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Technical bulletin

Customizing the Normalizer Configuration File

In Prinergy 2.2 and later, you can create and use a different input configuration file in the Normalize step of a Refine process, using the **Normalizer Input Configuration File** option. By default, Prinergy Workshop is set up to use the standard Creo configuration file, NormInputConfig. Most Prinergy users will not need to change this selection. However, if you need a modified configuration file, for example, to use PostScript bypass for certain types of PostScript input files, the information in this technical bulletin will help you create your own specialized configuration file.

Once you have modified and saved an input configuration file, you attach the file to a refine process plan by clicking the **Browse** button for the **Normalizer Input Configuration File** option, and selecting the file from its network location. If you do not use the **Browse** button to select a path, but type in a file name instead, Prinergy will search for the file in the executable directory **AraxiHome\AdobeExtreme\bin**. The Prinergy Administrator Diagnostics viewer (DIAG) will show which configuration file is being used.

You can create one or more configuration files and attach each one to a different refine process plan, to suit different workflow inputs and processing requirements.

By creating and using your own specialized configuration file, you can:

- Use PostScript Bypass to avoid processing some types of PostScript files.
- Use OPI Bypass to keep high-resolution images as PostScript, processing the rest of the file as usual.
- Detect PostScript input formats and apply attributes such as geometry settings to those files.

The Normalizer configuration file is primarily used for special handling of CT/LW formats where Prinergy takes too much time normalizing the DCS content, or where normalizing introduces undesirable imaging artifacts on those files, or for specifying geometry for certain formats.

PostScript Bypass Feature

The most significant feature provided by the Normalizer input configuration file is PostScript Bypass.

Use the PostScript Bypass feature to avoid processing some types of PostScript input files through the Normalizer, instead keeping the file in PostScript format until output. Each input file generates a proxy PDF page that embeds reference information used during output. Using PostScript Bypass can improve overall system speed and reduce the number of 1-pixel artifacts on output.

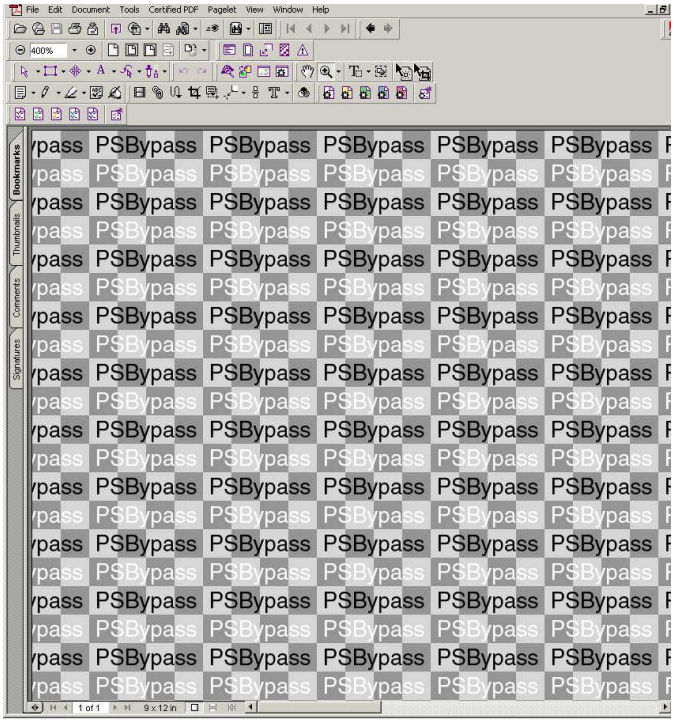
PostScript Bypass is intended to be an efficient means to process CT/LW pages encoded as PostScript data, as generated by a tool such as Shira CEPStoPS. This feature is not intended to bypass general types of PostScript input. The PostScript Bypass feature applies only to PostScript input files of EPS or DCS format. Do not use PostScript Bypass with multi-page inputs or errors will result.

To use the PostScript Bypass feature, you must be aware of the implications of doing so:

1. PostScript Bypass does not prevent errors in PostScript input, nor can it fix errors. Files containing PostScript errors may not fail during refining; however such files will certainly fail during output. It is highly recommended to generate proofs prior to making plates, to insure the validity of the input files.
2. Soft proofing with Acrobat is of no use, as no page content will be visible. Output to VPS functions normally, and is the recommended way to soft proof the page content.
3. Color Matching, Trapping, Copydot, PostScript 3, and Vector output and Delta output functions are not compatible with the proxy PDF pages. These functions cannot be used with pages that employ PostScript Bypass. These functions will continue to work with pages that do not use PostScript Bypass.
4. PostScript Bypass does not perform any checks for fonts, spot colors, and so on.
5. PostScript Bypass does not perform OPI so the files must be high resolution when submitted to the Normalizer.
6. PostScript Bypass does not optimize images, nor does it take advantage of the performance improvements for Copydot data available in the RIP. PostScript Bypass of Copydot pages may consume significantly higher amounts of memory during output than non-bypass cases.
7. PostScript Bypass cannot specify specialized screening. Pages that employ PostScript Bypass will only use the screening specified in the output process plan.

