



Application Notes

Special Production Tools



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The **ErgoSoft RIP** is available in different editions. Therefore the description of available features in this document does not necessarily reflect the license details of your edition of the **ErgoSoft RIP**. For information on the features included in your edition of the **ErgoSoft RIPs** refer to the ErgoSoft homepage or contact your dealer.

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Introduction

In order to increase the efficiency of your workflow and production, the **ErgoSoft RIP** offers some additional production tools:

- 1 Job Processing Policies**
Job Processing Policies hold rules and settings for preflight, job printing, and job archiving. They allow creating rules for certain workflows or customers that can be assigned to jobs before printing. All settings and rules in a **Job Processing Policy** are performed automatically.
- 2 Preflight**
The **Preflight** function allows creating a printed or digital preview of the job. It allows checking the layout before printing.
- 3 Production Cost Calculation**
The **Production Cost Calculation** function allows automatically calculating the production costs of a job.
- 4 Target Printer Simulation**
The **Target Printer Simulation** allows simulating any other production machine such as an offset printing press or screen printing machine or another inkjet printer when the profile for this production machine is available.

Job Processing Policies

The **Job Center** allows specifying global rules for deleting and archiving done jobs. **Job Processing Policies** hold rules and settings for preflight, job printing, and job archiving. They allow creating rules for certain workflows or customers that can be assigned to jobs before printing. All settings and rules in a **Job Processing Policy** are performed automatically.

Creating and Selecting Job Processing Policies

1 To create and select **Job Processing Policies** use the *Job Properties* page **Job Processing Policy**.

2 Select the **Job Processing Policy** you want to use with the current job. Click the **View** button to check the settings of the selected job processing policy. The **New** button allows creating a new job processing policy based on the selected one.

3 The **General** tab allows entering a description of the job processing policy that is displayed on selection.

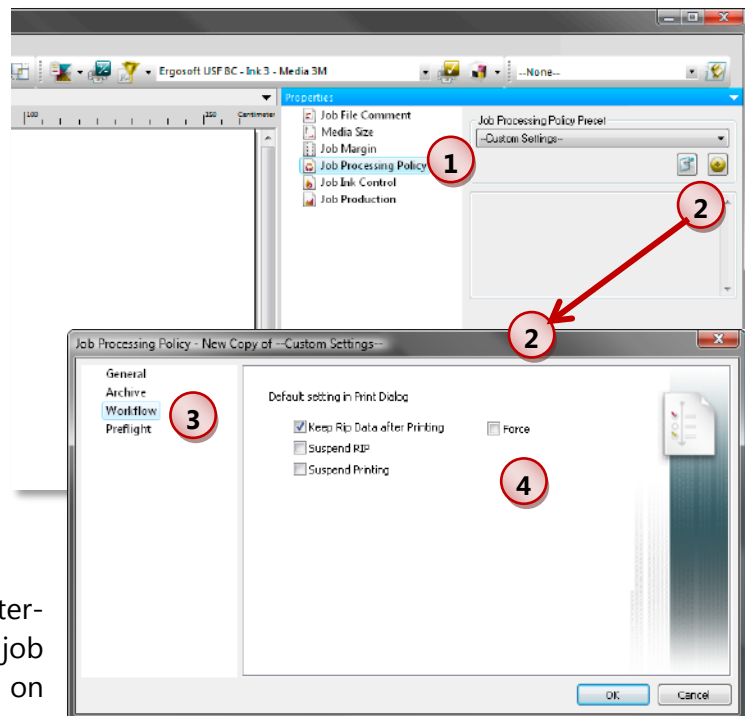
The settings on the **Archive** tab concern the deleting and archiving rules of processed jobs. They are described in the manual part about the **JobCenter** (Production Managing Tools).

The settings on the **Preflight** tab concern the rules for preflight. They are described in the manual part about Preflight below.

The settings on the **Workflow** tab concern the printing process and are described below.

4 Configure the default settings in the print dialog concerning suspensions and keeping ripped data. Check **Force** to deactivate the possibility of changing these settings in the print dialog.

