

What's new in ZePrA 5?

ZePrA 5 is a major new version of our color server. It addresses several new features our clients have requested. The first of the two main new features is regarding speed improvements and multithreading. The second is the additions to the spot color handling and reporting. There are several other new features as well, including improvements to the user interface. These new features make ZePrA 5 a must have version for existing clients, as well as new clients.

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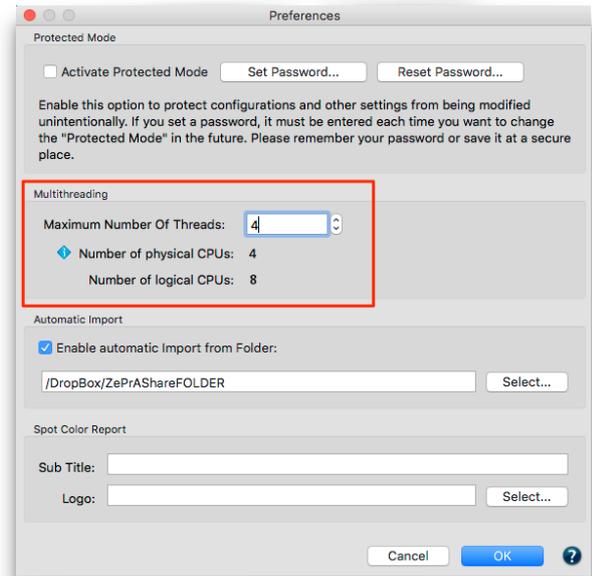
Speed Improvements

ZePrA 5 is a 64-Bit application which allows use of more RAM for processing multiple files at the same time. The processing of PDF files in ZePrA 5 will be faster due to the use of additional threads in jobs processing.

Pending jobs:	ID	Name	Queue	Status
	2423	ColorLogic-SpotColors-Testfile_V2.pdf	Convert_ISOcoatedv2_PSOcoatedv3	Processing (SmartLink calculation)
	2424	PANTONE_coated_Color_References_Book1.pdf	Convert_ISOcoatedv2_PSOcoatedv3	Processing (Preparing spot color calculations)
	2425	Ponyhof.pdf	Convert_ISOcoatedv2_PSOcoatedv3	Processing (Transparency flattening...)
	2426	RGB_gradient_vector.pdf	Convert_ISOcoatedv2_PSOcoatedv3	Processing (SmartLink calculation)

The main speed improvements will be experienced when processing multiple files at the same time. Due to multithreading, ZePrA will take advantage of modern multi core CPUs and will process several files simultaneously. As a default, ZePrA uses the same number of threads as physical CPUs that are available. In addition the number of logical CPUs are displayed which are often double the size of logical CPUs. You may use a maximum number of threads equal to the logical CPUs.

Example: On a 4 core CPU MacBookPro the processing of 135 sample files with 2.8 GB of file size with ZePrA 4.7 took 30 minutes, whereas ZePrA 5 only took 7 minutes to process.

