Render section of the Loose Page Output process template

This process template section determines the output resolution and how the system handles spot colors during loose page output.

JTP

Select the job ticket processor (JTP) to use for rendering.
Note: You set up JTPs using Prinergy Administrator.

Device Resolutions

This list is available when an output device format is selected in the **Output To** list.
Select a resolution for the selected device in the list.

Resolution X

Available when the **Device Resolutions** box is unavailable.
Type a resolution value.

Resolution Y

Available when the **Device Resolutions** box is unavailable and mixed resolution values are allowed for the output format selected in the **Output To** list.
Type a resolution value.

Color Model

Select the process color model to use for output.
The list of values varies, depending on the output format selected in the **Output To** list.

Shades

To set the number of shades of gray to output, select **1** for screened data or **256** for continuous tone data. When **1** is selected, the **Calibration & Screening** section of the refine process template is available for input.
The list of values varies, depending on the output format selected in the **Output To** list and the color model selected in the **Color Model** list.

Do Separations

Available when the output format selected in the **Output To** list supports separated output and **DeviceCMYK** is selected in the **Color Model** options.
Select if you want Prinergy to output separations. Clear this check box if you want Prinergy to output a single composite file.

Spot Color Handling

Determines how spot colors should be handled on loose page output.
The list of values varies, depending on the output format selected from the **Output To** list.

- Select **Convert to process** to convert spot colors to process colors.
  Note: When **Convert to process** is selected, Vector **Overprint Handling** (in the **ColorConvert** section) is automatically selected to ensure the correct appearance of any overprinting spot colors.
- Select **Output separately** to preserve spot colors on output.
- Select **Don't output** to suppress output of spot colors.

Always Use Color Combiner to Convert Spots

This check box is available when **Output Separations Handling** is set to **Convert separations to process**.
If the input files contain overprinted spot colors, the Color Combiner, which is a plug-in to the renderer, will combine the layers and output the overprinted colors correctly.

When this check box is cleared, the renderer handles the conversion of spot colors to process colors if the following conditions exist:

- Input files are composite.
- All spot colors are set to opaque in the color database. (If a spot color is not in the color database, opaque is assumed.)

If the above conditions are not met, the Color Combiner will be used, even if the **Always Use Color Combiner to Convert Spots** check box is cleared.

It is recommended to always select this check box.

This check box appears in both the **Render** section and the **ColorConvert** section. Changing it in one place changes it in the other.
See About Color Combiner.

Dielines Overprint Other Content

This check box is cleared and unavailable if the **Do Separations** check box is cleared and unavailable.
Select this check box to specify whether die lines overprint other content. Clear this check box if you do not want die lines to overprint other content.

The **Dielines Overprint Other Content** check box is available for the following outputs:

- DCS Raster
- Kodak Approval TIFF
- LQS TIFF
- VPS
- Windows Bitmap

Note: You must load the color library that contains your Dieline color definition in both the Refine and Output Process templates.

Anti-Aliasing

Select this check box to enable anti-aliasing, and then in the **at Ratio** list, specify a ratio for anti-aliasing.
Anti-aliasing is a technique of improving the appearance of output by minimizing the "stair step" effect on rasterized output. It does so by rendering to a higher resolution than the intended output, and then downsampling to the intended output. This generates "averaged" pixels which softens the "stair step" effect on low-resolution output. The ratio value for anti-aliasing refers to the factor used to determine the intermediate resolution. A higher ratio results in higher quality, but can have an effect on output speed. For example, if the output is a 300 DPI 8-bit TIFF, and the anti-alias ratio is 4, Prinergy will render an intermediate output at 1200 DPI (4 x 300 DPI), and then downsample to the user-requested 300 DPI. Anti-aliasing is only available for 8-bit (256 shade) output.

Fail if font problems detected

Select this check box to fail the output process if a file has missing fonts.
Note: This feature is not available for vector outputs (PDF, PS2, PS3, EPS, DCS Vector, PDF /X-1a, PDF/X-3, CT/LW, and DELTA).

Ignore Embedded Fonts in Marks Files

Select this check box if you want Prinergy to ignore embedded fonts in a marks file and to look for the fonts in the `system fonts` folder.
Important: You must install the fonts in `%ServerName%\%AraxiHome%\AdobeExtreme\bin\fonts`, or the output will fail.

Convert Text to Paths

This check box converts fonts to outlines before a file is RIPed.
This option was added in Prinergy 3.0 when the CPSI 3016 RIP was included with Prinergy. This option helped situations where the 3016 RIP failed to process the fonts on certain jobs. This option has limited usefulness now, but is included as a potential workaround in rare cases where fonts are not rendered correctly by the RIP. It is not recommended that you enable this on on a permanent basis. When using this option for specific jobs, it is recommended that you ensure that both proofs and plates are output with this option.

Note that when you select the **Convert Text to Paths** check box, you will have text appear fatter on low-resolution proof output. You can overcome this appearance problem by either:

- Rendering to a higher resolution, if rendering to 1-bit output, such as Virtual Proofing System
- Using anti-aliasing, if rendering to contone output
  Note: This check box is only available for raster output formats (`.VPS`, `.TIFF`, and so on).