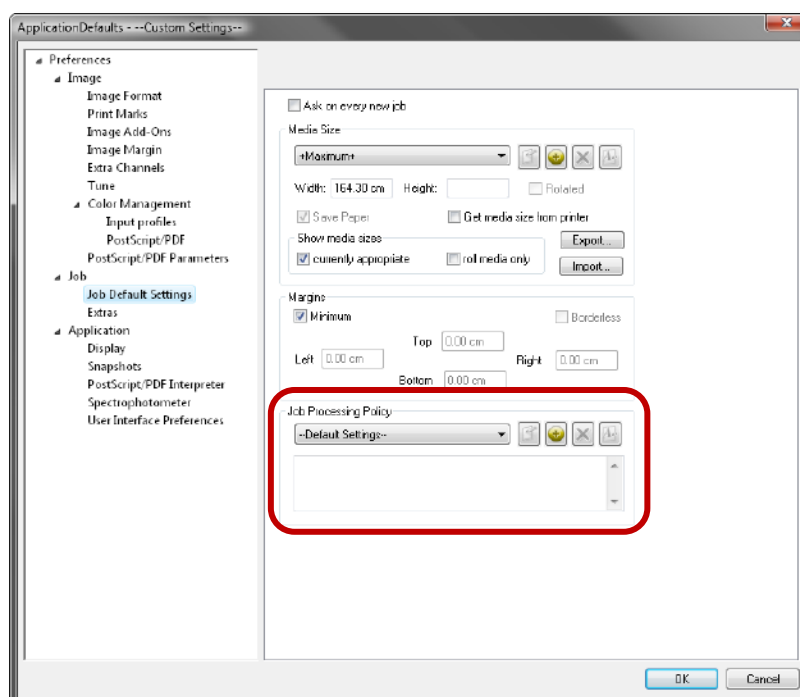
All jobs with the Job Processing Policy “-Default Settings-” use the archiving and deleting rules specified in the **Job Center**. All other rules overwrite the default rule and e.g. allow saving the archived jobs on a different folder than the default archive folder.



Setting the Global Job Processing Policy

The default job processing policy is set in the global settings of menu *Tools > Options > Preferences > Job > Job Default Settings*.

Use the buttons to manage job processing policies by editing, creating, deleting, and renaming them.



Preflight

The **Preflight** function allows creating a printed or digital preview of the job. It allows checking the layout before printing.

Please note that the Preflight functionality is not available for Legacy print drivers.

Preflight can be launched automatically before printing or manually.

Preflight Settings

The preflight settings are independent from the method the preflight is launched. This chapter simply describes the settings without considering the method of preflight launching.

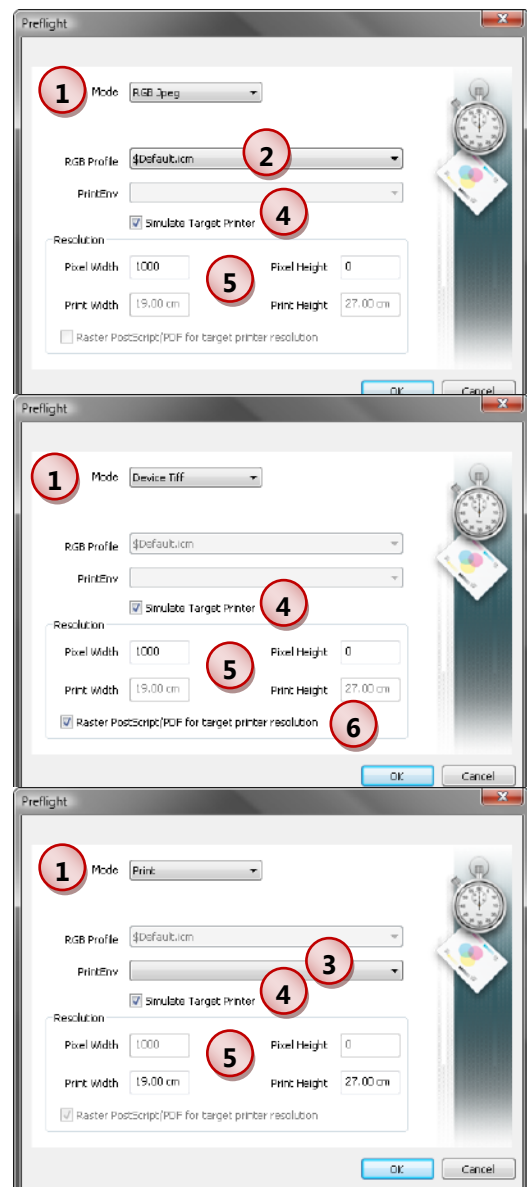
1 Select the preflight mode you want to use: **RGB Jpeg** and **RGB Tiff** create RGB files simulating a printout; **Device Tiff** creates a CMYK Tiff file with additional color channels simulating the color channels of the print environment; and **Print** creates a printout.

2 When using the **RGB Jpeg** or **RGB Tiff** mode, you have to select a monitor profile that is used to create the RGB file from the print data.

3 When using the **Print** mode, you can select a print environment to output the preflight e.g. on another smaller printer than the production.

4 Check **Simulate Target Printer** in order to use the calibration settings of the current print environment in addition to the preflight settings.