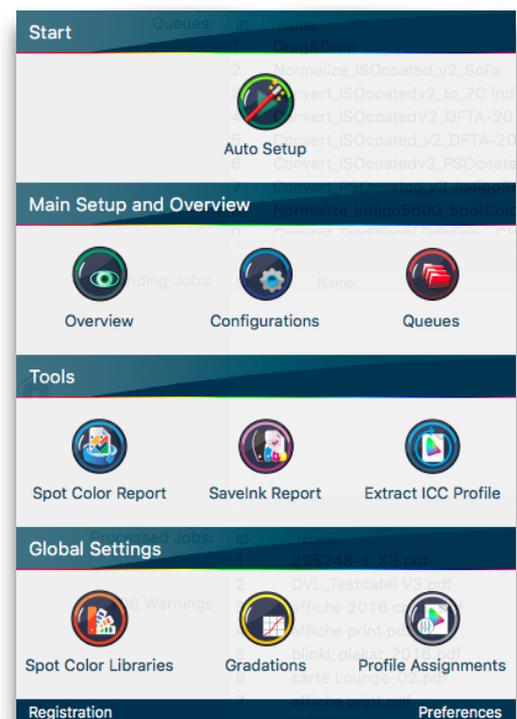


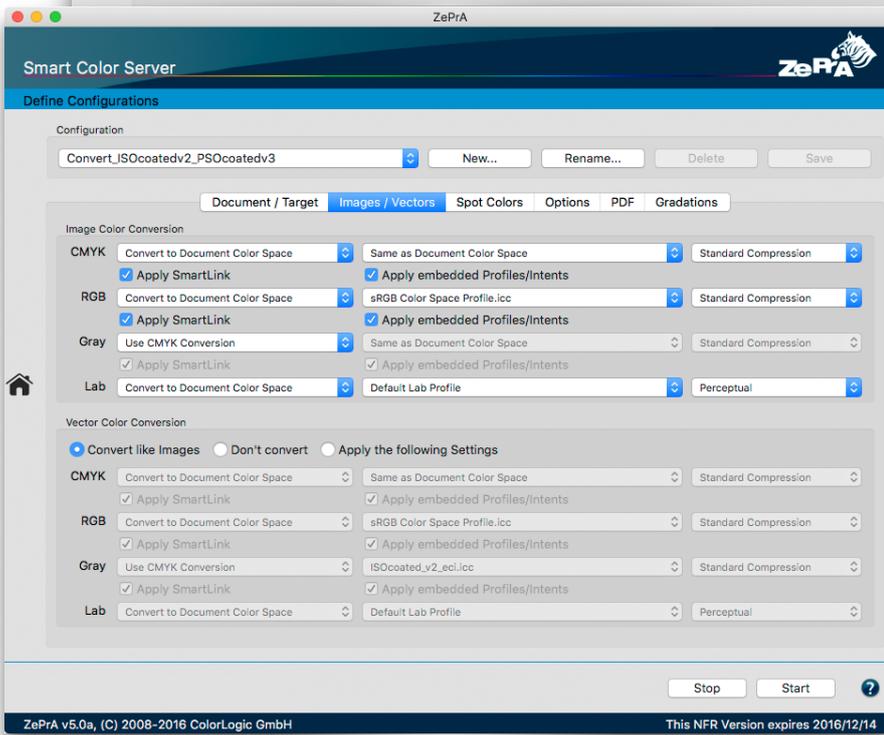
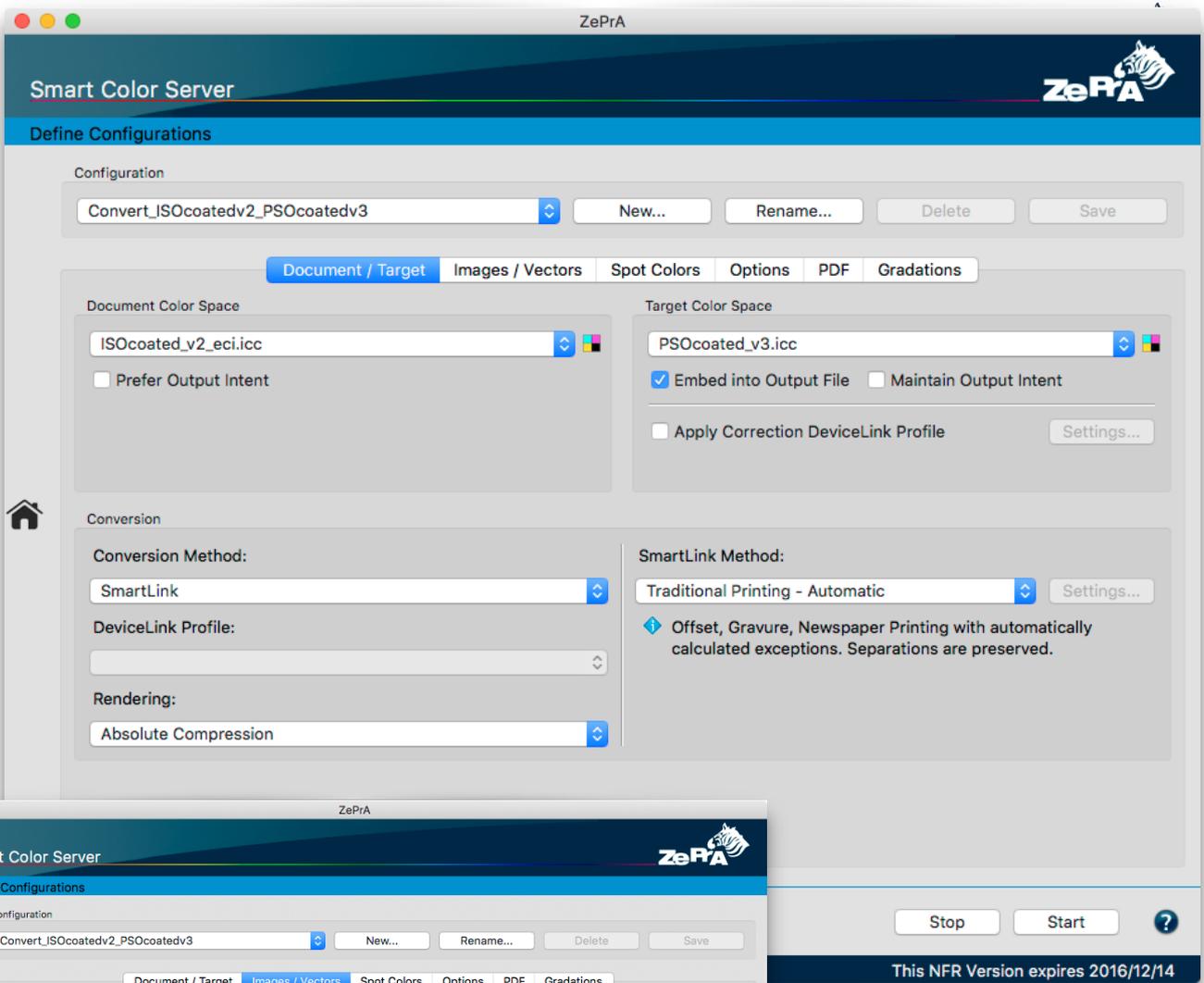
New Graphical User Interface

You will find the slider panel revamped and some tools added. Some of the tools are well known from previous versions of ZePrA, e.g. the **Savelink Report** and **Extract ICC profile**. The **Spot Color Report** feature is a new major feature and will be explained on page 4.

The biggest changes of the GUI will show up when opening the **Configurations** dialog. You will find that fewer tabs are used. For example, the previously separate **Images** and **Vector** color management settings have been combined into one tab. Additionally, the **SmartLink** and the **Target** tabs have been removed and their functionalities have been added to the **Document / Target** tab.

The **Document / Target** tab is the new center of each configuration as it contains the settings for **Document Color Space**, all **Target** color management settings and the **SmartLink Method**. This improves the visual clarity of the configuration. See screenshots on the next page.





New **Document / Target** and **Images / Vectors** dialogs in the **Configuration**.

Spot Color Report

The new **Spot Color Report** feature is helpful to check the spot color conversion before printing. You can either check a specific PDF file with spot colors that needs to be converted or how a spot color library with multiple Pantone or other spot colors would be processed through ZePrA.

To access the report click on the icon on the slider panel. The upcoming dialog requires a few selections to proceed. First, select from the list of **Configurations** which from your ZePrA set up you wish to use.

Note: Only the configurations with enabled spot color conversion are shown in the list.

