

## Enhancements

### InkFormulation 6.4 (July 18<sup>th</sup>, 2019)

## Important

During startup you will be asked for a database conversion (from version 6.32 and older). After that you will not be able to use the database on older versions anymore.

If you decide to recover a copy of your database backup, please restart InkFormulation after a database recovery, to allow all components to refresh.

All workstations that are connected to the same database need to be upgraded to the same version.

## New features and fixes in IFS 6.4 compared to 6.32

### Fixed problems with the recipe editor

After second correction, when using ink leftover and when adding/removing transparent white.

### Refresh of Thickness object lists

We fixed the missing refresh of the thickness object drop down list in several places. To be on the safe side, please make sure you restart InkFormulation after database backup recovery, to allow all components to refresh properly.

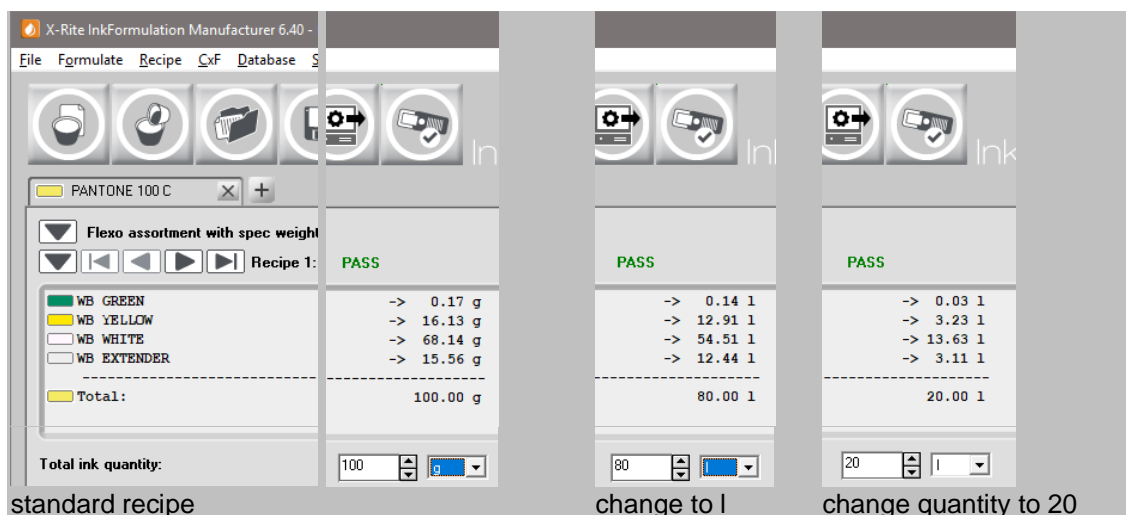
### Improvements in Performance

We've improved the performance in speed in several areas. This should improve the experience when using InkFormulation Online.

### Improved unit conversion logic

In **settings -> unit** you can decide if you want to activate **unit conversion**. We have improved the logic behind that setting. If there is no unit selected, InkFormulation default display is mass, while the calculation is in volume. The calculation between mass and volume is based on the specific weight of the colorants. You can only select volume units when using **recipe output = print ready inks**.

- If **unit conversion** is **not activated**, you can change between mass and volume units in the recipe window and the calculation is now also based on the specific weight of the colorants. It does not calculate the correct amount of decimals from kg to ml, just mass to volume and the selected unit. This is a typical scenario if you formulate in a small quantity like 100 g and when the recipe is approved you calculate the amount for a bigger volume like 20 l.

