Printer Settings

Administration > Printer Setup

Availability: all versions

> **Correctly setting up a printer is an integral and important step. Please take time to familiarise yourself with the printer settings and their functions.**
>
> In this Article we'll learn how to
>
> - Create a **Color Configuration** for the printer
> - Create **Channel Configurations**
> - Create appropriate **Print Configurations** for your printer

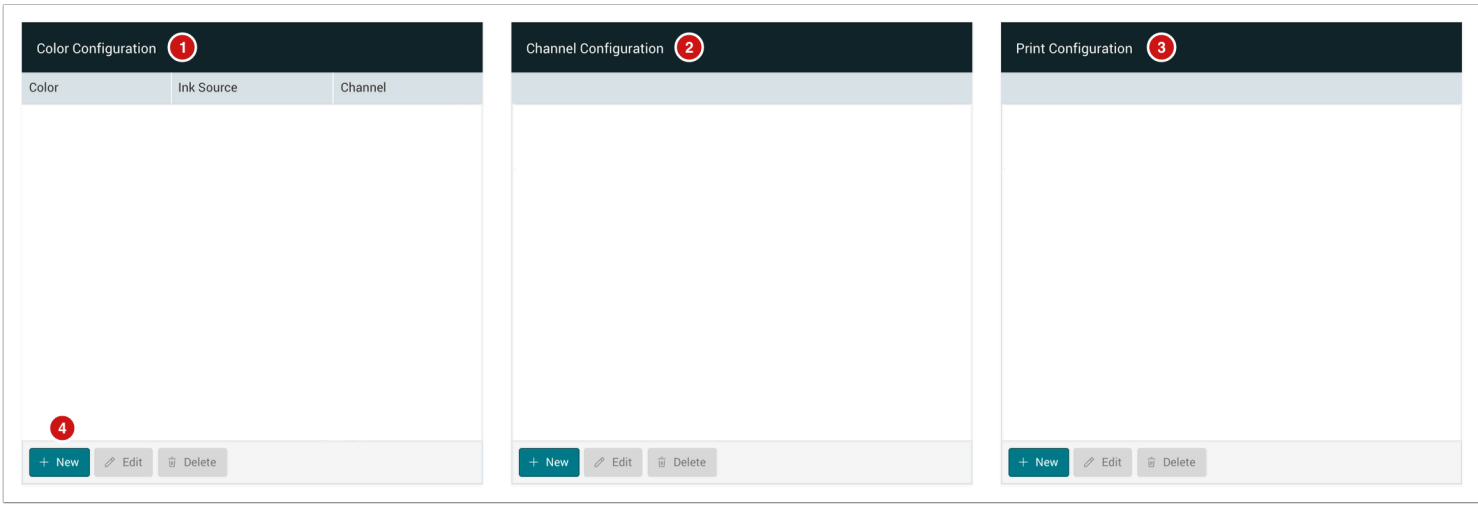
1. Prerequisites

Correctly configuring a printer requires that the printer has been created beforehand. You can find out how to do this in the chapter Creating and Editing Printers article.

Start the setup process by selecting

1. Locate the Printer Setup list under **Administration > Printer Setup**
2. Select the printer you want to set up from the list
3. Double click on your selected printer
4. The *Printer Configuration* dialog opens with the three empty settings panels **Color Configuration [1]**, **Channel Configuration [2]** and **Print Configuration [3]**.

Figure 1: The three panels of the *Printer Configuration* dialog at the beginning of setup



2. Create and Edit a new Color Configuration

Each printing system is delivered with a specific Color Configuration. In order for the Workflow to recognise which printing colors should be used. The Workflow needs to be informed of the exact type of color that will be used - Process Colors, Light Colors, Gamut Enhancing Colors, or Separation-Preserving Colors. For the Workflow the order in which Inks are integrated in the printer is irrelevant.

2.1. Create a new Color Configuration

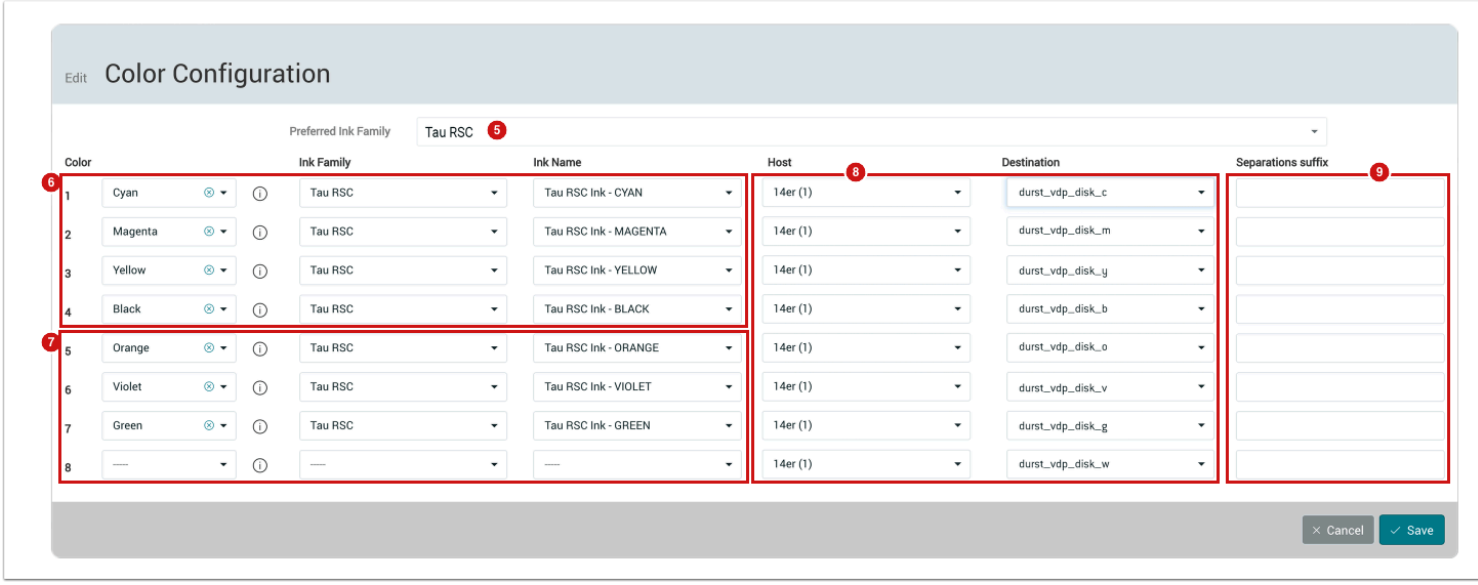
The first step is to create a new **Color Configuration** for the printer. Depending on the printer type, a minimum of four Process Colors (CMYK) must be created. In addition to CMYK, you can also create