Under **Source Data** select **File** or **Library**. **File** allows a PDF file with spot colors to be loaded and processed with the selected configurations. **Library** allows selection of one of the spot color libraries that is

located in the ZePrA set up for processing. Both options provide a look at how a spot color conversion result will be in terms of deltaE00, deltaE76 and in terms of the process color breakdowns. With **Sort by**, you can define how the list will be sorted. When sorting by **Delta E**, the spot colors with the lowest dE will be on top and the largest dE on bottom.

Note: The report generation will use all of the spot color settings that have been selected in the configuration(s), including manual settings and warnings. Colors with warnings will be shown with red deltaE values.

After the settings have been defined, a report file can be generated with the help of the **Save** button and/or you can generate a **Preview** first. The screenshot shows the preview of the spot colors found in a PDF file and processed through different configurations.

The **Preferences** dialog - see screenshot on page 2 - allows customization of the generated report with your custom logo and a custom sub title.

Spot Color Report
2016-08-16

Configuration: SoFA dE-Test IFRANewspaper26v5

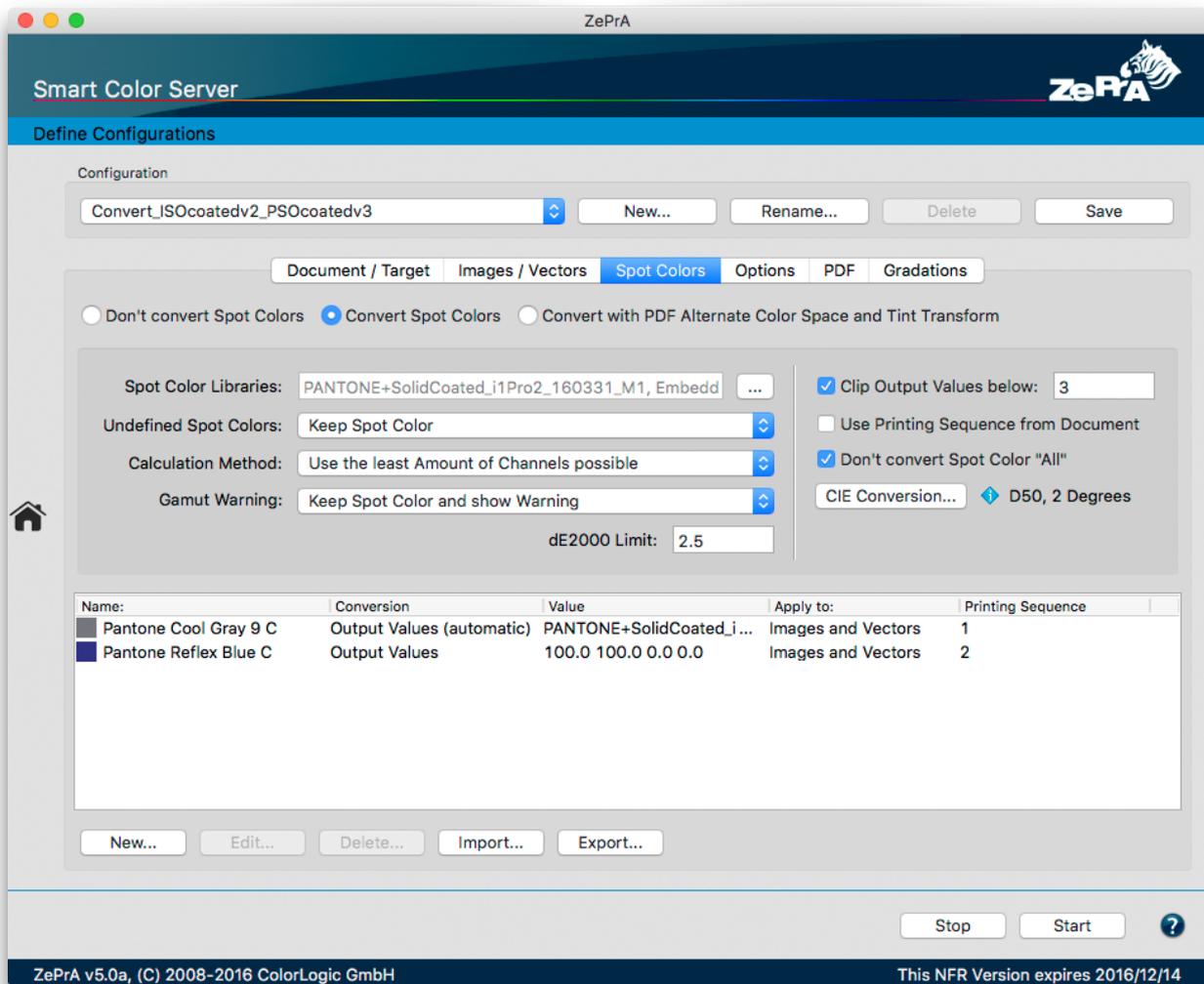
Name	Conversion	Target Lab	CMYK	Lab	dE00	DeltaE-76
PANTONE 4725 C	PANTONE+ Solid Coated (M0)	60.52 14.24 12.10	0.0 28.5 20.8 21.4	60.52 14.26 12.07	0.0	0.0
PANTONE 7504 C	PANTONE+ Solid Coated (M0)	53.30 9.26 17.08	0.0 24.9 39.8 38.5	53.31 9.20 17.05	0.1	0.1
PANTONE 5205 C	PANTONE+ Solid Coated (M0)	46.87 17.65 -9.20	34.8 70.6 0.0 18.0	46.92 17.64 -9.16	0.1	0.1
PANTONE 425 C	PANTONE+ Solid Coated (M0)	36.92 -0.44 -3.68	58.5 25.4 0.0 78.9	36.86 -0.48 -3.70	0.1	0.1
PANTONE Cool Gray 9 C	PANTONE+ Solid Coated (M0)	50.02 0.41 -4.54	32.5 17.9 0.0 38.7	49.93 0.42 -4.48	0.1	0.1
PANTONE 722 C	PANTONE+ Solid Coated (M0)	61.68 23.51 43.54	0.0 37.8 100.0 5.1	63.10 21.61 38.62	2.1	5.5
PANTONE Warm Gray 1 C	PANTONE+ Solid Coated (M0)	84.67 2.04 0.47	4.8 4.1 0.0 0.0	81.51 1.78 2.22	2.7	3.6
PANTONE 112 C	PANTONE+ Solid Coated (M0)	56.23 2.41 56.35	0.0 4.5 100.0 31.0	60.26 0.89 38.66	6.7	18.2
PANTONE 136 C	PANTONE+ Solid Coated (M0)	82.40 17.46 68.32	0.0 11.9 100.0 0.0	75.08 7.00 54.21	8.2	19.0
PANTONE 492 C	PANTONE+ Solid Coated (M0)	36.11 40.70 18.47	0.0 100.0 64.0 41.5	42.57 24.95 12.99	8.6	17.9
PANTONE 2915 C	PANTONE+ Solid Coated (M0)	69.81 -14.03 -37.59	60.0 3.4 0.0 0.0	64.74 -16.35 -19.33	9.1	19.1
PANTONE 7474 C	PANTONE+ Solid Coated (M0)	42.95 -34.56 -19.56	100.0 0.0 13.2 29.4	47.70 -18.03 -10.70	9.3	19.3
PANTONE 172 C	Optimization Test Colors	59.30 68.56 65.31	0.0 65.7 100.0 0.0	58.09 36.17 31.39	11.3	46.9
PANTONE Black C	PANTONE+ Solid Coated (M0)	17.27 1.34 2.02	56.5 48.2 15.4 100.0	33.87 2.00 -0.79	12.5	16.8
PANTONE 3275 C	Optimization Test Colors	60.84 -70.97 -6.97	100.0 0.0 39.2 0.0	56.61 -30.75 -2.26	12.9	40.7
PANTONE 5255 C	PANTONE+ Solid Coated (M0)	11.18 8.24 -17.48	99.5 100.0 0.0 81.4	32.90 3.23 -6.42	17.3	24.9
PANTONE 2955 C	PANTONE+ Solid Coated (M0)	20.70 -7.34 -35.36	100.0 36.8 0.0 53.2	37.97 -3.28 -10.31	17.8	30.7