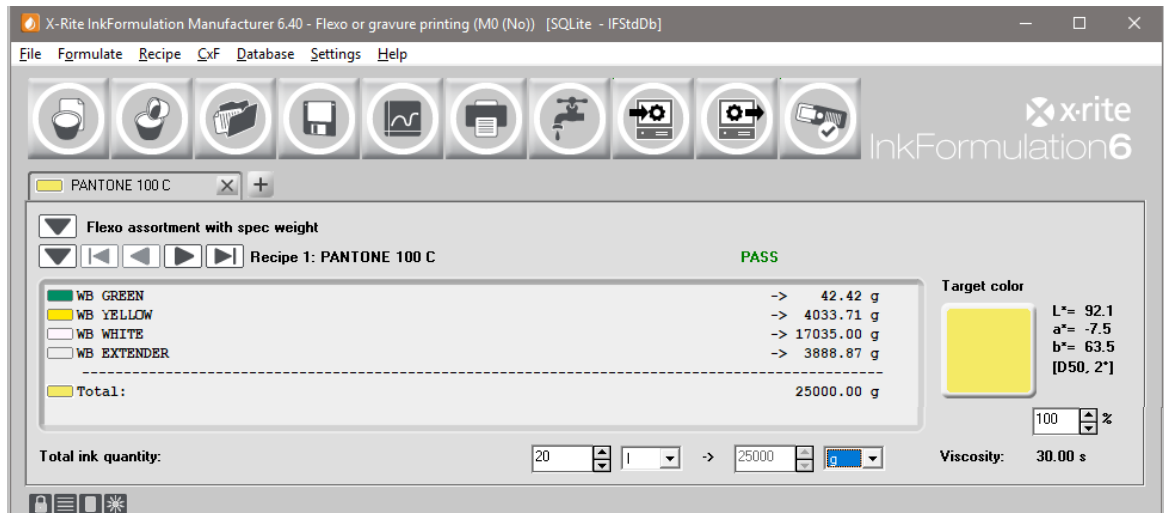


Ingredient	Standard recipe (g)	change to l (l)	change quantity to 20 (l)
WB GREEN	0.17 g	0.14 l	0.03 l
WB YELLOW	16.13 g	12.91 l	3.23 l
WB WHITE	68.14 g	54.51 l	13.63 l
WB EXTENDER	15.56 g	12.44 l	3.11 l
<b>Total:</b>	<b>100.00 g</b>	<b>80.00 l</b>	<b>20.00 l</b>

## Enhancements

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- If **unit conversion** is **activated** the calculation is done immediately from unit to unit. This is a typical scenario if you want to calculate a specific volume amount like 20 l, but you measure with a scale. This is quite useful when formulating with leftovers and differing specific weight of the colorants. In this case the calculation also converts the units completely with decimals.

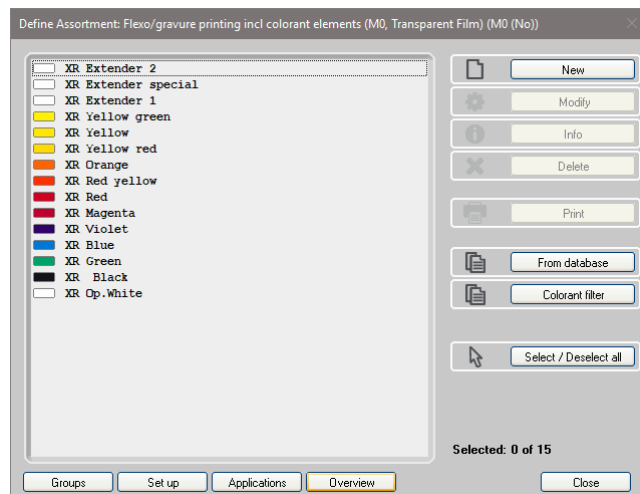


The target is 20 l and it calculates the recipe in g based on the specific weight of the colorants (in our example all colorants are defined with specific weight = 1,25 g/cm<sup>3</sup>).

