name="Parameters" type="CxF:ToleranceParameterType" maxOccurs="unbounded"/&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

## element FunctionTolerance/ToleranceType

diagram	<p><b>CxF:ToleranceType</b></p>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EToleranceType</a>

properties	isRef 0 content simple
facets	enumeration Brightness enumeration DE* enumeration DE00 enumeration DE94 enumeration DE99 enumeration DEcmc enumeration Defmc2 enumeration DIN6172 enumeration HunterDE enumeration HunterLab enumeration HunterLabPlusMinus enumeration L*C*H* enumeration L*a*b* enumeration L*a*b*PlusMinus enumeration MetamerismIndex enumeration StatusDensity enumeration Strength enumeration Whiteness enumeration Yellowness enumeration ddna enumeration df enumeration DEDIN6175
source	<xs:element name="ToleranceType" type="CxF:EToleranceType"/>

#### element **FunctionTolerance/Parameters**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:ToleranceParameterType</a>
properties	isRef 0 minOcc 1 maxOcc unbounded content complex
children	<a href="#">CxF:HighValue</a> <a href="#">CxF:ToleranceParameter</a> <a href="#">CxF:LowValue</a>
source	<xs:element name="Parameters" type="CxF:ToleranceParameterType" maxOccurs="unbounded"/>

## complexType FunctionType

diagram	<p>Abstract base function type, subclassed types must be used. This is the root type of the Function substitution group.</p> <p><b>CxF:CustomAttribute</b> 0..∞ Optional, custom function type metadata, this should only be used when there is no standard element/attribute to store the required data.</p> <p><b>CxF:Result</b> Optional result of function. CGATS.17 LAB_DE_XXX.</p>
namespace	http://colorexchangeformat.com/v2
properties	abstract true
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Result</a>
used by	<p>element <a href="#">Function</a></p> <p>complexType <a href="#">FunctionAverageStdDevAType</a> <a href="#">FunctionAverageStdDevBType</a> <a href="#">FunctionAverageStdDevLType</a> <a href="#">FunctionDE2000Type</a> <a href="#">FunctionDE94Type</a> <a href="#">FunctionDEcmcType</a> <a href="#">FunctionDEType</a> <a href="#">FunctionGenericType</a> <a href="#">FunctionMeanDEType</a> <a href="#">FunctionStdDevAType</a> <a href="#">FunctionStdDevBType</a> <a href="#">FunctionStdDevCType</a> <a href="#">FunctionStdDevHType</a> <a href="#">FunctionStdDevLType</a> <a href="#">FunctionStdDevXType</a> <a href="#">FunctionStdDevYType</a> <a href="#">FunctionStdDevZType</a> <a href="#">FunctionTolerance</a></p>
annotation	<p>documentation Abstract base function type, subclassed types must be used. This is the root type of the Function substitution group.</p>
source	<pre> &lt;xs:complexType name="FunctionType" abstract="true"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Abstract base function type, subclassed types must be used. This is the root type of the Function substitution group.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional, custom function type metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Result" type="xs:double" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional result of function. CGATS.17 LAB_DE_XXX.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>

## element **FunctionType/CustomAttribute**

diagram	<p><b>CxF:CustomAttribute</b> 0..∞ Optional, custom function type metadata, this should only be used when there is no standard element/attribute to store the required data.</p> <p><b>CxF:CustomAttributeType</b></p> <p><b>CxF:Name</b> Required field used to specify the name of this custom attribute.</p> <p><b>CxF:ValueChoice</b> Required field which allows one of several value choices to be specified. Note this is an XSD choice so only one option may be specified.</p>								
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:CustomAttributeType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
isRef	0								
minOcc	0								
maxOcc	unbounded								
content	complex								
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>								
annotation	<p>documentation</p> <p>Optional, custom function type metadata, this should only be used when there is no standard element/attribute to store the required data.</p>								
source	<pre>&lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, custom function type metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

## element **FunctionType/Result**

diagram	<p><b>CxF:Result</b> Optional result of function. CGATS.17 LAB_DE_XXX.</p>								
namespace	http://colorexchangeformat.com/v2								
type	<b>xs:double</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	<p>documentation</p> <p>Optional result of function. CGATS.17 LAB_DE_XXX.</p>								
source	<pre>&lt;xs:element name="Result" type="xs:double" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional result of function. CGATS.17 LAB_DE_XXX.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

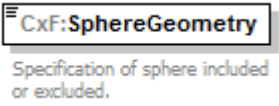
## complexType GeometryChoiceType

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
children	<a href="#">CxF:SphereGeometry</a> <a href="#">CxF:Angle</a> <a href="#">CxF:UnknownGeometry</a> <a href="#">CxF:BSDFAngle</a>
used by	elements <a href="#">ToleranceType/Geometry</a> <a href="#">ColorSpaceSpecificationSpectrumGenericType/GeometryChoice</a> <a href="#">ColorSpaceSpecificationSpectrumTristimulusType/GeometryChoice</a> <a href="#">ColorSpaceSpecificationSpectrumSpectralType/GeometryChoice</a> <a href="#">ColorSpaceSpecificationEmissiveGenericType/GeometryChoice</a> <a href="#">ColorSpaceSpecificationEmissiveTristimulusType/GeometryChoice</a> <a href="#">ColorSpaceSpecificationEmissiveSpectralType/GeometryChoice</a>
annotation	documentation Specification of the device geometry, i.e. Sphere included/excluded or single angle specification.
source	<pre> &lt;xs:complexType name="GeometryChoiceType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Specification of the device geometry, i.e. Sphere included/excluded or single angle specification.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:choice&gt;     &lt;xs:element name="SphereGeometry" type="CxF:ESphereType"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Specification of sphere included or excluded.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Angle" type="xs:double"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Specification of angle in degrees, i.e. 45.0.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="UnknownGeometry"&gt;       &lt;xs:annotation&gt; </pre>




	<pre> &lt;xs:documentation&gt;This option should not be used unless the geometry is truly not known and there is no way to accurately specify the geometry type. Most users will not be able to use data tagged with an unknown geometry so be very careful using this tag. Note that you must specify a string describing this unknown geometry.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:minLength value="1"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;xs:element name="BSDFAngle" type="CxF:BSDFAngle"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;BSDF, also known as BRDF, XDNA. This type of angle has three parts. The Illuminant of the light source, Aspecular Azimuth. This will only be populated with the MA98 instrument&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:choice&gt; &lt;/xs:complexType&gt; </pre>
--	---

#### element **GeometryChoiceType/SphereGeometry**

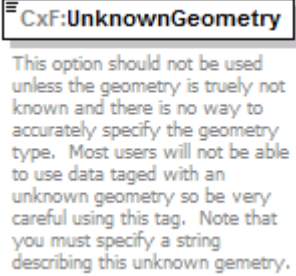
diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:ESphereType</a>
properties	isRef 0 content simple
facets	enumeration Sphere_Included enumeration Sphere_Excluded
annotation	documentation Specification of sphere included or excluded.
source	<pre> &lt;xs:element name="SphereGeometry" type="CxF:ESphereType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Specification of sphere included or excluded.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

#### element **GeometryChoiceType/Angle**

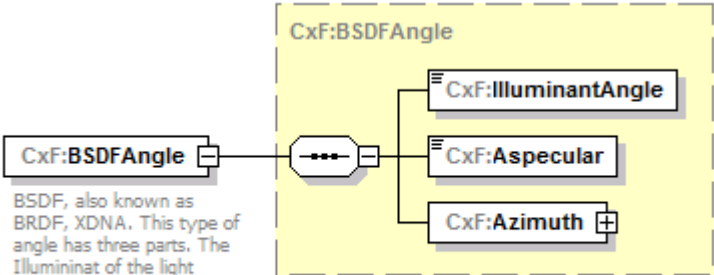
diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 content simple
annotation	documentation Specification of angle in degrees, i.e. 45.0.

source	<pre> &lt;xs:element name="Angle" type="xs:double"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Specification of angle in degrees, i.e. 45.0.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>
--------	---

## element GeometryChoiceType/UnknownGeometry

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	minLength 1
annotation	documentation This option should not be used unless the geometry is truly not known and there is no way to accurately specify the geometry type. Most users will not be able to use data tagged with an unknown geometry so be very careful using this tag. Note that you must specify a string describing this unknown geometry.
source	<pre> &lt;xs:element name="UnknownGeometry"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;This option should not be used unless the geometry is truly not known and there is no way to accurately specify the geometry type. Most users will not be able to use data tagged with an unknown geometry so be very careful using this tag. Note that you must specify a string describing this unknown geometry.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

# element **GeometryChoiceType/BSDFAngle**

diagram	 <p>The diagram shows a box labeled 'CxF:BSDFAngle' connected to a dashed-line box also labeled 'CxF:BSDFAngle'. Inside the dashed box, there is a central octagonal connector with three lines branching out to three separate boxes: 'CxF:IlluminantAngle', 'CxF:Aspecular', and 'CxF:Azimuth'.</p> <p>BSDF, also known as BRDF, XDNA. This type of angle has three parts. The Illumininat of the light source, Aspecular Azimuth. This will only be populated with the MA98 instrument</p>
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:BSDFAngle</a>
properties	isRef 0 content complex
children	<a href="#">CxF:IlluminantAngle</a> <a href="#">CxF:Aspecular</a> <a href="#">CxF:Azimuth</a>
annotation	documentation BSDF, also known as BRDF, XDNA. This type of angle has three parts. The Illumininat of the light source, Aspecular Azimuth. This will only be populated with the MA98 instrument
source	<pre> &lt;xs:element name="BSDFAngle" type="CxF:BSDFAngle"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;BSDF, also known as BRDF, XDNA. This type of angle has three parts. The     Illumininat of the light source, Aspecular Azimuth. This will only be populated with the MA98     instrument&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## complexType IlluminationOptionsType

diagram	<p><b>IlluminationOptionsType</b></p> <p>Type representing the choice of an illumination specification. This can take the form of a CIE standard illuminant, white point or correlated color temperature. Note this is a XSD choice type so only one option can be selected.</p> <p><b>attributes</b></p> <p><b>Description</b></p> <p>Text description of source illumination. It is preferred to use the illuminant, white point or color temperature options as they provide more precise definition of the source illumination. This is provided for backward compatibility with CGATS.17 MEASUREMENT_SOURCE tag.</p> <p><b>CxF:Illuminant</b></p> <p>Used to obtain the calculated color values. This specification is preferred over other options. CGATS.17 WEIGHTING_FUNCTION.</p> <p><b>CxF:WhitePointChromaticity</b></p> <p>Chromaticity coordinates that serve to define the color "white".</p> <p><b>CxF:ColorTemperature</b></p> <p>Correlated color temperature</p>					
namespace	http://colorexchangeformat.com/v2					
children	<a href="#">CxF:Illuminant</a> <a href="#">CxF:WhitePointChromaticity</a> <a href="#">CxF:ColorTemperature</a>					
used by	elements	<a href="#">ColorSpaceSpecificationSpectrumGenericType/IlluminationOptions</a> <a href="#">ColorSpaceSpecificationSpectrumTristimulusType/IlluminationOptions</a> <a href="#">ColorSpaceSpecificationEmissiveGenericType/IlluminationOptions</a> <a href="#">ColorSpaceSpecificationEmissiveTristimulusType/IlluminationOptions</a>				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Description</a>	xs:string				documentation Text description of source illumination. It is preferred to use the illuminant, white point or color temperature options as they provide more precise definition of the source illumination. This is provided for backward compatibility with CGATS.17 MEASUREMENT_SOURCE tag.
annotation	documentation Type representing the choice of an illumination specification. This can take the form of a CIE standard illuminant, white point or correlated color temperature. Note this is a XSD choice type so only one option can be selected.					
source	<pre> &lt;xs:complexType name="IlluminationOptionsType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type representing the choice of an illumination specification. This can take the form of a CIE standard illuminant, white point or correlated color temperature. Note this is a XSD choice type so only one option can be selected.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; </pre>					

```

<xs:choice>
  <xs:element name="Illuminant">
    <xs:annotation>
      <xs:documentation>Used to obtain the calculated color values.This specification is preferred
over other options. CGATS.17 WEIGHTING_
FUNCTION.
      </xs:documentation>
    </xs:annotation>
    <xs:complexType>
      <xs:simpleContent>
        <xs:extension base="CxF:EIlluminantType">
          <xs:attribute name="CustomName" type="xs:string">
            <xs:annotation>
              <xs:documentation>Required if and only if custom illuminant is
selected.</xs:documentation>
            </xs:annotation>
          </xs:attribute>
        </xs:extension>
      </xs:simpleContent>
    </xs:complexType>
  </xs:element>
  <xs:element name="WhitePointChromaticity">
    <xs:annotation>
      <xs:documentation>Chromaticity coordinates that serve to define the color
"white".</xs:documentation>
    </xs:annotation>
    <xs:complexType>
      <xs:sequence>
        <xs:element name="CoordinateX">
          <xs:simpleType>
            <xs:restriction base="xs:double">
              <xs:minInclusive value="0.0"/>
              <xs:maxInclusive value="1.0"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
        <xs:element name="CoordinateY">
          <xs:simpleType>
            <xs:restriction base="xs:double">
              <xs:minInclusive value="0.0"/>
              <xs:maxInclusive value="1.0"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:element name="ColorTemperature">
    <xs:annotation>
      <xs:documentation>Correlated color temperature</xs:documentation>
    </xs:annotation>
    <xs:simpleType>
      <xs:restriction base="xs:int">
        <xs:minExclusive value="0"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:element>

```

	<pre> &lt;/xs:element&gt; &lt;/xs:choice&gt; &lt;xs:attribute name="Description" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Text description of source illumination. It is preferred to use the illuminant, white point or color temperature options as they provide more precise definition of the source illumination. This is provided for backward compatibility with CGATS.17 MEASUREMENT_SOURCE tag.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;/xs:complexType&gt; </pre>
--	---

attribute **IlluminationOptionsType**/@Description

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation Text description of source illumination. It is preferred to use the illuminant, white point or color temperature options as they provide more precise definition of the source illumination. This is provided for backward compatibility with CGATS.17 MEASUREMENT_SOURCE tag.
source	<pre> &lt;xs:attribute name="Description" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Text description of source illumination. It is preferred to use the illuminant, white point or color temperature options as they provide more precise definition of the source illumination. This is provided for backward compatibility with CGATS.17 MEASUREMENT_SOURCE tag.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

element **IlluminationOptionsType**/Illuminant

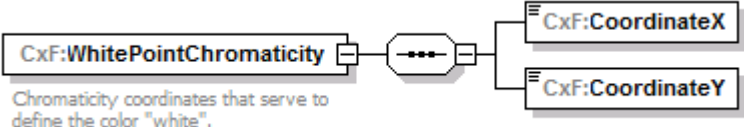
diagram	
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:EIlluminantType</a>
properties	isRef 0 content complex
facets	enumeration Illuminant_A enumeration Illuminant_B enumeration Illuminant_C enumeration Illuminant_D50 enumeration Illuminant_D55 enumeration Illuminant_D65 enumeration Illuminant_D75 enumeration Illuminant_E enumeration Illuminant_F2 enumeration Illuminant_F3

	enumeration Illuminant_F7 enumeration Illuminant_F11 enumeration Illuminant_F12 enumeration Illuminant_9300 enumeration Illuminant_Custom					
attributes	Name <a href="#">CustomName</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Required if and only if custom illuminant is selected.
annotation	documentation Used to obtain the calculated color values.This specification is preferred over other options. CGATS.17 WEIGHTING_ FUNCTION.					
source	<pre> &lt;xs:element name="Illuminant"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to obtain the calculated color values.This specification is preferred over other options. CGATS.17 WEIGHTING_ FUNCTION.     &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:simpleContent&gt;       &lt;xs:extension base="CxF:EIlluminantType"&gt;         &lt;xs:attribute name="CustomName" type="xs:string"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Required if and only if custom illuminant is selected.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:attribute&gt;       &lt;/xs:extension&gt;     &lt;/xs:simpleContent&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>					


#### attribute IlluminationOptionsType/Illuminant/@CustomName

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation Required if and only if custom illuminant is selected.
source	<pre> &lt;xs:attribute name="CustomName" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required if and only if custom illuminant is selected.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

## element IlluminationOptionsType/WhitePointChromaticity

diagram	 <p>Chromaticity coordinates that serve to define the color "white".</p>
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 content complex
children	<a href="#">CxF:CoordinateX</a> <a href="#">CxF:CoordinateY</a>
annotation	documentation Chromaticity coordinates that serve to define the color "white".
source	<pre> &lt;xs:element name="WhitePointChromaticity"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Chromaticity coordinates that serve to define the color "white".&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="CoordinateX"&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:double"&gt;             &lt;xs:minInclusive value="0.0"/&gt;             &lt;xs:maxInclusive value="1.0"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:element&gt;       &lt;xs:element name="CoordinateY"&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:double"&gt;             &lt;xs:minInclusive value="0.0"/&gt;             &lt;xs:maxInclusive value="1.0"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>


## element IlluminationOptionsType/WhitePointChromaticity/CoordinateX

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
source	<pre> &lt;xs:element name="CoordinateX"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt; </pre>




	<pre> &lt;xs:minInclusive value="0.0"/&gt; &lt;xs:maxInclusive value="1.0"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
--	---

#### element **IlluminationOptionsType/WhitePointChromaticity/CoordinateY**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 1.0
source	<pre> &lt;xs:element name="CoordinateY"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="1.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **IlluminationOptionsType/ColorTemperature**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:int</b>
properties	isRef 0 content simple
facets	minExclusive 0
annotation	documentation Correlated color temperature
source	<pre> &lt;xs:element name="ColorTemperature"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Correlated color temperature&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:int"&gt;       &lt;xs:minExclusive value="0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## complexType LimitsType


diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:HighTolerance</a> <a href="#">CxF:LowTolerance</a>
used by	element <a href="#">ToleranceType/Limits</a>
annotation	documentation Type representing tolerances, both high and low tolerances can be specified.
source	<pre> &lt;xs:complexType name="LimitsType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type representing tolerances, both high and low tolerances can be specified.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;xs:element name="HighTolerance" type="xs:double"/&gt;     &lt;xs:element name="LowTolerance" type="xs:double" minOccurs="0"/&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>

## element LimitsType/CustomAttribute

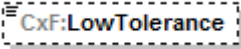
diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:CustomAttributeType</a>
properties	isRef 0 minOcc 0 maxOcc unbounded content complex
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>
source	<pre> &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" </pre>