Configuration: SoFA dE-Test F39

Name	Conversion	Target Lab	CMYK	Lab	dE00	DeltaE-76
PANTONE Black C	PANTONE+ Solid Coated (M0)	17.27 1.34 2.02	28.5 34.6 37.0 93.9	17.28 1.35 2.02	0.0	0.0
PANTONE 425 C	PANTONE+ Solid Coated (M0)	36.92 -0.44 -3.68	24.6 16.1 9.9 71.7	36.92 -0.44 -3.71	0.0	0.0
PANTONE 492 C	PANTONE+ Solid Coated (M0)	36.11 40.70 18.47	3.4 86.1 60.4 42.4	36.14 40.66 18.47	0.0	0.1
PANTONE Warm Gray 1 C	PANTONE+ Solid Coated (M0)	84.67 2.04 0.47	0.4 5.4 5.3 12.8	84.68 2.05 0.50	0.0	0.0
PANTONE 722 C	PANTONE+ Solid Coated (M0)	61.68 23.51 43.54	0.0 46.6 74.7 16.7	61.68 23.57 43.61	0.0	0.1
PANTONE 7504 C	PANTONE+ Solid Coated (M0)	53.30 9.26 17.08	3.5 31.7 44.8 44.7	53.33 9.29 17.09	0.0	0.0
PANTONE 5205 C	PANTONE+ Solid Coated (M0)	46.87 17.65 -9.20	15.3 47.9 0.0 45.3	46.87 17.70 -9.21	0.0	0.1
PANTONE 4725 C	PANTONE+ Solid Coated (M0)	60.52 14.24 12.10	1.9 35.3 33.3 31.2	60.55 14.19 12.08	0.0	0.1
PANTONE 112 C	PANTONE+ Solid Coated (M0)	56.23 2.41 56.35	3.3 20.2 98.9 41.9	56.19 2.36 56.39	0.1	0.1
PANTONE 7474 C	PANTONE+ Solid Coated (M0)	42.95 -34.56 -19.56	92.1 2.4 29.8 33.6	42.93 -34.48 -19.62	0.1	0.1
PANTONE Cool Gray 9 C	PANTONE+ Solid Coated (M0)	50.02 0.41 -4.54	11.2 8.7 0.0 60.0	50.02 0.44 -4.62	0.1	0.1
PANTONE 5255 C	PANTONE+ Solid Coated (M0)	11.18 8.24 -17.48	100.0 94.0 0.0 77.7	12.38 8.14 -16.96	0.8	1.3
PANTONE 2915 C	PANTONE+ Solid Coated (M0)	69.81 -14.03 -37.59	59.0 10.0 0.0 0.0	68.33 -15.26 -31.79	2.5	6.1
PANTONE 2955 C	PANTONE+ Solid Coated (M0)	20.70 -7.34 -35.36	100.0 51.3 0.0 57.1	23.43 -6.14 -29.12	3.2	6.9
PANTONE 136 C	PANTONE+ Solid Coated (M0)	82.40 17.46 68.32	0.0 28.1 85.1 0.0	77.49 13.05 66.34	4.2	6.9
PANTONE 172 C	Optimization Test Colors	59.30 68.56 65.31	0.0 77.5 100.0 0.0	54.39 53.06 55.41	6.2	19.0

