Vancouver Response Center
T. 604.451.2727
Toll free T. 1.800.451.2727
F. 604.451.2713
Toll free T. 1.800.767.2736

Customer support email:
callcentre@creo.com

www.creo.com

creo

Technical bulletin

Release date: 29 January 2002

Creo Distiller Assistant

Introduction

The Creo Distiller Assistant adds extra functionality to Adobe's Acrobat Distiller product 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 Prinergy's Normalizer or using Distiller.

The Creo Distiller Assistant supports both Macintosh and Windows clients. Downloads are available from: http://www.prinergy.com/ or http://ecentral.creo.com/

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

Idiom Recognition is a feature to "recognize" existing legacy PostScript code and dynamically replace 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 simply 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 refers to a feature allowing the PostScript file to describe composite colors involving combinations of process colors and spot colors, and also allows multiple spot colors to be expressed together. This is crucial for describing spot-to-spot blends, duotones, etc.

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's installation. When Distiller starts up, a number of messages are displayed that tell you about these enhancements being added. The following section describes the startup messages and what they mean in terms of what happens when PostScript is Distilled.

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 fewer number of line segments, resulting in curves which appears “flat,” such as circles that appear like stop signs.

Many legacy files still contain large *flatness* values but modern RIPs (and the Distiller) can cope without raising this *flatness* value. This component assists these legacy files by only pretending to increase the *flatness* value, but letting the RIP render paths as smoothly as it can.

Adobe OPI Helper

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

The Prinergy Normalizer uses an OPI merging engine from Adobe. This component was implemented to correct several bugs that appear in that engine. Recent additions also 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” i.e. 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.

This component watches and modifies the PostScript requests for line thickness, and insures that the smallest thickness request is no less than 0.216 pt. This check and enforcement works even when the input PostScript is scaled.

CreoScitex Vignettes

```
%%[ CreoScitex Vignettes v1.2 loaded ]%%
```

This component 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 into a *preseparated* PostScript file, these images will not separate correctly; instead the images only appear on the black plate. This component intercepts these compressed images and allows them to separate correctly into their CMYK channels.

Note that this separation process will require extra processing time in Distiller.

Adobe InDesign Extra Colorant Preventer

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

This component insures that 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. This component undoes that behavior.

HP LaserJet Driver Support

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

The HP LaserJet driver for Windows often includes "PJL" commands into 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 the conversion to PDF.

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

Automatic TrimBox Assigment

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

This component installs several idioms to capture and automagically set the trim size from PostScript files. The applications supported are:

1. Quark XPress 3.32 and newer, including XPress Passport and XPress Japanese,
2. Adobe PageMaker 6.0 and newer, including the Japanese version,
3. Adobe InDesign 1.0 and newer

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, its recommended to 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 ]%%
```

This component adds an idiom to improve the PDF workflow for legacy Copydot files created with either the CreoScitex Renaissance Copydot scanner or the Creo Copydot Toolkit. This idiom assists with tiling issues, and it's highly recommended to use this component when converting Copydot EPS files to PDF pages.

Additional information about the Creo Copydot Toolkit is available from: http://www.creo.com/

Adobe FrameMaker Patches

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

The PostScript generated by Adobe FrameMaker will automatically detect that it's 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, this component adds an idiom to intercept and fool the check for Distiller, returning a better result i.e. that no CMYK to RGB color conversion is necessary.

MacroMedia FreeHand Smooth Shades

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

This component provides several idioms to convert MacroMedia FreeHand gradients to smooth shades. Supports process gradients, spot gradients and mixed process-spot gradients by using DeviceN colorspace.

Supports MacroMedia FreeHand version 7 and newer.

This component replaces Distiller's built-in support. This component 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 get turned into process. Our solution insures the 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. This component adds idioms to replace the Illustrator logic. It preserves the spot colors by using DeviceN colorspace, and converts the gradients to smooth shades. This component does not affect Illustrator's *blend* tool. It only applies to objects created with the *gradient* tool.

Additionally, this component prevents Adobe Illustrator from silently substituting Courier for missing fonts. Missing fonts will be properly reported in Distiller's log file.

Supports Adobe Illustrator versions 7 and 8. It does not modify the behavior of versions 9 or 10.

This component supplements Distiller's built-in support for older versions of Illustrator.

Quark XPress Smooth Shades

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

This component provides an idiom to convert Quark XPress spot color blends into smooth shades, with DeviceN colorspace. This includes also supports blends with a mixture of spot and process colors.

Supports Quark XPress versions 3.32 and newer, including XPress Passport.

Note that Distiller includes built-in support for process-to-process blends. This component does not replace that functionality.

Quark XPress Separator Support

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

The Postscript-based color separation code in Quark XPress doesn't correctly print Photoshop DCS2 images with clipping paths. This component provides an idiom to correct this behavior.

Supports Quark XPress versions 3.32 and newer, including XPress Passport.

Thanks,

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About Creo

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