	<code>maxOccurs="unbounded"/&gt;</code>
--	---

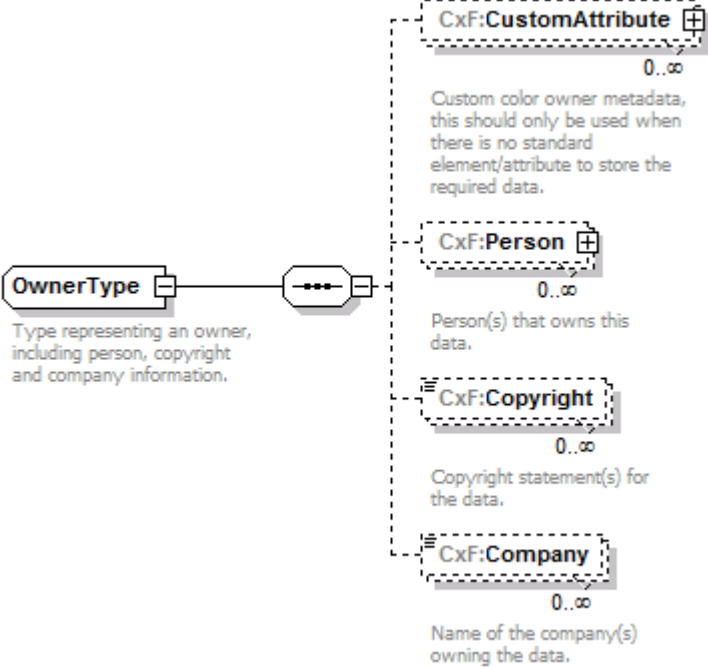
element **LimitsType/HighTolerance**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 content simple
source	<code>&lt;xs:element name="HighTolerance" type="xs:double"/&gt;</code>

element **LimitsType/LowTolerance**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
source	<code>&lt;xs:element name="LowTolerance" type="xs:double" minOccurs="0"/&gt;</code>

complexType **OwnerType**

diagram	 <p>The diagram shows the <b>OwnerType</b> complex type, which is a container for four optional elements: <b>CxF:CustomAttribute</b>, <b>CxF:Person</b>, <b>CxF:Copyright</b>, and <b>CxF:Company</b>. Each element is represented by a dashed box with a plus icon in the top right corner, indicating it is optional. The multiplicity for each element is <b>0..∞</b>. The <b>CxF:CustomAttribute</b> element has a description: "Custom color owner metadata, this should only be used when there is no standard element/attribute to store the required data." The <b>CxF:Person</b> element has a description: "Person(s) that owns this data." The <b>CxF:Copyright</b> element has a description: "Copyright statement(s) for the data." The <b>CxF:Company</b> element has a description: "Name of the company(s) owning the data." The <b>OwnerType</b> itself is represented by a solid box with a description: "Type representing an owner, including person, copyright and company information."</p>
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namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Person</a> <a href="#">CxF:Copyright</a> <a href="#">CxF:Company</a>
used by	elements <a href="#">CxF/Preamble/Owner</a> <a href="#">ColorType/Owner</a> <a href="#">ColorSetType/Owner</a> <a href="#">PaletteType/Owner</a>
annotation	documentation Type representing an owner, including person, copyright and company information.
source	<pre> &lt;xs:complexType name="OwnerType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type representing an owner, including person, copyright and company information.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Custom color owner metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Person" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Person(s) that owns this data.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:appinfo&gt;         &lt;jxb:property&gt;           &lt;jxb:javadoc&gt;Person that owns this data.&lt;/jxb:javadoc&gt;         &lt;/jxb:property&gt;       &lt;/xs:appinfo&gt;     &lt;/xs:element&gt;     &lt;xs:complexType&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="Name" type="xs:string"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Name of the person owning the data&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="ContactInfo" type="xs:string" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Contact info for the owner&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:complexType&gt;   &lt;/xs:sequence&gt;   &lt;xs:element name="Copyright" type="xs:string" minOccurs="0" maxOccurs="unbounded"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Copyright statement(s) for the data.&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;     &lt;xs:appinfo&gt;       &lt;jxb:property&gt;         &lt;jxb:javadoc&gt;Copyright statement for the data.&lt;/jxb:javadoc&gt;       &lt;/jxb:property&gt;     &lt;/xs:appinfo&gt;   &lt;/xs:element&gt;   &lt;xs:element name="Company" type="xs:string" minOccurs="0" maxOccurs="unbounded"&gt;     &lt;xs:annotation&gt; </pre>

	<pre> &lt;xs:documentation&gt;Name of the company(s) owning the data.&lt;/xs:documentation&gt; &lt;xs:appinfo&gt;   &lt;jxb:property&gt;     &lt;jxb:javadoc&gt;Name of the company owning the data.&lt;/jxb:javadoc&gt;   &lt;/jxb:property&gt; &lt;/xs:appinfo&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>
--	---

element **OwnerType/CustomAttribute**

diagram	<p>Custom color owner metadata, this should only be used when there is no standard element/attribute to store the required data.</p> <p><b>CxF:CustomAttributeType</b></p> <p><b>CxF:Name</b> Required field used to specify the name of this custom attribute.</p> <p><b>CxF:ValueChoice</b> Required field which allows one of several value choices to be specified. Note this is an XSD choice so only one option may be specified.</p>								
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:CustomAttributeType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
isRef	0								
minOcc	0								
maxOcc	unbounded								
content	complex								
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>								
annotation	<p>documentation</p> <p>Custom color owner metadata, this should only be used when there is no standard element/attribute to store the required data.</p>								
source	<pre> &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Custom color owner metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								

## element OwnerType/Person

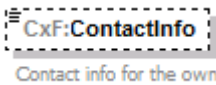
diagram	
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 minOcc 0 maxOcc unbounded content complex
children	<a href="#">CxF:Name</a> <a href="#">CxF:ContactInfo</a>
annotation	documentation Person(s) that owns this data. appinfo <jxb:property> <jxb:javadoc>Person that owns this data.</jxb:javadoc> </jxb:property>
source	<pre> &lt;xs:element name="Person" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Person(s) that owns this data.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:appinfo&gt;     &lt;jxb:property&gt;       &lt;jxb:javadoc&gt;Person that owns this data.&lt;/jxb:javadoc&gt;     &lt;/jxb:property&gt;   &lt;/xs:appinfo&gt; &lt;/xs:element&gt; &lt;xs:complexType&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="Name" type="xs:string"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Name of the person owning the data&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ContactInfo" type="xs:string" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Contact info for the owner&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

## element OwnerType/Person/Name


diagram	
namespace	http://colorexchangeformat.com/v2
type	xs:string

properties	isRef 0 content simple
annotation	documentation Name of the person owning the data
source	<pre>&lt;xs:element name="Name" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of the person owning the data&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **OwnerType/Person/ContactInfo**

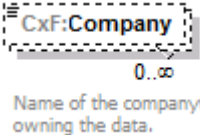
diagram	 <p>Diagram showing the element <b>CxF:ContactInfo</b> with the description "Contact info for the owner".</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Contact info for the owner
source	<pre>&lt;xs:element name="ContactInfo" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Contact info for the owner&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **OwnerType/Copyright**

diagram	 <p>Diagram showing the element <b>CxF:Copyright</b> with the description "Copyright statement(s) for the data." and cardinality "0..∞".</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc unbounded content simple
annotation	documentation Copyright statement(s) for the data. appinfo <jxb:property> <jxb:javadoc>Copyright statement for the data.</jxb:javadoc> </jxb:property>
source	<pre>&lt;xs:element name="Copyright" type="xs:string" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Copyright statement(s) for the data.&lt;/xs:documentation&gt;   &lt;xs:appinfo&gt;     &lt;jxb:property&gt;       &lt;jxb:javadoc&gt;Copyright statement for the data.&lt;/jxb:javadoc&gt;     &lt;/jxb:property&gt;   &lt;/xs:appinfo&gt; &lt;/xs:element&gt;</pre>

	<pre> &lt;jxb:javadoc&gt;Copyright statement for the data.&lt;/jxb:javadoc&gt; &lt;/jxb:property&gt; &lt;/xs:appinfo&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>
--	--

element **OwnerType/Company**

diagram									
namespace	http://colorexchangeformat.com/v2								
type	<b>xs:string</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	unbounded	content	simple
isRef	0								
minOcc	0								
maxOcc	unbounded								
content	simple								
annotation	documentation Name of the company(s) owning the data. appinfo <jxb:property> <jxb:javadoc>Name of the company owning the data.</jxb:javadoc> </jxb:property>								
source	<pre> &lt;xs:element name="Company" type="xs:string" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of the company(s) owning the data.&lt;/xs:documentation&gt;     &lt;xs:appinfo&gt;       &lt;jxb:property&gt;         &lt;jxb:javadoc&gt;Name of the company owning the data.&lt;/jxb:javadoc&gt;       &lt;/jxb:property&gt;     &lt;/xs:appinfo&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								



## complexType PaletteType

diagram

### PaletteType

Optional field used to specify terms associated with this palette. Ex. Fall day in New England.

#### attributes

##### PaletteName

Name of this palette (required).

##### PalettePartNumber

Part number of this palette (optional).

##### PaletteVersion

Version of this palette (optional).

##### UniqueID

User specified unique identifier of this color. This is typically a GUID. CGATS.17 SAMPLE\_ID data format identifier.

##### Comments

##### CxF:CustomAttribute

0..∞

Optional, custom color metadata, this should only be used when there is no standard element/attribute to store the required data.

##### CxF:ChangeHistory

1..∞

List of date/time changes made to this palette. The first entry is the creation date/time and is required.

##### CxF:Owner

Optional field used to specify ownership data for the data.

##### CxF:SemanticAssociation

0..∞

Terms related to this palette.

##### CxF:CollectionColorSpaceSpecif...

Optimal color space specification(s) for all colors in this Palette. Each color, by default, contains a color space specification. If you want a color's color space specification to refer to this one instead, you must set this color space specification and set the color's color space specification to nil. Note that you can specify only one color space specification per type here, however for each color you can specify any number of color space specifications and values. Therefore, if using this parent, all colors that use the same color space specification type must use the same color space specification. For instance, if you want to store Lab, RGB and Spectral data and use this common parent color space specification, you will need to set two parent color space specifications here, one for Lab/RGB and one for Spectral. Therefore the RGB and Lab color space values will be using the same color space specification because they use the same color space specification type. Note that color space specifications at a lower level, that is closer to the color value, always override or supersede values set at higher levels.

##### CxF:ColorSet

0..∞

Element containing collection of color sets. The colors sets do not have to have any relationship to each other; however it is intended that the color collection in each set is related in some way to each other. (Note each color can have one or more ways of describing that color but by definition it is the same color which may have more or less accuracy.)

namespace	http://colorexchangeformat.com/v2					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Owner</a> <a href="#">CxF:SemanticAssociation</a> <a href="#">CxF:CollectionColorSpaceSpecification</a> <a href="#">CxF:ColorSet</a>					
used by	element <a href="#">CxF/Palette</a>					
attributes	Name <a href="#">PaletteName</a>	Type <b>xs:string</b>	Use required	Default	Fixed	annotation documentation Name of this palette (required). documentation Part number of this palette (optional). documentation Version of this palette (optional). documentation User specified unique identifier of this color. This is typically a GUID. CGATS.17 SAMPLE_ID data format identifier.
	<a href="#">PalettePartNumber</a>	<b>xs:string</b>	optional			
	<a href="#">PaletteVersion</a>	<b>xs:string</b>				
	<a href="#">UniqueID</a>	<b>xs:string</b>				
	<a href="#">Comments</a>	<b>xs:string</b>				
annotation	documentation Optional field used to specify terms associated with this palette. Ex. Fall day in New England.					
source	<pre> &lt;xs:complexType name="PaletteType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional field used to specify terms associated with this palette. Ex. Fall day in New England.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional, custom color metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ChangeHistory" type="CxF:DateTimeWithTimeZoneType" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;List of date/time changes made to this palette. The first entry is the creation date/time and is required.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Owner" type="CxF:OwnerType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional field used to specify ownership data for the data.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="SemanticAssociation" type="xs:string" minOccurs="0" </pre>					

```

maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Terms related to this palette.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element ref="CxF:CollectionColorSpaceSpecification" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Optinal color space specification(s) for all colors in this Palette. Each
    color, by default, contains a color space specification. If you want a color's color space
    specification to refer to this one instead, you must set this color space specification and set the
    color's color space specification to nil. Note that you can specify only one color space specification
    per type here, however for each color you can specify any number of color space specifications
    and values. Therefore, if using this parent, all colors that use the same color space specification
    type must use the same color space specifiication. For instance, if you want to store Lab, RGB and
    Spectral data and use this common parent color space specification, you will need to set two parent
    color space specifications here, one for Lab/RGB and one for Spectral. Therefore the RGB and
    Lab color space values will be using the same color space specifiaciton because they use the
    same color space specifiacion type. Note that color space specifications at a lower level, that is
    closer to the color value, always override or superceed values set at higher
    levels.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="ColorSet" type="CxF:ColorSetType" minOccurs="0"
maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Element containing colection of color sets. The colors sets do not have to
    have any relationship to each other; however it is intended that the color collection in each set is
    related in some way to each other. (Note each color can have one or more ways of describing that
    color but by defination it is the same color which may have more or less
    accuracy.)</xs:documentation>
  </xs:annotation>
</xs:element>
</xs:sequence>
<xs:attribute name="PaletteName" type="xs:string" use="required">
  <xs:annotation>
    <xs:documentation>Name of this palette (required).</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="PalettePartNumber" type="xs:string" use="optional">
  <xs:annotation>
    <xs:documentation>Part number of this palette (optional).</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="PaletteVersion" type="xs:string">
  <xs:annotation>
    <xs:documentation>Version of this palette (optional).</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="UniqueID" type="xs:string">
  <xs:annotation>
    <xs:documentation>User specified unique identifier of this color. This is typically a GUID.
    CGATS.17 SAMPLE_ID data format identifier.</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="Comments" type="xs:string"/>

```

	</xs:complexType>
--	-------------------

#### attribute **PaletteType/@PaletteName**

type	<b>xs:string</b>
properties	isRef 0 use required
annotation	documentation Name of this palette (required).
source	<pre>&lt;xs:attribute name="PaletteName" type="xs:string" use="required"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of this palette (required).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

#### attribute **PaletteType/@PalettePartNumber**

type	<b>xs:string</b>
properties	isRef 0 use optional
annotation	documentation Part number of this palette (optional).
source	<pre>&lt;xs:attribute name="PalettePartNumber" type="xs:string" use="optional"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Part number of this palette (optional).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

#### attribute **PaletteType/@PaletteVersion**

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation Version of this palette (optional).
source	<pre>&lt;xs:attribute name="PaletteVersion" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Version of this palette (optional).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

#### attribute **PaletteType/@UniqueID**

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation User specified unique identifier of this color. This is typically a GUID. CGATS.17 SAMPLE_ID data format identifier.
source	<pre>&lt;xs:attribute name="UniqueID" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;User specified unique identifier of this color. This is typically a GUID.     CGATS.17 SAMPLE_ID data format identifier.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

	<code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:attribute&gt;</code>
--	---

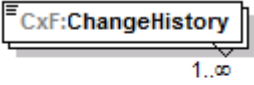
attribute **PaletteType/@Comments**

type	<b>xs:string</b>
properties	isRef 0
source	<code>&lt;xs:attribute name="Comments" type="xs:string"/&gt;</code>

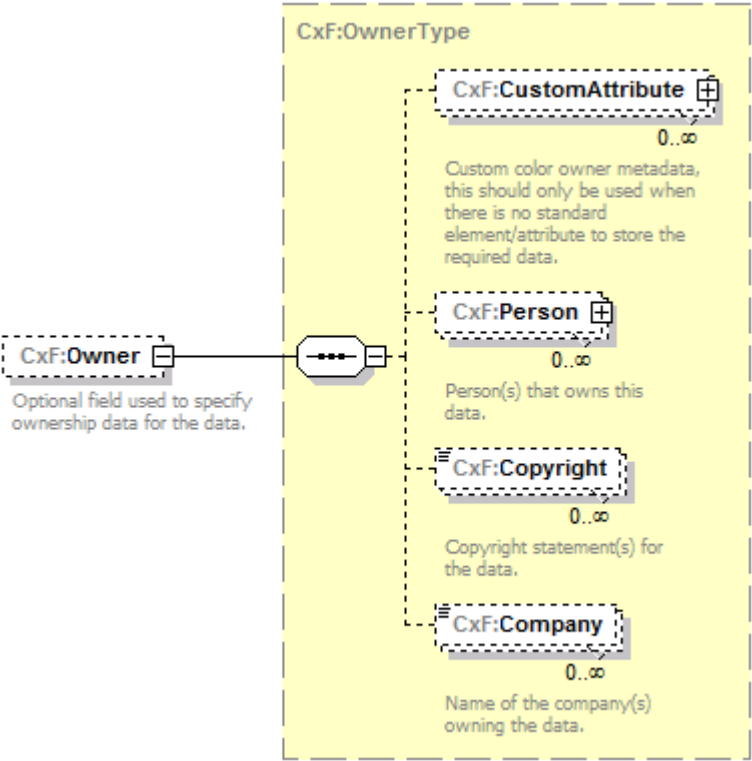
element **PaletteType/CustomAttribute**

diagram	<p>Optional, custom color metadata, this should only be used when there is no standard element/attribute to store the required data.</p> <p><b>CxF:CustomAttributeType</b></p> <p><b>CxF:Name</b> Required field used to specify the name of this custom attribute.</p> <p><b>CxF:ValueChoice</b> Required field which allows one of several value choices to be specified. Note this is an XSD choice so only one option may be specified.</p>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:CustomAttributeType</a>
properties	isRef 0 minOcc 0 maxOcc unbounded content complex
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>
annotation	documentation Optional, custom color metadata, this should only be used when there is no standard element/attribute to store the required data.
source	<code>&lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;</code> Optional, custom color metadata, this should only be used when there is no standard element/attribute to store the required data. <code>&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:element&gt;</code>

## element **PaletteType/ChangeHistory**

diagram	 <p>1..∞</p> <p>List of date/time changes made to this palette. The first entry is the creation date/time and is required.</p>								
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:DateTimeWithTimeZoneType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>1</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	1	maxOcc	unbounded	content	simple
isRef	0								
minOcc	1								
maxOcc	unbounded								
content	simple								
facets	<table> <tr><td>pattern</td><td>.+T.+(Z [-\+].+)</td></tr> </table>	pattern	.+T.+(Z [-\+].+)						
pattern	.+T.+(Z [-\+].+)								
annotation	<p>documentation</p> <p>List of date/time changes made to this palette. The first entry is the creation date/time and is required.</p>								
source	<pre>&lt;xs:element name="ChangeHistory" type="CxF:DateTimeWithTimeZoneType" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;List of date/time changes made to this palette. The first entry is the creation date/time and is required.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

## element **PaletteType/Owner**

diagram	 <p>CxF:OwnerType</p> <p>CxF:Owner</p> <p>Optional field used to specify ownership data for the data.</p> <p>CxF:CustomAttribute</p> <p>0..∞</p> <p>Custom color owner metadata, this should only be used when there is no standard element/attribute to store the required data.</p> <p>CxF:Person</p> <p>0..∞</p> <p>Person(s) that owns this data.</p> <p>CxF:Copyright</p> <p>0..∞</p> <p>Copyright statement(s) for the data.</p> <p>CxF:Company</p> <p>0..∞</p> <p>Name of the company(s) owning the data.</p>
namespace	http://colorexchangeformat.com/v2

type	<a href="#">CxF:OwnerType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Person</a> <a href="#">CxF:Copyright</a> <a href="#">CxF:Company</a>
annotation	documentation Optional field used to specify ownership data for the data.
source	<pre> &lt;xs:element name="Owner" type="CxF:OwnerType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional field used to specify ownership data for the data.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