Overlay Versioned Content

This box applies to Layered PDF Versioning.
For information about it, see the *Versioning* chapter in this guide.

Versioning Proof Mapping Color

This box applies to Layered PDF Versioning.
For information about it, see the *Versioning* chapter in this guide.

Restrict output of layers/versions with errors

This check box applies to Layered PDF Versioning. Select this check box to print the selected layers/versions but not the error layers/versions. For information, see the *Versioning* chapter in this guide.

Print LPV-generated X marks on output

This check box applies to Layered PDF Versioning. If a version with error is selected for output, and you select this check box, then a red X will be printed on the version output using the spot color or converted to CMYK as defined in the process template. If you selected **Restrict output of layers/versions with errors** check box, this check box is unavailable. For information, see the *Versioning* chapter in this guide.

Complex job mode

Select this check box to process complex jobs that would otherwise fail or take excessive time to complete the RIPping process, such as map jobs or PDF files with very high resolution bitmaps. This option should not be used for normal jobs that can be RIPed successfully without it, because RIPing with this option may take longer to process. RIPing complex jobs with this option may take many hours to process although the jobs will succeed in outputting.

Complex Mode use an Adobe Rasterization Rip method, that will divide the artwork into segments and rasterize at device resolution (instead of using the default "Hybrid Flattening" Rip method). This method may improve performance for very complex PDFs that contain transparency and many vector paths. Complex job mode is off by default, because using these options could result in slower performance compared to using traditional hybrid flattening for non-complex PDFs.

Automatic:

This is the recommended Complex Job Mode option to use. Use Automatic if you regularly receive complex PDFs. This mode will analyze the pages in a job and choose the best Ripping mode based on content (rasterizing or hybrid flattening).

The Complex Job Mode option in Prinergy prior to version 9 (now labelled 'legacy') used a global method of rasterizing, regardless of complexity, which could cause slowdowns for non-complex PDFs. Automatic solves this issue, as it will analyze the page content and choose the best mode for each page in the job (rasterizing or hybrid flattening). Its still off by default as the analyzing may add unnecessary overhead for non-complex jobs (i.e. jobs without many paths and transparency).

Standard Rasterizer:

Uses Adobe Common Renderer for rasterizing. This option also supports additional Adobe Rip features not yet included in Prinergy.

Alternate Rasterizer (legacy Mode):

Uses Adobe Graphics Manager for rasterizing. This is option Prinergy used prior to version 9. This option rasterizes all pages regardless of complexity. This option is typically faster than Standard mode for extremely comply PDFs

Notes:

- These options may consume additional RAM.
- These options only works with Adobe PDF Print Engine output.
- These options have had limited testing, so caution is urged when using them.

Non-fatal PDF error handling

Select one of the following options:

- **Ignore all errors**—to ignore all non-fatal error messages
- **Ignore negative dash phase errors**—to ignore only errors related to lines that contain negative dash values.
  Note: PDF and PS specifications consider negative dash values as illegal. These errors are typically non-fatal and should not cause a problem when they are suppressed.
- **Ignore invalid font data errors (use with caution)**—to ignore only errors related to invalid font data. With this setting, the Rip will ignore the invalid font constructs and "apply best effort" to render the font. This may result in incorrect output.
- **Detect all errors**—to detect and fail output on all errors (this is the default setting).

Note: Regarding the font related error handling. APPE 3.x has become stricter with fonts that have invalid data, but the error can be suppressed with the **Ignore invalid font data errors** setting. This setting should be used with caution, because there may be cases where the invalid font data will cause rendering problems (such as font missing on output). If you decide to use this option, check your output carefully. Anecdotal evidence shows it is typically safe to ignore the invalid font errors.

When using the **Detect all errors** setting, as of Prinergy 8.0 the actual font name is printed in the processing history message, but note the following limitations around the messaging:

- If you output one page that has multiple invalid fonts, the RIP will only report the first font encountered and terminate.
- If you output multiple pages (each containing unique invalid font data), only the font from the first page the RIP processes will be reported in history and all pages will fail output.
- If you impose multiple pages (each containing unique invalid font data) and output, only the first page's invalid font data will be reported. If you submit two imposition surfaces at once (that each contain invalid fonts), both will be reported in history (but again only the first page on each surface that is encountered).

- In Prinergy 7.5 you would observe a vague error message if the negative dash phase or invalid font errors were detected:
  DiagView: `ACR ERROR: 26, Error interpreting PDF`
  Workshop: `An error occurred while attempting to process a job.`

Tip: To find each unique offending font you could outline each font and try to output again, until all invalid font data is resolved. Alternatively, set the output process template to ignore invalid font data, and scrutinize your proofs.

Kodak Approval

Densities

Type an integer between -22 and +22.
For more information, see your Approval documentation.