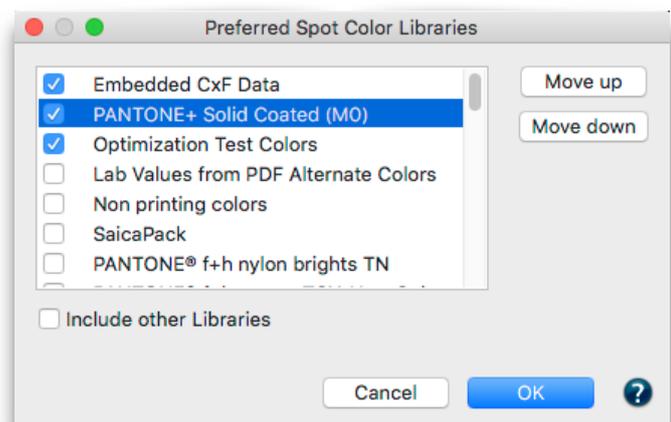
New Spot Color Processing Options

First, please note that the GUI for **Spot Color** conversion has changed. More features have been added and the dialog looks cleaner compared to previous versions of ZePrA. If you wish to enable the advanced **Spot Color Conversion** simply select the radio button. The alternate color space definition in the PDF document can also be used, which provides a lesser quality result compared to the advanced options with ZePrA. However, this allows for comparison to the default spot color conversion results from basic printer drivers, RIPs or Adobe Acrobat.



The selection of the **Spot Color Libraries** in ZePrA is now available by clicking on the ellipsis button located to the right of the selected library.

The dialog **Preferred Spot Color Libraries** offers several new features. Selection of multiple spot color libraries is now an option. The option to **Include other Libraries** is available below the list as well. Automatically including all libraries may not be beneficial since it is possible that a spot color from a library could be automatically selected that does not match the target printers capabilities. For example, if one library contains the spot color printed on OPP foil but the target profile was printed on paper, this would not be a



match. In these cases it is better to manually select those libraries that fit the printers requirements in the list.

With the help of the **Move up** and **Move down** buttons, the selected libraries can be prioritized. Those libraries on top have the highest priority.

There are two new options available that are independent from the libraries in ZePrA.

Embedded CxF Data is a great new feature that allows automatic use of any available CxF/X-4 spectral data for spot colors in PDF files. CxF/X-4 has been an ISO standard since 2015 and has been designed to define spot colors by measuring and storing spectral information of ink solids and tints, on substrate and process black. This spectral definition allows color management systems like ZePrA to better proof and convert spot colors.

The alternate option is to use **Lab Values from PDF Alternate Colors** instead of using a library. New versions of Adobe InDesign will save Lab alternate color space values in the PDF instead of CMYK, as in the past. In the case a spot color does not have a CxF value or is not available in a spot color library, the Lab alternate value from the PDF can be used and processed with the advanced ZePrA calculation methods.

Note: In the case of the alternate color space in the PDF not being Lab but e.g. CMYK or RGB, ZePrA would not use it and would regard the spot color as undefined.

The new feature **Clip Output Values below**

provides a user defined percentage value and is a feature that our Flexo clients have requested. If for example, printing tints below

3% is unstable on press then 3 needs to be entered as threshold in the number field. ZePrA would then not use any process color breakdowns with less than 3%.

Note: If this feature is used and the threshold is set too high, it will be very likely that a converted light spot color will result in higher deltaE values, so be careful with this option.

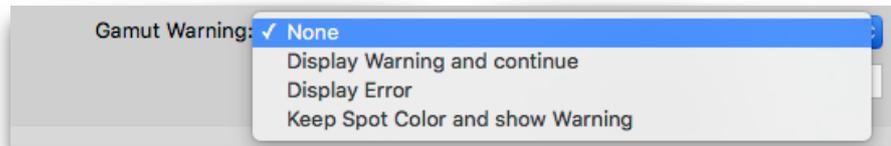


The **Gamut Warning** selection includes a new option called **Keep Spot Color and show Warning**.

Until now a spot color deltaE

warning could be either ignored,

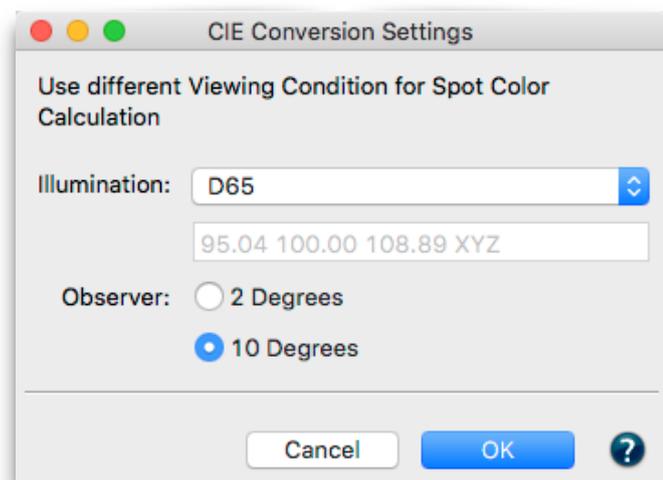
warned about but still converted, or regarded as an error which would prevent converting the file at all. With the new option the spot color with warning will not be converted but preserved and all of the other spot colors in the file would be converted.



Lastly, we have added a button **CIE Conversion**.

This option is very useful for special applications such as textile printing. In the textile industry the standard illumination is D65 and the 10 degrees standard observer is the default. Users can now change the Lab values that are used in ZePrA for conversion by selecting the **CIE Conversion Settings**. This option only applies for spectrally defined spot colors and only makes sense if the target profile was created with a matching illumination and observer.

Note: The default setting is D50 and 2 degrees observer.



Overview Dialog

Sorting for **Queue Names**, **Configurations** and **Status** is now enabled by clicking on the table headers. Previously, sorting of **Queues** was not possible. In addition, a queue **ID** has been added which allows for "natural" sorting, e.g. with the newest queue either on the bottom or the top of the list. The section for **Processed Jobs** has an additional column for the **Date** and time stamp. This can be very helpful to find a specific data and time a job was processed.