5 Select the dimensions in which the preflight is created. When using the **RGB Jpeg**, **RGB Tiff** or **Device Tiff** mode, you have to enter the dimensions in pixels while the **Print** mode requires the dimensions to be entered in the current unit.



Entering "0" for width or height means that this dimension does not matter and just the other one counts.

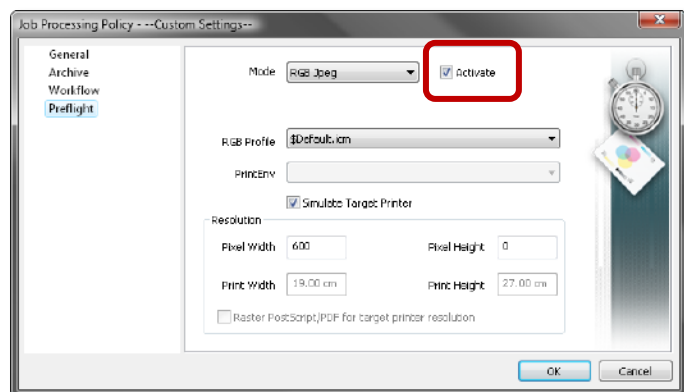
When entering width and height, the job is scaled proportionally so that it will fit into both values.

- 6 When using the **Device Tiff** mode, PostScript files can be rasterized to the size and resolution of the final printout instead of size and resolution of the preflight. Use this option to check in advance, whether you might run into the limits for PostScript files later in production.

Automatic Preflight

In order to use preflight automatically, it must be configured and activated in the current **Job Processing Policy**.

Then, the option **Preflight** in the **Print** dialog is automatically checked. When printing a job with the preflight option checked, just the preflight is created and the job is sent to the *Waiting Queue* waiting for you to manually start it for further processing.



The preflight files are saved in the subfolder *\Data\Preflight* of the current user data folder; the printout is done according to the port settings in the used print environment.

The preflight option in the **Print** dialog will only create a preflight when it is configured and activated in the current job processing policy.

Manual Preflight

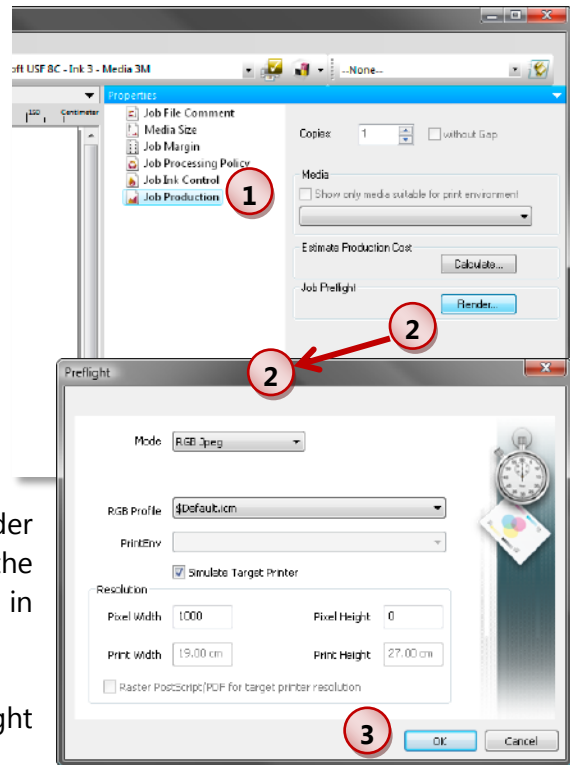
Sometimes, you might want to do a preflight just for the current job without needing to create a job processing policy for automatic preflight. Or you might want to do the preflight immediately for testing the job layout without needing the possibility of continuing the printing process.

The **ErgoSoft RIP** offers the possibility to manually configure and launch a preflight.

- 1 To manually launch a preflight use the *Job Properties* page **Job Production**.
- 2 Click the **Render** button in the **Job Preflight** part of the page.
- 3 When all settings are done according to the description above, click the **OK** button to immediately start the preflight process.

The preflight files are saved in the subfolder *\Data\Preflight* of the current user data folder; the printout is done according to the port settings in the used print environment.

When using the **RGB Jpeg** mode, the preflight ticket is automatically launched.



Production Cost Calculation

The **ErgoSoft RIP** offers the possibility to automatically calculate the production cost in advance and/or as part of the production process.

The requirements and settings needed for the production cost calculation are:

- The license must include the option for calculating the production costs.
- The costs of the ink must be entered.
- A correction for the ink consumption may be entered.
- The costs of the media must be entered.
- The costs for the printer time needed for (ripping and) printing must be entered.
- When the **Print Client** is used it must be configured correctly for the media usage.