When the Normalizer detects an input file qualified for PostScript Bypass, it does the following:

1. Copies the input file(s) to the **System\BypassParts** folder of the Job Folder, that is, the location on disk where the PDF pages and other job-related data is stored.
2. Creates a proxy PDF that contains references to the data files now stored in the **System\BypassParts** folder. This proxy should not be moved, renamed, or otherwise altered. It should not be moved to another job because it will not work in other jobs. However, exporting the job for output on other Prinergy systems using **Export Job** will work.
3. During output, the proxy PDF locates the **System\BypassParts** folder, and retrieves the PostScript portions for generating raster. These proxy PDF pages can be mixed with normal PDF pages; each type gets rasterized correctly based on its input type.



A PostScript Bypass file shows a checkerboard pattern when you view the file in Acrobat or output the file to non-Prinergy RIP systems

PostScript Bypass Limitations

1. Re-refine of a proxy PDF file will fail. Do not re-refine a PDF page containing a PostScript Bypass proxy.
2. Do not re-use PDF pages containing a PostScript Bypass proxy. Registration will fail. Refine the original input file again to generate a new PDF page.
3. Do not mix composite and separated files in the same job when using PostScript Bypass.

OPI Bypass

OPI Bypass is similar to PostScript Bypass in that Prinergy retains some page content as PostScript without making it a part of the PDF digital master. However, instead of the entire DCS or EPS file being bypassed, only the images that would normally be merged into a thin file to make it a fat or high-resolution file are not included in the PDF file. The PDF file has a blank spot where the OPIed images are intended to go. Upon output, Prinergy brings the bypassed content into the RIP so that the proofs and plates include the high-resolution data.

The PostScript Bypass checkerboard pattern does not appear for bypassed content when using OPI Bypass.

Detect File Type and Apply Attributes

You can configure Prinergy Normalizer to detect certain types of PostScript input files and apply attributes such as page size and trim size while processing that input type.

The Normalizer detects an input file by using the PostScript comments that appear at the beginning of each input file.

Creating a Normalizer Input Configuration File

The Normalizer Input Configuration file is a text file that you edit with Notepad. You can copy and modify the existing NormInputConfig file located in directory **AraxiHome\AdobeExtreme\bin**, or create a new file.

This table identifies the elements of a configuration file. A sample NormInputConfig file and some typical configuration statements follow.

Normalizer Input Configuration File Elements

#	Text lines beginning with the # character are comments only, for human readers.
Each unique input file type is called a "target" and must be declared before describing the input file's PostScript comments.	
target *name*	where *name* is a unique string that describes the purpose of this target. This string will be visible in the diagnostics viewer (DIAG) log, to indicate that a successful match was made.
Following the target declaration, one or more PostScript comments are required, as a way to uniquely identify the input file. Any valid comment found in the header of the PostScript file can be used. In PostScript, comments begin a line with a % character, and are followed by one or more non-space characters.	
Example: %%Creator: = a unique creator string	where the first portion (in this case its `%%Creator:`) is the comment to look for, the comparison operator, in this case =, specifies how to match the text, and the text to match against
Example (testing for the type of input file): %!PS-Adobe-3.0 = EPSF-3.0	This example is testing the PostScript comment `%!PS-Adobe-3.0,` usually found as the first line of a PostScript file, for the text `EPSF-3.0` which is the standard required for EPS files.
When specifying comparisons to the PostScript comments, there are four different text-matching operators:	
=	Exact text match
`~=`	Text must contain
`!=`	Text must not equal
`!~=`	Text must not contain
When the text to match (the text after the comparison operator) is blank, the meaning is slightly changed:	
=	Comment must be present and also have no trailing text