Queues:

ID	Name	Configuration	Jobs
3	Convert_ISOcoatedv2_to_7C_Indigo_SoFa	Convert_ISOcoatedv2_to_7C_Indigo_SoFa	0
7	Convert_PSOcoated_v3_Indigo5600	Convert_PSOcoated_v3_Indigo5600	0
9	Convert_Traditional Printing - Classic_PSOcoated_v3_CoatedGRAC...	Convert_Traditional Printing - Classic_PSOcoated_v3_Co...	0
11	Convert_Z5-ISOcoatedv2_2_7C_Indigo_oS	Convert_Z5-ISOcoatedv2_2_7C_Indigo_oS	0
10	Convert_Z5-ISOcoatedV2_to_7C_Indigo	Convert_Z5-ISOcoatedV2_to_7C_Indigo	0
1	Drag&Drop	My Configuration	0
8	Normalize_Indigo5600_SpotColors	Normalize_Indigo5600_SpotColors	0
2	Normalize_ISOcoated_v2_SoFa	Normalize_ISOcoated_v2_SoFa	0

Pending jobs:

ID	Name	Queue	Status
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Processed jobs:

Name	Queue	Status	Date
RGB_gradient_vector.pdf	Convert_ISOcoatedv2_PSOcoatedv3	OK	06-15-2016 11:14
Ponyhof.pdf	Convert_ISOcoatedv2_PSOcoatedv3	Warning (The dE2000 threshold has been exce	06-15-2016 11:15
PANTONE_coated_Color_References_Book1.pdf	Convert_ISOcoatedv2_PSOcoatedv3	Warning (The dE2000 threshold has been exce	06-15-2016 11:14
ColorLogic-SpotColors-Testfile_V2.pdf	Convert_ISOcoatedv2_PSOcoatedv3	Warning (The dE2000 threshold has been exce	06-15-2016 11:14
ColorLogic-SpotColors-Testfile_V2.pdf	Convert_ISOcoatedv2_PSOcoatedv3	Warning (The dE2000 threshold has been exce	06-15-2016 11:10
106466.pdf	Convert_ISOcoatedv2_to_7C_Indigo_SoFa	OK	06-15-2016 11:07
106466.pdf	Convert_ISOcoatedv2_to_7C_Indigo_SoFa	OK	06-15-2016 11:07
RGB_gradient_vector.pdf	Convert_ISOcoatedv2_PSOcoatedv3	OK	06-15-2016 11:09
Ponyhof.pdf	Convert_ISOcoatedv2_PSOcoatedv3	Warning (The dE2000 threshold has been exce	06-15-2016 11:09
PANTONE_coated_Color_References_Book1.pdf	Convert_ISOcoatedv2_PSOcoatedv3	Warning (The dE2000 threshold has been exce	06-15-2016 11:09
CL_SoFa_Test_v2_Convert_PSOcoated_v3_Indig...	Normalize_Indigo5600_SpotColors	OK	06-08-2016 12:48

ZePrA v5.0a, (C) 2008-2016 ColorLogic GmbH This NFR version expires 2016/12/14

SaveInk Auto Setup Wizard Improvements

In the **Auto Setup Wizard** for **Save Inks** a new step has been added that allows the user to enable or disable the ink saving calculations. The calculation can slow down the processing time considerably so that users can disable this feature gaining higher performance in the Wizard.

Automatic Setup Wizard

Calculate ink savings

i Please chose if the ink saving shall be calculated and displayed. Note that the calculation may take some time and slow down processing considerably. The conversion results are not influenced.

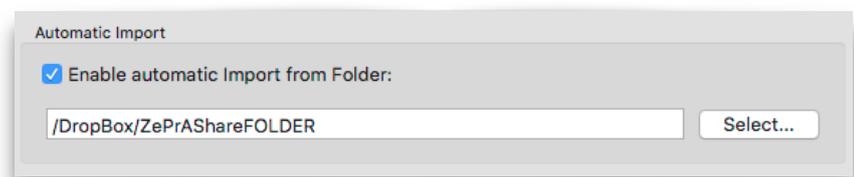
Cancel Back Continue *?*

Cloud Features of ZePrA - Automatic Import

Companies using ZePrA in multiple locations will benefit from the new Cloud features in ZePrA. Even single installations of ZePrA benefit in case the software has been installed on a server where access might not be granted all the time. By defining a shared folder in the Cloud, (e.g. Dropbox, GoogleDrive, internal Cloud or network) it is possible to share configurations, spot colors and ICC profiles easily. For example, a Flexo printer continuously adds more spot colors from his ink kitchen, which shall be used in ZePrA's spot color conversion. By simply saving the spot color library in the shared folder, every location connected to this shared folder with a ZePrA installation will automatically be updated without manual intervention.