Entering the Ink Costs

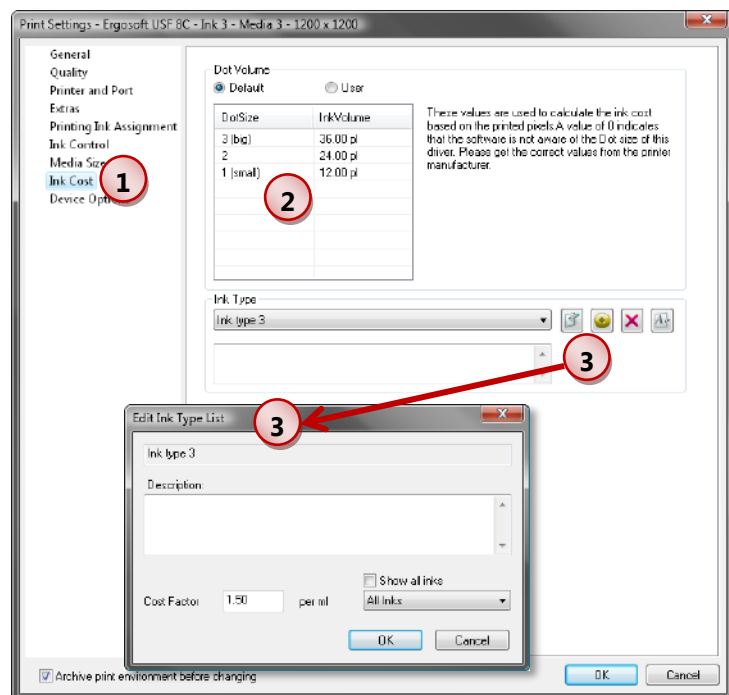
1 The ink costs are entered in the print environment on the **Ink Cost** tab.

2 Enter the size of the dot in pl. The default values are not necessarily correct. Please get the correct values from the printer manufacturer.

3 Select the ink type and use the buttons to edit, create, delete and rename ink types.

Make sure that there is a value entered for each ink color.

When having more than one ink type specified, be sure to select the ink type for which the current print environment is created.



Entering a Correction for the Ink Consumption

Start the **Print Client** and set it to OFFLINE.

1 Launch the menu *Operation > Ink Consumption*.

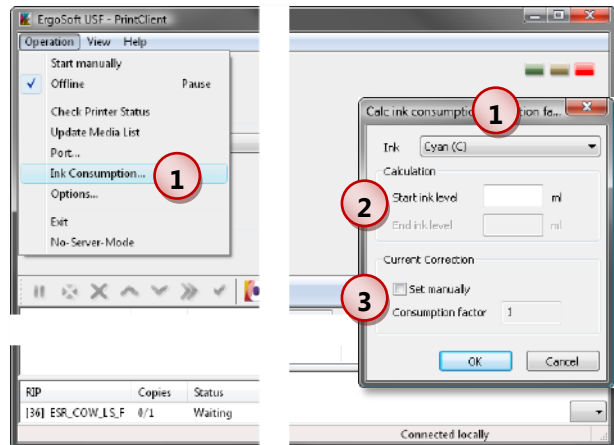
2 To calculate the correction factor:
For each ink that is loaded in your printer: Enter the current ink level in ml into the **Start ink level** field and close the dialog with **OK**.

Print some time (e.g. some days). Take care that all operations that must be done in certain intervals (e.g. head cleaning) are performed several times.

Launch this function again and for each ink that is loaded in your printer, enter the current ink level into the **End ink level** field which now is enabled.

When closing the dialog with **OK** the **Consumption factor** is calculated and automatically entered.

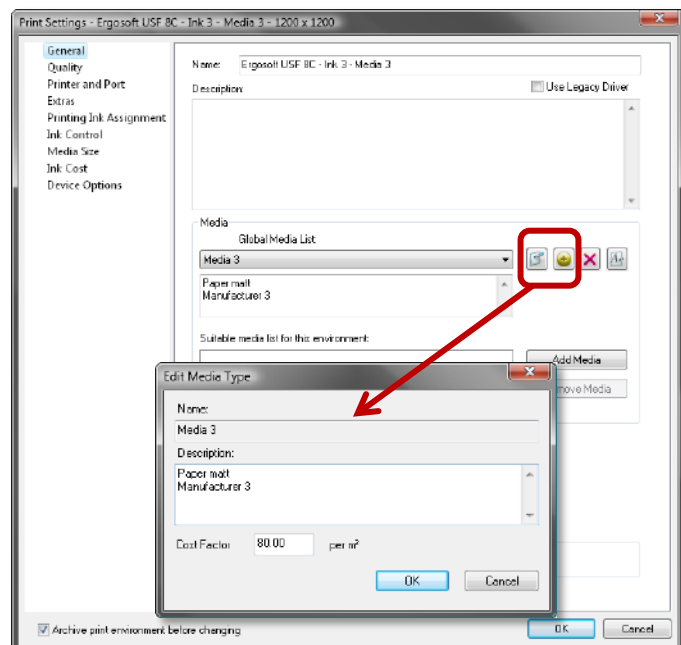
3 To manually enter the consumption factor:
Check **Set manually** and enter the **Consumption factor**.