~=	Comment is required to be present, but no matching is performed
!=	Comment must be present and must have trailing text
!~=	Comment cannot be present in the input file
Following one or more lines of comparisons, you can assign one or more attributes. Here is the list of supported attributes, with the specific parameters required:	
@bypass	Indicates that this target can use the PostScript Bypass feature. If this attribute is missing then the target will not use PostScript Bypass. By default, no targets include the PostScript Bypass attribute.
@bypassopi	Indicates that this target can use the PostScript Bypass feature during OPI Image substitution.
@cleanmultipage	Indicates that this target is a "well-behaved" input file that conforms to the format specified by the Encapsulated PostScript reference, except that it can be a multi-page input. Not compatible with the @bypass or @bypassopi options. Use this option with care. Two examples of such "well-behaved" input files are PostScript from the Imation Prepress Xtension, and from Creo PreScript.
@pagebox bbox *llx lly urx ury* @pagebox fixed *llx lly urx ury*	Specifies the page size for the input file type. When the first parameter is **bbox**, the remaining values are adjustments to the values found in the %%BoundingBox: comment. Typically negative numbers are used for *llx* and *lly*, while positive numbers are used for *urx* and *ury*. This will increase the size of the bounding box. If the value of the first parameter is **fixed**, the remaining numbers replace the values found in the %%BoundingBox: comment. The resulting values, as modified, are used to set the page size of the PDF. This attribute has no effect if the input file does not contain a %%BoundingBox: comment. Note that %%HiResBoundingBox: is used instead of %%BoundingBox: if present.
@trimbox bbox *llx lly urx ury* @trimbox fixed *llx lly urx ury*	Much like the @pagebox attribute, except this modifies the TrimBox value in the PDF page. This affects the default offset and trim values when the PDF is registered, similar to the AutoGeometry feature. Ignored if the page does not have a %%BoundingBox: comment.
@bleedbox bbox	Much like the @pagebox attribute, except this modifies the BleedBox value in the PDF page. This affects the BleedBox, which is used when trapping a page (only objects inside BleedBox are trapped). This feature is useful if the incoming PS file has incorrect BleedBox information. Ignored if the page does not have a %%BoundingBox: comment.
@pscode *postscript code to insert*	Adds a raw PostScript fragment to the input for this target. Use with caution, as this can cause the Normalizer to abort the job if the PostScript string contains errors.
Following the PostScript comments and attributes, the next target should begin again with the `target` keyword and so on.	

Notes:

1. When attempting to locate a target match, comparisons are performed in the order presented in the configuration text file (from top to bottom). The search stops upon finding a successful matching target. Note that for a target match to succeed, all PostScript comments as specified in the target list must match.
2. It is not necessary to restart the Normalizer JTP after modifying the configuration file. The Normalizer always re-reads the configuration file before beginning each job.

Sample NormInputConfig File Included with Prinergy 2.2

As found in the AraxiHome\AdobeExtreme\bin folder in the file entitled NormInputConfig.

```
#  NormInputConfig
#
#  This configuration file controls the behavior of the PNormalizerJTP
#  application for certain specific input PostScript files.
#
#  Each specific configuration starts with the keyword "target", and
#  is followed by one or more PostScript comment comparators. Four
#  different comparisons can be made, using this syntax:
#
#      =         exact text match
#      ~=        text contains
#      !=        text does not match
#      !~=       text does not contain
#
#  All the PostScript comment comparators must succeed for target match.
#  After the PostScript comments, specific attributes can be assigned,
#  from this list: @pagebox, @trimbox, @bypass, @bypassopi, @pscode,
#  @cleanmultipage.
#
#  Target matching is attempted from the top of this file. Comparisions
#  stop when finding the first match.
#
#  Caution: It is not advised to make changes to this file, erroneous
#  results are possible.
#
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#


#  Imation Prepress XTension, for use with Quark XPress 3 or 4
```

```
target Imation Prepress XTension
%%Creator: = Imation Prepress XTension
@pagebox bbox -18 -18 +18 +18
@trimbox bbox
@cleanmultipage

#  ScenicSoft Preps XTension, for use with Quark XPress 3 or 4

target ScenicSoft Preps XTension
%%Creator: = Preps XTension
@pagebox bbox -18 -18 +18 +18
@trimbox bbox
@cleanmultipage

#  Creo Renaissance Scanner, EPS or DCS output

target Creo Renaissance Scanner
%%Creator: ~= Creo
%%Creator: ~= Renaissance
@pagebox bbox -18 -18 +18 +18
@trimbox bbox

#  Creo Copydot Toolkit, EPS or DCS output

target Creo Copydot Toolkit
%%Creator: ~= Creo
%%Creator: ~= Copydot
%%Creator: ~= Toolkit
@pagebox bbox -18 -18 +18 +18
@trimbox bbox

#  ScenicSoft Prepress XTension
#  (this is for the new version of the above XTension - Imation became part of Scenicsoft)
target ScenicSoft Prepress XTension
%%Creator: ~= ScenicSoft Prepress XTension
@pagebox bbox -18 -18 +18 +18
@trimbox bbox
@cleanmultipage

#  End of NormInputConfig
```

Typical Additions to the Normalizer Input Configuration File

# Shira CEPStoPS target Shira CEPS2PS CT/LW Bypass %!PS-Adobe-3.0 = EPSF-3.0 %%Creator: = Shira CEPStoPS @bypass	# ORIS target ORIS %%Creator: ~= (O.R.I.S. @bypass
# PCC DCS target PCC DCS %%Creator: ~= PCC @bypass	# PageComposer target PageComposer %%RealCreator: ~= PageComposer @bypass
# Dainippon Screen RippedPS target Dainippon Screen RippedPS %%Creator: ~= RippedPS @bypass	# Rampage target Rampage %%Creator: ~= Rampage @bypass
# Dalim DCS target Dalim DCS %%Creator: ~= litho @bypass	

Troubleshooting Cautions

PostScript Bypass does not work with every kind of input file. Do not use this feature for final production with untested input data types. Always test carefully and compare the results with those obtained when PostScript Bypass is disabled.

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