- **Light Colors** – these include *Light Cyan, Light Magenta and Light Black*
- Gamut-Enhancing Colors – this includes *Orange, Violet, Green, Blue, and Red*
- Separation-Preserving Colors – these include *White, Varnish, Primers*, also gamut-expanding colors can be set up as such

The following description refers to a *Tau 330 RSC setup* with four Process Colors *(CMYK)*, three Gamut-Expanding Colors *(OVG)*, and one Separation-Preserving Color for White *(W)* to output variable data. To do this, take the following steps:

1. In the **Color Configuration** panel, click **New [4]**.
2. The *Add Color Configuration* dialog opens.

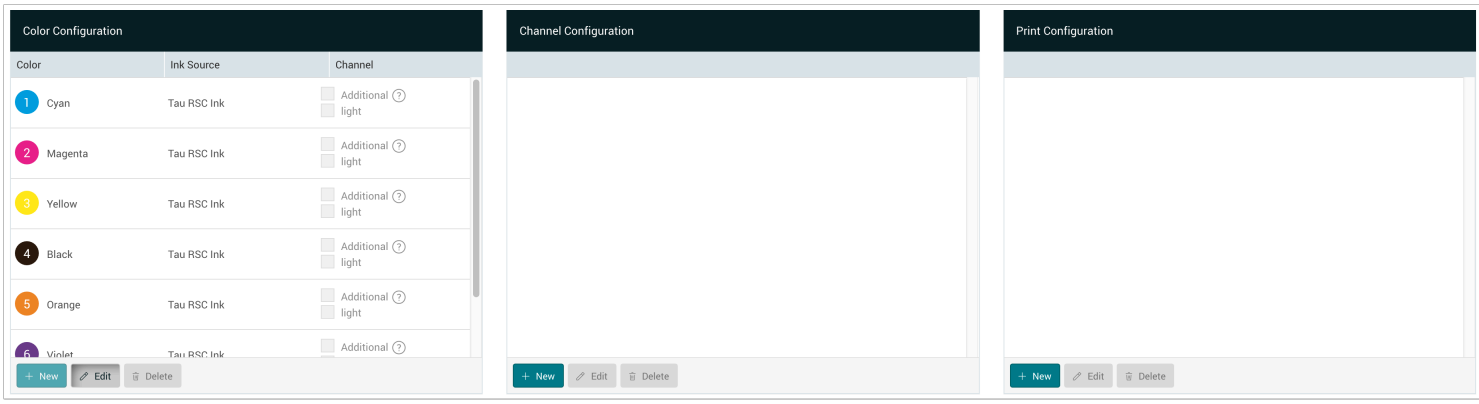
Figure 2: The *Add Color Configuration* dialog for the Process Color *Cyan* for Variable Data Output



3. With the *Add Color Configuration* dialog, the user needs to create each individual color for the printer. The following fields must be filled in:
   - **Process Color** – Select the color you want to add from the drop-down menu list. Note that this list contains all available colors that can be used in digital printing. Depending on how the selected Process Color was configured under **Administration > Ink**, the checkboxes for designating **Retain Separation [7]** or a **Light Channel [8]** may be activated. Further information regarding these two choices can be found under Process Colors and Inks.
   - **Ink** – Select an appropriate Ink for your printer based on the Inks you have available. If the corresponding ink is not available in the list, you must first set it up via **Administration > Ink**. You can find out more under the Managing Process Colors and Inks article.
4. After selecting your **Process Colors** and **Inks**, for the majority of printers this is enough information to get started with production. If you need to print Variable Data on the Tau printer, then the following information should also be entered in the *Add Color Configuration* dialog:
   - **Host** – Select the Host IP address of the printer in the drop-down list.
   - **Destination** – In order to ensure fast enough read/write speeds between the Host - Server - Printer array, the rendered files are distributed to different directories on different hard disks. For *Cyan*, the target directory `durst_vdp_disk_C` must be selected. For each color the appropriate target directory must be selected accordingly.
5. **Separations suffix:** If additional colors, e.g. *Brown,* are to be integrated in a printing system, a suffix, e.g. *"_br"*, must be entered for each color in this input field so that the correct suffix is written in the job ticket for the printer.
6. Press **Save [9]** to add the first color.