Entering the Media Costs

The media costs are entered in the print environment on the **General** tab.

It does not matter in which print environment you modify the media list; it is always the global list for the system.

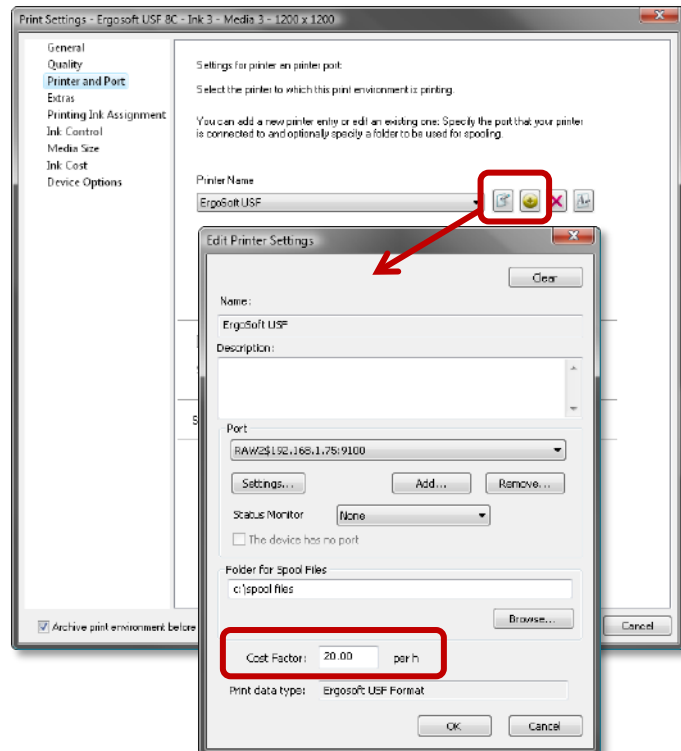


Entering the Printer Time Costs

The costs for the printer time are entered in the **Printer and Port** configuration of the print environment.

When using the *Print Client*, the cost calculation does not include the ripping time. Only the time is used for the calculation that is needed for the *Print Client* to send all data to the printer. The printer might need some more time to finish the printout.

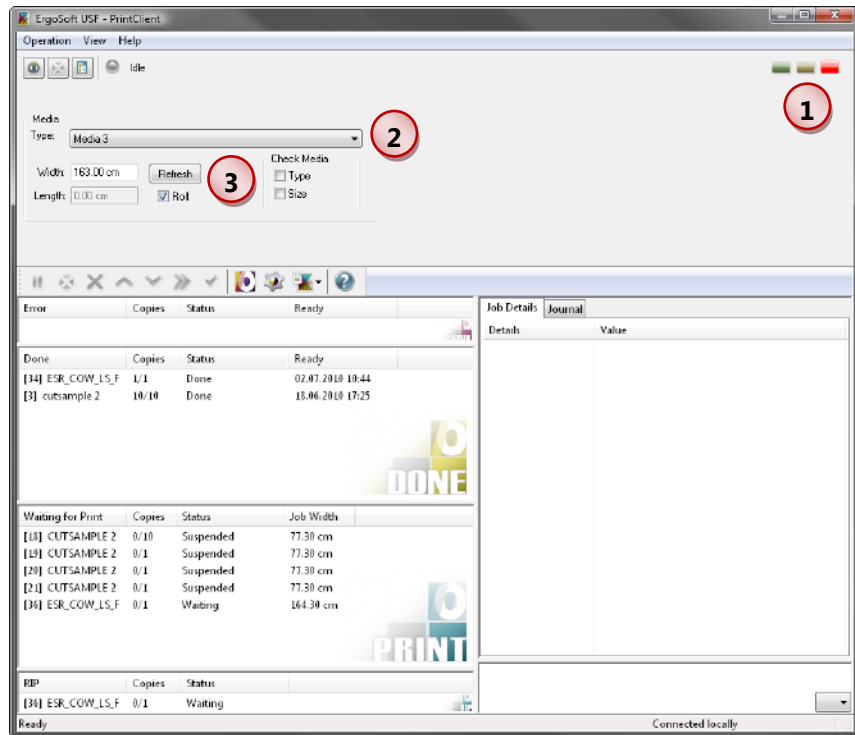
When the job is printed directly to the port (*Print Client* is skipped), the cost calculation includes both the ripping time and the time needed to send the data to the printer. The printer might need some more time to finish the printout.



