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Remarks

- This guide gives an overview of the important functions of the ColorQuality 6.
- The main objective of this document is to get familiar with the functioning of this program.
- As this is only a help document, colorimetric aspects are not discussed.

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Description of Toolbar Elements



New job Creating a new job



Open job Opening an existing job



Modify current job Altering the colors in a job or adding new color references into a job



Measure sample



Copy sample from ColorNet Retrieving samples from ColorNet



Delete existing samples The most recently measured or loaded sample is deleted



Select displayed samples Filter the samples to show only those of interest



Print job Prints the selected view





SPM Looks for and connects the attached spectrophotometer



Change to InkFormulation

Loading InkFormulation or changing between ColorQuality and InkFormulation



Quick Compare

Compare measurements without creating a job first



Settings

General Settings

- 1. Click menu Settings: General.
- 2. Please select the following measuring conditions.
- 3. Click **OK.**



Program Settings

1. Click menu Settings: Program.

Default tolerance, dE* formula, white base for density calculation, and dye strength calculation are defined in Program settings. New jobs will use these settings.

<u>NOTE</u>: In Graphic Arts, density and dye strength calculations are normally based on the white of the substrate. ColorQuality[™] allows you to choose the white base. If "Substrate" is selected, then the substrate would have to be measured in the "Modify current job" window, field "Series"(See arrow "1"). The values of density and dye strength are then relative to the substrate.

Changing the white base has no influence on colorimetric data (e.g. L*a*b* values), as they are always based on absolute white.

2. Exit the window by clicking **OK** or **Cancel**.

3,00		
Density calculation —		
White base:	absolute white	•
Dye Strength calculati	on (DS)	
Colorant :	Transparent Ink	-
Calculation method :	at maximum K/S	-
White base:	absolute white	-

Spectrophotometer Settings

1. Click menu Settings: SPM.

A connected spectrophotometer can be searched and calibrated. The COM port and the baud rate can be selected or changed. At the bottom of the window, information about the connected instrument is displayed.

2. Exit the window by clicking **Close**.

	ין 🗲 [Search
X-Hite		Disconnect
SpectroEye, Spectrolino		Info
ort:	- * -	Setup
СОМ1		Calibration
Baud rate: 9600	3	
Maximum speed		i⊼oxri
pectroEye	Spec	
Serial number: 10448		
C-0		

Please note that NetProfiler can be enabled or disabled from the **Setup** button.

Active		Modify
NetProfiler		



Display Settings

1. Click menu Settings: Displays.

In this window you can define the default displays for the program. If "Accept settings for 'New job' " is activated then all new jobs will appear as defined here.

2. Exit the window by clicking **OK** or **Cancel**.

Overview Delta-Trends Colorimetric Diagrams Colorimetric Tables Other Tables Numeric Spectra	✓ Reflectance
silability —	
Accept actings for 'Now job'	

Check-Area Settings

This setting allows you to define an additional range within the tolerance limit. The purpose of "Check-Area" is to warn if samples approach that limit. Samples situated between "Check-Area" (dark grey line) and this tolerance area (light grey line) appears in yellow.

- 1. Click menu Settings: Check Area.
- 2. Enter a value in the "Factor" field (e.g. 0.833).

If the defined tolerance is dE*=3.0, the above factor creates a Check-Area between dE*=2.5 and dE*=3.0 (see arrow "3").

nter a factor of 0.50 to 2.00 to	no need for a check area between the PASS at
nd the FAIL area.	establish a check alea between the FA55 an
	to the reference between 1.00 x tolerance an
II samples with a color distance actor x tolerance are designated	as CHECK rather than FAIL.
Il samples with a color distance actor x tolerance are designated actor:	as CHECK rather than FAIL.
Il samples with a color distance actor x tolerance are designated actor:	as CHECK rather than FAIL.

Communication Settings

The input path for the jobs can be defined in this setting. This can also be used for the appropriate CXF Browser.

Communication settings		×
Job input path:	C:\Program Files\X-Rite\ColorQuality6\Data	
	ОК Са	ncel

CXF Browser Settings

Connect to the protocol for Color Communication – CXF Browser. Color information in digital form can be imported to ColorQuality.