## Assortment details overview

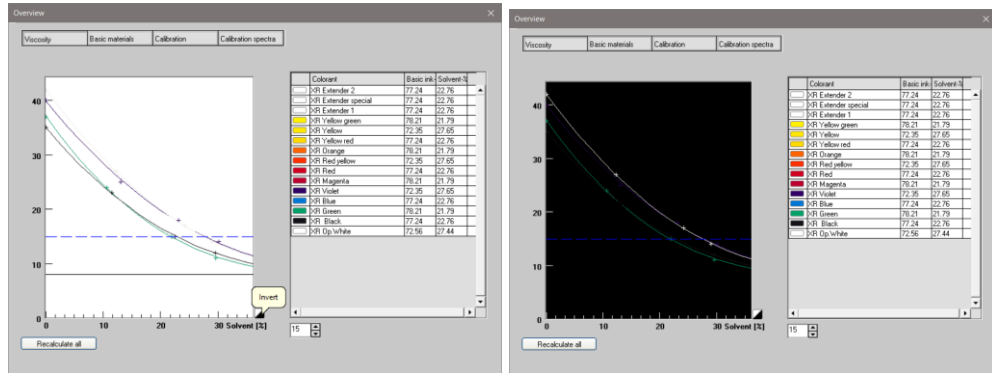
New visual tool for assortment analysis. Only available with Manufacturer License and assortment modification rights in the UserAdministrator.

- Go to **Database -> Assortments** and Double click on the relevant assortment



- There is a new button **Overview**. It shows information for all colorants in one overview for the following options.

• Viscosity



- Click on the black/white button to **invert** the graph to better see the pale colors on a black background.
- Double click on a colorant on the list highlights the curve on the left.
- Changing the print viscosity in the entry field amends the ratio of Basic ink and solvent in the list.
- The button **Recalculate all** allows to recalculate a viscosity change of the solvent into every colorant at the same time, to avoid manually correcting every colorant individually. Although this is not a recommended workflow this can be useful if the solvent viscosity might have been corrected throughout assortment creation. In a well prepared assortment you would not see a change after clicking recalculate all.

• Basic materials

Name	Colorant	Specific	Price	Min %	Max %	Solvent-%	Conc. XR	Conc. XR	Conc. XR	Conc. XR
<input type="checkbox"/> XR Extender 2	Additional	0.880	0.88	0.00	100.00	22.76				
<input type="checkbox"/> XR Extender special	Additional	0.880	1.25	0.00	100.00	22.76				
<input type="checkbox"/> XR Extender 1	Transparent	0.880	0.72	0.00	100.00	22.76				
<input type="checkbox"/> XR Yellow green	Colorant	0.910	2.46	0.00	100.00	21.79				
<input type="checkbox"/> XR Yellow	Colorant	0.910	0.99	0.00	100.00	27.65				
<input type="checkbox"/> XR Yellow red	Colorant	0.910	1.25	0.00	100.00	22.76				
<input type="checkbox"/> XR Orange	Colorant	0.910	2.11	0.00	100.00	21.79				
<input type="checkbox"/> XR Red yellow	Colorant	0.910	1.25	0.00	100.00	27.65				
<input type="checkbox"/> XR Red	Colorant	0.910	2.50	0.00	100.00	22.76				
<input type="checkbox"/> XR Magenta	Colorant	0.910	3.20	0.00	100.00	21.79			80.00	
<input type="checkbox"/> XR Violet	Colorant	0.910	2.67	0.00	100.00	27.65				
<input type="checkbox"/> XR Blue	Colorant	0.910	2.80	0.00	100.00	22.76	80.00			
<input type="checkbox"/> XR Green	Colorant	0.930	0.00	0.00	100.00	21.79		80.00		
<input type="checkbox"/> XR Black	Black	0.920	4.30	0.00	100.00	22.76	75.00			
<input type="checkbox"/> XR Op.White	Opaque w	1.070	6.40	0.00	100.00	27.44				