#### element **PaletteType/SemanticAssociation**

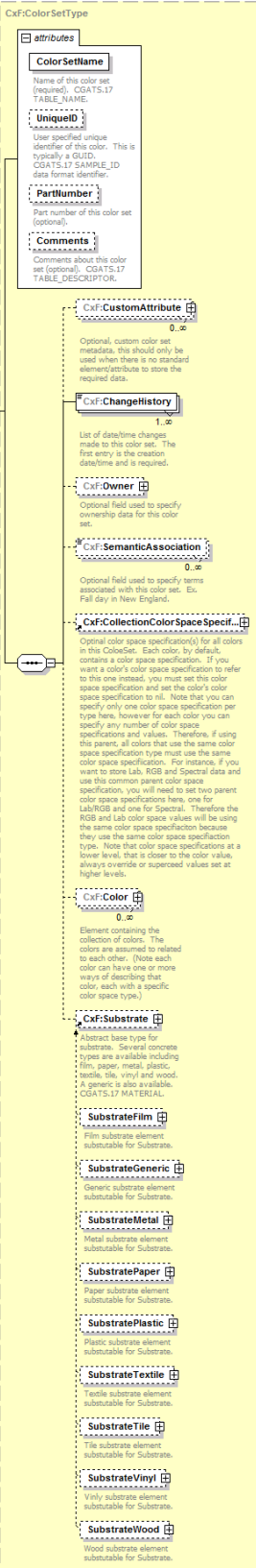
diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc unbounded content simple
annotation	documentation Terms related to this palette.
source	<pre> &lt;xs:element name="SemanticAssociation" type="xs:string" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Terms related to this palette.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

element **PaletteType/ColorSet**

diagram

**Cxf:ColorSet**

0..∞  
Element containing collection of color sets. The colors sets do not have to have any relationship to each other; however it is intended that the color collection in each set is related in some way to each other. (Note each color can have one or more ways of describing that color but by definition it is the same color which may have more or less accuracy.)





namespace	http://colorexchangeformat.com/v2					
type	<a href="#">CxF:ColorSetType</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	unbounded				
	content	complex				
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Owner</a> <a href="#">CxF:SemanticAssociation</a> <a href="#">CxF:CollectionColorSpaceSpecification</a> <a href="#">CxF:Color</a> <a href="#">CxF:Substrate</a>					
attributes	Name <a href="#">ColorSetName</a>   <a href="#">UniqueID</a>   <a href="#">PartNumber</a>   <a href="#">Comments</a>	Type <b>xs:string</b>   <b>xs:string</b>   <b>xs:string</b>   <b>xs:string</b>	Use required      optional	Default          	Fixed          	annotation documentation Name of this color set (required). CGATS.17 TABLE_NAME. documentation User specified unique identifier of this color. This is typically a GUID. CGATS.17 SAMPLE_ID data format identifier. documentation Part number of this color set (optional). documentation Comments about this color set (optional). CGATS.17 TABLE_DESCRIPTOR.
annotation	documentation Element containing collection of color sets. The colors sets do not have to have any relationship to each other; however it is intended that the color collection in each set is related in some way to each other. (Note each color can have one or more ways of describing that color but by defination it is the same color which may have more or less accuracy.)					
source	<pre> &lt;xs:element name="ColorSet" type="CxF:ColorSetType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Element containing collection of color sets. The colors sets do not have to have any relationship to each other; however it is intended that the color collection in each set is related in some way to each other. (Note each color can have one or more ways of describing that color but by defination it is the same color which may have more or less accuracy.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

## complexType PhysicalSampleType

diagram	<pre> graph LR     PST[PhysicalSampleType] -- sequence --&gt; CxFA[CxF:CustomAttribute]     PST -- sequence --&gt; CxFC[CxF:Coating]     PST -- sequence --&gt; CxFP[CxF:Process]     PST -- sequence --&gt; CxFS[CxF:Sample]     CxFS -- base --&gt; SS[SampleSpot]     CxFS -- base --&gt; ST[SampleTarget]     </pre> <p><b>PhysicalSampleType</b> Description of this sample. This refers to a physical item, i.e. the IT8 target, the left right car bumper, etc.</p> <p><b>CxF:CustomAttribute</b> 0..∞ Optional, custom physical sample metadata, this should only be used when there is no standard element/attribute to store the required data.</p> <p><b>CxF:Coating</b> Type of coating over physical sample structure (optional).</p> <p><b>CxF:Process</b> Optional field to describe physical characteristics of the colored sample. For example, SWOP may be indicated if this is a offset web physical sample. CGATS.17 PRINT_CONDITIONS.</p> <p><b>CxF:Sample</b> Base abstract sample element.</p> <p><b>SampleSpot</b> Uniform sample structure, i.e. single spot measurement.</p> <p><b>SampleTarget</b> Organized set of sample structures, i.e. IT8 target.</p>
namespace	http://colorexchangeformat.com/v2
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Coating</a> <a href="#">CxF:Process</a> <a href="#">CxF:Sample</a>
used by	element <a href="#">ColorQualityControlType/PhysicalSample</a>
annotation	documentation Description of this sample. This refers to a physical item, i.e. the IT8 target, the left right car bumper, etc.
source	<pre> &lt;xs:complexType name="PhysicalSampleType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Description of this sample. This refers to a physical item, i.e. the IT8 target, the left right car bumper, etc.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional, custom physical sample metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Coating" type="xs:string" minOccurs="0"&gt;       &lt;xs:annotation&gt; </pre>

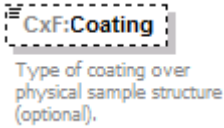
	<pre>&lt;xs:documentation&gt;Type of coating over physical sample structure (optional).&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="Process" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional field to describe physical characteristics of the colored sample.     For example, SWOP may be indicated if this is a offset web physical sample.  CGATS.17     PRINT_CONDITIONS.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="Name"&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:string"&gt;             &lt;xs:minLength value="1"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Thickness" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Specified in mm.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:double"&gt;             &lt;xs:minInclusive value="0.0"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;xs:element ref="CxF:Sample"/&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt;</pre>
--	---

element **PhysicalSampleType/CustomAttribute**

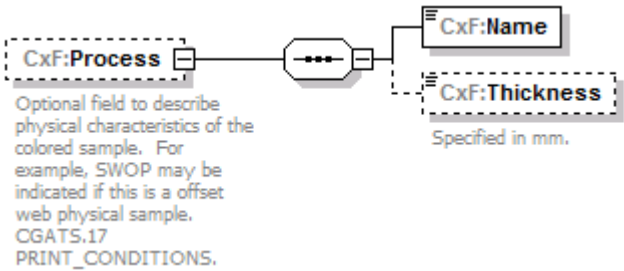
diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:CustomAttributeType</a>

properties	isRef 0 minOcc 0 maxOcc unbounded content complex
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>
annotation	documentation Optional, custom physical sample metadata, this should only be used when there is no standard element/attribute to store the required data.
source	<pre> &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, custom physical sample metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

### element **PhysicalSampleType/Coating**


diagram	 <p>The diagram shows a dashed box labeled <b>CxF:Coating</b>. Below it, the text reads: "Type of coating over physical sample structure (optional)."</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Type of coating over physical sample structure (optional).
source	<pre> &lt;xs:element name="Coating" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type of coating over physical sample structure (optional).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

### element **PhysicalSampleType/Process**

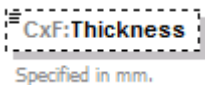
diagram	 <p>The diagram shows a dashed box labeled <b>CxF:Process</b>. Below it, the text reads: "Optional field to describe physical characteristics of the colored sample. For example, SWOP may be indicated if this is a offset web physical sample. CGATS.17 PRINT_CONDITIONS." To the right of the box, there is a diagram showing a box labeled <b>CxF:Name</b> connected to a box labeled <b>CxF:Thickness</b>. Below <b>CxF:Thickness</b>, the text reads: "Specified in mm."</p>
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 minOcc 0 maxOcc 1 content complex

children	<a href="#">CxF:Name</a> <a href="#">CxF:Thickness</a>
annotation	documentation Optional field to describe physical characteristics of the colored sample. For example, SWOP may be indicated if this is a offset web physical sample. CGATS.17 PRINT_CONDITIONS.
source	<pre> &lt;xs:element name="Process" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional field to describe physical characteristics of the colored sample. For example, SWOP may be indicated if this is a offset web physical sample.  CGATS.17 PRINT_CONDITIONS.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="Name"&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:string"&gt;             &lt;xs:minLength value="1"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Thickness" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Specified in mm.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:double"&gt;             &lt;xs:minInclusive value="0.0"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

#### element **PhysicalSampleType/Process/Name**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	minLength 1
source	<pre> &lt;xs:element name="Name"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## element **PhysicalSampleType/Process/Thickness**

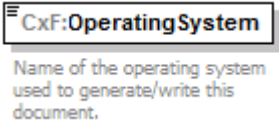
diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	minInclusive 0.0
annotation	documentation Specified in mm.
source	<pre> &lt;xs:element name="Thickness" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Specified in mm.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt;           </pre>

## complexType **PlatformType**

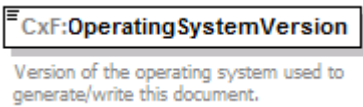
diagram	<pre> graph LR     PT[PlatformType] --- Seq[...]     Seq --- OS[CxF:OperatingSystem]     Seq --- OSV[CxF:OperatingSystemVersion]     </pre>
namespace	http://colorexchangeformat.com/v2
children	<a href="#">CxF:OperatingSystem</a> <a href="#">CxF:OperatingSystemVersion</a>
used by	elements <a href="#">CxF/Preamble/Header/ReadPlatformInformation</a> <a href="#">CxF/Preamble/Header/WritePlatformInformation</a>
annotation	documentation Type containing operating system name and version information.
source	<pre> &lt;xs:complexType name="PlatformType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type containing operating system name and version     information.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="OperatingSystem" type="xs:string"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Name of the operating system used to generate/write this         document.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;           </pre>

	<pre> &lt;xs:element name="OperatingSystemVersion" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Version of the operating system used to generate/write this document.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>
--	---

#### element PlatformType/OperatingSystem

diagram	 <p>The diagram shows a box labeled <b>CxF:OperatingSystem</b>. Below the box, it says "Name of the operating system used to generate/write this document."</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Name of the operating system used to generate/write this document.
source	<pre> &lt;xs:element name="OperatingSystem" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of the operating system used to generate/write this document.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

#### element PlatformType/OperatingSystemVersion

diagram	 <p>The diagram shows a box labeled <b>CxF:OperatingSystemVersion</b>. Below the box, it says "Version of the operating system used to generate/write this document."</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Version of the operating system used to generate/write this document.
source	<pre> &lt;xs:element name="OperatingSystemVersion" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Version of the operating system used to generate/write this document.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## complexType ProfileType

diagram						
namespace	http://colorexchangeformat.com/v2					
children	<a href="#">CxF:ProfileChoice</a> <a href="#">CxF:Parameters</a> <a href="#">CxF:Created</a>					
used by	element <a href="#">ColorSpaceSpecificationType/Profile</a>					
attributes	Name <a href="#">Direction</a>	Type derived by: <b>xs:string</b>	Use required	Default	Fixed	annotation
annotation	documentation Type representing a profile with optional profile input parameters and creation date.					
source	<pre> &lt;xs:complexType name="ProfileType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type representing a profile with optional profile input parameters and creation date.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="ProfileChoice"&gt;       &lt;xs:complexType&gt;         &lt;xs:choice&gt;           &lt;xs:element name="ProfileFile"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Used to store the actual profile file. (The file is stored in the CxF document as a base64 encoded string.)&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;             &lt;xs:complexType&gt;               &lt;xs:simpleContent&gt;                 &lt;xs:extension base="xs:base64Binary"&gt;                   &lt;xs:attribute name="ProfileName" type="xs:string"&gt;                     &lt;xs:annotation&gt;                       &lt;xs:documentation&gt;Optional attribute used to specify the profile name, not the path of where the file is located just the name.&lt;/xs:documentation&gt;                     &lt;/xs:annotation&gt;                   &lt;/xs:attribute&gt;                 &lt;/xs:extension&gt;               &lt;/xs:simpleContent&gt;             &lt;/xs:complexType&gt;           &lt;/xs:element&gt;           &lt;xs:element name="ProfileURI" type="xs:anyURI"&gt;             &lt;xs:annotation&gt; </pre>					



```

        <xs:documentation>URI of profile file.</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:choice>
</xs:complexType>
</xs:element>
<xs:element name="Parameters" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Optional set of profile input parameters.</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="Name">
        <xs:simpleType>
          <xs:restriction base="xs:string">
            <xs:length value="1"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="ValueChoice">
        <xs:complexType>
          <xs:choice>
            <xs:element name="DoubleValue" type="xs:double">
              <xs:annotation>
                <xs:documentation>Value of profile param (double).</xs:documentation>
              </xs:annotation>
            </xs:element>
            <xs:element name="IntegerValue" type="xs:int">
              <xs:annotation>
                <xs:documentation>Value of profile param (integer).</xs:documentation>
              </xs:annotation>
            </xs:element>
            <xs:element name="StringValue" type="xs:string">
              <xs:annotation>
                <xs:documentation>Value of profile param (string).</xs:documentation>
              </xs:annotation>
            </xs:element>
          </xs:choice>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="Created" type="CxF:DateTimeWithTimeZoneType" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Optional field to store time and date profile was
created.</xs:documentation>
  </xs:annotation>
</xs:element>
</xs:sequence>
<xs:attribute name="Direction" use="required">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:enumeration value="Profile_Input"/>
      <xs:enumeration value="Profile_Output"/>
      <xs:enumeration value="Profile_Both"/>
    </xs:restriction>
  </xs:simpleType>

```

	<code>&lt;/xs:restriction&gt;</code> <code>&lt;/xs:simpleType&gt;</code> <code>&lt;/xs:attribute&gt;</code> <code>&lt;/xs:complexType&gt;</code>
--	---

#### attribute **ProfileType/@Direction**

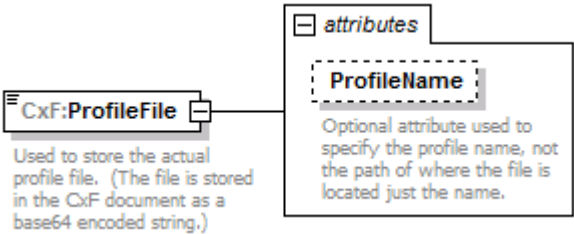
type	restriction of <b>xs:string</b>
properties	isRef 0 use required
facets	enumeration Profile_Input enumeration Profile_Output enumeration Profile_Both
source	<pre> &lt;xs:attribute name="Direction" use="required"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="Profile_Input"/&gt;       &lt;xs:enumeration value="Profile_Output"/&gt;       &lt;xs:enumeration value="Profile_Both"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

#### element **ProfileType/ProfileChoice**

diagram	
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 content complex
children	<a href="#">CxF:ProfileFile</a> <a href="#">CxF:ProfileURI</a>
source	<pre> &lt;xs:element name="ProfileChoice"&gt;   &lt;xs:complexType&gt;     &lt;xs:choice&gt;       &lt;xs:element name="ProfileFile"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Used to store the actual profile file. (The file is stored in the CxF document as a base64 encoded string.)&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:complexType&gt;           &lt;xs:simpleContent&gt;             &lt;xs:extension base="xs:base64Binary"&gt;               &lt;xs:attribute name="ProfileName" type="xs:string"&gt;                 &lt;xs:annotation&gt;                   &lt;xs:documentation&gt;Optional attribute used to specify the profile name, not the path of where the file is located just the name.&lt;/xs:documentation&gt; </pre>

	<pre> &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;/xs:extension&gt; &lt;/xs:simpleContent&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;xs:element name="ProfileURI" type="xs:anyURI"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;URI of profile file.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:choice&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	---

element **ProfileType/ProfileChoice/ProfileFile**

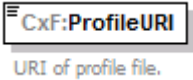
diagram						
namespace	http://colorexchangeformat.com/v2					
type	extension of <b>xs:base64Binary</b>					
properties	isRef	0	content	complex		
attributes	Name	Type	Use	Default	Fixed	annotation documentation
	<a href="#">ProfileName</a>	<b>xs:string</b>				Optional attribute used to specify the profile name, not the path of where the file is located just the name.
annotation	documentation Used to store the actual profile file. (The file is stored in the CxF document as a base64 encoded string.)					
source	<pre> &lt;xs:element name="ProfileFile"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to store the actual profile file. (The file is stored in the CxF document as a base64 encoded string.)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:simpleContent&gt;       &lt;xs:extension base="xs:base64Binary"&gt;         &lt;xs:attribute name="ProfileName" type="xs:string"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Optional attribute used to specify the profile name, not the path of where the file is located just the name.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:attribute&gt;       &lt;/xs:extension&gt; </pre>					

	<code>&lt;/xs:simpleContent&gt;</code> <code>&lt;/xs:complexType&gt;</code> <code>&lt;/xs:element&gt;</code>
--	--

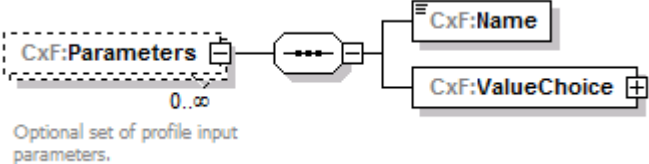
#### attribute **ProfileType/ProfileChoice/ProfileFile/@ProfileName**

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation Optional attribute used to specify the profile name, not the path of where the file is located just the name.
source	<code>&lt;xs:attribute name="ProfileName" type="xs:string"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;</code> Optional attribute used to specify the profile name, not the path of where the file is located just the name. <code>&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:attribute&gt;</code>

#### element **ProfileType/ProfileChoice/ProfileURI**


diagram	 <p>URI of profile file.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:anyURI</b>
properties	isRef 0 content simple
annotation	documentation URI of profile file.
source	<code>&lt;xs:element name="ProfileURI" type="xs:anyURI"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;</code> URI of profile file. <code>&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:element&gt;</code>

#### element **ProfileType/Parameters**

diagram	 <p>Optional set of profile input parameters.</p>
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 minOcc 0 maxOcc unbounded content complex
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>
annotation	documentation Optional set of profile input parameters.

source	<pre> &lt;xs:element name="Parameters" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional set of profile input parameters.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="Name"&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:string"&gt;             &lt;xs:length value="1"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:element&gt;       &lt;xs:element name="ValueChoice"&gt;         &lt;xs:complexType&gt;           &lt;xs:choice&gt;             &lt;xs:element name="DoubleValue" type="xs:double"&gt;               &lt;xs:annotation&gt;                 &lt;xs:documentation&gt;Value of profile param (double).&lt;/xs:documentation&gt;               &lt;/xs:annotation&gt;             &lt;/xs:element&gt;             &lt;xs:element name="IntegerValue" type="xs:int"&gt;               &lt;xs:annotation&gt;                 &lt;xs:documentation&gt;Value of profile param (integer).&lt;/xs:documentation&gt;               &lt;/xs:annotation&gt;             &lt;/xs:element&gt;             &lt;xs:element name="StringValue" type="xs:string"&gt;               &lt;xs:annotation&gt;                 &lt;xs:documentation&gt;Value of profile param (string).&lt;/xs:documentation&gt;               &lt;/xs:annotation&gt;             &lt;/xs:element&gt;           &lt;/xs:choice&gt;         &lt;/xs:complexType&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--------	---

element **ProfileType/Parameters/Name**

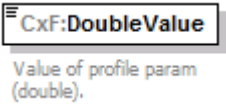
diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	length 1
source	<pre> &lt;xs:element name="Name"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:length value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

