

## Job Properties

This technical document contains a description of the ZePrA job properties in JSON format. Data in the job properties which is not described here, should be considered as undocumented and should not be used. A job properties file may contain a subset of the data described here, that means, everything is optional. Missing data either has no meaning in the context or should be treated as having the following default values, if not otherwise specified: 0 (number), empty string, empty dictionary, empty array.

Name	Type	Description
_Values	dictionary	Basic information about the job.
SmartLink	array	Array of strings containing information about performed SmartLink calculations.
SpotColorProcessed	array	Array of dictionaries containing information about spot color conversion. See section <i>Spot Color Report Item Dictionary</i> .
MinimizeChannels	array	Information about the “minimize output channels” calculation. Each item is a dictionary containing the information about one profile variant. See section <i>MinimizeChannels Dictionary</i> .
DocumentProperties	dictionary	Information about the original file. See section <i>Document Properties Dictionary</i> .
ConvertedDocumentProperties	dictionary	Information about the file after processing. See section <i>Document Properties Dictionary</i> .
EmbeddedProfileRemoved	array	Array of strings containing the descriptions of ICC profiles which have been removed after transparency reduction.
RemovedLayer	array	Array of strings containing the names of PDF layers (optional content) which have been removed.
SkippedLayer	array	Array of strings containing the names of PDF layers (optional content) which have been excluded from conversion.

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Name	Type	Description
RemovedPiceInfo	array	Array of strings containing the entry names which have been removed from PiceInfo dictionaries in the PDF document catalog, page objects and form objects.
PSLayerConverted	array	Array of strings containing the names of PhotoShop layers which have been converted (TIFF and PSD)
Warning	array	Array of strings where each string is the internal name of a specific job warning. See section <i>Job Warnings</i> in <i>ConfigurationOptions.pdf</i> for a list of warning names.
DstProfileInfo	dictionary	(ZePrA 11.0.1) Information about the target profile. See <i>Profile Information Dictionary</i> .

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## Values Dictionary

Name	Type	Description
File	string	Name of the file which has been processed.
Configuration	string	Name of the configuration used for processing.
JobOptionsFile	string	File name of the job options file.
Error	string	<p>Error information. The string starts with “Error=n”, where n is the error number, followed by additional text surrounded by braces. Examples:</p> <p>“Error=79 (SpotColorNotFound, Bright Orange)”</p> <p>“Error=92 (WrongFileType)”</p> <p>In ZePrA 11.0.1 and later, error descriptions can be queried with the CLI comand “errorinfo”.</p>
DstProfile	string	File name of the target ICC profile if it is known. This is usually the target profile set in the configuration. An exceptional case is when the target profile has been replaced by the output intent of the PDF file due to the option “maintain output intent”. Then <i>DetProfile</i> is empty and <i>DstProfileDescription</i> contains the text from the ICC description tag in the output intent profile.
DstProfileDescription	string	Content of the description tag of the target ICC profile, if <i>DstProfile</i> is empty.
AppliedPrintingOrder	string	The printing order which has been applied to spot colors in the file.
SignaturesRemoved	string	Comma separated list of signature names which have been removed during PDF processing.
ApplicationVersion	string	ZePrA version.
“Ink amount (after)”	number	Ink amount before processing. One unit equals the coverage of 1cm <sup>2</sup> with 1% tint.

Name	Type	Description
"Ink amount (before)"	number	Ink amount after processing. One unit equals the coverage of 1cm <sup>2</sup> with 1% tint.
"Ink saving"	string	Ink saving in %, e.g. "20%". If ink saving calculation is activated, but couldn't be done reliably because spot colors have been converted, the value is "InkSaveNotCalculatedSpotColors".
TransparencyReductionDone	bool	If 1 or true, transparency reduction (flattening) or rasterizing has been performed.
TransparencyReductionPreset	string	The name of the transparency reduction preset used, e.g. "High resolution for printing". If the file has been rasterized, the value is "TR_Info_Rasterize".
ConvertedPages	string	If a page range setting was active, the list of pages which have been converted. The string is a comma separated list of page ranges. A page range is a single page number or a pair of two page numbers separated by a dash, indicating the start and end page of the page range. Example: "1,3-5" (pages 1, 3, 4, 5 have been converted).
RemovedPages	string	If a page range setting was active, the list of pages which have been removed.
_Time	string	Time elapsed during job processing in milliseconds.