Configuring the Print Client

When the **Print Client** is used, the media cost is calculated using the information set in the **Print Client**.

- 1 Set the **Print Client** to OFFLINE.
- 2 Select the media **Type** that is loaded in the printer.
- 3 Enter the media **Width** or press **Refresh** to automatically get the media width from the printer. Please note that getting the media from the printer requires that the printer is online and that the printer already has detected the media width and that the **Print Client** is configured to allow the usage of a status monitor.



Estimating the Costs before Printing

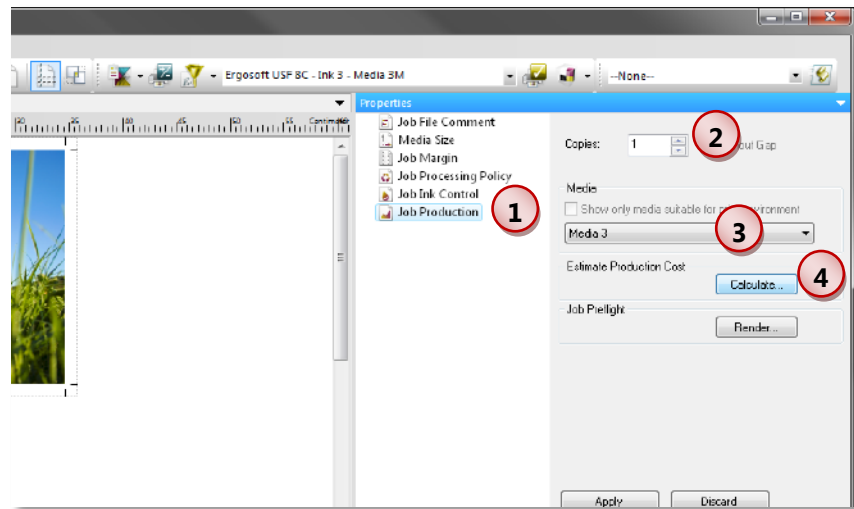
The production costs can be estimated before printing.

1 To estimate the production costs use the *Job Properties* page **Job Production**.

2 Set the number of copies of the job to be produced.

3 Select the media on which you intend to print this job.

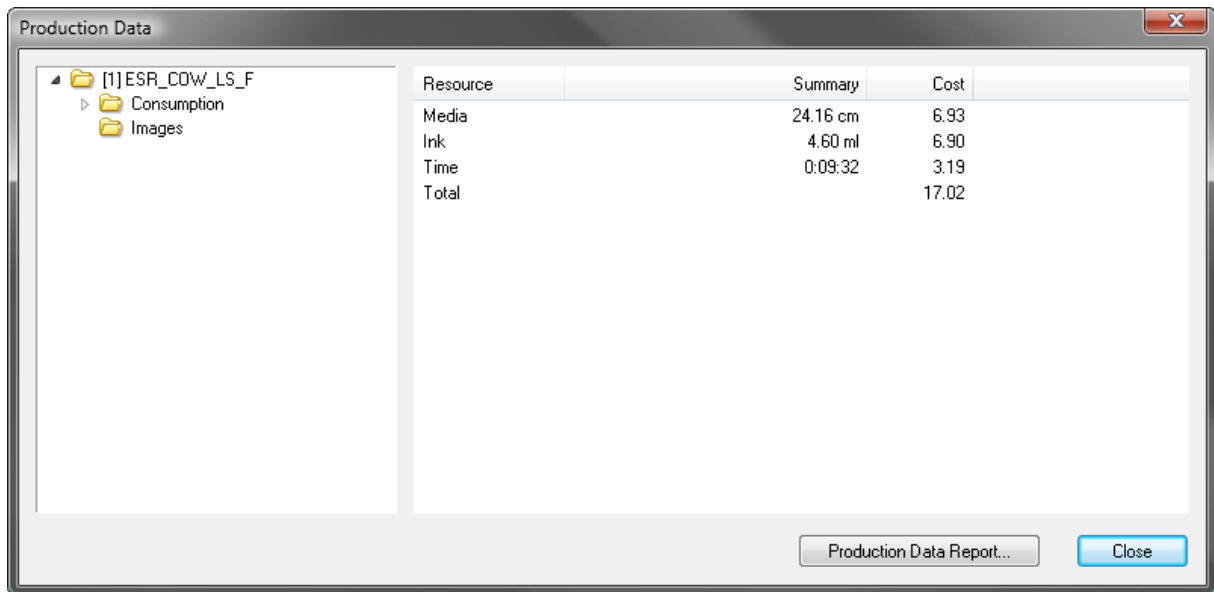
4 Press **Calculate** to let the **ErgoSoft RIP** estimate the production costs as follows:



- The media costs are calculated from the dimensions of the job.
- The ink costs are calculated from the previews in the job.
- The printer costs are calculated from other jobs that are already printed. The more jobs are already printed the more precise this value can be.