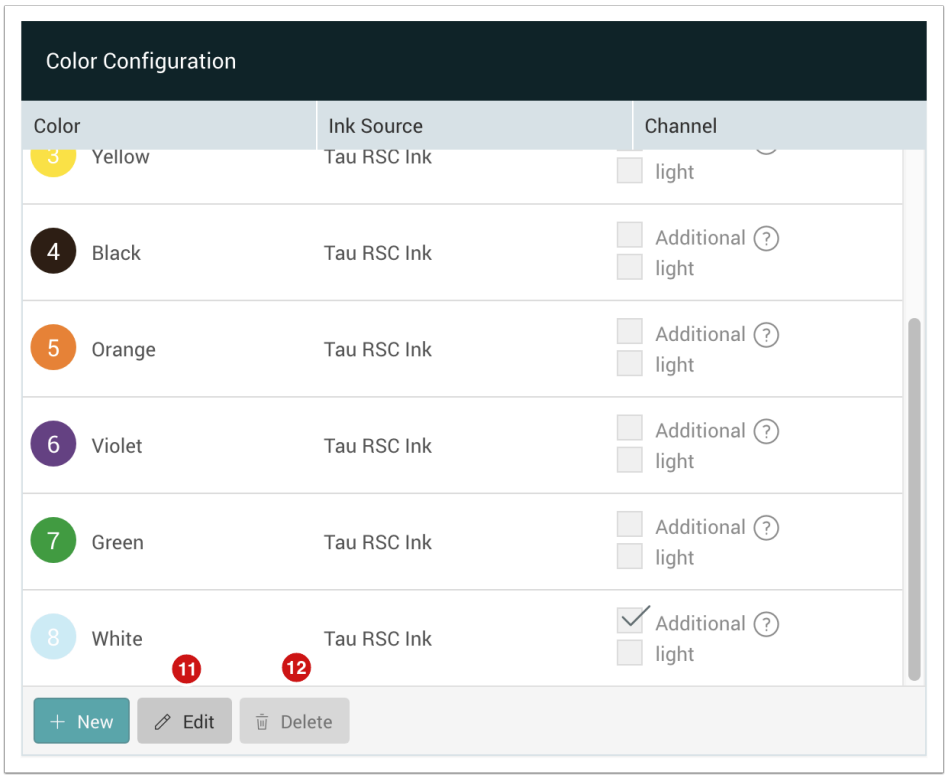
7. Create all other colors for the printer by repeating the steps described above. While the CMYK-OVG colors are set up as shown in **Figure 2**, the color *White* must be set up so that the **Retain Separation [10]** check-box is activated. White must be marked as *Retain Separation*, otherwise it will be recognised incorrectly by the color management system.

Figure 3: The *Add Color Configuration* dialog for the Process Color White for Variable Data output.



After you have created all colors, the *Printer Configuration* dialog should appear as shown in *Figure 4*.

Figure 4: The three panels of the *Printer Configuration* dialog at the beginning of the setup process.



The sequence of printing colors in the Color Configuration

If you've made mistakes when creating the Color Configuration, it does not matter, because the first four colors of the Color Configuration are not used in the color management system, the **sequence** of the **Channel Configuration** however is important, more on this topic below.

The correct sequence for adding CMYK with Light Channels and Gamut Expanding Colors

If you want to create a Color Configuration with **CMYKcm OG/White**, then we recommend that you *(1)* first enter your *CMYK* Process Colors, then *(2)* add all existing *Light Channels* and then *(3)* all *Gamut Expanding Colors*. Finally *(4)* the Colors where to retain separations should be created.

2.2. Edit and Delete Color Configurations

2.2.1. Changing the Color Configuration sequence

We have purposely blocked the ability to change the sequence of the colors as we use internal IDs for each Color Channel. If you still want to change the order, you must delete all inks first, starting with the last ink you created, and then create them again.

2.2.2. Editing a Color Configuration

To do this, select the color to be edited and click on **Edit** **[11]**. This opens the *edit Color Configuration* dialog from *Figure 2*.

Figure 5: The *Edit Color Configuration* dialog with White Ink selected.

2.2.3. Deleting Colors from the Color Configuration

As long as no **Color Configuration** based on Special Inks has been created, every single printing color can also be deleted. If you still have to delete a color, then all colors, starting with the last color in the list, must first be removed and created again later.

To delete a color, select it and click **Delete** **[12]**.

If a Printerhead is removed from a printer.

If a Printerhead containing an additional color is removed from the printer, you will no longer be able to delete the color from the existing printer. This shouldn't affect the printer configuration as long as the corresponding Color Configuration with the missing ink is not used.

3. Creating and editing a new Channel Configuration

By defining a new Channel Configuration, the color management system is informed which colors should be used to calculate color separations and how many rendered separations must be transferred to the printer.