- Shows the Basic Material Components of the colorants in one list
- Calibration

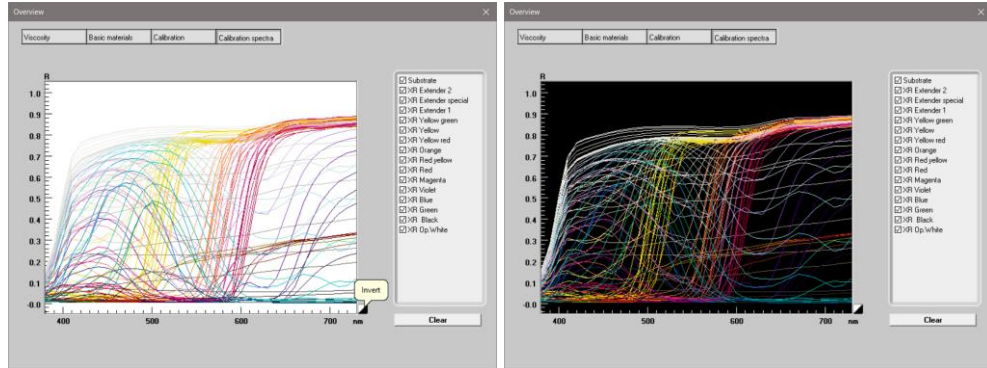
Name	1.00%	2.00%	4.00%	8.00%	16.00%	32.00%	64.00%	100.00%	Max	Average
<input type="checkbox"/> XR Extender 2								0.09	0.09	0.09
<input type="checkbox"/> XR Extender special								0.09	0.09	0.09
<input type="checkbox"/> XR Extender 1								0.00	0.00	0.00
<input type="checkbox"/> XR Yellow green	0.14	0.17	0.07	0.21	0.54	0.52	0.15	0.54	0.26	
<input type="checkbox"/> XR Yellow	0.26	0.39	0.30	0.31	0.39	0.58	0.22	0.58	0.35	
<input type="checkbox"/> XR Yellow red	0.08	0.18	0.30	0.23	0.30	0.40	0.41	0.41	0.27	
<input type="checkbox"/> XR Orange	0.23	0.32	0.25	0.62	1.12	0.21	1.12	1.12	0.55	
<input type="checkbox"/> XR Red yellow	0.29	0.38	0.41	0.40	0.20	0.88	0.44	0.88	0.43	
<input type="checkbox"/> XR Red	0.31	0.42	0.41	0.26	0.16	0.52	0.48	0.52	0.37	
<input type="checkbox"/> XR Magenta	0.41	0.39	0.44	0.39	0.46	0.84	0.79	0.84	0.53	
<input type="checkbox"/> XR Violet	0.33	0.20	0.13	0.23	0.44	0.46	0.78	0.78	0.37	
<input type="checkbox"/> XR Blue	0.44	0.12	0.09	0.34	0.27	0.07	0.93	0.93	0.32	
<input type="checkbox"/> XR Green	0.33	0.14	0.11	0.13	0.10	0.28	0.48	0.48	0.22	
<input type="checkbox"/> XR Black	0.24	0.31	0.10	0.55	1.68	3.47	2.70	2.21	3.47	1.41
<input type="checkbox"/> XR Op.White	0.21	0.22	0.14	0.24	0.40	0.12	0.30	0.40	0.23	

- Shows the deviation in a selectable dE method of all colorants samples compared to the overall calculation model like under Calculate for every colorant
- You can copy the list into a clipboard.

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- The entry field % shows the actual roughness of the assortment. Changing the value and calculate calculates the deviation on different roughness. That does not change the roughness permanently in the assortment as this is calculated based on the lowest deviation, but it allows to simulate what deviation you would get with a different roughness factor.