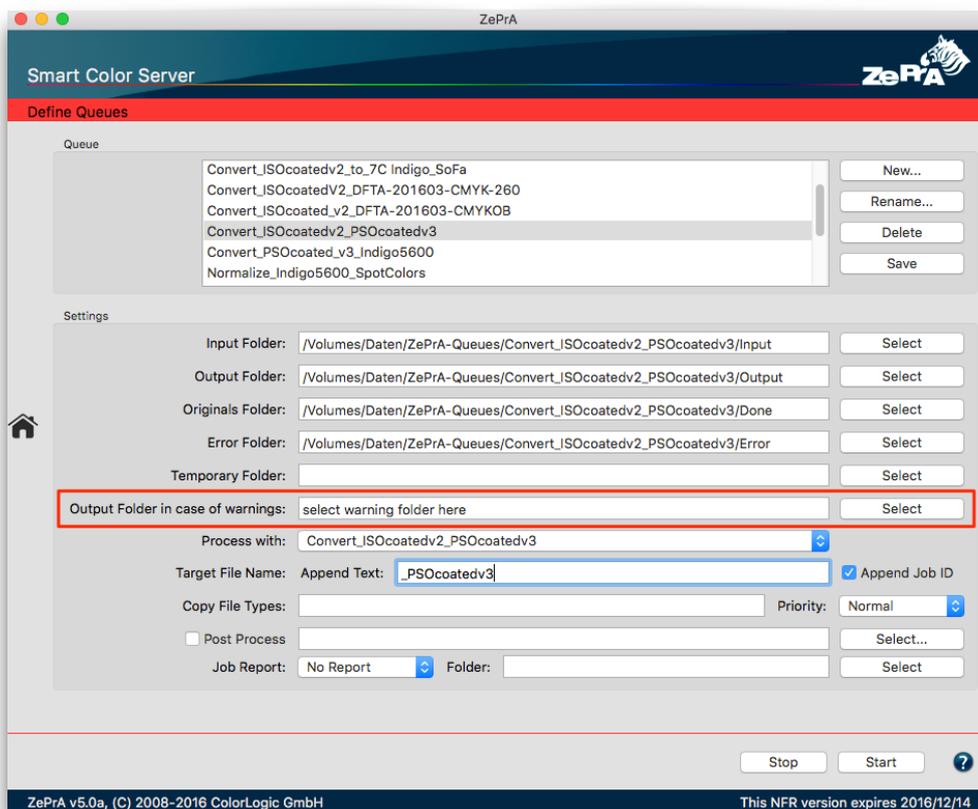
Note: The **Automatic Import** folder supports ZePrA's spot color libraries (*.ccf files), spot colors stored in CxF files and ACO Photoshop palettes, ZePrA configurations (*.ccf files), ICC profiles and CoPrA presets to be used as SmartLink Method.

It is quite easy to activate this feature in the **Preferences** dialog of each ZePrA installation. Simply enable the checkbox **Enable automatic Import from Folder** and select the same shared folder.



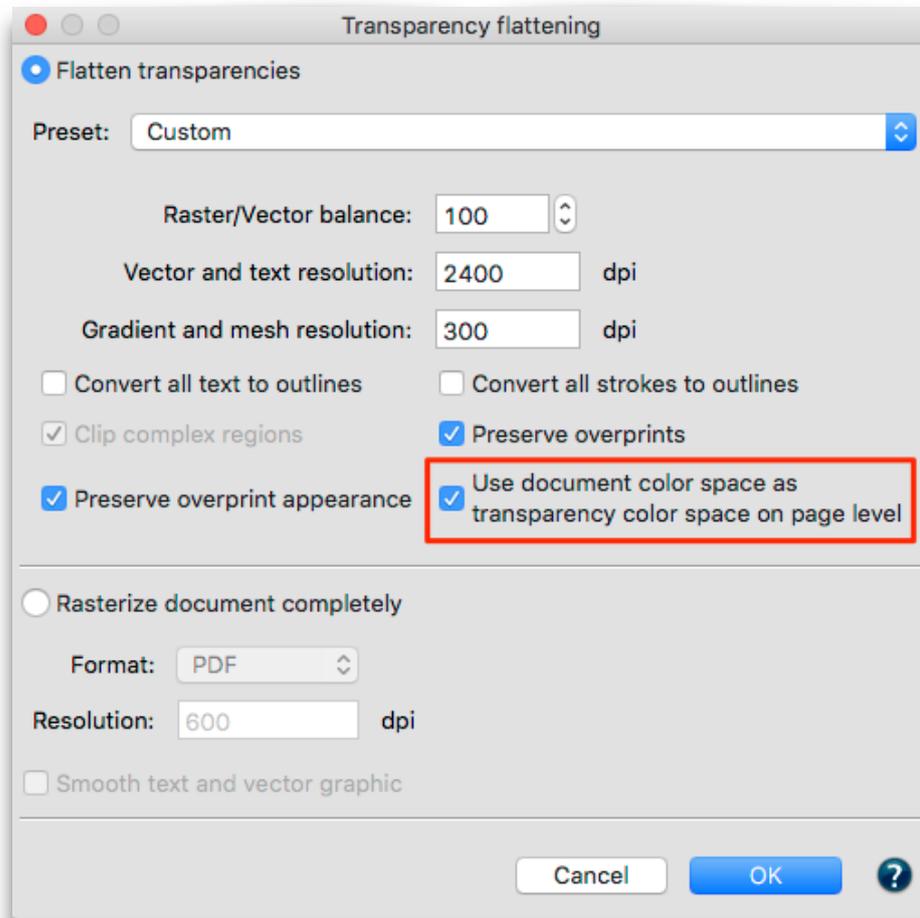
Warning Folder

Files that have been marked with a yellow warning message in the **Overview** dialog of ZePrA are still processed but may have an issue. By default those files are stored in the typical **Output folder**. In case you wish to identify such files easier you can manually define a separate **Output Folder in case of Warnings** in the **Queues** dialog in which such files will be placed after processing.



New Flattening Option

In the Flattening dialog a new option has been added that allows to ***Use the document colors space as transparency color space on page level***. This can be helpful if a file with an RGB transparency blending space shall be converted from CMYK to CMYK. In this case a more reliable results will be achieved if the transparency blending space is CMYK and not RGB. The new option will overwrite the transparency blending space on page level and will use the profile defined as ***Document Color Space*** in the respective configuration.



Minimal Compression Rendering Intent added

We have added the ***Minimal Compression*** rendering as an additional perceptual rendering option for the SmartLink conversion. This rendering is known and appreciated by CoPrA users and is now available in ZePrA.