3.1. Create a new Channel Configuration

After successfully creating your Inks, the second step is to create your **Channel Configurations**. Depending on the printer type, at least one color configuration – *CMYK* – should be created. Additional Channel Configurations can be created for *Pure Black* for example, if an output in pure black – e.g. for prints containing only barcodes – is needed. Additional Channel Configurations can only be created if Light Channels or Gamut-Enhancing Colors are available for the printer.

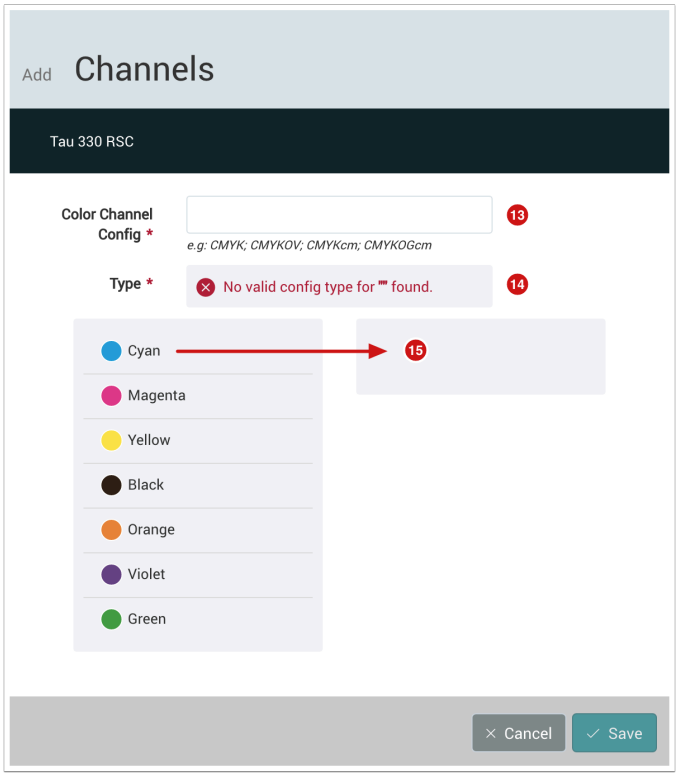
How many Channel Configurations should be created?

Only create Channel Configurations that you intend to use in the printing process. You should create at minimum a *CMYK* configuration and a *Pure Black* configuration for each printing system. If the printing system has Gamut-Enhancing Colors available, you should create a Channel Configuration with all Process Colors (without the Retain Separation Colors).

The following description refers to a **Tau 330 RSC** setup with three Channel Configurations: *CMYK*, *Black* and *CMYK-OVG*.
To create these Channel Configs take the following steps:

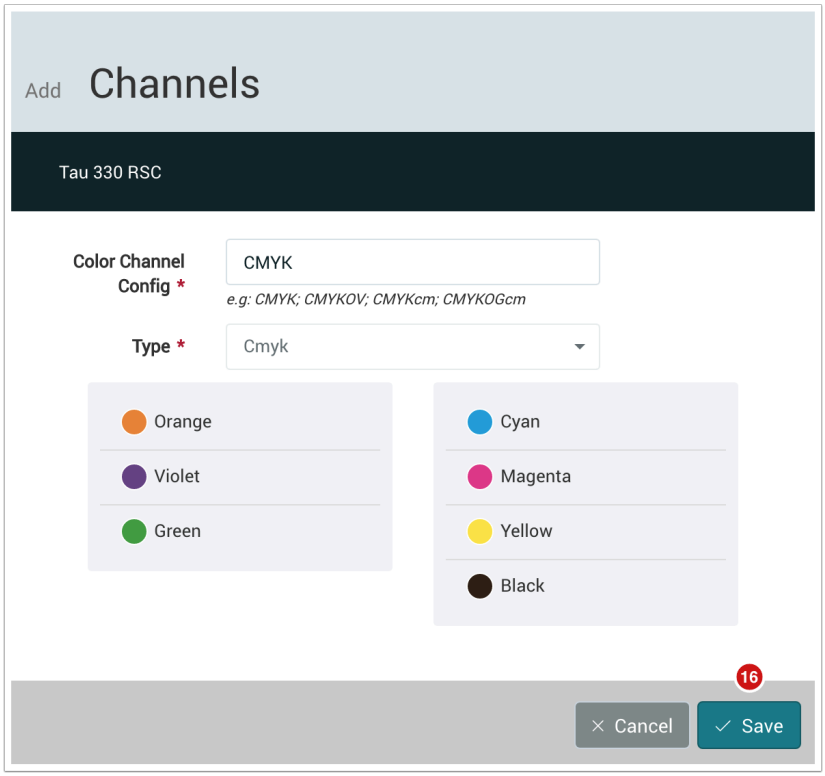
1. In the **Channel Configuration** panel, click on **New**.
2. This opens the *Add Channels* dialog, where you can now create individual Channel Configurations by dragging the colors from left to right in the correct sequence.

Figure 6: The *Add Channels* dialog at the beginning of the *Channel Configuration* setup process.