- **Calibration spectra**

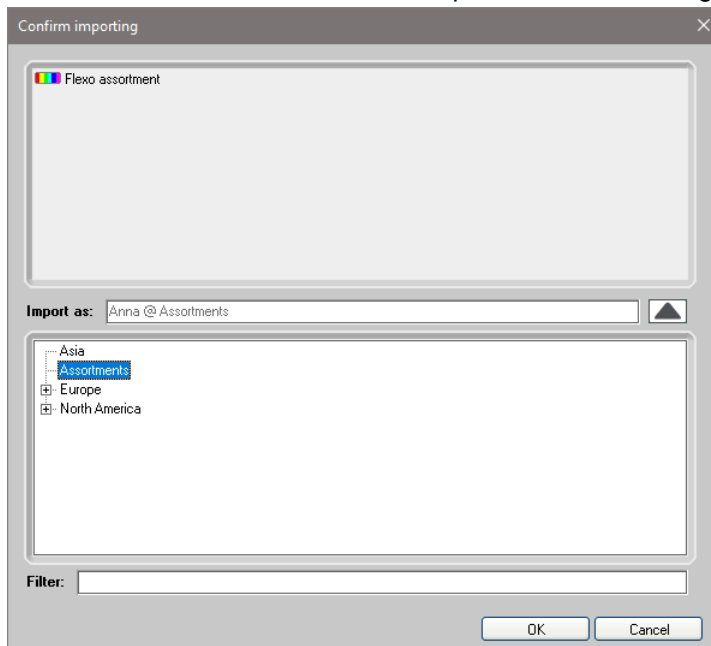


- Shows spectral reflectance curves for all colorants.
- Click on the black/white button to **invert** the graph to better see the pale colors on a black background.
- Use the list to deselect certain colorants or clear to deselect all.

**Import objects as a specific data access group**

Possibility to import Assortments, Recipes, Substrates and Basic materials as a specific data access group defined in the UserAdministrator.

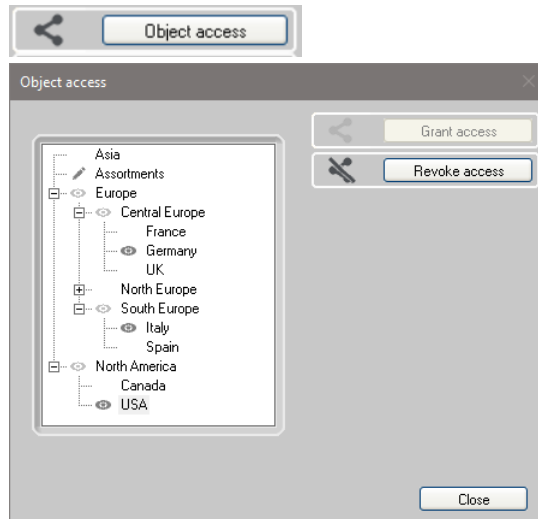
- Follow the usual import steps for each object.
- A new area **Import as** on the import window allows to select a different data access group. Click on the little arrow on the left to open the data access group tree.



- Default for **Import as** is the data access group from the current user.
- All data access groups including and below the data access group of the current user will be shown.
- Use the **Filter** to use wildcard search for a specific group.

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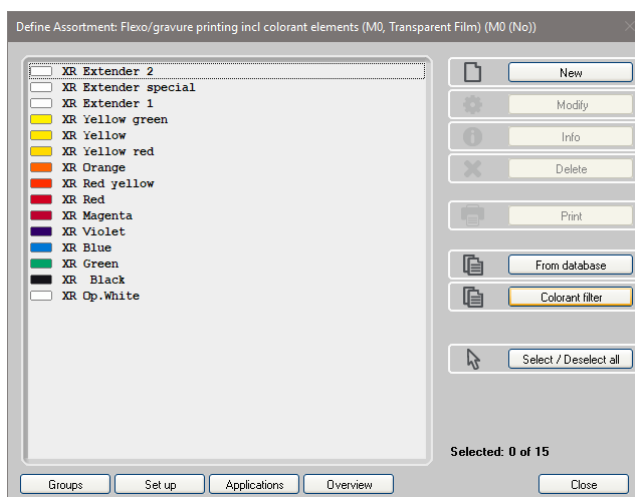
- Select the desired data access group and click **OK**.  
The selected data access group and it's parent will now have read and write access. It's children read access.
- To view and manage the access rights after the import, there is a new button **Object access** where you can grant and revoke read access to other data access groups.



- **Note 1:** We recommend to import the assortment as a neutral data access group without children and grant access to specific groups afterwards. This is easier to handle.
- **Note 2:** The colorants will have the data access group rights of the importing user and are available to all children, so the data access group of this user should be a parent of the other access groups. The visibility to the colorants is limited based on the assortment access rights as above.