	<code>&lt;/xs:simpleType&gt;</code> <code>&lt;/xs:element&gt;</code>
--	---

element **ProfileType/Parameters/ValueChoice**

diagram	
namespace	http://colorexchangeformat.com/v2
properties	isRef 0 content complex
children	<a href="#">CxF:DoubleValue</a> <a href="#">CxF:IntegerValue</a> <a href="#">CxF:StringValue</a>
source	<pre> &lt;xs:element name="ValueChoice"&gt;   &lt;xs:complexType&gt;     &lt;xs:choice&gt;       &lt;xs:element name="DoubleValue" type="xs:double"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Value of profile param (double).&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="IntegerValue" type="xs:int"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Value of profile param (integer).&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="StringValue" type="xs:string"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Value of profile param (string).&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;     &lt;/xs:choice&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

element **ProfileType/Parameters/ValueChoice/DoubleValue**

diagram	
namespace	http://colorexchangeformat.com/v2
type	xs:double

properties	isRef 0 content simple
annotation	documentation Value of profile param (double).
source	<pre>&lt;xs:element name="DoubleValue" type="xs:double"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Value of profile param (double).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

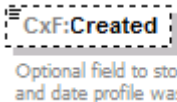
#### element **ProfileType/Parameters/ValueChoice/IntegerValue**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:int</b>
properties	isRef 0 content simple
annotation	documentation Value of profile param (integer).
source	<pre>&lt;xs:element name="IntegerValue" type="xs:int"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Value of profile param (integer).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **ProfileType/Parameters/ValueChoice/StringValue**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Value of profile param (string).
source	<pre>&lt;xs:element name="StringValue" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Value of profile param (string).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element ProfileType/Created

diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:DateTimeWithTimeZoneType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	pattern .+T.+(Z [-\+].+)
annotation	documentation Optional field to store time and date profile was created.
source	<pre>&lt;xs:element name="Created" type="CxF:DateTimeWithTimeZoneType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional field to store time and date profile was created.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## complexType ReflectancePointType

diagram	<div><div><div>attributes</div><div>Wavelength</div><div>Required wavelength (nm.)</div></div><div>ReflectancePointType</div><div>Basic data type for a spectral data point. Each spectral data point is a reflectance value at a specified wavelength (nm). Reflectance is scaled such that 100%=1.0 where all emission is scaled such that 1000=1.0.</div></div>												
namespace	http://colorexchangeformat.com/v2												
type	extension of <a href="#">CxF:ReflectanceType</a>												
properties	base CxF:ReflectanceType												
used by	element <a href="#">ColorSpaceSpectralType/ReflectancePoint</a>												
facets	<table><tr><td>minExclusive</td><td>-1</td></tr><tr><td>maxExclusive</td><td>10</td></tr></table>	minExclusive	-1	maxExclusive	10								
minExclusive	-1												
maxExclusive	10												
attributes	<table><tr><td>Name</td><td>Type</td><td>Use</td><td>Default</td><td>Fixed</td><td>annotation</td></tr><tr><td><a href="#">Wavelength</a></td><td>derived by: xs:double</td><td>required</td><td></td><td></td><td>documentation Required wavelength (nm.) appinfo &lt;jxb:property&gt;     &lt;jxb:javadoc&gt;Required     wavelength (nm.)&lt;/jxb:javadoc&gt; &lt;/jxb:property&gt;</td></tr></table>	Name	Type	Use	Default	Fixed	annotation	<a href="#">Wavelength</a>	derived by: xs:double	required			documentation Required wavelength (nm.) appinfo <jxb:property> <jxb:javadoc>Required wavelength (nm.)</jxb:javadoc> </jxb:property>
Name	Type	Use	Default	Fixed	annotation								
<a href="#">Wavelength</a>	derived by: xs:double	required			documentation Required wavelength (nm.) appinfo <jxb:property> <jxb:javadoc>Required wavelength (nm.)</jxb:javadoc> </jxb:property>								
annotation	documentation Basic data type for a spectral data point. Each spectral data point is a reflectance value at a specified wavelength (nm). Reflectance is scaled such that 100%=1.0 where all emission is scaled such that 1000=1.0.												
source	<xs:complexType name="ReflectancePointType"> <xs:annotation> <xs:documentation>Basic data type for a spectral data point. Each spectral data point is a reflectance value at a specified wavelength (nm). Reflectance is scaled such that 100%=1.0 where												



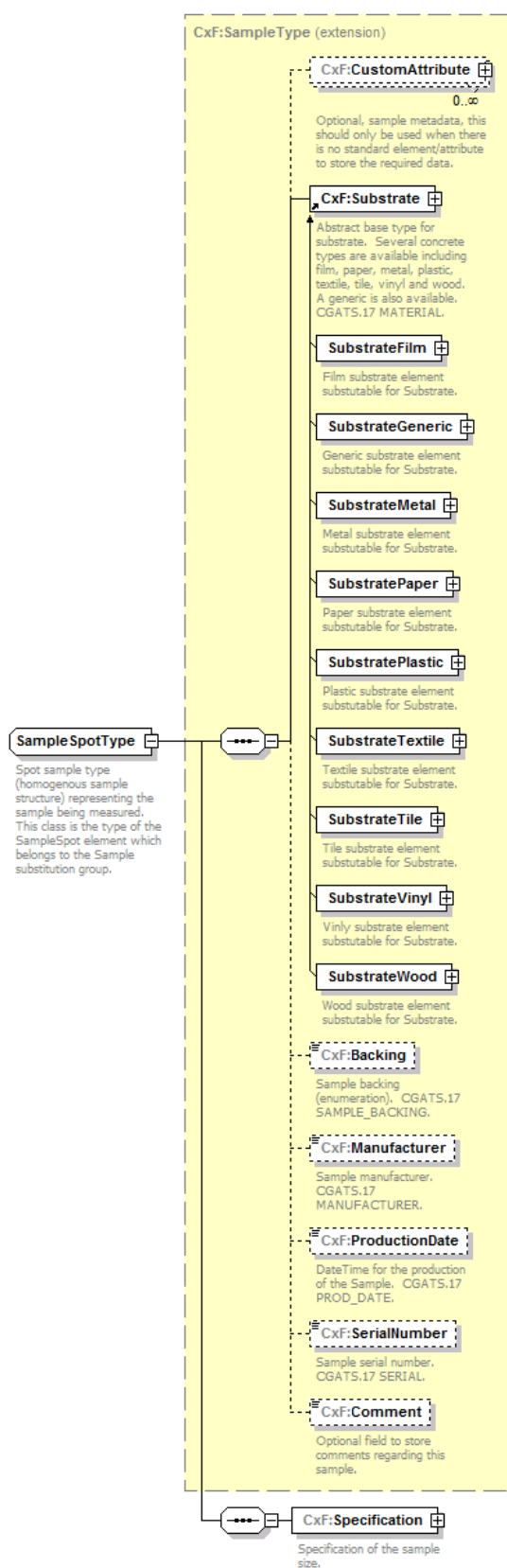
	all emission is scaled such that $1000=1.0$ .</xs:documentation> </xs:annotation> <xs:simpleContent> <xs:extension base="CxF:ReflectanceType"> <xs:attribute name="Wavelength" use="required"> <xs:annotation> <xs:documentation>Required wavelength (nm.)</xs:documentation> <xs:appinfo> <jxb:property> <jxb:javadoc>Required wavelength (nm.)</jxb:javadoc> </jxb:property> </xs:appinfo> </xs:annotation> <xs:simpleType> <xs:restriction base="xs:double"> <xs:minExclusive value="0"/> </xs:restriction> </xs:simpleType> </xs:attribute> </xs:extension> </xs:simpleContent> </xs:complexType>
--	--

#### attribute **ReflectancePointType/@Wavelength**

type	restriction of <b>xs:double</b>
properties	isRef 0 use required
facets	minExclusive 0
annotation	documentation Required wavelength (nm.) appinfo <jxb:property> <jxb:javadoc>Required wavelength (nm.)</jxb:javadoc> </jxb:property>
source	<xs:attribute name="Wavelength" use="required"> <xs:annotation> <xs:documentation>Required wavelength (nm.)</xs:documentation> <xs:appinfo> <jxb:property> <jxb:javadoc>Required wavelength (nm.)</jxb:javadoc> </jxb:property> </xs:appinfo> </xs:annotation> <xs:simpleType> <xs:restriction base="xs:double"> <xs:minExclusive value="0"/> </xs:restriction> </xs:simpleType> </xs:attribute>

## complexType SampleSpotType

diagram




namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:SampleType</a>
properties	base CxF:SampleType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Substrate</a> <a href="#">CxF:Backing</a> <a href="#">CxF:Manufacturer</a> <a href="#">CxF:ProductionDate</a> <a href="#">CxF:SerialNumber</a> <a href="#">CxF:Comment</a> <a href="#">CxF:Specification</a>
used by	element <a href="#">SampleSpot</a>
annotation	documentation Spot sample type (homogenous sample structure) representing the sample being measured. This class is the type of the SampleSpot element which belongs to the Sample substitution group.
source	<pre> &lt;xs:complexType name="SampleSpotType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Spot sample type (homogenous sample structure) representing the sample being measured. This class is the type of the SampleSpot element which belongs to the Sample substitution group.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:SampleType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="Specification"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Specification of the sample size.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:complexType&gt;             &lt;xs:sequence&gt;               &lt;xs:element name="SampleWidth" type="xs:double"&gt;                 &lt;xs:annotation&gt;                   &lt;xs:documentation&gt;Width of the sample (mm).&lt;/xs:documentation&gt;                 &lt;/xs:annotation&gt;               &lt;/xs:element&gt;               &lt;xs:element name="SampleHeight" type="xs:double"&gt;                 &lt;xs:annotation&gt;                   &lt;xs:documentation&gt;Height of the sample (mm).&lt;/xs:documentation&gt;                 &lt;/xs:annotation&gt;               &lt;/xs:element&gt;             &lt;/xs:sequence&gt;           &lt;/xs:complexType&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

#### element **SampleSpotType/Specification**


diagram	<pre> classDiagram     class CxF_Specification {         Specification of the sample size.     }     class CxF_SampleWidth {         Width of the sample (mm).     }     class CxF_SampleHeight {         Height of the sample (mm).     }     CxF_Specification --&gt; CxF_SampleWidth     CxF_Specification --&gt; CxF_SampleHeight </pre>
namespace	http://colorexchangeformat.com/v2

properties	isRef 0 content complex
children	<a href="#">CxF:SampleWidth</a> <a href="#">CxF:SampleHeight</a>
annotation	documentation Specification of the sample size.
source	<pre> &lt;xs:element name="Specification"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Specification of the sample size.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="SampleWidth" type="xs:double"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Width of the sample (mm).&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="SampleHeight" type="xs:double"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Height of the sample (mm).&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

#### element **SampleSpotType/Specification/SampleWidth**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 content simple
annotation	documentation Width of the sample (mm).
source	<pre> &lt;xs:element name="SampleWidth" type="xs:double"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Width of the sample (mm).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

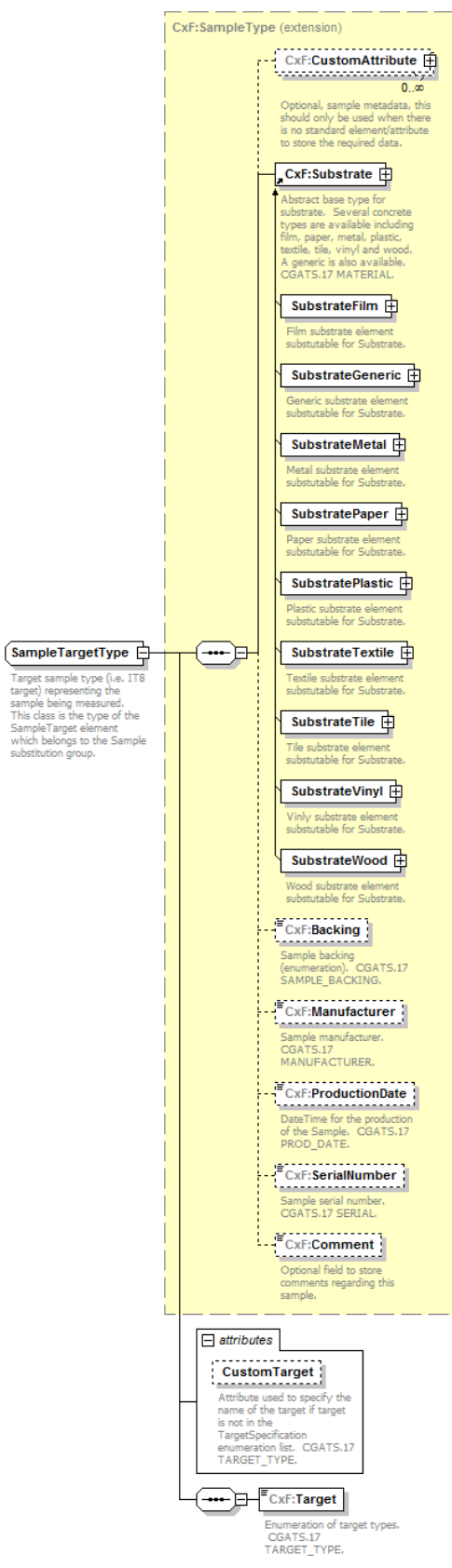
#### element **SampleSpotType/Specification/SampleHeight**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 content simple

annotation	documentation Height of the sample (mm).
source	<xs:element name="SampleHeight" type="xs:double"> <xs:annotation> <xs:documentation>Height of the sample (mm).</xs:documentation> </xs:annotation> </xs:element>

complexType SampleTargetType

diagram




namespace	http://colorexchangeformat.com/v2					
type	extension of <a href="#">CxF:SampleType</a>					
properties	base CxF:SampleType					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Substrate</a> <a href="#">CxF:Backing</a> <a href="#">CxF:Manufacturer</a> <a href="#">CxF:ProductionDate</a> <a href="#">CxF:SerialNumber</a> <a href="#">CxF:Comment</a> <a href="#">CxF:Target</a>					
used by	element <a href="#">SampleTarget</a>					
attributes	Name <a href="#">CustomTarget</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Attribute used to specify the name of the target if target is not in the TargetSpecification enumeration list. CGATS.17 TARGET_TYPE.
annotation	documentation Target sample type (i.e. IT8 target) representing the sample being measured. This class is the type of the SampleTarget element which belongs to the Sample substitution group.					
source	<pre> &lt;xs:complexType name="SampleTargetType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Target sample type (i.e. IT8 target) representing the sample being measured. This class is the type of the SampleTarget element which belongs to the Sample substitution group.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:SampleType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="Target"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Enumeration of target types. CGATS.17 TARGET_TYPE.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="CxF:ETargetType"/&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;       &lt;xs:attribute name="CustomTarget" type="xs:string"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Attribute used to specify the name of the target if target is not in the TargetSpecification enumeration list. CGATS.17 TARGET_TYPE.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:attribute&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>					

#### attribute **SampleTargetType/@CustomTarget**

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation Attribute used to specify the name of the target if target is not in the TargetSpecification enumeration list. CGATS.17

	TARGET_TYPE.
source	<pre> &lt;xs:attribute name="CustomTarget" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Attribute used to specify the name of the target if target is not in the     TargetSpecification enumeration list.  CGATS.17 TARGET_TYPE.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

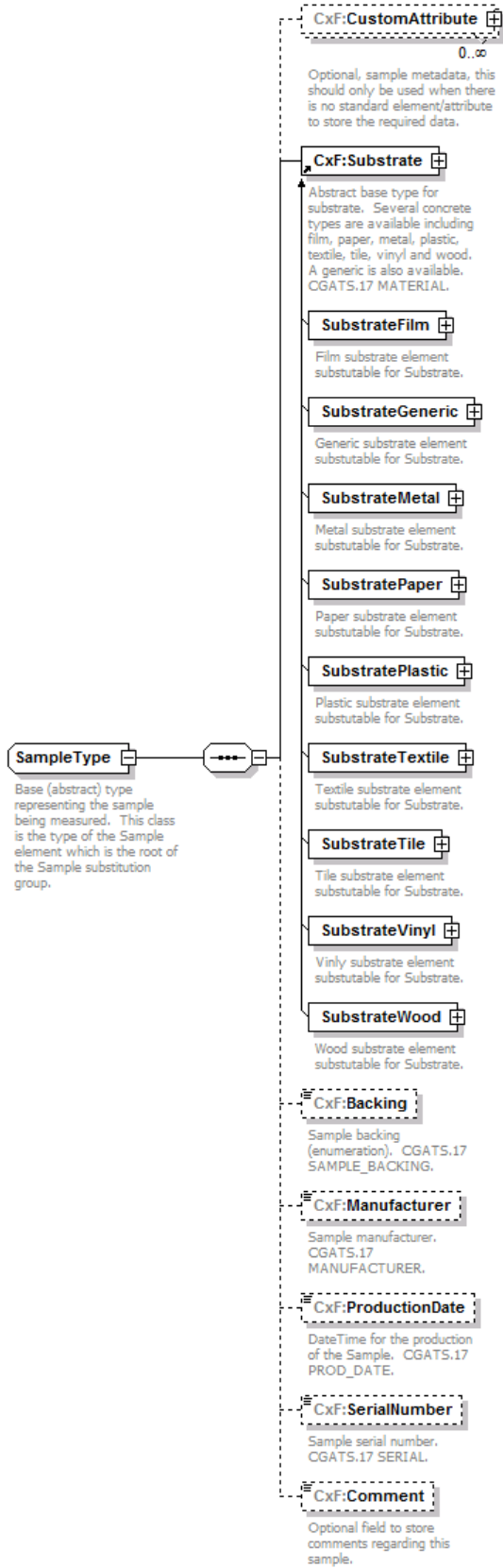
#### element **SampleTargetType/Target**

diagram	 <p>Enumeration of target types. CGATS.17 TARGET_TYPE.</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <a href="#">CxF:ETargetType</a>
properties	isRef 0 content simple
facets	enumeration Target_IT8.7/1 enumeration Target_IT8.7/2 enumeration Target_IT8.7/3 enumeration Target_IT8.7/4 enumeration Target_ECI2002 enumeration Target_Custom
annotation	documentation Enumeration of target types.  CGATS.17 TARGET_TYPE.
source	<pre> &lt;xs:element name="Target"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of target types.  CGATS.17     TARGET_TYPE.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="CxF:ETargetType"/&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>



complexType SampleType

diagram



namespace	http://colorexchangeformat.com/v2
properties	abstract true
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Substrate</a> <a href="#">CxF:Backing</a> <a href="#">CxF:Manufacturer</a> <a href="#">CxF:ProductionDate</a> <a href="#">CxF:SerialNumber</a> <a href="#">CxF:Comment</a>
used by	<div>element</div> <div>complexType</div> <div> <a href="#">Sample</a>  <a href="#">SampleSpotType</a> <a href="#">SampleTargetType</a> </div>
annotation	<div>documentation</div> <div>Base (abstract) type representing the sample being measured. This class is the type of the Sample element which is the root of the Sample substitution group.</div>
source	<pre> &lt;xs:complexType name="SampleType" abstract="true"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Base (abstract) type representing the sample being measured. This class is the type of the Sample element which is the root of the Sample substitution group.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional, sample metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element ref="CxF:Substrate"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Abstract base type for substrate. Several concrete types are available including film, paper, metal, plastic, textile, tile, vinyl and wood. A generic is also available. CGATS.17 MATERIAL.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Backing" type="CxF:EBackingType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Sample backing (enumeration). CGATS.17 SAMPLE_BACKING.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Manufacturer" type="xs:string" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Sample manufacturer. CGATS.17 MANUFACTURER.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ProductionDate" type="CxF:DateTimeWithTimeZoneType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;DateTime for the production of the Sample. CGATS.17 PROD_DATE.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="SerialNumber" type="xs:string" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Sample serial number. CGATS.17 SERIAL.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Comment" type="xs:string" minOccurs="0"&gt;       &lt;xs:annotation&gt; </pre>