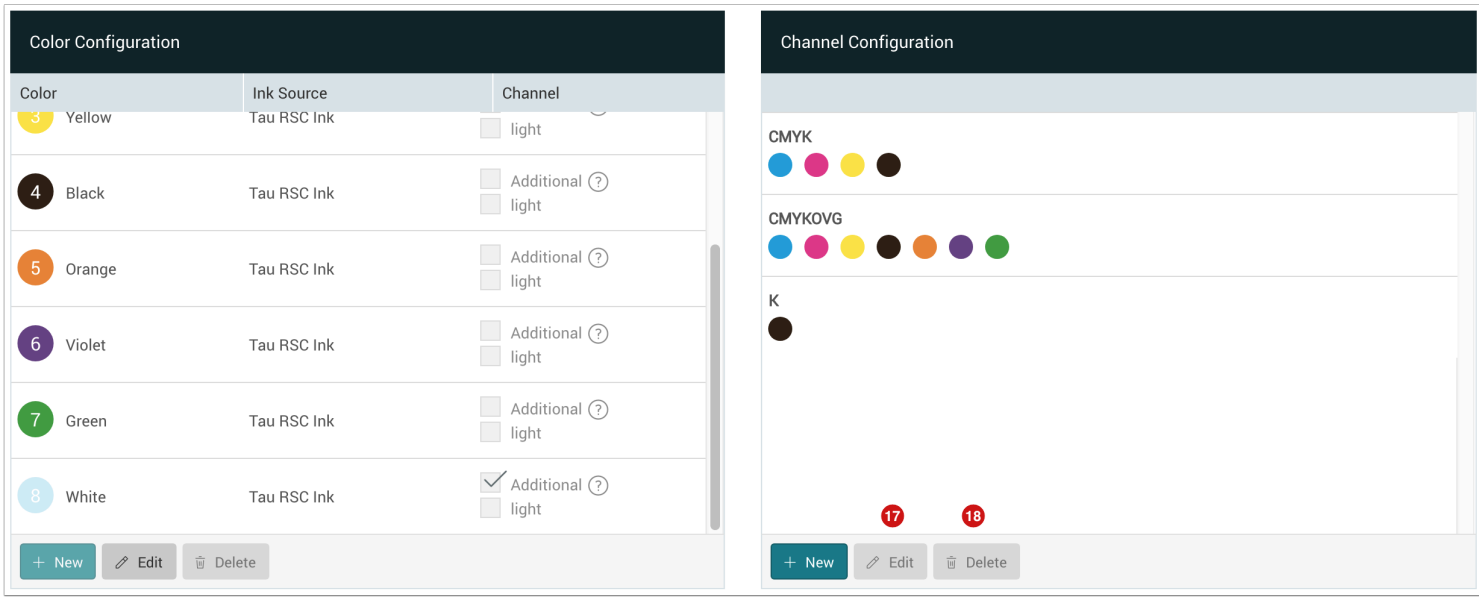
3. You can drag the appropriate Colors from left to right, we recommend you place the colors in this order (*CMYK -> Gamut Expanding Colors -> Light Channels*) **[15]**. If a color is already visible on the right side, you can drag the next color below the existing color. When dragging the color, do not release the mouse button until a gray line appears below the existing color.
4. As soon as a valid color sequence has been added in the gray area to the right, a valid config type is automatically displayed under the **Type [14]** field. As long as the color sequence is not correct, the error message "No valid configuration found" remains displayed.
5. Enter a name in **Color Channel Config** field **[13]**. You can use any name you wish. Internally, the Workflow refers only to the Channel Configuration selected under the *Type* field.
6. Once you have entered a *Color Channel Config* and a valid *Type* has been found, you can save the configuration by clicking on **Save [16]**.

Figure 7: The *Channel Configuration* dialog with a completely filled out CMYK configuration.



7. Now you can create Channel Configurations for *CMYK OVG* and *Pure Black*.
8. After you have completed these steps, the *Color Configuration* and *Channel Configuration* settings should be as shown in *Figure 8*.

Figure 8: The *Color Configuration* and *Channel Configuration* settings panels after completing the Channel Configuration dialog.



When the Channel Configuration Type is not available

If you require a special Channel Configuration and the *Type* is not automatically displayed, this Channel Configuration has probably not yet been defined in the Workflow. If this is the case, we ask you to please contact our technical support team so that a corresponding Configuration can be created.

3.2. Edit and Delete a Channel Configuration

3.2.1. Edit a Channel Configuration

To do this, select the **Channel Configuration** to be edited under the Channel Configuration settings panel and then click **Edit [17]**. The *Edit Channels* dialog appears as shown in *Figure 7*, where you can rename the configuration or edit it.