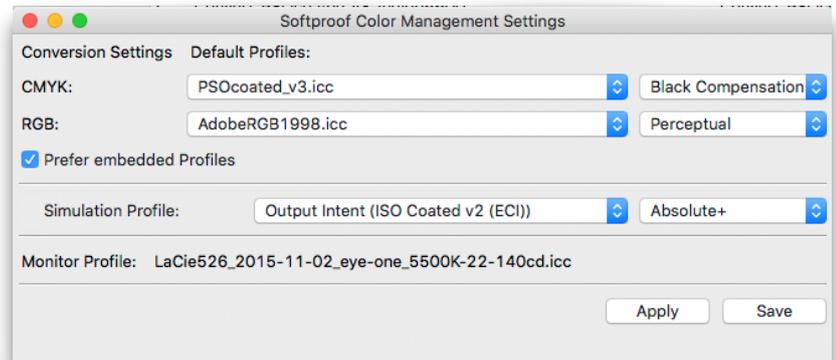
This rendering intent allows an absolute colorimetric reproduction and compensates only close to the black and white points. This means you will reach the maximum black point and will not simulate white. You may use this rendering intent if you like to achieve a very close reproduction of a print standard, e.g. ISO Coated V2 or GRACoL2006 Coated1v2 on a digital printer.

Note: Similar to the absolute colorimetric rendering intent, you should ensure that the target color space is larger or at least the same size compared to the source color space you wish to simulate to avoid any loss of structure and details. For color conversions from large to small color spaces, please use ***Absolute Compression*** instead if you want to maintain the gray balance and color appearance of the source color space.

Improved Soft Proof

The soft proof feature - accessible by right clicking a converted file in the **Processed Jobs** section of the **Jobs and Queues Overview** dialog - has been greatly improved. It now uses a rasterized version of the file for displaying on screen so that the transparency and overprint are correctly simulated. One of the great new abilities of the soft proof dialog is to show multicolor files, e.g. files with a Multicolor output intent, correctly on screen.

The **Softproof Color Management Settings** dialog has been optimized. Similar to the Output Preview in Adobe Acrobat the **Simulation Profile** setting is the most important setting of the dialog as colors will be rendered through the selected simulation profile to the monitor profile. As a default, the output intent that ZePrA has embedded in the processed file will be used and shown in brackets.



Note: The **Default Profiles** on top of the dialog and the **Prefer embedded Profiles** checkbox are only relevant in the case that the simulation profile differs from the color spaces in the file itself.

Online Help added

Please visit our new and improved Online Help page: <http://onlinehelp.colorlogic.de/en/main-support-v1/>

Similar to **CoPrA** and **ColorAnt** each major dialog in **ZePrA 5** has a new question mark sign that leads directly to the help pages of this section providing you descriptions and insides with a click of a mouse.



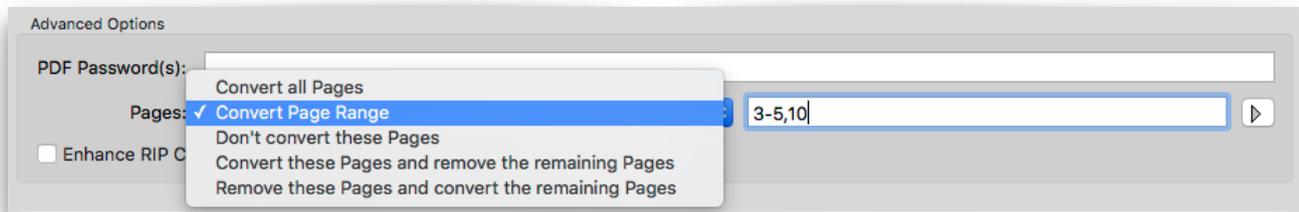
New Repeat Job Feature

The context menu when right clicking a job in the **Processed Job** list contains a new option **Repeat Job**. This option will reprocess a job and in the same queue without you having to retrieve the file and copy it manually in the **Input** folder of the queue. This is helpful in case you are changing a setting in the configuration and wish to reprocess a file.

Processed Jobs:	ID	Name:	Queue	Status
120 Warnings	1	395248-1_X3.pdf	Gen	OK
	2	DVL_Testdatei V3.pdf	Gen	OK
	3	affiche 2016 copie.pdf	tedV2	OK
	4	affiche print.pdf	tedV2	OK
	5	blink_i_plakat_2016.pdf	tedV2	OK
	6	carte Lounge-02.pdf	tedV2	OK
	7	affiche print.pdf	Indigo_opmetrix02_ISOcoatedV2	OK (Ink Savings: 18.7%)

Additional Options for converting desired Pages

For PDF files with numerous pages (multi page PDFs), you can specify which pages should be color-converted and which should not. This is a very useful function on the **Configuration/PDF** tab in section **Advanced Options** when a multi page PDF is used for a variety of printing tasks or display outputs.



- The **Convert all Pages** option is selected by default.
- If you want to just convert certain pages of your multi page PDF document, select **Convert Page Range** and enter the relevant page numbers – Example: 3,5, if only pages 3 and 5 should be converted. If you want to convert pages 3 to 5, then enter 3-5. Separate pages with commas.
Note: With the little arrow at the right side you have additional page selection rules that are explained below.
- If you want to convert all pages except 3 and 5, select **Don't convert these Pages:** 3,5.
- If you wish to extract certain pages that should be color converted use the option **Convert these Pages and remove the remaining Pages.**
- Or the other way around if you wish to remove some pages but the rest of the pages should be color convert use the last option: **Remove these Pages and convert the remaining Pages.**

Additional page selection rules can be selected in a drop down dialog that opens if you click on the button with the arrow on the right hand side. These rules are important in cases you do not have the specific page numbers at hand. For example if you wish to color convert the cover pages of a magazine differently to the rest of the pages, you may select the rule **First and last Page**. The rules are self explanatory and can be applied to any of the **Pages** options except **Convert all Pages**.