	<pre> &lt;xs:documentation&gt;Optional field to store comments regarding this sample.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>
--	---

### element SampleType/CustomAttribute

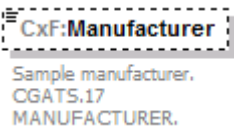
diagram									
namespace	http://colorexchangeformat.com/v2								
type	<a href="#">CxF:CustomAttributeType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
isRef	0								
minOcc	0								
maxOcc	unbounded								
content	complex								
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>								
annotation	<p>documentation</p> <p>Optional, sample metadata, this should only be used when there is no standard element/attribute to store the required data.</p>								
source	<pre> &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, sample metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								

### element SampleType/Backing

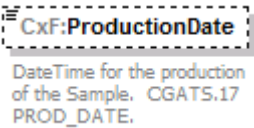
diagram							
namespace	http://colorexchangeformat.com/v2						
type	<a href="#">CxF:EBackingType</a>						
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1
isRef	0						
minOcc	0						
maxOcc	1						

	content simple
facets	enumeration Backing_Black enumeration Backing_White enumeration Backing_Self enumeration Backing_NA
annotation	documentation Sample backing (enumeration). CGATS.17 SAMPLE_BACKING.
source	<pre>&lt;xs:element name="Backing" type="CxF:EBackingType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Sample backing (enumeration). CGATS.17 SAMPLE_BACKING.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element SampleType/Manufacturer

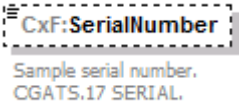
diagram	 <pre> CxF:Manufacturer Sample manufacturer. CGATS.17 MANUFACTURER. </pre>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Sample manufacturer. CGATS.17 MANUFACTURER.
source	<pre>&lt;xs:element name="Manufacturer" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Sample manufacturer. CGATS.17 MANUFACTURER.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element SampleType/ProductionDate


diagram	 <pre> CxF:ProductionDate DateTime for the production of the Sample. CGATS.17 PROD_DATE. </pre>
namespace	http://colorexchangeformat.com/v2
type	<u><a href="#">CxF:DateTimeWithTimeZoneType</a></u>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	pattern .+T.+(Z [+-].+)
annotation	documentation DateTime for the production of the Sample. CGATS.17 PROD_DATE.
source	<pre>&lt;xs:element name="ProductionDate" type="CxF:DateTimeWithTimeZoneType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;DateTime for the production of the Sample. CGATS.17 </pre>

	PROD_DATE.</xs:documentation> </xs:annotation> </xs:element>
--	--

#### element **SampleType/SerialNumber**

diagram	 <p>Sample serial number. CGATS.17 SERIAL.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Sample serial number. CGATS.17 SERIAL.
source	<xs:element name="SerialNumber" type="xs:string" minOccurs="0"> <xs:annotation> <xs:documentation>Sample serial number. CGATS.17 SERIAL.</xs:documentation> </xs:annotation> </xs:element>

#### element **SampleType/Comment**

diagram	 <p>Optional field to store comments regarding this sample.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Optional field to store comments regarding this sample.
source	<xs:element name="Comment" type="xs:string" minOccurs="0"> <xs:annotation> <xs:documentation>Optional field to store comments regarding this sample.</xs:documentation> </xs:annotation> </xs:element>

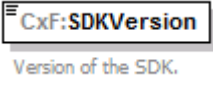
## complexType SDKType

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
children	<a href="#">CxF:SDKName</a> <a href="#">CxF:SDKVersion</a>
used by	elements <a href="#">CxF/Preamble/Header/ReadSDKInformation</a> <a href="#">CxF/Preamble/Header/WriteSDKInformation</a>
annotation	documentation Type containing SDK name and version information. This is set automatically if using X-Rite SDKs.
source	<pre> &lt;xs:complexType name="SDKType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type containing SDK name and version information. This is set automatically if using X-Rite SDKs.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="SDKName" type="xs:string"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Name of the SDK.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="SDKVersion" type="xs:string" nillable="true"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Version of the SDK.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>

## element SDKType/SDKName

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Name of the SDK.
source	<pre> &lt;xs:element name="SDKName" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of the SDK.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## element SDKType/SDKVersion

diagram	 The diagram shows a box labeled 'CxF:SDKVersion' with a small icon to its left. Below the box, the text 'Version of the SDK.' is written.
namespace	http://colorexchangeformat.com/v2
type	xs:string
properties	isRef 0 content simple nillable true
annotation	documentation Version of the SDK.
source	<pre>&lt;xs:element name="SDKVersion" type="xs:string" nillable="true"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Version of the SDK.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

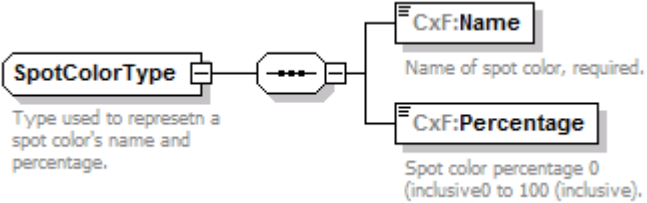
## complexType SpectrumType

diagram	<div><div><div><div><div><div></div><div>SpectrumType</div></div><div>Enumeration of non-emissive types, note if custom is used name of custom type must be specified in attribute field.</div></div><div><div>attributes</div><div><div>CustomTypeName</div></div></div></div></div></div>												
namespace	http://colorexchangeformat.com/v2												
type	extension of <a href="#">CxF:ESpectrumType</a>												
properties	base CxF:ESpectrumType												
used by	element <a href="#">ColorSpaceSpecificationSpectrumType/Spectrum</a>												
facets	enumeration Spectrum_Reflectance enumeration Spectrum_Transmittance enumeration Spectrum_TotalTransmittance enumeration Spectrum_Custom												
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>annotation</th></tr></thead><tbody><tr><td><a href="#">CustomTypeName</a></td><td>xs:string</td><td>optional</td><td></td><td></td><td></td></tr></tbody></table>	Name	Type	Use	Default	Fixed	annotation	<a href="#">CustomTypeName</a>	xs:string	optional			
Name	Type	Use	Default	Fixed	annotation								
<a href="#">CustomTypeName</a>	xs:string	optional											
annotation	documentation Enumeration of non-emissive types, note if custom is used name of custom type must be specified in attribute field.												
source	<pre>&lt;xs:complexType name="SpectrumType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of non-emissive types, note if custom is used name of custom type must be specified in attribute field.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleContent&gt;     &lt;xs:extension base="CxF:ESpectrumType"&gt;       &lt;xs:attribute name="CustomTypeName" type="xs:string" use="optional"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:simpleContent&gt; &lt;/xs:complexType&gt;</pre>												

# attribute **SpectrumType/@CustomTypeName**

type	xs:string
properties	isRef 0 use optional
source	<xs:attribute name="CustomTypeName" type="xs:string" use="optional"/>

## complexType **SpotColorType**

diagram	
namespace	http://colorexchangeformat.com/v2
children	<a href="#">CxF:Name</a> <a href="#">CxF:Percentage</a>
used by	elements <a href="#">ColorSpaceCMYKType/SpotColor</a> <a href="#">ColorSpacePANTONEHexachromeType/SpotColor</a>
annotation	documentation Type used to represent a spot color's name and percentage.
source	<pre> &lt;xs:complexType name="SpotColorType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type used to represent a spot color's name and percentage.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="Name"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Name of spot color, required.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:simpleType&gt;         &lt;xs:restriction base="xs:string"&gt;           &lt;xs:minLength value="1"/&gt;         &lt;/xs:restriction&gt;       &lt;/xs:simpleType&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Percentage"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Spot color percentage 0 (inclusive) to 100 (inclusive).&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:simpleType&gt;         &lt;xs:restriction base="xs:double"&gt;           &lt;xs:minInclusive value="0.0"/&gt;           &lt;xs:maxInclusive value="100.0"/&gt;         &lt;/xs:restriction&gt;       &lt;/xs:simpleType&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>



## element **SpotColorType/Name**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	minLength 1
annotation	documentation Name of spot color, required.
source	<pre> &lt;xs:element name="Name"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of spot color, required.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## element **SpotColorType/Percentage**

diagram	
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
properties	isRef 0 content simple
facets	minInclusive 0.0 maxInclusive 100.0
annotation	documentation Spot color percentage 0 (inclusive0 to 100 (inclusive)).
source	<pre> &lt;xs:element name="Percentage"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Spot color percentage 0 (inclusive0 to 100 (inclusive)).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:double"&gt;       &lt;xs:minInclusive value="0.0"/&gt;       &lt;xs:maxInclusive value="100.0"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

## complexType **StandardAndMeasurementType**

diagram	<p><b>StandardAndMeasurementType</b></p> <p>For each sample and tolerance we have one or more sets of measurement data and reference colors.</p> <p><b>CxF:CustomAttribute</b> 0..∞ Optional, custom standard and measurement metadata, this should only be used when there is no standard element/attribute to store the required data.</p> <p><b>CxF:Measurement</b> 0..∞ This element is a collection where each item in the collection represents a single measurement of the sample which will have one color but it may have more than one color space values (for instance, the device may have returned reflectance data for multiple angles or it might report spectral and CIE Lab.)</p> <p><b>CxF:Standard</b> Required field used to specify the standard color of a single item to be measured. This may be a patch in an IT8 target for instance. If you do not want to specify the standard in this document you may pass NULL for this element.</p>
namespace	http://colorexchangeformat.com/v2
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Measurement</a> <a href="#">CxF:Standard</a>
used by	element <a href="#">ColorQualityControlType/StandardAndMeasurement</a>
annotation	documentation For each sample and tolerance we have one or more sets of measurement data and reference colors.
source	<pre> &lt;xs:complexType name="StandardAndMeasurementType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;For each sample and tolerance we have one or more sets of measurement data and reference colors.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional, custom standard and measurement metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element ref="CxF:Measurement" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;This element is a collection where each item in the collection represents a single measurement of the sample which will have one color but it may have more than one color space values (for instance, the device may have returned reflectance data for multiple angles or it </pre>

	<p>might report spectral and CIELab.)&lt;/xs:documentation&gt;  &lt;/xs:annotation&gt;  &lt;/xs:element&gt;  &lt;xs:element ref="CxF:Standard"&gt;  &lt;xs:annotation&gt;  &lt;xs:documentation&gt;Required field used to specify the standard color of a single item to be measured. This may be a patch in an IT8 target for instance. If you do not want to specify the standard in this document you may pass NULL for this element.&lt;/xs:documentation&gt;  &lt;/xs:annotation&gt;  &lt;/xs:element&gt;  &lt;/xs:sequence&gt;  &lt;/xs:complexType&gt;</p>
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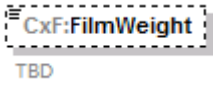
element **StandardAndMeasurementType/CustomAttribute**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:CustomAttributeType</a>
properties	isRef 0 minOcc 0 maxOcc unbounded content complex
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>
annotation	documentation Optional, custom standard and measurement metadata, this should only be used when there is no standard element/attribute to store the required data.
source	<xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"> <xs:annotation> <xs:documentation>Optional, custom standard and measurement metadata, this should only be used when there is no standard element/attribute to store the required data.</xs:documentation> </xs:annotation> </xs:element>


## complexType SubstrateFilmType

diagram	
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:SubstrateType</a>
properties	base CxF:SubstrateType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:FilmWeight</a> <a href="#">CxF:FilmType</a>
used by	element <a href="#">SubstrateFilm</a>
annotation	documentation Film substrate type. This class is the type of the SubstrateFilm element which belongs to the Substrate substitution group.
source	<pre> &lt;xs:complexType name="SubstrateFilmType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Film substrate type. This class is the type of the SubstrateFilm element     which belongs to the Substrate substitution group.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:SubstrateType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="FilmWeight" type="xs:double" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="FilmType" type="xs:string" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;           </pre>

# element SubstrateFilmType/FilmWeight

diagram	 <p>The diagram shows a dashed box containing the text 'CxF:FilmWeight' in blue. Below the box, the text 'TBD' is written in red.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation TBD
source	<pre> &lt;xs:element name="FilmWeight" type="xs:double" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

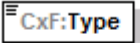
# element SubstrateFilmType/FilmType

diagram	 <p>The diagram shows a dashed box containing the text 'CxF:FilmType' in blue. Below the box, the text 'TBD' is written in red.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation TBD
source	<pre> &lt;xs:element name="FilmType" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

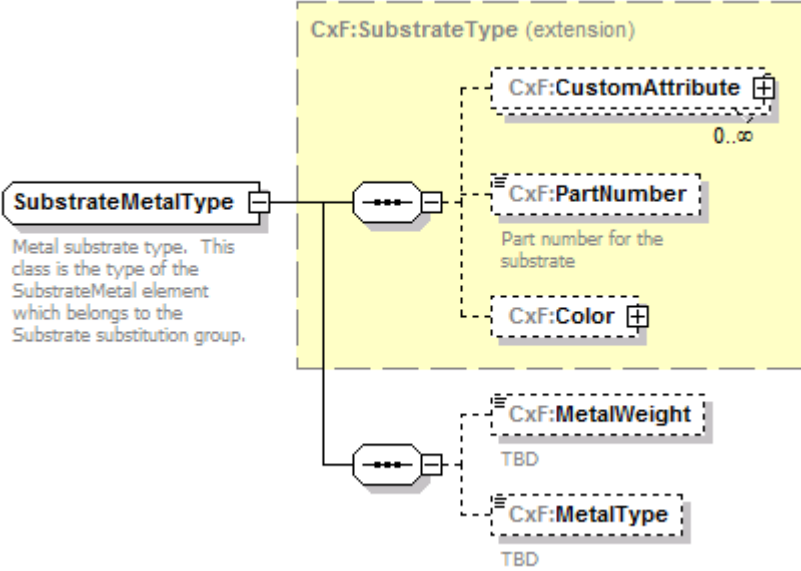
## complexType SubstrateGenericType

diagram	<p><b>SubstrateGenericType</b> Generic substrate type, suitable for use when there is no specific substrate type is available. This class is the type of the SubstrateGeneric element which belongs to the Substrate substitution group.</p> <p><b>CxF:SubstrateType (extension)</b></p> <ul style="list-style-type: none"> <li><b>CxF:CustomAttribute</b> (0..∞)</li> <li><b>CxF:PartNumber</b> Part number for the substrate</li> <li><b>CxF:Color</b></li> <li><b>CxF:Type</b> Name of material or substrate. CGATS.17 MATERIAL.</li> </ul>
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:SubstrateType</a>
properties	base CxF:SubstrateType abstract false
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:Type</a>
used by	element <a href="#">SubstrateGeneric</a>
annotation	<p>documentation</p> <p>Generic substrate type, suitable for use when there is no specific substrate type is available. This class is the type of the SubstrateGeneric element which belongs to the Substrate substitution group.</p>
source	<pre> &lt;xs:complexType name="SubstrateGenericType" abstract="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Generic substrate type, suitable for use when there is no specific substrate type is available. This class is the type of the SubstrateGeneric element which belongs to the Substrate substitution group.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:SubstrateType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="Type"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Name of material or substrate. CGATS.17 MATERIAL.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:string"&gt;               &lt;xs:minLength value="1"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

## element **SubstrateGenericType/Type**

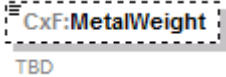
diagram	 <p>CxF:Type</p> <p>Name of material or substrate. CGATS.17 MATERIAL.</p>
namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	minLength 1
annotation	documentation Name of material or substrate. CGATS.17 MATERIAL.
source	<pre> &lt;xs:element name="Type"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of material or substrate. CGATS.17 MATERIAL.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt;           </pre>

## complexType **SubstrateMetalType**

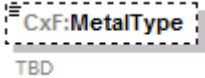
diagram	 <p><b>SubstrateMetalType</b></p> <p>Metal substrate type. This class is the type of the SubstrateMetal element which belongs to the Substrate substitution group.</p> <p><b>CxF:SubstrateType (extension)</b></p> <ul style="list-style-type: none"> <li>CxF:CustomAttribute (0..∞)</li> <li>CxF:PartNumber (Part number for the substrate)</li> <li>CxF:Color</li> <li>CxF:MetalWeight (TBD)</li> <li>CxF:MetalType (TBD)</li> </ul>
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:SubstrateType</a>
properties	base CxF:SubstrateType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:MetalWeight</a> <a href="#">CxF:MetalType</a>
used by	element <a href="#">SubstrateMetal</a>

annotation	documentation Metal substrate type. This class is the type of the SubstrateMetal element which belongs to the Substrate substitution group.
source	<pre> &lt;xs:complexType name="SubstrateMetalType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Metal substrate type. This class is the type of the SubstrateMetal element which belongs to the Substrate substitution group.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:SubstrateType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="MetalWeight" type="xs:double" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="MetalType" type="xs:string" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

#### element **SubstrateMetalType/MetalWeight**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation TBD
source	<pre> &lt;xs:element name="MetalWeight" type="xs:double" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

#### element **SubstrateMetalType/MetalType**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>



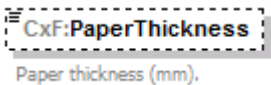
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation TBD
source	<pre>&lt;xs:element name="MetalType" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## complexType SubstratePaperType

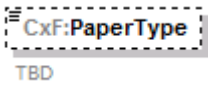
diagram	
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:SubstrateType</a>
properties	base CxF:SubstrateType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:PaperThickness</a> <a href="#">CxF:PaperType</a>
used by	element <a href="#">SubstratePaper</a>
annotation	documentation Paper substrate type. This class is the type of the SubstratePaper element which belongs to the Substrate substitution group.
source	<pre>&lt;xs:complexType name="SubstratePaperType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Paper substrate type. This class is the type of the SubstratePaper element which belongs to the Substrate substitution group.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:SubstrateType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="PaperThickness" type="xs:double" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Paper thickness (mm).&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;</pre>

	<pre> &lt;/xs:element&gt; &lt;xs:element name="PaperType" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>
--	---

#### element SubstratePaperType/PaperThickness

diagram									
namespace	http://colorexchangeformat.com/v2								
type	<b>xs:double</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	documentation Paper thickness (mm).								
source	<pre> &lt;xs:element name="PaperThickness" type="xs:double" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Paper thickness (mm).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								