Change the Channel Configuration sequence

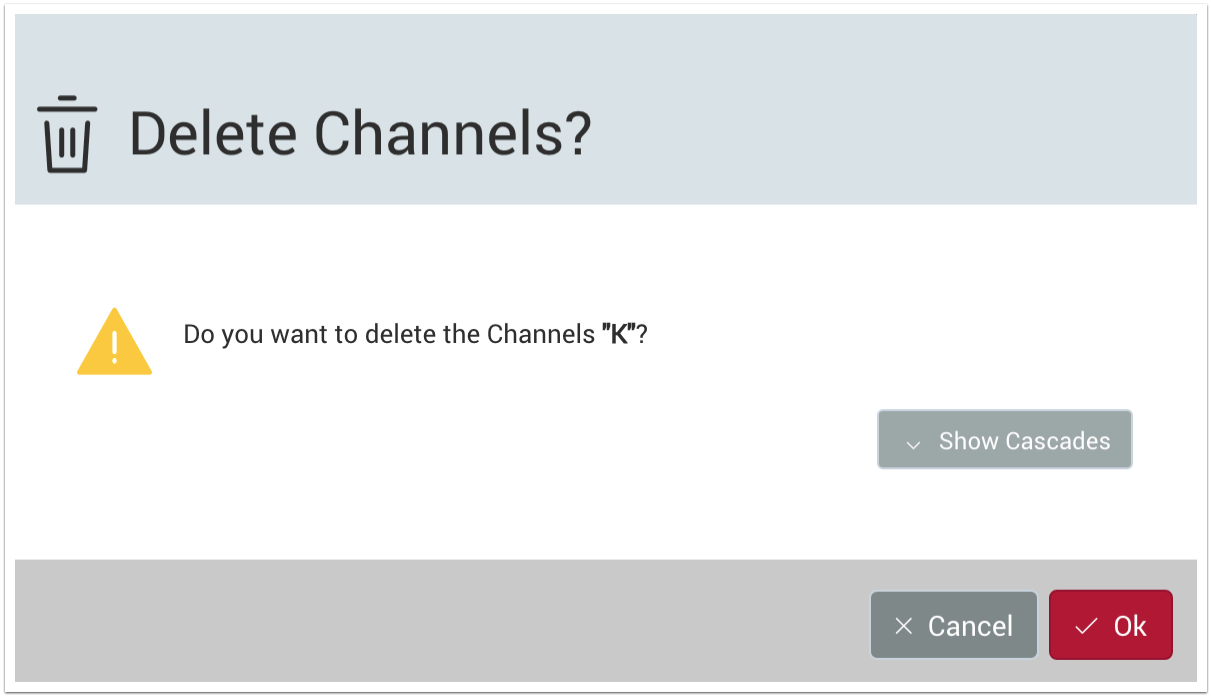
Change the order of the colors on the right side of the dialog by moving a color to the desired position in the list.

3.2.2. Delete a Channel Configuration

Select the Channel Configuration to be deleted under the Channel Configuration settings panel and click **Delete [18]**. The *Delete Channels* dialog appears as shown in *Figure 7*, where you are asked to confirm the fact that you want to delete the Channel Config.

If you want to know which references there are for this Channel Configuration, click on **Show Cascades [19]**. If you are sure you want to delete the Channel Configuration, click on **Ok [20]** to permanently delete the Channel Configuration.

Figure 9: The *Delete Channels* dialog.



4. Create and Edit Print Configurations

Print Configurations describe some of the most important information for the RIP process. These factors include:

- **Resolution** – The vertical and horizontal resolution in *lpi* can be entered here.
- **Render Engine** – Depending on whether Dithering is needed, you can select which Render Engine should be used.

- **Additional options** – Specifies additional options that have a significant influence on the output colors on the printer side.
  These include:
  - Backlit with and without White
  - Push Color Options - Double White, Cyan, Magenta or Black
  - Matt and Glossy

Please note that for **all variations in the Color Output** you must create a unique **Print Configuration** and **Color Setup Profile**. In the following description we outline how to create a *High-Resolution Print Configuration* for the *Tau 330 RSC* in combination with the *Harlequin Host Renderer* without dithering, as this type of printer is dithered on the fly during printing.

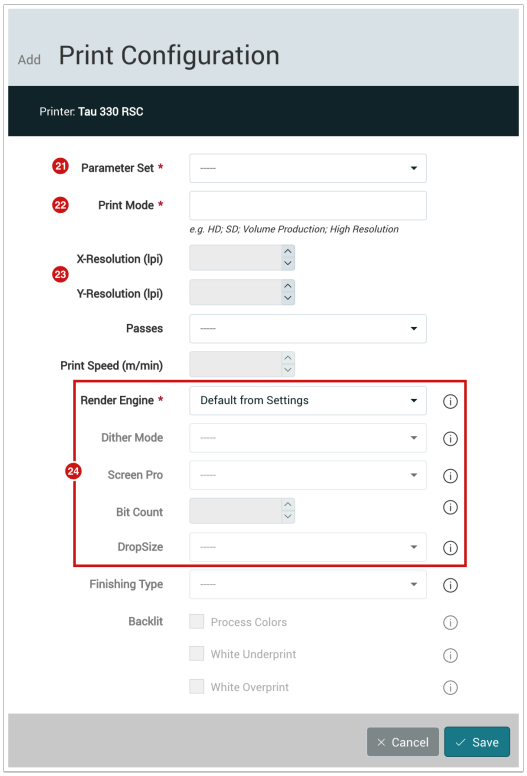
4.1. Create a new Print Configuration

The last step is to create all Print Configurations that you want to use for your press (and profile them as well).

Proceed as follows to do this:

1. Click on **+New** in the **Print Configuration** settings panel.
2. The *Add Print Configuration* dialog opens, in which you can now configure your Print Configuration.