Setting Up a New Job



1. Click menu Job: New, or click the New Job button.

- 2. Customer.
 - Select a customer for this job and click next (>>)
 - or
 - Create a new customer by clicking New Name the customer and click OK Click next (>>)

Select a customer for the new job:	New Eustomer
CDBasicCustomer Cient 1 Cient 12345 Cient 2	Created: 08.11.2010 11:41:45 Additional description:
A XRie	
	Address:
Cancel	OK Cancel

<u>NOTE:</u> Color Quality is job-related. This means, jobs are assigned to customers. If a customer does not yet exist, it can be created while setting up the job. However, a customer can also be created previously in database "Customers". An already existing customer can simply be highlighted and selected.

- 3. Job description.
 - Enter job name and description Click next (>>)

) setup			
lease enter name and des	cription		
Designation: New job			1
08.11.2010 11:41			
Additional description:			
suudonar description.			
	100	10000	

- 4. Measuring conditions.
 - Review default setting or define the conditions. The displayed conditions correspond to those defined in the general settings
 - Click Finish

obsetup Please define the measuring conditio	JINS
Illumination: Observer angle: Density standard: White base: Filter:	D65 2° DIN Abs Pol
C	Finish Cancel</td

- 5. Define a reference.
 - Create a reference by clicking New

inferences L* a* b* Tolerance		
		- -
	D L	New
	-	Modify
	X	Delete
ubstrate not defined	1	Substrate
[D65,2*]		

Create a new reference via:

• Measurement

esignation: www.reference reated: 08.11.2010 11:49:23 dditional description:	
teated: 08.11.2010 11:49:23 ddtional description:	lie
eated: 08.11.2010 11:49:23 Iditional description: Iditional description: IDITION	et®
ditional description:	alues
Tolerance: CELA8 de* dE* 3.00 Calculate ref	ırds
Tolerance: CIELAB dE* Calculate ref dE* 3.00	aries
Tolerance: CIELAB dE* Calculate ref dE* 3.00 Calculate to	CxF
Tolerance: CIELAB dE* Calculate ref dE* Calculate ref 3.00	
CIELAB dE" Calculate rel dE" 3.00	
dE* 3.00 Calculate to	ference
	lerance

ColorNet

sited according to: Name	<u> </u>
X-Rite ColorNet® ColorQuality	6 Info
SQLite - StdDb (C:/Docu	Print Print
🗋 Jobs 🗁 Standards	
	-

<u>NOTE</u>: ColorNet is the connection between the various X-Rite applications (InkFormulation, ColorQuality and Spectrophotometer). Saved colors can be exchanged via ColorNet).



• Enter Values

<u>NOTE:</u> that if values are defined it will NOT be possible to download this reference to a SpectroEye.

L*C*h		_	Defined for the cond	litions:
L*	C*	h	Illumination:	D50 💌
0,00 0,0	,00	360,00	Observer angle:	2*
			Density standard:	DIN
<u>^</u>			White base:	Abs
			Filter:	Pol

- Standards
- Color Libraries or

Color libraries			<u>×</u>	1
Color library	PANTONE + Solid Coated (No)			
Filter:]		
Sorted according to:	Name	\Leftrightarrow	Measure	
PANTONE 100 C PANTONE 101 C PANTONE 101 C PANTONE 103 C PANTONE 104 C PANTONE 105 C PANTONE 106 C PANTONE 108 C PANTONE 108 C PANTONE 109 C PANTONE 109 C PANTONE 112 C PANTONE 113 C PANTONE 115 C PANTONE 112 C PANTONE 112 C PANTONE 112 C PANTONE 120 C PANTONE 120 C PANTONE 120 C PANTONE 120 C	→	Filter: N	•	
			OK Cancel	

• From CXF

Select your option and click on the **"reference"** and then **OK**.

- the reference appears in the field
- you can define many references, however, the user interface cannot show more than 50 references
- define the substrate if desired (not necessary and only used in density/dye strength calculations)
- click **OK** to close the window

After closing the window, the program switches automatically to the main window where now the samples will be read in by ColorNet or measure.

X-Rite Color Qualit File Edit Job CxF	ity 6.0 Alpha - [5Qlite - StdDb] ;/ New job Dutabase Settings Windows Help	
		&×rite lorQuality 6
Standard 1	🚍 Standard 2 💭 GREEN	
Standard 1 Tab (o CIE LabCh dE CIELAB	<u>×</u>
	Name L" a" b" C" h" dL" da" db" dC" dH" dE" Standard 1 77/,80 -0.69 3.15 3.22 102,39	
Standard 1 gr CI	IIE LabCh Delta - deltaE CIELAB	_D×
Spl dL* = da* = dD* = dC* = dH* =	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
Standard 1 Tren	nd CIE Lab	<u>-0×</u>
Spl dL* = da* = db* = Zoom: + -	45 d. 5 45 46 5 45 45	
Standard 1	Spl No:0of0 all ID65.2* DIN Pol.4bs1	

¹⁾Note: ColorNet[®] is the interconnection between different X-rite applications (e.g. ColorQuality[™], Ink Formulation[™], spectrophotometer). That means the color can be exchanged between the individual applications via ColorNet.