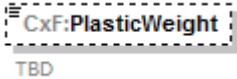
#### element SubstratePaperType/PaperType

diagram									
namespace	http://colorexchangeformat.com/v2								
type	<b>xs:string</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	documentation TBD								
source	<pre> &lt;xs:element name="PaperType" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								

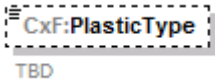
## complexType SubstratePlasticType

diagram	
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:SubstrateType</a>
properties	base CxF:SubstrateType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:PlasticWeight</a> <a href="#">CxF:PlasticType</a>
used by	element <a href="#">SubstratePlastic</a>
annotation	documentation Plastic substrate type. This class is the type of the SubstratePlastic element which belongs to the Substrate substitution group.
source	<pre> &lt;xs:complexType name="SubstratePlasticType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Plastic substrate type. This class is the type of the SubstratePlastic element which belongs to the Substrate substitution group.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:SubstrateType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="PlasticWeight" type="xs:double" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="PlasticType" type="xs:string" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

element **SubstratePlasticType/PlasticWeight**

diagram	 <p>The diagram shows a dashed rectangular box containing the text 'CxF:PlasticWeight'. Below the box, the text 'TBD' is written.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation TBD
source	<pre>&lt;xs:element name="PlasticWeight" type="xs:double" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

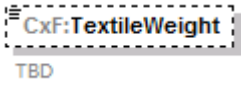
element **SubstratePlasticType/PlasticType**

diagram	 <p>The diagram shows a dashed rectangular box containing the text 'CxF:PlasticType'. Below the box, the text 'TBD' is written.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation TBD
source	<pre>&lt;xs:element name="PlasticType" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>


## complexType SubstrateTextileType

diagram	<p><b>SubstrateTextileType</b> Textile substrate type. This class is the type of the SubstrateTextile element which belongs to the Substrate substitution group.</p> <p><b>CxF:SubstrateType (extension)</b></p> <ul style="list-style-type: none"> <li><b>CxF:CustomAttribute</b> (0..∞)</li> <li><b>CxF:PartNumber</b> (Part number for the substrate)</li> <li><b>CxF:Color</b></li> <li><b>CxF:TextileWeight</b> (TBD)</li> <li><b>CxF:TextileType</b> (TBD)</li> </ul>
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:SubstrateType</a>
properties	base CxF:SubstrateType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:TextileWeight</a> <a href="#">CxF:TextileType</a>
used by	element <a href="#">SubstrateTextile</a>
annotation	documentation Textile substrate type. This class is the type of the SubstrateTextile element which belongs to the Substrate substitution group.
source	<pre> &lt;xs:complexType name="SubstrateTextileType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Textile substrate type. This class is the type of the SubstrateTextile element which belongs to the Substrate substitution group.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:SubstrateType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="TextileWeight" type="xs:double" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="TextileType" type="xs:string" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

element **SubstrateTextileType/TextileWeight**

diagram	 <p>The diagram shows a rectangular box with a dashed border. Inside the box, the text 'CxF:TextileWeight' is written in a bold, sans-serif font. Below the box, the text 'TBD' is written in a smaller, regular font.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation TBD
source	<pre>&lt;xs:element name="TextileWeight" type="xs:double" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>


element **SubstrateTextileType/TextileType**

diagram	 <p>The diagram shows a rectangular box with a dashed border. Inside the box, the text 'CxF:TextileType' is written in a bold, sans-serif font. Below the box, the text 'TBD' is written in a smaller, regular font.</p>
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation TBD
source	<pre>&lt;xs:element name="TextileType" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>


## complexType SubstrateTileType

diagram	
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:SubstrateType</a>
properties	base CxF:SubstrateType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:TileWeight</a> <a href="#">CxF:TileType</a>
used by	element <a href="#">SubstrateTile</a>
annotation	documentation Tile substrate type. This class is the type of the SubstrateTile element which belongs to the Substrate substitution group.
source	<pre> &lt;xs:complexType name="SubstrateTileType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Tile substrate type. This class is the type of the SubstrateTile element which belongs to the Substrate substitution group.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:SubstrateType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="TileWeight" type="xs:double" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="TileType" type="xs:string" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

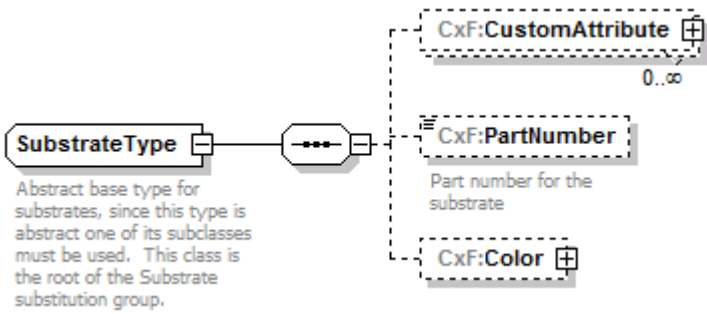
## element SubstrateTileType/TileWeight

diagram	 The diagram shows a dashed box containing the text 'CxF:TileWeight' and 'TBD' below it.
namespace	http://colorexchangeformat.com/v2
type	xs:double
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation TBD
source	<pre>&lt;xs:element name="TileWeight" type="xs:double" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element SubstrateTileType/TileType

diagram	 The diagram shows a dashed box containing the text 'CxF:TileType' and 'TBD' below it.
namespace	http://colorexchangeformat.com/v2
type	xs:string
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation TBD
source	<pre>&lt;xs:element name="TileType" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## complexType SubstrateType

diagram	 The diagram shows a complex type 'SubstrateType' with a description: 'Abstract base type for substrates, since this type is abstract one of its subclasses must be used. This class is the root of the Substrate substitution group.' It is connected to a substitution group containing three elements: 'CxF:CustomAttribute' (with cardinality 0..∞), 'CxF:PartNumber' (with description 'Part number for the substrate'), and 'CxF:Color'.
namespace	http://colorexchangeformat.com/v2

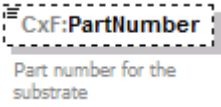


properties	abstract true
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a>
used by	element <a href="#">Substrate</a> complexTypes <a href="#">SubstrateFilmType</a> <a href="#">SubstrateGenericType</a> <a href="#">SubstrateMetalType</a> <a href="#">SubstratePaperType</a> <a href="#">SubstratePlasticType</a> <a href="#">SubstrateTextileType</a> <a href="#">SubstrateTileType</a> <a href="#">SubstrateVinylType</a> <a href="#">SubstrateWoodType</a>
annotation	documentation Abstract base type for substrates, since this type is abstract one of its subclasses must be used. This class is the root of the Substrate substitution group.
source	<pre> &lt;xs:complexType name="SubstrateType" abstract="true"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Abstract base type for substrates, since this type is abstract one of its     subclasses must be used. This class is the root of the Substrate substitution group.   &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0"     maxOccurs="unbounded"/&gt;     &lt;xs:element name="PartNumber" type="xs:string" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Part number for the substrate&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Color" type="CxF:ColorType" minOccurs="0"/&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>

#### element **SubstrateType/CustomAttribute**

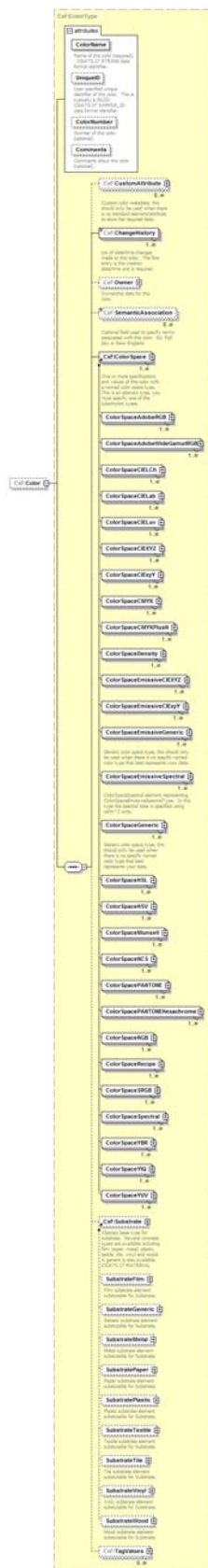
diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:CustomAttributeType</a>
properties	isRef 0 minOcc 0 maxOcc unbounded content complex
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>
source	<pre> &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"/&gt; </pre>

element **SubstrateType/PartNumber**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Part number for the substrate
source	<pre> &lt;xs:element name="PartNumber" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Part number for the substrate&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

element **SubstrateType/Color**

diagram




namespace	http://colorexchangeformat.com/v2							
type	<a href="#">CxF:ColorType</a>							
properties	isRef	0	minOcc	0	maxOcc	1	content	complex
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:ChangeHistory</a> <a href="#">CxF:Owner</a> <a href="#">CxF:SemanticAssociation</a> <a href="#">CxF:ColorSpace</a> <a href="#">CxF:Substrate</a> <a href="#">CxF:TagValues</a>							
attributes	Name <a href="#">ColorName</a>	Type <b>xs:string</b>	Use required	Default	Fixed	annotation documentation Name of this color (required). CGATS.17 STRING data format identifier. documentation User specified unique identifier of this color. This is typically a GUID. CGATS.17 SAMPLE_ID data format identifier. documentation Number of this color, (optional). documentation Comments about this color (optional).		
	<a href="#">UniqueID</a>	<b>xs:string</b>						
	<a href="#">ColorNumber</a>	<b>xs:string</b>						
	<a href="#">Comments</a>	<b>xs:string</b>						
source	<xs:element name="Color" type="CxF:ColorType" minOccurs="0"/>							


## complexType SubstrateVinylType

diagram	<p><b>SubstrateVinylType</b> Vinyl substrate type. This class is the type of the SubstrateVinyl element which belongs to the Substrate substitution group.</p> <p><b>CxF:SubstrateType (extension)</b></p> <ul style="list-style-type: none"> <li><b>CxF:CustomAttribute</b> (0..∞)</li> <li><b>CxF:PartNumber</b> Part number for the substrate</li> <li><b>CxF:Color</b></li> <li><b>CxF:VinylWeight</b> TBD</li> <li><b>CxF:VinylType</b> TBD</li> </ul>
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:SubstrateType</a>
properties	base CxF:SubstrateType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:VinylWeight</a> <a href="#">CxF:VinylType</a>
used by	element <a href="#">SubstrateVinyl</a>
annotation	documentation Vinyl substrate type. This class is the type of the SubstrateVinyl element which belongs to the Substrate substitution group.
source	<pre> &lt;xs:complexType name="SubstrateVinylType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Vinyl substrate type. This class is the type of the SubstrateVinyl element which belongs to the Substrate substitution group.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:SubstrateType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="VinylWeight" type="xs:double" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="VinylType" type="xs:string" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>

# element **SubstrateVinylType/VinylWeight**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation TBD
source	<pre> &lt;xs:element name="VinylWeight" type="xs:double" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

# element **SubstrateVinylType/VinylType**

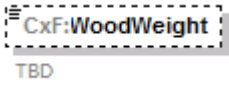
diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation TBD
source	<pre> &lt;xs:element name="VinylType" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## complexType SubstrateWoodType

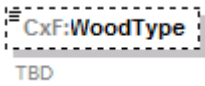
diagram	<p><b>SubstrateWoodType</b> Wood substrate type. This class is the type of the SubstrateWood element which belongs to the Substrate substitution group.</p> <p><b>CxF:SubstrateType (extension)</b></p> <ul style="list-style-type: none"> <li><b>CxF:CustomAttribute</b> (0..∞)</li> <li><b>CxF:PartNumber</b> Part number for the substrate</li> <li><b>CxF:Color</b></li> <li><b>CxF:WoodWeight</b> TBD</li> <li><b>CxF:WoodType</b> TBD</li> </ul>
namespace	http://colorexchangeformat.com/v2
type	extension of <a href="#">CxF:SubstrateType</a>
properties	base CxF:SubstrateType
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:PartNumber</a> <a href="#">CxF:Color</a> <a href="#">CxF:WoodWeight</a> <a href="#">CxF:WoodType</a>
used by	element <a href="#">SubstrateWood</a>
annotation	documentation Wood substrate type. This class is the type of the SubstrateWood element which belongs to the Substrate substitution group.
source	<pre> &lt;xs:complexType name="SubstrateWoodType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Wood substrate type. This class is the type of the SubstrateWood element which belongs to the Substrate substitution group.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="CxF:SubstrateType"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="WoodWeight" type="xs:double" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="WoodType" type="xs:string" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>



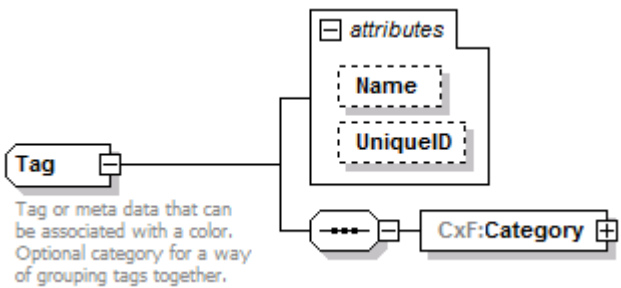
### element **SubstrateWoodType/WoodWeight**

diagram	 The diagram shows a dashed box labeled "CxF:WoodWeight" with "TBD" written below it.
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation TBD
source	<pre>&lt;xs:element name="WoodWeight" type="xs:double" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

### element **SubstrateWoodType/WoodType**

diagram	 The diagram shows a dashed box labeled "CxF:WoodType" with "TBD" written below it.
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation TBD
source	<pre>&lt;xs:element name="WoodType" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;TBD&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

### complexType **Tag**

diagram	 The diagram shows a complex type "Tag" with a description: "Tag or meta data that can be associated with a color. Optional category for a way of grouping tags together." It has an "attributes" section containing "Name" and "UniqueID". It is connected to a "CxF:Category" element via a line with a dashed box and a plus sign.
namespace	http://colorexchangeformat.com/v2
children	<a href="#">CxF:Category</a>

used by	element <a href="#">TagValue/Tag</a>					
attributes	Name <a href="#">Name</a> <a href="#">UniqueID</a>	Type <b>xs:string</b> <b>xs:string</b>	Use	Default	Fixed	annotation
annotation	documentation Tag or meta data that can be associated with a color. Optional category for a way of grouping tags together.					
source	<pre> &lt;xs:complexType name="Tag"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Tag or meta data that can be associated with a color. Optional category for a way of grouping tags together.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="Category" type="CxF:TagCategory"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attribute name="Name" type="xs:string"/&gt;   &lt;xs:attribute name="UniqueID" type="xs:string"/&gt; &lt;/xs:complexType&gt; </pre>					

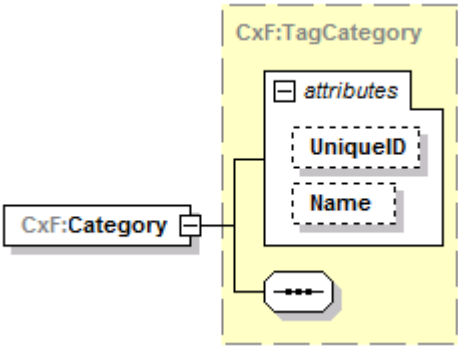
#### attribute **Tag/@Name**

type	<b>xs:string</b>
properties	isRef 0
source	<pre>&lt;xs:attribute name="Name" type="xs:string"/&gt;</pre>

#### attribute **Tag/@UniqueID**

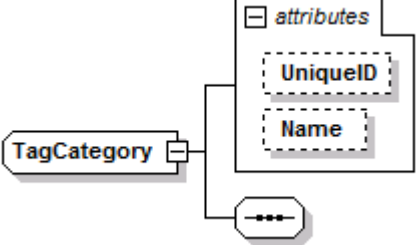
type	<b>xs:string</b>
properties	isRef 0
source	<pre>&lt;xs:attribute name="UniqueID" type="xs:string"/&gt;</pre>

#### element **Tag/Category**

diagram	 <pre> classDiagram     class CxFTagCategory {         attributes         UniqueID         Name     }     class CxFCategory     CxFTagCategory -- CxFCategory </pre>					
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>					
type	<a href="#">CxF:TagCategory</a>					
properties	isRef 0	content complex				

attributes	Name <a href="#">UniqueID</a> Name 	Type <b>xs:string</b> <b>xs:string</b>	Use	Default	Fixed	annotation
source	<xs:element name="Category" type="CxF:TagCategory"/>					

### complexType **TagCategory**

diagram						
namespace	http://colorexchangeformat.com/v2					
used by	element <a href="#">Tag/Category</a>					
attributes	Name <a href="#">UniqueID</a> Name 	Type <b>xs:string</b> <b>xs:string</b>	Use	Default	Fixed	annotation
source	<xs:complexType name="TagCategory"> <xs:sequence/> <xs:attribute name="UniqueID" type="xs:string"/> <xs:attribute name="Name" type="xs:string"/> </xs:complexType>					

### attribute **TagCategory/@UniqueID**

type	<b>xs:string</b>
properties	isRef 0
source	<xs:attribute name="UniqueID" type="xs:string"/>

### attribute **TagCategory/@Name**

type	<b>xs:string</b>
properties	isRef 0
source	<xs:attribute name="Name" type="xs:string"/>

## complexType TagValue

diagram						
namespace	http://colorexchangeformat.com/v2					
children	<a href="#">CxF:Tag</a> <a href="#">CxF:TextValue</a> <a href="#">CxF:NumberValue</a>					
used by	element <a href="#">ColorType/TagValues</a>					
attributes	Name <a href="#">UniqueID</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation
source	<pre> &lt;xs:complexType name="TagValue"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="Tag" type="CxF:Tag"/&gt;     &lt;xs:choice&gt;       &lt;xs:element name="TextValue" type="xs:string"/&gt;       &lt;xs:element name="NumberValue" type="xs:double"/&gt;     &lt;/xs:choice&gt;   &lt;/xs:sequence&gt;   &lt;xs:attribute name="UniqueID" type="xs:string"/&gt; &lt;/xs:complexType&gt; </pre>					

## attribute TagValue/@UniqueID

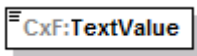
type	<b>xs:string</b>
properties	isRef 0
source	<pre> &lt;xs:attribute name="UniqueID" type="xs:string"/&gt; </pre>

## element TagValue/Tag

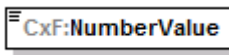
diagram						
namespace	http://colorexchangeformat.com/v2					

type	<a href="#">CxF:Tag</a>					
properties	isRef	0	content	complex		
children	<a href="#">CxF:Category</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">Name</a>	<b>xs:string</b>				
	<a href="#">UniqueID</a>	<b>xs:string</b>				
source	<xs:element name="Tag" type="CxF:Tag"/>					

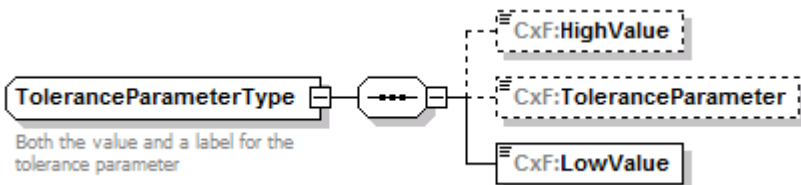
#### element TagValue/TextValue

diagram	
namespace	http://colorexchangeformat.com/v2
type	xs:string
properties	isRef 0 content simple
source	<xs:element name="TextValue" type="xs:string"/>