Figure 10: The *Add Print Configuration* dialog



3. Select a resolution under the **Resolution** drop-down **[21]**. Based on the type of printer selected - *Tau 330 RSC; Rho P5; Delta WT*; etc. - the available resolutions (Print Modes) will be displayed. The corresponding designation, as specified in the printer software, is displayed in the **Print Mode** input field **[22]**. The selected resolution is also displayed in the **X-Resolution (lpi)** and **Y-Resolution (lpi)** **[23]** fields.
4. Under the **Print Mode** input field, you can overwrite the mode name if you require a different name or to apply the mode in the ERP system you are using.
5. The two fields **Passes** and **Print Speed** (**m/min**) are only used for documentation of the selected *Print Configuration*. By selecting a *Pass type* - Single Pass; 2 Pass, 3 Pass, 4 Pass, 6 Pass - this does not change how the print data is rendered.
6. We can now select our settings for the **Render Engine** **[24]**. The following parameters can be set:
   - **Render Engine*** – Select your Render Engine. There are three choices available:
     - **Default from Settings** – uses the rendering engine that has been set via ***Administration > Settings*** under the *General tab*.
     - **Standard** – uses the standard rendering engine based on the Adobe PDF library
     - **Harlequin Host Renderer** – uses the Global Graphics rendering engine (Harlequin RIP). This option can only be selected if you have a valid HHR license.
   - **Dither mode** – the following options can be selected from the drop-down menu

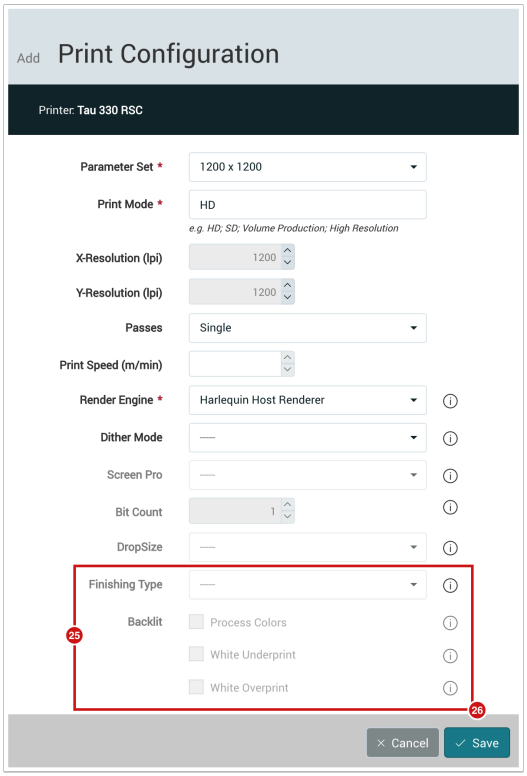
  - If **no dither mode** is selected, only grayscale images are rendered. Dithering takes place later during printing using another engine.
  - If **a dither mode** is selected – several dither modes are at your disposal, i.e.: *Floyed Noise; Floyed LUT; AIS; AIS-Pearl; AIS-Mirror; HDSA etc.* - so the rendered grayscale image is dithered.
- **Bit Count** – decide whether to create a 1-bit black-and-white image or a 2-bit image. Normally, a 1-bit black-and-white image is required. If a different color depth is required, you will be informed by your technician.
- **DropSize** – only necessary if variable drop size is required for the rendering.

Since we are creating a Print Configuration for the TAU 330 RSC, no further options need to be selected for the **Render Engine** **[24]** area, since only a grayscale image in the defined resolution is transferred to the printer.

> ⓘ *** Detailed information about the Rendering Engine**
>
> For more information about render engine settings, please read the **Choosing a Render Engine** article.

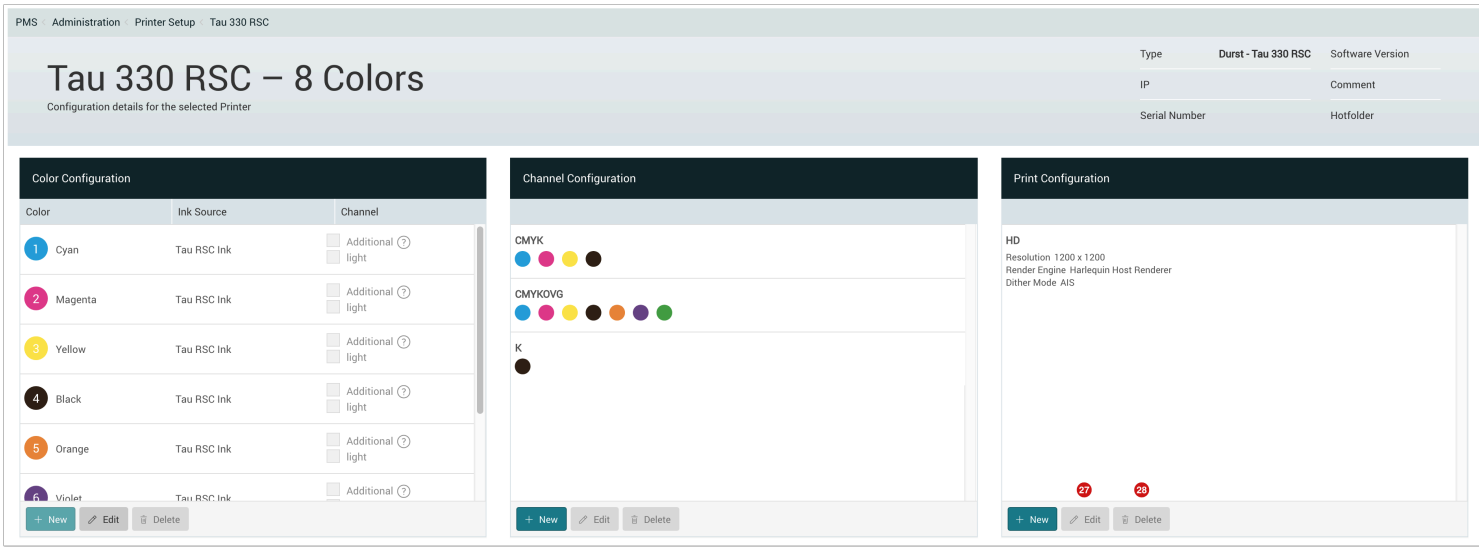
7. We can then select the settings for all additional color-relevant **options** **[25]**, which are created as a separate Print Configuration in the Workflow. Depending on the printer type, the user can choose from the following options:
   - **Finishing Type** – choose between **Matt** or **Glossy**
   - **Backlit** – the user is presented with multiple options for Backlit printing (transmitted light applications). These are only offered for certain printing systems, e.g. the RHO series. The following options are available for Backlit:
     - **Process Colors** – Activating this parameter tells the printer that all printed Process Colors should be doubled.
     - **White Underprint** – Activating this parameter tells the printer to Underprint White.
     - **Overprint** – Enabling this parameter tells the printer to Overprint White.
8. When you have defined all parameters for the Print Configuration, you can save by clicking on **Save** **[26]**.