²⁾Note: The structure of the folders in ColorNet is similar to the Windows[®] Explorer. This means that by double-clicking on a folder, the hidden subfolders expand below. By double-clicking on the upmost folder (X-Rite ColorNet), all available applications appear (including a connected measuring device).

Measurement and Various Display

There are two ways to read the samples: via measurement or ColorNet.

ColorQuality can assign the samples to the right references. So it is possible to read the samples in series. The selection is defined by:

- settings \rightarrow display
 - define displays for all following jobs
- windows \rightarrow presets
 - define various displays for different jobs
- click the small icons
 - 1. define one job with various displays
 - 2. define one display for all jobs
 - 3. choose between one job \leftrightarrow one display
 - 4. manage presets for displays (choose between defined presets)

: Displays	Job: Displays	<u> </u>
Processing	Processing	
© Job (common display for several series)	C Job (common display for several series)	
C Series (several displays for one series)	© Series (several displays for one series)	
Activated series	Activated Displays	
🔽 Standard 1	Correction Tab CIE Lab dE	
Standard 2	🗖 Statistics 🗖 Tab CIE LCh dE	
🔽 GREEN	Trend dE 🔽 Tab CIE LabCh dE	
	🔽 Trend CIE Lab 🦳 Tab Metamerism	
	Trend CIE LCh Tab Dye Strength	
	🗖 Trend Dye Str. DS 🗖 Tab Density	
	🗖 Trend Density 🦳 num Spec Rem	
	🔽 gr CIE LabCh Delta 🔲 gr Spec Rem	
	Astrono all Developte all	





Using of Presets

In ColorQuality you can define various displays for all jobs. There are two functions to select from:

• Store as preset

X-Rite Color Qualit	y 6.0 Alpha - [SQLite - StdDb]:/Ne	w job			_ 0 ×
Hie Edit Job CxF	Database Settings Windows Help Presets		•		
	Store as prese	Ŷ			🔊 🔊 🔊 🔊
	Cascade		Umschalt+F5		lorQualitv6
	Horizontal Vertical		Umschalt+F4	(i)	
	Arrange Icons				
Standard 1 Tab (UELabCh dE CIELA 1 Standard 1	Trend CIE Lab			_ □ ×
10	2 Standard 1	gr CIE LabCh Delta - deltaE CIELAB			
	Standard 1 77,80	0,69 3,15 3,22 102,39	r at ar		
	Resident and a second second				
Standard 1 gr CI	E LabCh Delta - deltaE CIELAB			1	_ [[] ×
1	db* +5 dL*	+5 Sol Ref			1
Spl dL* =		L* = 77.80 a* = -0.69			
da" = db [×] =		b' = 3,15 C* = 3,22			
dC* = dH* =		0 h = 102,39			
Standard 1 Tren	d CIE Lab				_ _ _×
Spl	+5				
da" = db" =	dL*				
	+5 da"				
Zoom + -	+5				
Standard 1	Spl No:0o	i0 all	[D65,2*,DIN	I,Pol,Abs]	1

Click on the **Store as preset** to saving the current display options.

🗖 🗛 Default	
As Delauk	
	ar □ As Default

• Manage preset

Click menu Preset: Organize, or click the button.

ink manufacturer		Delete
print shop	•0•	As Default

In the open window you can:

- Select select a preset
- **Delete** delete the presets
- As Default highlight as default

Viewing Samples

- 1. Click on the left- and right-arrows in the sample selection field several times to page through the samples backward and forward.
- 2. Position the cursor into the sample information field (i) and type in note if required for the displayed sample. The note will be overwritten each time.