## Document Properties Dictionary

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Name	Type	Description
Size	number	Size of the file in bytes.
HasTransparency	bool	The PDF file contains transparencies.
HasOverprint	bool	The PDF file contains overprinting.
NumberOfSpotColors	number	Number of spot colors in the file.
NumberOfPages		Number of pages in the PDF file.
GTS_PDFXVersion	string	The value of the <i>GTS_PDFXVersion</i> entry in the PDF file, e.g. "PDF/X-4".
Creator	string	The value of the <i>Creator</i> entry in the PDF file.
CreationDate	string	The value of the <i>CreationDate</i> entry in the PDF file.
Producer	string	The value of the <i>Producer</i> entry in the PDF file.
CreationDate	Title	The value of the <i>Title</i> entry in the PDF file.
PDFVersion	number	The PDF version number.
PDFX	dictionary	Contains data from the output intent dictionary in the PDF file ( <i>DestOutputProfile</i> , <i>Info</i> , <i>OutputConditionIdentifier</i> , <i>OutputCondition</i> ).
SpotColors	array	List of spot colors names in the file.
EmbeddedProfiles	array	List of embedded profile descriptions in the file.
InkInfo	array	List of dictionaries containing ink amount information about the inks used in the file. See <i>Ink Info dictionary</i> .

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## Spot Color Report Item Dictionary

Name	Type	Description
Name	string	Name of the spot color.
Conversion	number	<p>The conversion applied to the spot color.</p> <p>0 - not converted            1 - automatically converted            4 - converted to custom output values            2 - converted using alternate color space            3 - removed            8 - replaced            6 - converted using alternate color space / tint transform            7 - not converted because the gamut warning was enabled and the dE was exceeded</p> <p>If this entry is missing, 1 is the default.</p>
Option	number	<p>Calculation option.</p> <p>5 - Precise match - proofing            1 - Visual match - utilize more channels            2 - Use the least amount of channels possible            4 - Use a maximum of two channels            6 - Use a maximum of three channels</p> <p>This entry is only valid for <i>Conversion</i> 1, 2, 4, 7.</p>
Library	string	<p>Name of the spot color library from which the spot color data was taken. The special value “Alternate” means that the Lab value from the alternate color space definition means that CxF data from the “SpectralData” entry in the document’s output intent dictionary has been used.</p> <p>This entry is not valid for <i>Conversion</i> 0, 1, 4, 6, 7.</p> <p>Bug: This entry is missing in the case that <i>Conversion</i> is 0 due to the fact that the spot color is marked as “non printing color” in the spot color library.</p>
OptimizedDstValue	string	<p>The calculated conversion result in the target color space. See <i>Color String</i> for the format of this string. This entry is only valid for <i>Conversion</i> 1, 7.</p>

Name	Type	Description
OptimizedCIEColor	string	The Lab color resulting from <i>OptimizedDstValue</i> according to the target profile. See <i>Color String</i> for the format of this string. This entry is only valid for <i>Conversion 1, 4, 7</i> .
TargetCIEColor	string	The target Lab color. See <i>Color String</i> for the format of this string. This entry is only valid for <i>Conversion 1, 4, 7</i> . In other cases, if this entry is present, it can be used for display purposes.
DeltaE2000	number	The dE between <i>OptimizedCIEColor</i> and <i>TargetCIEColor</i> . Only valid if both if these entries are present.
BestPossibleCIE	string	The Lab color resulting from an optimization without limitations. See <i>Color String</i> for the format of this string. Only valid for <i>Conversion 1</i> .
BestPossibleDeltaE	number	The smallest possible dE which can be achieved by an optimization without limitations. Only valid for <i>Conversion 1</i> .
DstValue	string	The custom target color. See <i>Color String</i> for the format of this string. Only valid for <i>Conversion 4</i> .
Gradation	string	The name of the gradation curve which has been applied on the spot color. Only valid for <i>Conversion 0</i> . The meaning is that the spot color was not converted into the target color space, but the gradation curve has been applied.
Opacity	number	The opacity of the spot color.
IsOutputColorant	bool	This color is an output colorant, that means, the target profile contains a channel with the same name.