Figure 11: The *Add Print Configuration* dialog after entering all required parameters for the *Tau RSC 330 RSC*.



After saving the configuration the *Tau 330 RSC* printer should look the same as *Figure 12*.

Figure 12: *Printer Configuration* settings after entering all required parameters for the *Tau 330 RSC*.



4.2. Edit and Delete a Print Configuration

4.2.1. Edit a Print Configuration

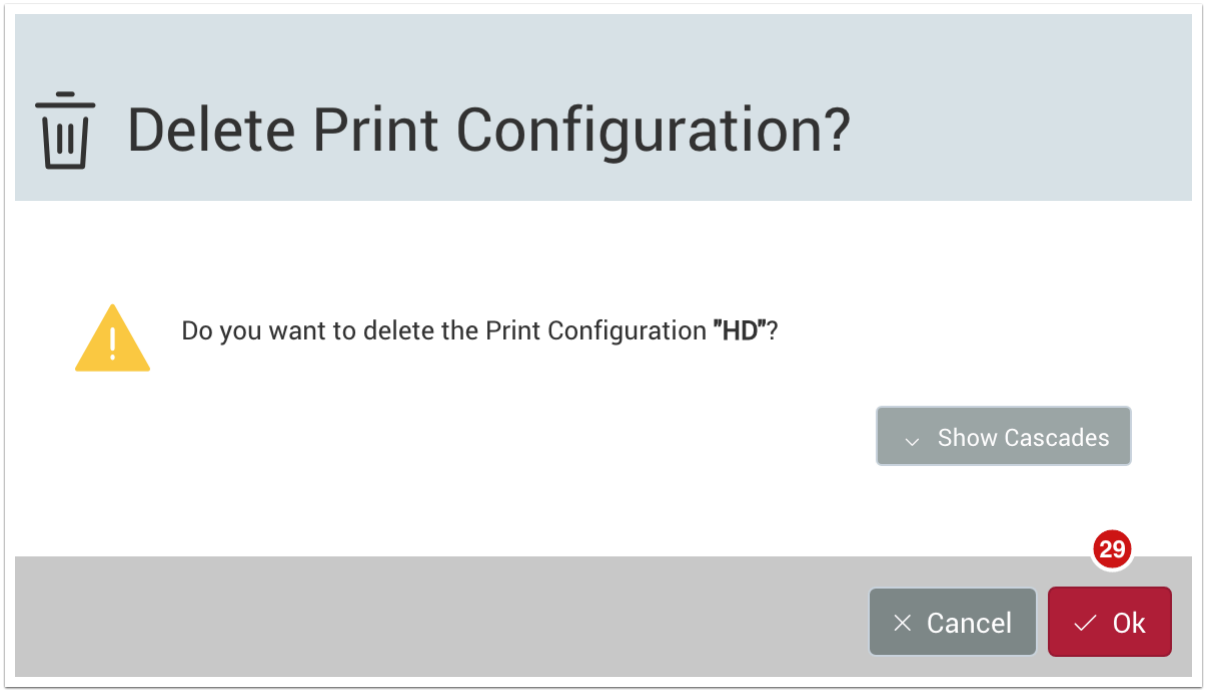
Select the desired Print Configuration under the **Print Configuration** settings panel and click **Edit [27]**. The *Edit Print Configuration* dialog appears as shown in *Figure 11*, the Print Configuration can be renamed among other things. The ability to change the resolution is no longer offered in this dialog.

> ⚠ **When Editing Print Configurations**
>
> If you have already created a Color Setup Profile based on a Print Configuration, you should not change any color-relevant parameters, since the Print Configuration will no longer be associated with the Color Profile. **Making changes to the Print Configuration are strictly at the risk of the user!**

4.2.2. Delete a Print Configuration

Select the Print Configuration to be deleted under the Print Configuration settings panel and click **Delete [28]**. The *Delete Print Configuration* dialog appears as shown in *Figure 13*, where the user must confirm the deletion by clicking **Ok [29]**.

Figure 13: The *Delete Print Configuration* dialog


Delete Print Configuration?
Do you want to delete the Print Configuration "HD"?
Show Cascades
29
Cancel
Ok