#### element TagValue/NumberValue

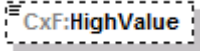
diagram	
namespace	http://colorexchangeformat.com/v2
type	xs:double
properties	isRef 0 content simple
source	<xs:element name="NumberValue" type="xs:double"/>

#### complexType ToleranceParameterType

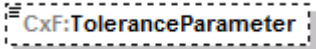
diagram	
namespace	http://colorexchangeformat.com/v2
children	<a href="#">CxF:HighValue</a> <a href="#">CxF:ToleranceParameter</a> <a href="#">CxF:LowValue</a>
used by	element <a href="#">FunctionTolerance/Parameters</a>
annotation	documentation Both the value and a label for the tolerance parameter
source	<pre>&lt;xs:complexType name="ToleranceParameterType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Both the value and a label for the tolerance parameter&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;</pre>

	<pre> &lt;xs:sequence&gt;   &lt;xs:element name="HighValue" type="xs:double" minOccurs="0"/&gt;   &lt;xs:element name="ToleranceParameter" type="CxF:EToleranceParameterType" minOccurs="0"/&gt;   &lt;xs:element name="LowValue" type="xs:double"/&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>
--	---

#### element **ToleranceParameterType/HighValue**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
source	<pre>&lt;xs:element name="HighValue" type="xs:double" minOccurs="0"/&gt;</pre>

#### element **ToleranceParameterType/ToleranceParameter**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EToleranceParameterType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration Param_L enumeration Param_a enumeration Param_b enumeration Param_C enumeration Param_H enumeration Param_KL enumeration Param_KC enumeration Param_KH enumeration Param_delta enumeration Param_kCH enumeration Param_kE enumeration Param_CF enumeration Param_WaveLength enumeration Param_Q enumeration Param_P enumeration Param_Whiteness
source	<pre>&lt;xs:element name="ToleranceParameter" type="CxF:EToleranceParameterType" minOccurs="0"/&gt;</pre>

#### element **ToleranceParameterType/LowValue**

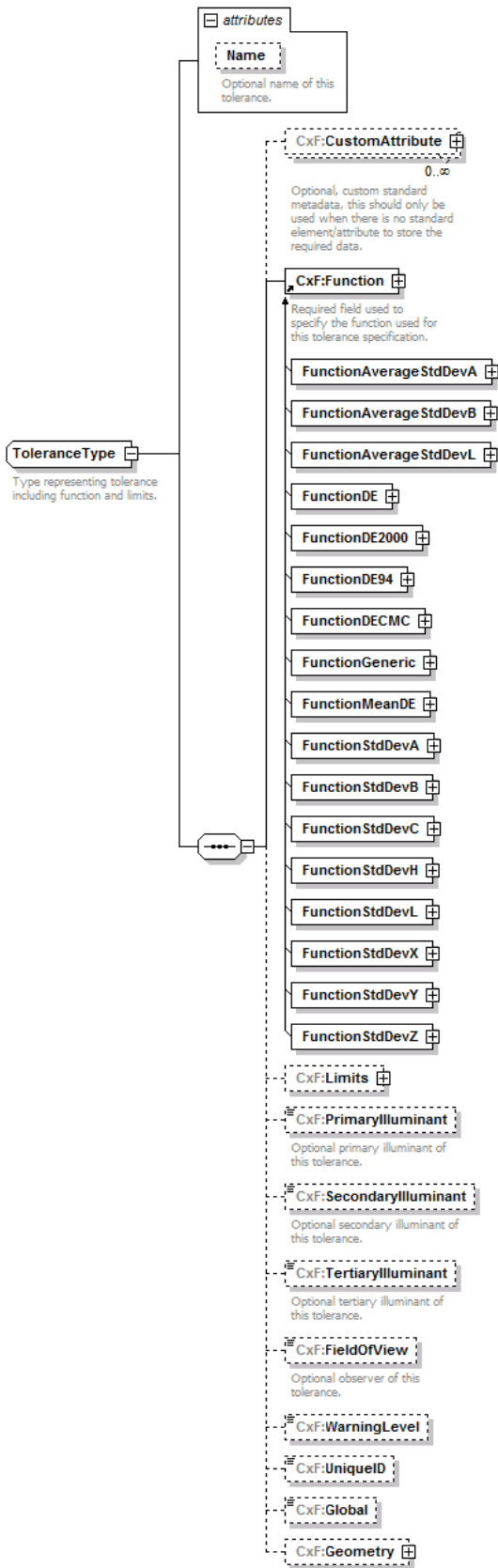
diagram	
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namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 content simple
source	<xs:element name="LowValue" type="xs:double"/>

complexType **ToleranceType**



diagram



namespace	http://colorexchangeformat.com/v2					
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:Function</a> <a href="#">CxF:Limits</a> <a href="#">CxF:PrimaryIlluminant</a> <a href="#">CxF:SecondaryIlluminant</a> <a href="#">CxF:TertiaryIlluminant</a> <a href="#">CxF:FieldOfView</a> <a href="#">CxF:WarningLevel</a> <a href="#">CxF:UniqueID</a> <a href="#">CxF:Global</a> <a href="#">CxF:Geometry</a>					
used by	elements	<a href="#">Standard/Tolerance</a> <a href="#">ColorQualityControlType/Tolerance</a>				
attributes	Name <a href="#">Name</a>	Type <b>xs:string</b>	Use	Default	Fixed	annotation documentation Optional name of this tolerance.
annotation	documentation Type representing tolerance including function and limits.					
source	<pre> &lt;xs:complexType name="ToleranceType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type representing tolerance including function and limits.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional, custom standard metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element ref="CxF:Function"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Required field used to specify the function used for this tolerance specification.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Limits" type="CxF:LimitsType" minOccurs="0"/&gt;     &lt;xs:element name="PrimaryIlluminant" type="CxF:EIlluminantType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional primary illuminant of this tolerance.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="SecondaryIlluminant" type="CxF:EIlluminantType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional secondary illuminant of this tolerance.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="TertiaryIlluminant" type="CxF:EIlluminantType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional tertiary illuminant of this tolerance.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="FieldOfView" type="CxF:EFieldOfViewType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional observer of this tolerance.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="WarningLevel" type="xs:double" minOccurs="0"/&gt;     &lt;xs:element name="UniqueID" type="xs:string" minOccurs="0"/&gt;     &lt;xs:element name="Global" type="xs:boolean" default="false" minOccurs="0"/&gt;     &lt;xs:element name="Geometry" type="CxF:GeometryChoiceType" minOccurs="0"/&gt; </pre>					

	<pre> &lt;/xs:sequence&gt; &lt;xs:attribute name="Name" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional name of this tolerance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;/xs:complexType&gt; </pre>
--	--

#### attribute **ToleranceType/@Name**

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation Optional name of this tolerance.
source	<pre> &lt;xs:attribute name="Name" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional name of this tolerance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### element **ToleranceType/CustomAttribute**

diagram	<p>Optional, custom standard metadata, this should only be used when there is no standard element/attribute to store the required data.</p> <p><b>CxF:CustomAttributeType</b></p> <p><b>CxF:Name</b> Required field used to specify the name of this custom attribute.</p> <p><b>CxF:ValueChoice</b> Required field which allows one of several value choices to be specified. Note this is an XSD choice so only one option may be specified.</p>
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:CustomAttributeType</a>
properties	isRef 0 minOcc 0 maxOcc unbounded content complex
children	<a href="#">CxF:Name</a> <a href="#">CxF:ValueChoice</a>
annotation	documentation Optional, custom standard metadata, this should only be used when there is no standard element/attribute to store the required data.
source	<pre> &lt;xs:element name="CustomAttribute" type="CxF:CustomAttributeType" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional, custom standard metadata, this should only be used when there is no standard element/attribute to store the required data.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; </pre>

	<code>&lt;/xs:element&gt;</code>
--	----------------------------------

### element **ToleranceType/Limits**

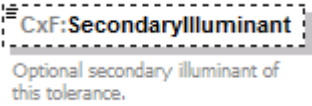
diagram									
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>								
type	<a href="#">CxF:LimitsType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	complex
isRef	0								
minOcc	0								
maxOcc	1								
content	complex								
children	<a href="#">CxF:CustomAttribute</a> <a href="#">CxF:HighTolerance</a> <a href="#">CxF:LowTolerance</a>								
source	<code>&lt;xs:element name="Limits" type="CxF:LimitsType" minOccurs="0"/&gt;</code>								

### element **ToleranceType/PrimaryIlluminant**

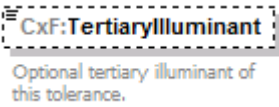
diagram																															
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>																														
type	<a href="#">CxF:EIlluminantType</a>																														
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple																						
isRef	0																														
minOcc	0																														
maxOcc	1																														
content	simple																														
facets	<table> <tr><td>enumeration</td><td>Illuminant_A</td></tr> <tr><td>enumeration</td><td>Illuminant_B</td></tr> <tr><td>enumeration</td><td>Illuminant_C</td></tr> <tr><td>enumeration</td><td>Illuminant_D50</td></tr> <tr><td>enumeration</td><td>Illuminant_D55</td></tr> <tr><td>enumeration</td><td>Illuminant_D65</td></tr> <tr><td>enumeration</td><td>Illuminant_D75</td></tr> <tr><td>enumeration</td><td>Illuminant_E</td></tr> <tr><td>enumeration</td><td>Illuminant_F2</td></tr> <tr><td>enumeration</td><td>Illuminant_F3</td></tr> <tr><td>enumeration</td><td>Illuminant_F7</td></tr> <tr><td>enumeration</td><td>Illuminant_F11</td></tr> <tr><td>enumeration</td><td>Illuminant_F12</td></tr> <tr><td>enumeration</td><td>Illuminant_9300</td></tr> <tr><td>enumeration</td><td>Illuminant_Custom</td></tr> </table>	enumeration	Illuminant_A	enumeration	Illuminant_B	enumeration	Illuminant_C	enumeration	Illuminant_D50	enumeration	Illuminant_D55	enumeration	Illuminant_D65	enumeration	Illuminant_D75	enumeration	Illuminant_E	enumeration	Illuminant_F2	enumeration	Illuminant_F3	enumeration	Illuminant_F7	enumeration	Illuminant_F11	enumeration	Illuminant_F12	enumeration	Illuminant_9300	enumeration	Illuminant_Custom
enumeration	Illuminant_A																														
enumeration	Illuminant_B																														
enumeration	Illuminant_C																														
enumeration	Illuminant_D50																														
enumeration	Illuminant_D55																														
enumeration	Illuminant_D65																														
enumeration	Illuminant_D75																														
enumeration	Illuminant_E																														
enumeration	Illuminant_F2																														
enumeration	Illuminant_F3																														
enumeration	Illuminant_F7																														
enumeration	Illuminant_F11																														
enumeration	Illuminant_F12																														
enumeration	Illuminant_9300																														
enumeration	Illuminant_Custom																														
annotation	documentation Optional primary illuminant of this tolerance.																														
source	<code>&lt;xs:element name="PrimaryIlluminant" type="CxF:EIlluminantType" minOccurs="0"&gt;</code> <code>&lt;xs:annotation&gt;</code>																														

	<code>&lt;xs:documentation&gt;Optional primary illuminant of this tolerance.&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:element&gt;</code>
--	---

#### element **ToleranceType/SecondaryIlluminant**


diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EIlluminantType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration Illuminant_A enumeration Illuminant_B enumeration Illuminant_C enumeration Illuminant_D50 enumeration Illuminant_D55 enumeration Illuminant_D65 enumeration Illuminant_D75 enumeration Illuminant_E enumeration Illuminant_F2 enumeration Illuminant_F3 enumeration Illuminant_F7 enumeration Illuminant_F11 enumeration Illuminant_F12 enumeration Illuminant_9300 enumeration Illuminant_Custom
annotation	documentation Optional secondary illuminant of this tolerance.
source	<code>&lt;xs:element name="SecondaryIlluminant" type="CxF:EIlluminantType" minOccurs="0"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;Optional secondary illuminant of this tolerance.&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:element&gt;</code>

#### element **ToleranceType/TertiaryIlluminant**

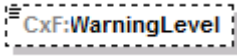
diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EIlluminantType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration Illuminant_A enumeration Illuminant_B enumeration Illuminant_C enumeration Illuminant_D50 enumeration Illuminant_D55 enumeration Illuminant_D65

	enumeration Illuminant_D75 enumeration Illuminant_E enumeration Illuminant_F2 enumeration Illuminant_F3 enumeration Illuminant_F7 enumeration Illuminant_F11 enumeration Illuminant_F12 enumeration Illuminant_9300 enumeration Illuminant_Custom
annotation	documentation Optional tertiary illuminant of this tolerance.
source	<pre>&lt;xs:element name="TertiaryIlluminant" type="CxF:EIlluminantType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional tertiary illuminant of this tolerance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

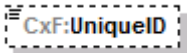
### element **ToleranceType/FieldOfView**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<a href="#">CxF:EFieldOfViewType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration FieldOfView_2_Degree enumeration FieldOfView_10_Degree
annotation	documentation Optional observer of this tolerance.
source	<pre>&lt;xs:element name="FieldOfView" type="CxF:EFieldOfViewType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional observer of this tolerance.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>


### element **ToleranceType/WarningLevel**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
source	<pre>&lt;xs:element name="WarningLevel" type="xs:double" minOccurs="0"/&gt;</pre>

### element **ToleranceType/UniqueID**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:string</b>
properties	<div>isRef 0</div> <div>minOcc 0</div> <div>maxOcc 1</div> <div>content simple</div>
source	<code>&lt;xs:element name="UniqueID" type="xs:string" minOccurs="0"/&gt;</code>

### element **ToleranceType/Global**

diagram	
namespace	http://colorexchangeformat.com/v2
type	<b>xs:boolean</b>
properties	<div>isRef 0</div> <div>minOcc 0</div> <div>maxOcc 1</div> <div>content simple</div> <div>default false</div>
source	<code>&lt;xs:element name="Global" type="xs:boolean" default="false" minOccurs="0"/&gt;</code>

## element **ToleranceType/Geometry**

diagram	
namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	<a href="#">CxF:GeometryChoiceType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">CxF:SphereGeometry</a> <a href="#">CxF:Angle</a> <a href="#">CxF:UnknownGeometry</a> <a href="#">CxF:BSDFAngle</a>
source	<code>&lt;xs:element name="Geometry" type="CxF:GeometryChoiceType" minOccurs="0"/&gt;</code>

## simpleType **DateTimeWithTimeZoneType**

namespace	<a href="http://colorexchangeformat.com/v2">http://colorexchangeformat.com/v2</a>
type	restriction of <b>xs:dateTime</b>
used by	elements <a href="#">CxF:Preamble/Header/ChangeHistory</a> <a href="#">ColorSpaceType/ChangeHistory</a> <a href="#">ColorSpaceSpecificationType/ChangeHistory</a> <a href="#">ColorType/ChangeHistory</a> <a href="#">ColorSetType/ChangeHistory</a> <a href="#">PaletteType/ChangeHistory</a> <a href="#">ColorQualityControlType/ChangeHistory</a> <a href="#">ProfileType/Created</a> <a href="#">SampleType/ProductionDate</a> attribute <a href="#">CalibrationStateType/@CalibrationDateTime</a>
facets	pattern <code>.+T.+(Z [\+ -].+)</code>
annotation	documentation Specification of date and time using ISO 8601 with time zone. The time may be specified using UTC time zone or as an offset from UTC time zone..
source	<code>&lt;xs:simpleType name="DateTimeWithTimeZoneType"&gt;</code> <code>&lt;xs:annotation&gt;</code>



	<pre> &lt;xs:documentation&gt;Specification of date and time using ISO 8601 with time zone. The time may be specified using UTC time zone or as an offset from UTC time zone..&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:restriction base="xs:dateTime"&gt;   &lt;xs:pattern value=".+T.+(Z[+ -].+)" /&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>
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### simpleType **EAstmTableType**

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	elements <a href="#">ColorSpaceSpecificationSpectrumGenericType/ASTM_Table</a> <a href="#">ColorSpaceSpecificationSpectrumTristimulusType/ASTM_Table</a> <a href="#">ColorSpaceSpecificationSpectrumSpectralType/ASTM_Table</a> <a href="#">ColorSpaceSpecificationEmissiveGenericType/ASTM_Table</a> <a href="#">ColorSpaceSpecificationEmissiveTristimulusType/ASTM_Table</a> <a href="#">ColorSpaceSpecificationEmissiveSpectralType/ASTM_Table</a>
facets	enumeration E308_Table5 enumeration E308_Table6
annotation	documentation Enumeration of ASTM E308 tables used to convert spectral data into CIE color space.
source	<pre> &lt;xs:simpleType name="EAstmTableType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of ASTM E308 tables used to convert spectral data into CIE color space.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="E308_Table5"/&gt;     &lt;xs:enumeration value="E308_Table6"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType **EBackingType**

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	element <a href="#">SampleType/Backing</a>
facets	enumeration Backing_Black enumeration Backing_White enumeration Backing_Self enumeration Backing_NA
annotation	documentation Enumeration of various sample backings, such as self, black, etc.
source	<pre> &lt;xs:simpleType name="EBackingType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of various sample backings, such as self, black, etc.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Backing_Black"/&gt;     &lt;xs:enumeration value="Backing_White"/&gt;     &lt;xs:enumeration value="Backing_Self"/&gt;     &lt;xs:enumeration value="Backing_NA"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

	<code>&lt;/xs:restriction&gt;</code> <code>&lt;/xs:simpleType&gt;</code>
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### simpleType **ECalibrationStateType**

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	complexType <a href="#">CalibrationStateType</a>
facets	enumeration CalibrationState_NotCalibrated enumeration CalibrationState_Calibrated enumeration CalibrationState_NA
annotation	documentation Enumeration of instrument calibration states.
source	<pre> &lt;xs:simpleType name="ECalibrationStateType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of instrument calibration states.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="CalibrationState_NotCalibrated"/&gt;     &lt;xs:enumeration value="CalibrationState_Calibrated"/&gt;     &lt;xs:enumeration value="CalibrationState_NA"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType **EColorDepthType**

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	elements <a href="#">ColorSpaceRGBType/ColorDepth</a> <a href="#">ColorSpaceSRGBType/ColorDepth</a> <a href="#">ColorSpaceAdobeRGBType/ColorDepth</a> <a href="#">ColorSpaceAdobeWideGamutRGBType/ColorDepth</a>
facets	enumeration ColorDepth_Infinite enumeration ColorDepth_8 enumeration ColorDepth_16 enumeration ColorDepth_32
annotation	documentation Enumeration of RGB color depth resolutions, specified per channel. Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source data may have had an 8 bit color depth, for instance. By specifying the color depth users of this data can reconstruct the exact same integer based RGB values without interrogating the values to find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth, 0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer ranges.
source	<pre> &lt;xs:simpleType name="EColorDepthType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of RGB color depth resolutions, specified per channel.     Although channel data values are real values between 0 (inclusive) and 1 (inclusive) the source     data may have had an 8 bit color depth, for instance. By specifying the color depth users of this     data can reconstruct the exact same integer based RGB values without interrogating the values to     find the right data resolution. Data that ranges 0 to 0xFF is 8 bit depth, 0 to 0xFFFF is 16 bit depth,     0 to 0xFFFFFFFF is 32 bit depth and infinite means that it is not necessarily limited to these integer     ranges.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="ColorDepth_Infinite"/&gt;     &lt;xs:enumeration value="ColorDepth_8"/&gt;     &lt;xs:enumeration value="ColorDepth_16"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