Since this function is just an estimation of the costs the actual costs may be quite different from this estimation. The more jobs are already printed the more precise this estimation can be.

Cost Calculation...



The screenshot shows a window titled 'Production Data'. On the left is a file tree with the following structure:

- [1] ESR_CDW_LS_F
 - Consumption
 - Images

On the right is a table with the following data:

Resource	Summary	Cost
Media	24.16 cm	6.93
Ink	4.60 ml	6.90
Time	0:09:32	3.19
Total		17.02

At the bottom right of the window are two buttons: 'Production Data Report...' and 'Close'.

... When using the Print Client

When using the **Print Client** the cost calculation is done as follows:

- **Media Costs:** The media costs are calculated from the information in the **Print Client**. The media selected in the **Print Client** is used for getting the media price. The area used is calculated from the job length and the media width entered in the **Print Client**. (See "Configuring the Print Client" for more information.)
- **Ink Costs:** The ink costs are calculated from the needed dots for the image and the number of dots per ml (see "Entering the Ink Costs" for more information).
- **Printer Costs:** The printer costs (Time) are calculated from the time the **Print Client** needs to send the data to the printer and the costs per hour that is specified for the printer. The time needed for ripping the job does not influence the calculation.

... When Printing Directly to the Port

When printing directly to the port the cost calculation is done as follows:

- **Media Costs:** The media costs are calculated from the media type selected in the Print dialog and the area of the job filled with data. Please note that the media width is not known and thus, cannot be used for calculating the media costs.
- **Ink Costs:** The ink costs are calculated from the needed dots for the image and the number of dots per ml (see "Entering the Ink Costs" for more information).
- **Printer Costs:** The printer costs (Time) are calculated from the time the **RIP Server** needs to rip and send the data to the printer and the costs per hour that is specified for the printer.

Target Printer Simulation

The **Target Printer Simulation** allows simulating any other production machine such as an offset printing press or screen printing machine or another inkjet printer when the profile for this production machine is available.

The **ErgoSoft RIP** may e.g. be used to create a proof for offset or screen printing.

To simulate another production system you need to ...

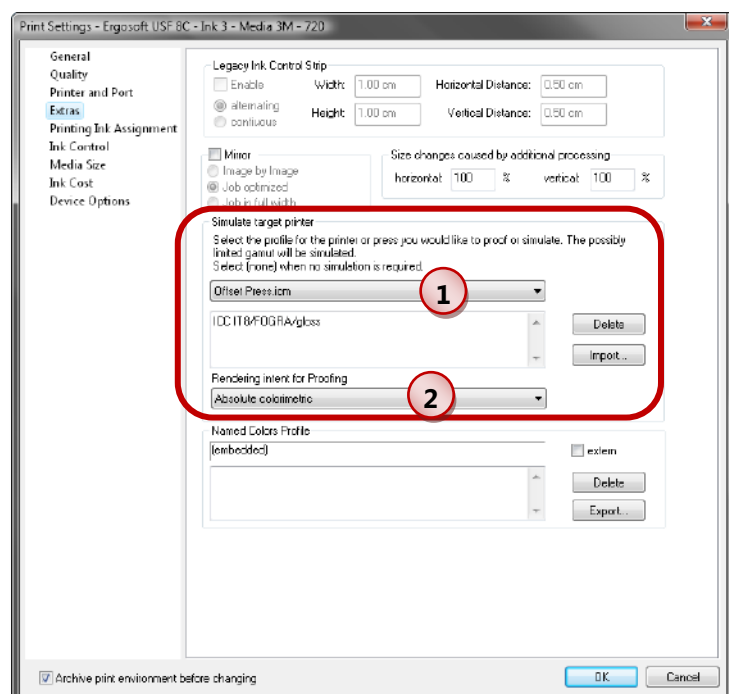
- You need to know which how the image color space will be converted into the Lab color space. This means that you need to know the color management settings and that you have the input profile(s).
- You need to know how the Lab color space will be converted into the production color space. This means that you need to have the output profile and that you know which rendering intent should be used.
- You need to have a calibrated workflow in the **ErgoSoft RIP**. This means that you have a density linearization and printer profile for your inkjet printer you want to use for the target printer simulation.