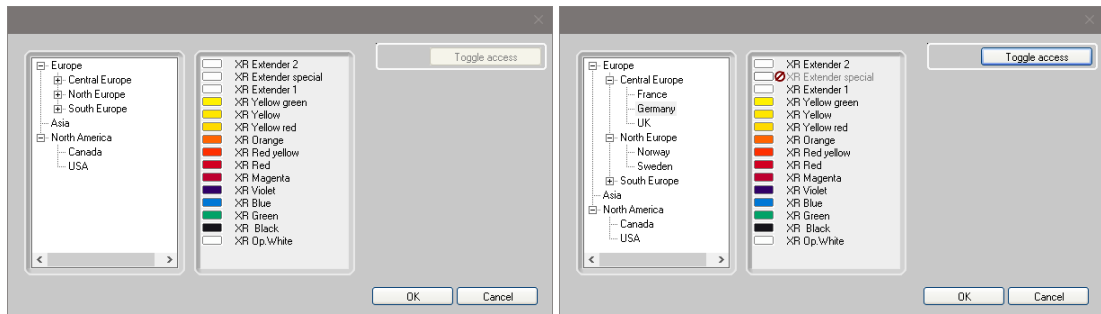
**Exclude colorants for specific data access groups**

- Go to **Database -> Assortments**
- **Double click** on the relevant assortment
- There is a new button **Colorant filter**



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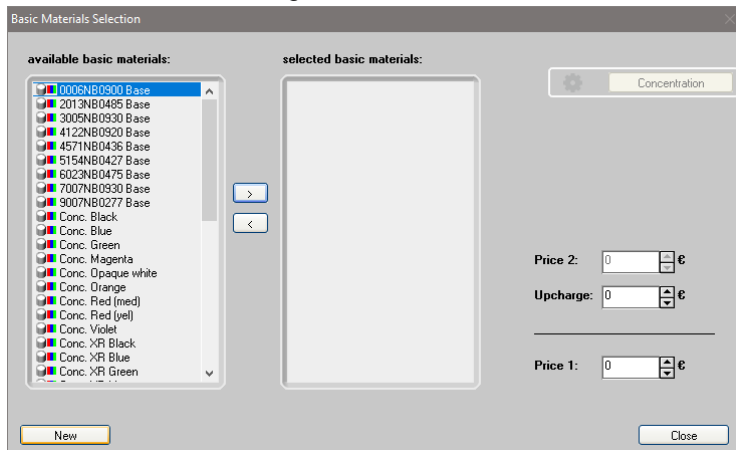
- A new window allows to **toggle access** to certain colorants for certain data access groups.



- All data access groups including and below the group with write access from the current user will be shown.

**Create new basic material from colorant creation window**

During Assortment creation it is now possible, while setting up a new colorant, to be able to create a new basic material straight from the basic material selection window.



**Better handling of windows when using multiple displays**

InkFormulation internal windows now remember where they were opened relative to the InkFormulation window when using multiple monitors. When switching back to a single monitor setup all windows open on the single monitor in a relative position.

**Possibility to have the Inkform.ini on a shared location**

To improve the setup of new users in an InkFormulation Online environment you can now define a shared location for the Inkform.ini user settings file.

- Go to C:\Program Files (x86)\X-Rite\InkFormulation6\Bin
- If there is no INKFORM.ini file in this location, please create this from an empty text file.
- Add the following to the INKFORM.ini file:

```
[Settings] UserConfigPath=<Path_to_Shared_drive>
```

- Every user must have read and write access to this file.
- During first startup InkFormulation will search for an INKFORM.ini file in the shared location for each user with the naming convention INKFORM <username>.ini and create it if it doesn't exist.
- Old user settings files can be copied to that location and renamed to meet the naming convention.

Enhancements

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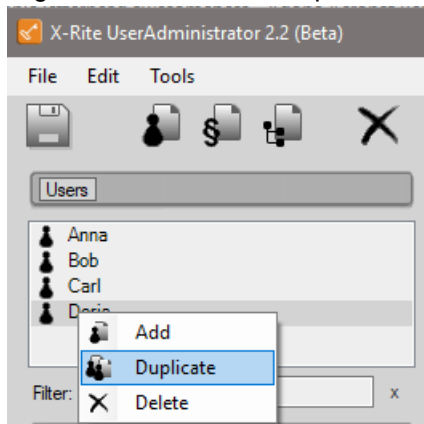
**New features in UserAdministrator 2.2 compared to 2.1**

**Alphabetical Order**

for users, function groups and data access groups.