	<pre> &lt;xs:enumeration value="ColorDepth_32"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>
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### simpleType EDensityFilterType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	attribute <a href="#">DensityType/@DensityFilter</a>
facets	<pre> enumeration Filter_Visual enumeration Filter_Cyan enumeration Filter_Magenta enumeration Filter_Yellow enumeration Filter_Black enumeration Filter_Red enumeration Filter_Green enumeration Filter_Blue enumeration Filter_A enumeration Filter_B </pre>
annotation	<pre> documentation Enumeration of various density filters, such as Red, Green, etc. </pre>
source	<pre> &lt;xs:simpleType name="EDensityFilterType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of various density filters, such as Red, Green, etc.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Filter_Visual"/&gt;     &lt;xs:enumeration value="Filter_Cyan"/&gt;     &lt;xs:enumeration value="Filter_Magenta"/&gt;     &lt;xs:enumeration value="Filter_Yellow"/&gt;     &lt;xs:enumeration value="Filter_Black"/&gt;     &lt;xs:enumeration value="Filter_Red"/&gt;     &lt;xs:enumeration value="Filter_Green"/&gt;     &lt;xs:enumeration value="Filter_Blue"/&gt;     &lt;xs:enumeration value="Filter_A"/&gt;     &lt;xs:enumeration value="Filter_B"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType EDensityStatusType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	<pre> elements   &lt;a href="#"&gt;ColorSpaceSpecificationSpectrumGenericType/DensityStatus   &lt;a href="#"&gt;ColorSpaceSpecificationEmissiveGenericType/DensityStatus attribute   &lt;a href="#"&gt;DensityType/@DensityStatus </pre>
facets	<pre> enumeration Status_A enumeration Status_E enumeration Status_T enumeration Status_I enumeration Status_SpectralX enumeration Status_Spectral enumeration Status_HiFi enumeration Status_Hex enumeration Status_Txp </pre>

	enumeration    Status_Ex enumeration    Status_DIN enumeration    Status_DIN-NB
annotation	documentation Enumeration of density status types, such as A, E, etc.
source	<pre> &lt;xs:simpleType name="EDensityStatusType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of density status types, such as A, E, etc.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Status_A"/&gt;     &lt;xs:enumeration value="Status_E"/&gt;     &lt;xs:enumeration value="Status_T"/&gt;     &lt;xs:enumeration value="Status_I"/&gt;     &lt;xs:enumeration value="Status_SpectralX"/&gt;     &lt;xs:enumeration value="Status_Spectral"/&gt;     &lt;xs:enumeration value="Status_HiFi"/&gt;     &lt;xs:enumeration value="Status_Hex"/&gt;     &lt;xs:enumeration value="Status_Txp"/&gt;     &lt;xs:enumeration value="Status_Ex"/&gt;     &lt;xs:enumeration value="Status_DIN"/&gt;     &lt;xs:enumeration value="Status_DIN-NB"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

#### simpleType EDeviceClassType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	element <a href="#">DeviceType/DeviceClass</a>
facets	enumeration    DeviceClass_Spot enumeration    DeviceClass_Scanning enumeration    DeviceClass_Other
annotation	documentation Enumeration of measurement device types, such as spot, scanning, etc.
source	<pre> &lt;xs:simpleType name="EDeviceClassType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of measurement device types, such as spot, scanning, etc.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="DeviceClass_Spot"/&gt;     &lt;xs:enumeration value="DeviceClass_Scanning"/&gt;     &lt;xs:enumeration value="DeviceClass_Other"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

#### simpleType EEmissiveModeType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	element <a href="#">ColorSpaceSpecificationEmissiveType/EmissiveMode</a>

facets	enumeration EmissiveMode_Diffuser enumeration EmissiveMode_NA
annotation	documentation Enumeration of emmissive modes.
source	<pre> &lt;xs:simpleType name="EEmissiveModeType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of emmissive modes.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="EmissiveMode_Diffuser"/&gt;     &lt;xs:enumeration value="EmissiveMode_NA"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType EEmissiveSpectrumType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
facets	enumeration EmissiveSpectrum enumeration EmissiveSpectrum_AmbientLight enumeration EmissiveSpectrum_Flash enumeration EmissiveSpectrum_Custom
annotation	documentation Enumeration of spectral measurement device types, such as reflectance, etc. Note that reflectance data valures are scaled such that 100%=1.0 where all emission data is scaled such that 1000=1.0.
source	<pre> &lt;xs:simpleType name="EEmissiveSpectrumType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of spectral measurement device types, such as reflectance, etc. Note that reflectance data valures are scaled such that 100%=1.0 where all emission data is scaled such that 1000=1.0.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="EmissiveSpectrum"/&gt;     &lt;xs:enumeration value="EmissiveSpectrum_AmbientLight"/&gt;     &lt;xs:enumeration value="EmissiveSpectrum_Flash"/&gt;     &lt;xs:enumeration value="EmissiveSpectrum_Custom"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType EEmissiveType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	element <a href="#">ColorSpaceSpecificationEmissiveType/EmissiveType</a>
facets	enumeration Emissive_Spot enumeration Emissive_SpotAmbient enumeration Emissive_ScanningFlash
annotation	documentation Enumeration of emmissive measurement types.
source	<pre> &lt;xs:simpleType name="EEmissiveType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of emmissive measurement types.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt; </pre>

	<pre> &lt;xs:enumeration value="Emissive_Spot"/&gt; &lt;xs:enumeration value="Emissive_SpotAmbient"/&gt; &lt;xs:enumeration value="Emissive_ScanningFlash"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>
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### simpleType EFieldOfViewType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	elements <a href="#">ColorSpaceSpecificationSpectrumGenericType/FieldOfView</a> <a href="#">ColorSpaceSpecificationSpectrumTristimulusType/FieldOfView</a> <a href="#">ColorSpaceSpecificationEmissiveGenericType/FieldOfView</a> <a href="#">ColorSpaceSpecificationEmissiveTristimulusType/FieldOfView_ToleranceType/FieldOfView</a>
facets	enumeration    FieldOfView_2_Degree enumeration    FieldOfView_10_Degree
annotation	documentation Enumeration of illuminant observer field of view angles.
source	<pre> &lt;xs:simpleType name="EFieldOfViewType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of illuminant observer field of view angles.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="FieldOfView_2_Degree"/&gt;     &lt;xs:enumeration value="FieldOfView_10_Degree"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType EFilterType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	complexType <a href="#">DeviceFilterType</a>
facets	enumeration    Filter_None enumeration    Filter_UVExcluded enumeration    Filter_UVD65 enumeration    Filter_Partial enumeration    Filter_Custom
annotation	documentation Enumeration of measurement device filters, such as UV, etc.
source	<pre> &lt;xs:simpleType name="EFilterType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of measurement device filters, such as UV, etc.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Filter_None"/&gt;     &lt;xs:enumeration value="Filter_UVExcluded"/&gt;     &lt;xs:enumeration value="Filter_UVD65"/&gt;     &lt;xs:enumeration value="Filter_Partial"/&gt;     &lt;xs:enumeration value="Filter_Custom"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

## simpleType EFinishType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	element <a href="#">ColorSpacePANTONEType/ColorAndFinish/Finish</a>
facets	enumeration Finish_Coated enumeration Finish_Uncoated enumeration Finish_Matte
annotation	documentation Enumeration of finishes, such as coated, matte, etc.
source	<pre> &lt;xs:simpleType name="EFinishType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of finishes, such as coated, matte, etc.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Finish_Coated"/&gt;     &lt;xs:enumeration value="Finish_Uncoated"/&gt;     &lt;xs:enumeration value="Finish_Matte"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

## simpleType EIlluminantType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	elements <a href="#">IlluminationOptionsType/Illuminant</a> <a href="#">ToleranceType/PrimaryIlluminant</a> <a href="#">ToleranceType/SecondaryIlluminant</a> <a href="#">ToleranceType/TertiaryIlluminant</a>
facets	enumeration Illuminant_A enumeration Illuminant_B enumeration Illuminant_C enumeration Illuminant_D50 enumeration Illuminant_D55 enumeration Illuminant_D65 enumeration Illuminant_D75 enumeration Illuminant_E enumeration Illuminant_F2 enumeration Illuminant_F3 enumeration Illuminant_F7 enumeration Illuminant_F11 enumeration Illuminant_F12 enumeration Illuminant_9300 enumeration Illuminant_Custom
annotation	documentation Enumeration of standard illuminants, such as A, D50, D65, etc.
source	<pre> &lt;xs:simpleType name="EIlluminantType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of standard illuminants, such as A, D50, D65, etc.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Illuminant_A"/&gt;     &lt;xs:enumeration value="Illuminant_B"/&gt;     &lt;xs:enumeration value="Illuminant_C"/&gt;     &lt;xs:enumeration value="Illuminant_D50"/&gt;     &lt;xs:enumeration value="Illuminant_D55"/&gt; </pre>

	<pre> &lt;xs:enumeration value="Illuminant_D65"/&gt; &lt;xs:enumeration value="Illuminant_D75"/&gt; &lt;xs:enumeration value="Illuminant_E"/&gt; &lt;xs:enumeration value="Illuminant_F2"/&gt; &lt;xs:enumeration value="Illuminant_F3"/&gt; &lt;xs:enumeration value="Illuminant_F7"/&gt; &lt;xs:enumeration value="Illuminant_F11"/&gt; &lt;xs:enumeration value="Illuminant_F12"/&gt; &lt;xs:enumeration value="Illuminant_9300"/&gt; &lt;xs:enumeration value="Illuminant_Custom"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>
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### simpleType EmissiveType

namespace	http://colorexchangeformat.com/v2
type	<b>xs:double</b>
used by	complexType <a href="#">EmissiveSpectralPointType</a>
annotation	documentation Floating point (double) data type for use in storing spectral emissive values, specified as cd/m2..
source	<pre> &lt;xs:simpleType name="EmissiveType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Floating point (double) data type for use in storing spectral emissive values, specified as cd/m2..&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:double"/&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType EScaleType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	attribute <a href="#">FloatingPointValueType/@AxisNominalScale</a>
facets	enumeration Scale_Linear enumeration Scale_Log enumeration Scale_Other
annotation	documentation Enumeration of scale types. Typically used to specify the scale of an axis, i.e. linear, log, etc.
source	<pre> &lt;xs:simpleType name="EScaleType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of scale types. Typically used to specify the scale of an axis, i.e. linear, log, etc.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Scale_Linear"/&gt;     &lt;xs:enumeration value="Scale_Log"/&gt;     &lt;xs:enumeration value="Scale_Other"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>



## simpleType ESpectrumType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	complexType <a href="#">SpectrumType</a>
facets	enumeration Spectrum_Reflectance enumeration Spectrum_Transmittance enumeration Spectrum_TotalTransmittance enumeration Spectrum_Custom
annotation	documentation Enumeration of spectral measurement device types, such as reflectance, etc. Note that reflectance data values are scaled such that 100%=1.0. Direct (aka Regular) transmittance - The amount of light transmitted directly through a material in a parallel manner, ignoring light that is "diffused" within the material. Measurement in a typical sphere instrument is made by placing the material in the transmission compartment with the material mounted against the back wall (adjacent to the lens). Total transmittance - The total amount of light transmitted through a material including both direct and diffused light. Measurement in a typical sphere instrument is made by placing the material in the transmission compartment with the material mounted against the sphere opening (front wall) and away from the lens. When measuring materials that adhere to beers law (ex: true solutions), both methods yield equal results. However, when measuring materials that are more diffuse in nature (including suspensions and hazy materials), the amount of difference between the two methods is a characterization of the amount of haze or diffusion of the material. Many industrial methods exist which require both types of data in order to perform calculations with (ex: ASTM D1003, procedure B - Standard Test method for Haze and Luminous Transmittance or Transparent Plastics).
source	<pre> &lt;xs:simpleType name="ESpectrumType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of spectral measurement device types, such as reflectance, etc. Note that reflectance data values are scaled such that 100%=1.0. Direct (aka Regular) transmittance - The amount of light transmitted directly through a material in a parallel manner, ignoring light that is "diffused" within the material. Measurement in a typical sphere instrument is made by placing the material in the transmission compartment with the material mounted against the back wall (adjacent to the lens). Total transmittance - The total amount of light transmitted through a material including both direct and diffused light. Measurement in a typical sphere instrument is made by placing the material in the transmission compartment with the material mounted against the sphere opening (front wall) and away from the lens. When measuring materials that adhere to beers law (ex: true solutions), both methods yield equal results. However, when measuring materials that are more diffuse in nature (including suspensions and hazy materials), the amount of difference between the two methods is a characterization of the amount of haze or diffusion of the material. Many industrial methods exist which require both types of data in order to perform calculations with (ex: ASTM D1003, procedure B - Standard Test method for Haze and Luminous Transmittance or Transparent Plastics).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Spectrum_Reflectance"/&gt;     &lt;xs:enumeration value="Spectrum_Transmittance"/&gt;     &lt;xs:enumeration value="Spectrum_TotalTransmittance"/&gt;     &lt;xs:enumeration value="Spectrum_Custom"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

## simpleType ESphereType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	element <a href="#">GeometryChoiceType/SphereGeometry</a>
facets	enumeration Sphere_Included enumeration Sphere_Excluded
annotation	documentation Enumeration of sphere data types, such as Included, Excluded.

source	<pre> &lt;xs:simpleType name="ESphereType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of sphere data types, such as Included,     Excluded.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Sphere_Included"/&gt;     &lt;xs:enumeration value="Sphere_Excluded"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>
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### simpleType ETargetType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	element <a href="#">SampleTargetType/Target</a>
facets	enumeration Target_IT8.7/1 enumeration Target_IT8.7/2 enumeration Target_IT8.7/3 enumeration Target_IT8.7/4 enumeration Target_ECI2002 enumeration Target_Custom
annotation	documentation Enumeration of standard target types, such as IT8.7/3, etc.
source	<pre> &lt;xs:simpleType name="ETargetType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumeration of standard target types, such as IT8.7/3,     etc.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Target_IT8.7/1"/&gt;     &lt;xs:enumeration value="Target_IT8.7/2"/&gt;     &lt;xs:enumeration value="Target_IT8.7/3"/&gt;     &lt;xs:enumeration value="Target_IT8.7/4"/&gt;     &lt;xs:enumeration value="Target_ECI2002"/&gt;     &lt;xs:enumeration value="Target_Custom"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType EToleranceParameterType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	element <a href="#">ToleranceParameterType/ToleranceParameter</a>
facets	enumeration Param_L enumeration Param_a enumeration Param_b enumeration Param_C enumeration Param_H enumeration Param_KL enumeration Param_KC enumeration Param_KH enumeration Param_delta enumeration Param_kCH

	enumeration Param_kE enumeration Param_CF enumeration Param_WaveLength enumeration Param_Q enumeration Param_P enumeration Param_Whiteness
source	<pre> &lt;xs:simpleType name="EToleranceParameterType"&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Param_L"/&gt;     &lt;xs:enumeration value="Param_a"/&gt;     &lt;xs:enumeration value="Param_b"/&gt;     &lt;xs:enumeration value="Param_C"/&gt;     &lt;xs:enumeration value="Param_H"/&gt;     &lt;xs:enumeration value="Param_KL"/&gt;     &lt;xs:enumeration value="Param_KC"/&gt;     &lt;xs:enumeration value="Param_KH"/&gt;     &lt;xs:enumeration value="Param_delta"/&gt;     &lt;xs:enumeration value="Param_kCH"/&gt;     &lt;xs:enumeration value="Param_kE"/&gt;     &lt;xs:enumeration value="Param_CF"/&gt;     &lt;xs:enumeration value="Param_WaveLength"/&gt;     &lt;xs:enumeration value="Param_Q"/&gt;     &lt;xs:enumeration value="Param_P"/&gt;     &lt;xs:enumeration value="Param_Whiteness"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType EToleranceType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:string</b>
used by	element <a href="#">FunctionTolerance/ToleranceType</a>
facets	enumeration Brightness enumeration DE* enumeration DE00 enumeration DE94 enumeration DE99 enumeration DEcmc enumeration Defmc2 enumeration DIN6172 enumeration HunterDE enumeration HunterLab enumeration HunterLabPlusMinus enumeration L*C*H* enumeration L*a*b* enumeration L*a*b*PlusMinus enumeration MetamerismIndex enumeration StatusDensity enumeration Strength enumeration Whiteness enumeration Yellowness enumeration ddna enumeration df enumeration DEDIN6175
annotation	documentation A type of tolerance
source	<pre> &lt;xs:simpleType name="EToleranceType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A type of tolerance&lt;/xs:documentation&gt; </pre>

	<pre> &lt;/xs:annotation&gt; &lt;xs:restriction base="xs:string"&gt;   &lt;xs:enumeration value="Brightness"/&gt;   &lt;xs:enumeration value="DE*"/&gt;   &lt;xs:enumeration value="DE00"/&gt;   &lt;xs:enumeration value="DE94"/&gt;   &lt;xs:enumeration value="DE99"/&gt;   &lt;xs:enumeration value="DEcmc"/&gt;   &lt;xs:enumeration value="Defmc2"/&gt;   &lt;xs:enumeration value="DIN6172"/&gt;   &lt;xs:enumeration value="HunterDE"/&gt;   &lt;xs:enumeration value="HunterLab"/&gt;   &lt;xs:enumeration value="HunterLabPlusMinus"/&gt;   &lt;xs:enumeration value="L*C*H*"/&gt;   &lt;xs:enumeration value="L*a*b*"/&gt;   &lt;xs:enumeration value="L*a*b*PlusMinus"/&gt;   &lt;xs:enumeration value="MetamerismIndex"/&gt;   &lt;xs:enumeration value="StatusDensity"/&gt;   &lt;xs:enumeration value="Strength"/&gt;   &lt;xs:enumeration value="Whiteness"/&gt;   &lt;xs:enumeration value="Yellowness"/&gt;   &lt;xs:enumeration value="ddna"/&gt;   &lt;xs:enumeration value="df"/&gt;   &lt;xs:enumeration value="DEDIN6175"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>
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### simpleType ReflectanceType

namespace	http://colorexchangeformat.com/v2
type	restriction of <b>xs:double</b>
used by	complexType <a href="#">ReflectancePointType</a>
facets	minExclusive -1 maxExclusive 10
annotation	documentation Floating point (double) data type for use in storing spectral response values. Values are limited to a nominal range of 0.0 (inclusive) to 1.0 (inclusive). Reflectance is scaled such that 100% equals 1.0. Note some allowance is made for values to exceed these nominal limits.
source	<pre> &lt;xs:simpleType name="ReflectanceType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Floating point (double) data type for use in storing spectral response values.     Values are limited to a nominal range of 0.0 (inclusive) to 1.0 (inclusive). Reflectance is scaled     such that 100% equals 1.0. Note some allowance is made for values to exceed these nominal     limits.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:double"&gt;     &lt;xs:maxExclusive value="10"/&gt;     &lt;xs:minExclusive value="-1"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>