With this information and files you can configure the print environment and set up your workflow.

Configuring the Print Environment

1 Select the output profile for the output device you want to simulate. Use the **Import** button to let the **ErgoSoft RIP** copy the profile to the folder it is expected to be saved.

2 Select the rendering intent that the output device to be simulated uses to convert the Lab color space into the output color space.

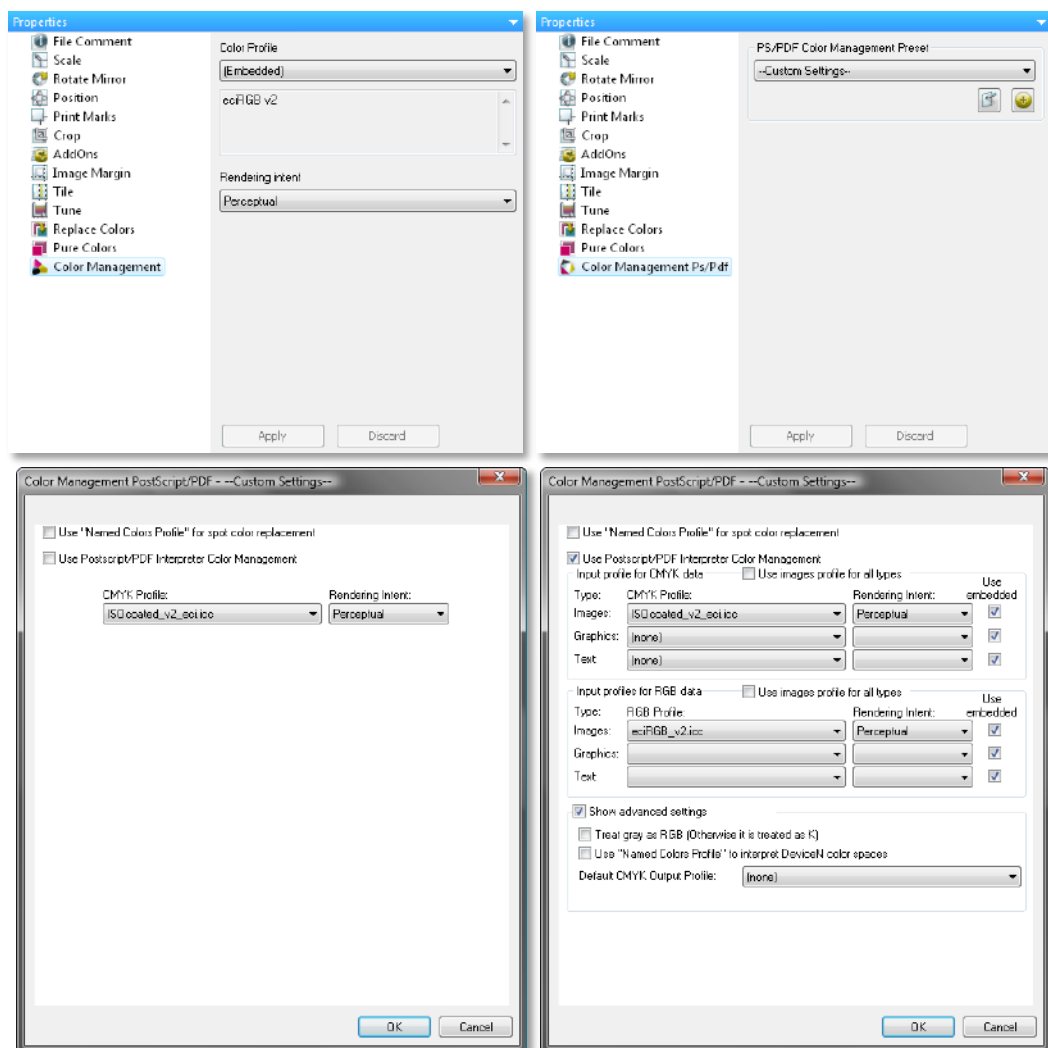


Configuring the Job

Create and design your job as usual.

Select the image color management settings in the *Image Properties* window according to the color management settings for images that the output device to be simulated uses. These settings might be different from the color management settings you normally use.

When the gamut of your printer is larger than the gamut of the output device to be simulated you might want to use the absolute colorimetric rendering intent.



Printing the Proof

When printing the following color conversions are done automatically:

- The image is converted into Lab using the specified input profile(s).
- The resulting Lab values are converted into the Proof color space using the profile and rendering intent specified for target printer simulation on the **Extras** tab in the print environment.
- At last, the Proof color space values are converted into the printer color space using the density linearization and printer profile specified on the **Quality** tab in the print environment as well as the rendering intent specified in the color management settings in the *Image Properties* window.