CT/LW

CT Resolution

Type a resolution value in dots per inch (dpi) for the continuous tone (CW) files created during refine.
Note: 304.8 dpi = 12 dpm

LW Resolution

Type a resolution value in dots per inch (dpi) for the line work (LW) files created during refine.
Note: 2032.0 dpi = 80 dpm

Border Handling

Select the resolution at which the borders of overlapping images are rendered.

- **Borders to CT**—renders borders at the resolution specified in the **CT Resolution** box. If two images overlap, the transition from one continuous tone (CT) image to the next may appear jagged.
- **Borders to LW**—renders borders at the resolution specified in the **LW Resolution** box. This improves the resolution of the overlap area, but increases process time and size of the output file.
- **Borders to Smart Edge**—improves the appearance of CT to CT borders and ensures that the number of line work (LW) colors is not increased.

Output Kind

Select the format to which you want to output. You can output: **CT/LW Job Only**, **TIFF /IT Job Only**, or **CT/LW and TIFF/IT Jobs**.

Force Vignette to CT

Select to convert gradations to the continuous tone (CT) layer. Also, gradations created as Post Script Level 2 are converted to Post Script 3 to obtain high quality gradations when converted to CT data.
Converting to CT results in less banding and better quality images than converting to line work (LW). Converting to CT also adds noise to the resulting CTs, creating a smoother image.
Note: If you clear this check box, some vignettes are still converted to CT data (for example, Post Script Level 2 gradations).

Force LW Vignette to CT

Select to convert to the continuous tone (CT) layer, the vignettes (gradations and blends) that AVR (Automatic Vignette Recognition) identifies.
AVR recognizes a vignette as an image with a color difference (C,M,Y, or K) of 6% or less.
An output file in which blends are converted to CT is smaller than an output file in which blends are converted to line work (LW).

Screen Grabs

Select the resolution at which you want screen captures to be rendered.

- **Grabs to CT**—renders screen captures at the resolution specified in the **CT Resolution** box.
- **Grabs to LW**—renders screen captures at the resolution specified in the **LW Resolution** box.

CT Type

Select the CT (continuous tone) type you want to output.

- **NativeCT**—renders CT to the Kodak native (Whisper) CT format. This format supports up to 4 separations CMYK, and up to 256 shades/separation.
  Note: A **CT Native** file is given a `.ct` extension.
- **HandshakeCT**—renders CT to the Kodak CT Handshake format. This format supports up to 4 separations CMYK, and up to 256 shades/separation.
  Note: A **CT Handshake** file is given a `.ch` extension.
- **NewCT**—renders CT to the Kodak extended CT format which supports spot colors, and up to 32 separations, and up to 256 shades/separation.
  Note: A **New CT** file is given a `.nct` extension.

LW Type

Select the LW (line work) type you want to output.

- **NativeLW**—renders LW to the Kodak native (Whisper) LW format. This format supports up to 4 separations CMYK, and up to 248 colors.
  Note: A **Native LW** file is given a `.lw` extension.
- **HandshakeLW**—renders LW to the Handshake LW format. This format supports up to 4 separations CMYK, and up to 248 colors.
  Note: A **Handshake LW** file is given a `.lh` extension.

- **NewLW**—renders LW to the Kodak extended LW format. This format supports up to 32 separations CMYK, and up to 64,000 colors.
  Note: A **New LW** file is given a `.nlw` extension.

Make CT same size as Linework file

Select this check box to insert 1-pixel DeviceCMYK CT images in the upper-left and lower-right corners of the media box of the PDF pages.
The resulting CT layer:

- Is the same size as the LW layer
- Has all DeviceCMYK process colorants

This check box applies only when both:

- **Output To** at the top of the process template is set to **CT/LW (CTLWOutput)**
- **Output Kind** in the CT/LW area of the **Render** section is set to either **TIFF/IT Job Only** or **CT/LW and TIFF/IT Jobs**

TIFF/IT Suffix

TIFF/IT FP

When outputting to TIFF/IT, you can specify the file name ending for the final page (FP) file. Type the file name suffix, which can include characters before the extension. For example, _FP.tif

TIFF/IT CT

When outputting to TIFF/IT, you can specify the file name ending for the continuous tone (CT) file. Type the file name suffix, which can include characters before the extension. For example, _CT.tif

TIFF/IT LW

When outputting to TIFF/IT, you can specify the file name ending for the line work (LW) file. Type the file name suffix, which can include characters before the extension. For example, _LW.tif

TIFF/IT HC

When outputting to TIFF/IT, you can specify the file name ending for the high-resolution contone (HC) file. Type the file name suffix, which can include characters before the extension. For example, _HC.tif
Note: High-resolution contone (HC) files are line work files with more than 256 colors.

Legacy Pattern Overprint behavior

Turning this option OFF will use a patterns parent graphic state. Having the setting off is more inline with the PDF 1.6 specification. But was found to cause some artifacts, so Prinergy has set the legacy (pre APPE 5) behaviour. If problems are observed with Patters or Smooth Shades overprinting, it could be useful to set this to OFF.