

Render section of the Final Output process template

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

Always Use Color Combiner to Convert Spots

This check box is not available when an **Expose JTP (GDAPI)** is selected in the **Output To** list.

If the input files contain overprinted spot colors, the Color Combiner, which is a plugin to the renderer, combines the layers and outputs 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](#).

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.

Abort Output if Imposition or Page Set contains unassigned pages

Select to fail output if imposition or Page Set contains an unassigned page

Fail if font problems detected

Select this check box to fail the output process if a file has missing fonts.

Note: This option 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 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).

Restrict output of rejected versions

This check box applies to Layered PDF Versioning. Select this check and choose to either Warn or Fail on output, if any versions have approval set to Rejected

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.

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 RIPping with this option may take longer to process. RIPping 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).

Note: We've seen a significant speed enhancement with complex packaging files.

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 complex 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.

Fine Line Rendering (only available in the Extended Printer JTP types)

Produces a crisper rendering of fine lines, for applications such as security printing. With this option on, pixels are turned on only when an element such as a stroke hits the middle of the pixel grid. Without this option a pixel is turned on even if the element only touches a very small portion of the pixel grid.

Cache Display List (only available in the Extended Printer JTP types)

This will typically output surfaces faster, where the same PDF page has been placed several times

Suppressible 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.

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 Patterns or Smooth Shades overprinting, it could be useful to set this to OFF.