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Technical bulletin

Creo Distiller Assistant

The Creo Distiller Assistant adds extra functionality features to Adobe® Acrobat® Distiller via a PostScript startup file. These extra features are derived from the Prinergy® Normalizer feature set. Implementation of these features is identical between the two products, assuring users of consistent results when using the Prinergy Normalizer or Acrobat Distiller.

The Creo Distiller Assistant supports both Macintosh® and Windows® clients. Downloads are available from:

<http://www.primergy.com/> and <http://ecentral.creo.com/>

These features make extensive use of PostScript 3 features such as *Idiom Recognition*, *Smooth Shades*, and *DeviceN Colorspace*. Ensure that your workflow supports PostScript 3 and PDF 1.3 features before using Creo Distiller Assistant.

Idiom Recognition recognizes existing legacy PostScript code and dynamically replaces it with optimized PostScript code.

Smooth Shades is a new graphical object describing a gradient or gradient mesh. Instead of describing many small overlapping rectangles, the PostScript code describes an area to fill and the mathematical representation of the gradient in its natural colorspace. Thus the RIP can apply extended halftoning and advanced rendering algorithms to eliminate the *stepping* typically found in large areas.

DeviceN Colorspace allows the PostScript file to describe composite colors involving combinations of process and spot colors, and allows multiple spot colors to be expressed together. This is crucial for describing spot-to-spot blends, duotones, and so on.

Refer to the PostScript 3 Language Reference Manual for further details.

Distiller Startup Messages

The Creo Distiller Assistant is technically a PostScript file that resides in the StartUp folder within the Distiller application. When Distiller starts up, messages are displayed that indicate addition of these enhancements.

Note: The **Distillr\Startup** folder has moved in Distiller 6. On a PC, the folder is in **C:\Documents and Settings\All Users\Documents\Adobe PDF 6.0\Startup**. On a Mac, the folder is in **/users/shared/Adobe PDF 6.0/startup**.

The following section describes the startup messages and what they mean.

New! - ScriptWorks Compatibility v1.0

```
%%[ ScriptWorks Compatibility v1.0 loaded ]%%
```

This feature allows files with Harlequin-specific commands to work in Distiller when they wouldn't otherwise.

New! - Separate Level 2 Composite Images

```
%%[ Separate Level 2 Images v1.1 loaded ]%%
```

This feature enables support, in separated PostScript, for composite (CMYK) images that use the dictionary form of the image operator. This kind of image cannot be separated properly with a Level 1 Separator procset.

Without the support of this feature, these images will remain composite in the normalized PDF. Prinergy Refiner rejects composite images present in separated PDF, because they end up as grayscale images on proofs and press. Separate Level 2 Composite Images separates CMYK images into the correct single color channel on each separation of the PostScript file. As a result, the normalized PDF contains a DeviceGray image with the correct single color channel content on each separation page. Currently, the only application known to generate these images is Photoshop, and it only uses the dictionary form if JPEG compression is enabled.

New! - Detect RGB Images v1.1

```
%%[ Detect RGB Images v1.1 loaded ]%%
```

This feature detects RGB images masquerading as /DeviceGray images in separated PostScript and forces them back to /DeviceRGB. Images in /DeviceRGB colorspace appearing in separated PDF will be properly rejected by the Refiner's resource checking. When embedded in separated PostScript, Photoshop RGB EPS images normally detect the color separator when they are interpreted by a PostScript RIP and decide to transform themselves into /DeviceGray images. If that weren't enough, even when an RGB image in an EPS is trying to be /DeviceRGB, the QuarkXPress EPS procset will intercept the colorimage operator, convert the image into /DeviceGray, and image it as a gray composite only on the Black separation (it images as white on all other separations). Proofing and plate output from the resulting PDF show a gray composite image instead of a full-color image but, because the image is /DeviceGray, the PDF resource checking will not detect this problem. This module will detect and convert back to RGB for:

- Photoshop RGB (tested with QuarkXPress 4.04 separated PS)
- RGB EPS using colorimage operator embedded in QuarkXPress separated PS

Flatness Control

%%[Control Flatness v1.5 loaded]%%

This component helps avoid problems where legacy PostScript files set the *flatness* to a very high value. Many older Adobe RIP products were unable to render complex paths (often generating *limitcheck* errors). The workaround had been to set the graphics state *flatness* larger and larger values. Unfortunately, this would often force the RIP to render paths as a smaller number of line segments, resulting in curves which appeared flat (for example, circles that appear like stop signs).

Many legacy files still contain high *flatness* values, but newer RIPs (and the Distiller) can cope without raising the *flatness* value. Flatness Control assists these legacy files by pretending to increase the *flatness* value, but letting the RIP render paths as smoothly as it is able.

Adobe OPI Helper

%%[Adobe OPI Helper v1.1 loaded]%%

The Prinergy Normalizer uses an Adobe OPI merging engine. Adobe OPI Helper corrects several bugs in that engine. Recent additions support Adobe PageMaker colorized images correctly, making this component suitable for Distiller as well. The PageMaker bug would cause tinted images to output at 100% intensity rather than as set in the document for composite workflows.

Minimum Line Thickness

%%[Minimum Line Width v1.4 loaded]%%

Many legacy applications generate PostScript that draws very thin lines (hairlines), expecting that the output will be appropriate for 300 or 600 dpi devices. When device resolutions increase to 2400 dpi, these thin lines seem to disappear, especially on a printing press. This is because the PostScript requests the smallest possible line (for example, a single device pixel). At 300 dpi, one device pixel is equal to 0.24 pt. At 2400 dpi, one device pixel is equal to 0.03 pt.