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Name	Type	Description
Flags	number	<p>A bit field containing flags. Currently only one bit is documented:</p> <p>Bit 7 (128) - The <i>TargetCIEColor</i> and <i>OptimizedCIEColor</i> are rounded to integer because the target Lab comes from a PantoneLive library. This is for copyright reasons. It has no influence on DeltaE information and quality of optimizations.</p>

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## MinimizeChannels Dictionary

Name	Type	Description
Profile	string	The file name of the profile variant.
Channels	string	List of channel names of this profile variant, separated by plus sign '+'.  If a channel name contains '+', it is impossible to distinguish from the separator '+'. It is recommended to use <i>Colorants</i> instead. The <i>Channels</i> entry will be depreciated.
Colorants	array	(ZePrA 11.0.1) Array of strings, containing the channel names of this profile variant.
SpotColorReport	dictionary	Spot color report dictionary containing the conversion results for this profile variant. See <i>Spot Color Report Dictionary</i> .

## Spot Color Report Dictionary

Name	Type	Description
DCS	string	The color space signature of device color space, e.g. "6CLR" for a 6 channels profile variant.
Items	array	List of spot color report items. See <i>Spot Color Report Item Dictionary</i> .
Statistic	dictionary	dE statistic. See <i>Spot Color Statistic Dictionary</i> .

## Spot Color Statistic Dictionary

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Name	Type	Description
dEMax	number	Maximum dE
dEAvg	number	Average dE
RMSE	number	Root mean square error
Score	number	Score

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## Ink Info dictionary

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Name	Type	Description
Name	string	Name of the ink.
Amount	number	Ink amount. One unit equals the coverage of 1cm <sup>2</sup> with 1% tint.

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## Profile Information Dictionary

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Name	Type	Description
FileName	string	File name of the profile.
Description	string	Content of the description tag of the profile.
ColorSpace	string	Color space signature of the profile color space (DCS).
PCS	string	Color space signature of the profile connection space.
Colorants	array	If the DCS is multicolor and a colorant table tag is present in the profile, an array of colorant dictionaries. See section <i>Colorant Dictionary</i> .

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## Colorant dictionary

Name	Type	Description
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Name string The name of the colorant.

Value string The color value of the colorant. See section *Color String*.

## Color string

A “color string” contains the numerical values of the color channels followed by the color space signature, all separated by a space. Examples:

- “60.0 60.0 70.0 Lab”
- “100 0 0 0 CMYK”
- “0 0 0 0 100 0 0 7CLR”

In the multicolor case (xCLR), the names of the channels involved are not part of the color string, but can be derived from the context. In spot color report items belonging to *SpotColorsProcessed*, the channel names are listed in the *DCSChannels* entry in the profile information dictionary for the target profile (*DstProfileInfo*) (ZePrA 11.0.1). See section *Profile Information Dictionary*. In spot color report items belonging to *MinimizeChannels*, the channel names are listed in the *ChannelSet* entry in the respective *MinimizeChannel* dictionary. See section *MinimizeChannels Dictionary*.

## Color Space Signature

A “color space signature” is a sequence of up to 4 characters as used in ICC profiles. Trailing spaces are removed, so the effective length can be smaller than 4.

Examples: Lab, XYZ, CMYK, RGB, GRAY, 1CLR, 2CLR, 3CLR, ...

## History

### Revision 1 (ZePrA 11.0.1)

- Initial version