Modify a Job

There are three methods to modify a job:

- Click the **Modify** icon
- Select F4 keyboard button
- Click menu Job: Modify current job

						U		
ferences	L*	a*	b*	Tolerance				
Standard 1	77,80	-0,69	3,15	CIELAB dE*	3,00		D	New
Standard 2	75,49	31,38	2,68	CIELAB dE*	3,00			
CREARING CRE	77,92	-48,40	10,66	CIELAB dE*	3,00		•	Modify
							×	Delete
ubstrate not defined								Substrate
REEN			Т	olerance:				
L= 77,9				CIELAB de×	~			
a= -48,4				JE 2				
b= 10,7			2					
CODEDE DE CODEDE								

In the open window you can:

New	create a new reference

Modify modify a reference or the range of a tolerance

Delete highlight a reference and click Delete

Substrate create or modify a substrate



Defining a Standard

In cases where a customer has specific colors which are always used, they can be assigned to the customer as so-called standards.

- 1. Click menu Database: Standards.
- 2. Choose the Customer.
- 3. Click New.
- 4. Using Measure or ColorNet you can define a new Standard.
- 5. Complete the Definition of the Standard and click **Close**.

🚮 X-Rite Color Quality 6.0 Alpha – [S	5QLite - StdDb]:/New job	_ 🗆 🗵
File Edit Job CxF Database Setting	gs Windows Help	
		&xrite uality6
		_
Standard 1	Designation: Measure	
GREEN Tab CIE LabCh dE CIE		
·	Created: 08.11.2010 15:20:23	
Name	Enter values	
GREEN	Additional description:	
1 PASS Sample 1 > 2 PASS Sample 2 3 PASS Sample 3		
GREEN gr CIE LabCh Delta - c		
Spl PASS db dt* = 0.46 da* = 0.82 db* = 0.26 db* = 0.86 db* = 0.86 db* = 0.86 db* = 0.88	Tolerance: L= 78,3 CIELAB dE* a= -47,5 b= 10,5 dE* [065,2']	
GREEN Trend CIE Lab		-0×
Spl PASS dL* = 0.46 da* = 0.82 db* = -0.26 +5	OK Cancel	
Zoom: + - +5	Selected: 1 of 2	

Placing a Standard into a Job

- 1. Open the job where you are placing the standard.
 - Click menu Job: Open or click the Open Job button.
- 2. Select the Modify current job icon and click New.
- 3. The standard can define using ColorNet.
- 4. Choose the standard by double-clicking on it or by selecting it and then clicking **Select**.
- 5. The standard is now "imported" into the job.
- 6. Click **OK** to close the window.





Quick Compare

The quick compare mode option is used to compare a reference value with sample measurements.



- 1. Click the Quick Compare icon.
- 2. Before measuring the reference check the measurement conditions. Select the desired conditions and click **OK**.
- 3. Define the reference by measuring or loading using ColorNet and click OK.

ease define the measuring condition	2012		
Illumination: Observer angle: Density standard: White base: Filter:	2* DIN Abs Pol		
	<<	>>	Cancel

The program switches to the main window and is ready for measuring the samples.



Click on **Quick Compare** again to close this mode. The program asks you whether you want to save as a quick compare job. This gives you the option to save the job for a customer.



Backup a Database

As the volume of stored data increases, a regularly performed backup of the data becomes more and more important.

The procedure for backing up data in ColorQuality is very organized and user-friendly.

- 1. Click menu File: Database: Backup.
- 2. Highlight the database and click **Save**.

X-Rite Color Quality 6.0 Alpha - [SQLite - StdDb] File Edit Job CxF Detabase Settings Windows Help		<u>-0×</u>
Set up printer Dotabase Eadup Switch to InkFormulation Quit AR+F4		¢rite ty 6
		∢≣►
	Export backup database	
	Bin Data	
	Lng	
	File name: dbcq.cqbx Save	

Restore a Database

The procedure for restoring data in ColorQuality is also very easy.

- 1. Click menu File: Database: Restore.
- 2. Select the database and click **Open**.

Set up pinter Backup Switch to IniFormulation Qut Ak+F4
Import backup database ? X Look in: ColorQualiy6
Import backup database ? × Look in: ColorQualty6
Look in: ColorQuality6
Data Dot Doc Current de la companya de la comp de la companya de la de la companya de la co
File name: dbcq.cqbx Dpen
Files of type: Color Quality backup (".cqbx)

- 3. Highlight the database to be restored and click **Select**.
- 4. Choose **Overwrite DB** in the open window and click **OK**. The data will now be written back into ColorQuality.

By selecting Overwrite DB all existing data in the database will be overwritten with data in the backup. Selecting Append to the database will only add data to the current database that does not exist. No data will be overwritten.