The Minimum Line Thickness feature monitors and modifies PostScript requests for line thickness, and ensures that the smallest thickness request is 0.216 pt or larger. This check and enforcement works even when the input PostScript is scaled.

Creo Vignettes

%%[Creo Vignettes v1.2 loaded]%%

Creo Vignettes contains logic to convert gradients created by the Scitex Blends XT into smooth shades.

Composite Image Separator

```
%%[ Separate Level 2 Images v1.1 loaded ]%%
```

When Photoshop JPEG EPS files are included in a *preseparated* PostScript file, the images will not separate correctly; instead, the images only appear on the black plate. Composite Image Separator intercepts these compressed images and allows them to separate correctly into their CMYK channels.

Note: This separation process will require extra processing time in Distiller.

Adobe InDesign Extra Colorant Preventer

```
%%[ InDesign Extra Color Fix v1.2 loaded ]%%
```

This feature ensures that Adobe InDesign™ doesn't create extra named colors for process colors. Under some circumstances, InDesign emits color names such as *_Cyan_* or *_Magenta_* (note the underscores) when printing composite PostScript. Extra Colorant Preventer undoes that behavior.

HP LaserJet Driver Support

```
%%[ Zap PjL Commands & Friends v1.0 loaded ]%%
```

The HP LaserJet™ driver for Windows often includes PjL commands in the PostScript file. No errors will be generated when the PostScript is sent to an HP printer, but sending the PostScript to a non-HP printer often causes PostScript errors. Since Distiller is not an HP printer, these files will also fail during conversion to PDF.

This feature adds support to avoid unnecessary PostScript errors, even when the incoming PostScript file is generated with an HP LaserJet printer driver.

Automatic TrimBox Assignment

```
%%[ Automatic Geometry Recognition v2.1 loaded ]%%
```

Automatic TrimBox Assignment installs several idioms to capture and automatically set the trim size from PostScript files. The applications supported are:

1. QuarkXPress® 3.32 and later, including XPress Passport and XPress Japanese,
2. Adobe PageMaker 6.0 and later, including the Japanese version,
3. Adobe InDesign 1.0 and later

These idioms work by intercepting and recording the location of crop marks when the PostScript draws them. This requires enabling the crop marks when printing to a PostScript file from these applications.

To view and modify the trim box once the PDF has been created, we recommend you use the Creo Geometry plug-in for Acrobat. It's available for free from: <http://www.prinergy.com/>

Creo Copydot Support

`%%[Copydot Enhancements v1.2 loaded]%%`

Creo Copydot Support adds an idiom to improve the PDF workflow for legacy copydot files created by Creo Renaissance scanners or Creo CopyDot Toolkit. This idiom assists with tiling issues, and we highly recommend you use this component when converting copydot EPS files to PDF pages.

Additional information about CopyDot Toolkit is available from: <http://www.creo.com/>

Adobe FrameMaker Patch

`%%[Prevent FrameMaker RGB v1.0 loaded]%%`

PostScript generated by Adobe FrameMaker™ will automatically detect that it is executing within Distiller, and when it does, it converts all colors from CMYK to RGB. This feature was added to FrameMaker with the expectation that PDF would only be viewed on the computer display.

To overcome this limitation of FrameMaker, the patch adds an idiom to intercept and fool the check for Distiller, returning a better result (for example, that no CMYK to RGB color conversion is necessary).

MacroMedia FreeHand Smooth Shades

`%%[FreeHand Blends v1.4 loaded]%%`

This feature provides several idioms to convert MacroMedia® FreeHand® (version 7 and later) gradients to smooth shades. It supports process gradients, spot gradients and mixed process-spot gradients by using DeviceN colorspace.

This feature replaces Distiller's built-in support, and allows Distiller to create composite PDF files with spot color gradients from FreeHand. Note that this is contrary to the FreeHand documentation, which states that gradients with spot colors will be converted to process color. The Creo solution ensures that spot colors are retained properly.

Adobe Illustrator Smooth Shades (Plus More)

`%%[Prinergy Adobe Illustrator Patches v1.6 loaded]%%`

Under some circumstances, Adobe Illustrator™ will convert spot color gradients to process color smooth shades. Adobe Illustrator Smooth Shades (Plus More) adds idioms to replace the Illustrator logic. It preserves spot colors by using DeviceN colorspace, and converts gradients to smooth shades. It does not affect the Illustrator *blend* tool. It only applies to objects created with the *gradient* tool.

Additionally, this feature prevents Illustrator from substituting Courier for missing fonts. Missing fonts are properly reported in the Distiller log file. It supports Adobe Illustrator versions 7 and 8. It does not modify the behavior of versions 9 or 10. It also supplements Distiller's built-in support for older versions of Illustrator.

QuarkXPress Smooth Shades

%%[Quark Custom Blends v1.4 loaded]%%

This feature provides an idiom to convert QuarkXPress spot color blends into smooth shades, with DeviceN colorspace. It also supports blends with a mixture of spot and process colors.

This feature supports QuarkXPress 3.32 and later, including XPress Passport.

Note: This feature does not replace the Distiller built-in support for process-to-process blends.

QuarkXPress Separator Support

%%[Enhance Quark Color Separator v1.0 loaded]%%

The PostScript-based color separation code in QuarkXPress does not correctly print Photoshop DCS2 images with clipping paths. This component provides an idiom to correct this behavior. It supports QuarkXPress 3.32 and later, including XPress Passport.

About Creo

Creo is a world leader in solutions for the graphic arts industry. Core product lines include image capture systems; inkjet proofers; thermal imaging devices for films, plates and proofs; professional color and copydot scanning systems; and workflow management software. Creo is also an Original Equipment Manufacture supplier of on-press imaging technology, components for digital presses, and color servers for high-speed, print-on-demand digital printers.

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