**Possibility to Duplicate a user**

Right click on a user to duplicate the selected user with its function groups and data access groups.

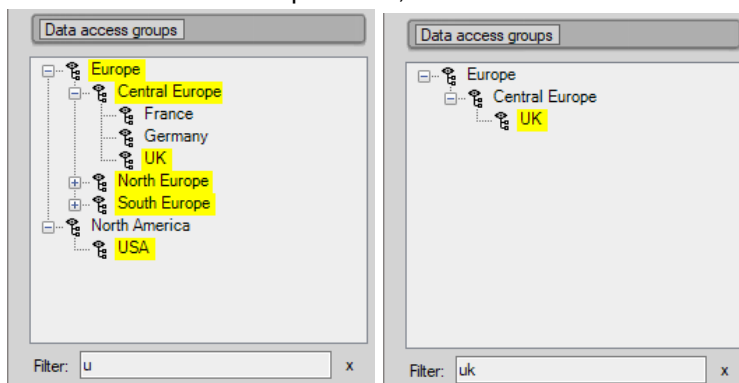


**Added Filter fields for users, function groups and data access groups**

The relevant filter field is below each section and works as wildcard search.

Pressing the x next to the field will remove the filter.

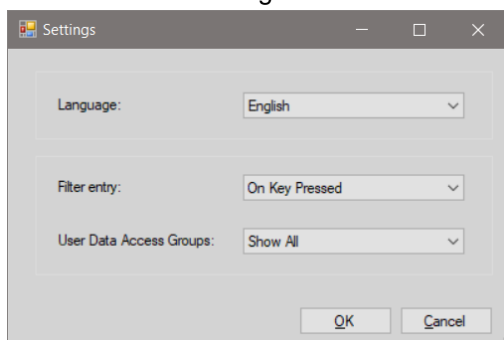
In the data access Group section, the filter search results are highlighted yellow.



**Tip:** Drag and drop the relevant data access group to the user's data access group field.

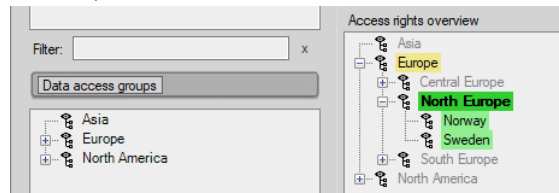
**Optional Setup**

In UserAdministrator go to **Tools -> Settings**

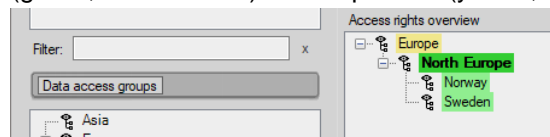


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- **Filter entry**
  - **On Key Pressed** (Default): Filter starts immediately after typing in the Filter field.
  - **On Enter** (recommended in case of speed issues): Filter starts on press enter/return.
- **User Data Access Groups**
  - **Show all** (Default): Shows the whole data Access group tree and highlights the groups of the selected user (green, write access) and its parents (yellow, read only access).



- **Show Only Active Groups**: Shows only the data access groups of the selected user (green, write access) and its parents (yellow, read only access).



## Known issues

- Recipe sets and improved access rights introduced in this version are not saved in a database backup (workaround: use recommended command line backup).
- A new folder created in batch processing is not immediately visible in the database folder list (it appears in all folders view). After reopening the recipe database, the new folder is visible.
- When using Recipe output Basic inks and solvent and use a Total basic ink quantity as default (i.e. Total basic ink (100) + Solvent (20) = Total (120) the correction will take the Total basic ink quantity as the Total quantity (120->100) and changes the components of the recipe relative to that. Workaround: Amend the Basic recipe amount shown in the recipe wizard during correction to the Total quantity including solvent shown in the recipe window (100->120) to preserve the previous recipe and get a correction based on this.