

Optimize section of the Refine process template

The **Optimize** section of a refine process template defines how Prinergy optimizes high-resolution images in input files.

This section is required and cannot be disabled.

Note: If using PDF Preflight, the **Optimize** section is unavailable because the preflight profile is controlling these options.

JTP

Select a job ticket processor (JTP) to use for optimizing.

Note: You set up JTPs using Prinergy Administrator.

Color Images

Resample

Enables downsampling of color images. When enabled the system downsamples color images to the value set in the **Down to** box, using the method selected in the list.

Select the **Resample** check box to enable downsampling of color images, and then select a type of downsampling:

- Select **Average** for faster, less accurate downsampling.
- Select **Bicubic** for slower but more accurate downsampling.

Clear the **Resample** check box to disable downsampling of color images.

Down to

Specifies the resolution to which the system downsamples images.

The **Down to** box in the **Color Images** area applies to color images.

The **Down to** box in the **Grayscale Images** area applies to grayscale images.

In the **Down to** box, type the resolution to which you want the system to downsample images.

Recommended setting: double the lpi value. For example, 400 ppi for 200 lpi, 300 ppi for 150 lpi, 170 ppi for 85 lpi.

Note: The **Down to** and the **if Above** options are linked by ratio. When you change the **Down to** value, the **if Above** value changes according to the existing ratio between the two options.

if Above

Specifies the minimum resolution an image must be for the system to downsample it. The system does not downsample images with a resolution below the number specified in this option.

The **if Above** box in the **Color Images** area applies to color images.

The **if Above** box in the **Grayscale Images** area applies to grayscale images.

In the **if Above** box, type the minimum resolution an image must be for the system to downsample it.

Note: The **Down to** and the **if Above** options are linked by ratio. This ratio is the actual value stored in each process template, and it is stored as an integer. When you open a process template, the system calculates the **if Above** value from the **Down to** value and the ratio between the two options. When you change the **if Above** value, the **Down to** value stays the same, but the system rounds the **if Above** value to the nearest integer, according to the ratio between the two options.

Compression

Compresses color images using the selected compression format.

Select **None** to disable image compression.

Select **JPEG (Lossy)** to compress images using a JPEG format.

Select **ZIP (Lossless)** to compress images using the ZIP format.

Quality

Applies to JPEG compression options only.

Select a level of compression from the list. The compression level decreases as the quality level increases.

Note: The **Quality** settings do not apply to images that are JPEG-compressed prior to being submitted to refine. That is, JPEG-compressed images in input files will remain as-is regardless of the setting selected.

Grayscale Images

Resample

Enables downsampling of grayscale images. When enabled, the system downsamples grayscale images to the value set in the **Down to** box, using the method selected in the list. Select the **Resample** check box to enable downsampling of grayscale images, and then select a type of downsampling:

- Select **Average** for faster, less accurate downsampling.
- Select **Bicubic** for slower but more accurate downsampling.

Clear the **Resample** check box to disable downsampling of grayscale images.

Down to

Specifies the resolution to which the system downsamples images.

The **Down to** box in the **Color Images** area applies to color images

The **Down to** box in the **Grayscale Images** area applies to grayscale images.

In the **Down to** box, type the resolution to which you want the system to downsample images.

Recommended setting: double the lpi value. For example, 400 ppi for 200 lpi, 300 ppi for 150 lpi, 170 ppi for 85 lpi.

Note: The **Down to** and the **if Above** options are linked by ratio. When you change the **Down to** value, the **if Above** value changes according to the existing ratio between the two options.

if Above

Specifies the minimum resolution an image must be for the system to downsample it. The system does not downsample images with a resolution below the number specified in this option.

The **if Above** box in the **Color Images** area applies to color images.

The **if Above** box in the **Grayscale Images** area applies to grayscale images.

In the **if Above** box, type the minimum resolution an image must be for the system to downsample it.

Note: The **Down to** and the **if Above** options are linked by ratio. This ratio is the actual value stored in each process template, and it is stored as an integer. When you open a process template, the system calculates the **if Above** value from the **Down to** value and the ratio between the two options. When you change the **if Above** value, the **Down to** value stays the same, but the system rounds the **if Above** value to the nearest integer, according to the ratio between the two options.

Compression

Compresses grayscale images using the selected compression format.

Select **None** to disable image compression.

Select **JPEG (Lossy)** to compress images using a JPEG format.

Select **ZIP (Lossless)** to compress images using the ZIP format.

Quality

Applies to JPEG compression options only.

Select a level of compression from the list. The compression level decreases as the quality level increases.

Note: The **Quality** settings do not apply to images that are JPEG-compressed prior to being submitted to refine. That is, JPEG-compressed images in input files will remain as-is regardless of the setting selected.

Color & Grayscale Alternate Images

Generate

Generates alternate low-resolution images of the images in the input file. An alternate image is used when creating low resolution PDFs from Publish to PDF File, or Vector output from Prinergy, or InSite Prepress Portal.

Select the **Generate** check box to enable alternate images; clear the **Generate** check box to disable alternate images.

at

Determines the resolution of alternate images.

Type the resolution at which you want Prinergy to generate alternate images.

if Above

When you select the **Generate** check box, images with a ppi above this value are downsampled to the value set in the **at ppi** box. Images below this value are not downsampled.

Compression

Compresses color and grayscale images using the selected compression format.

Select **JPEG (Lossy)** to compress images using a JPEG format.

Select **ZIP (Lossless)** to compress images using the ZIP format.

Color Space Control

Digital Master Control

The color space control settings let you screen for input file data that is in nonpress (nonCMYK or nongrayscale) color spaces.

The **Digital Master Control** option works in conjunction with the **Detect RGB** and **Detect Device Independent** check boxes.

You select a **Digital Master Control** option to indicate how you want Prinergy to respond when it locates data in a nonpress color space. You select the **Detect RGB** and/or **Detect Device Independent** check boxes to indicate what type of data you want Prinergy to detect.

Note: Settings in the **ColorConvert** section of the refine process template determine if and how the undesired color spaces are converted.

Select **Ignore** if you want Prinergy to ignore RGB or device-independent data in input files. If you select **Ignore** the **Detect RGB** and **Detect Device Independent** check boxes are unavailable and cannot be selected. If Prinergy encounters RGB or device-independent data, it gives no message and doesn't fail the job.

Select **Warn** if you want Prinergy to issue a warning if the selected data type is found in the input file. A warning message and yellow triangle appear in the Process Info dialog box and job history for each check box that is selected. A PDF page is created. A large X does not cover the content.

Select **Fail** to have Prinergy fail the job when the selected data type is found in the input file. An error message and red X appear in the Process Info dialog box and job history for each check box that is selected. A PDF page is created but is covered by a large black X.

You can set these same options in the **Normalize** section of the refine process template.

You can enable the color space control settings in either the **Normalize** section or the **Optimize** section, or both. Turning the settings on in the **Optimize** section allows you to check that color conversion was performed in the refine stage as you expected.

You might want to warn only about RGB and CIE-based color spaces in the **Normalize** section, because you are converting them in the Color Matcher, but warn during optimizing about CIE-based color spaces that the Color Matcher wasn't set up to convert.

Detect RGB

Select to have Prinergy detect RGB data in the input file.

The **Digital Master Control** selection determines what Prinergy will do if it finds RGB data.

The **Detect RGB** check box is unavailable if the **Digital Master Control** selection is **Ignore**.

Detect Device Independent (ICC-Based, Lab, CalGray, and CalRGB)

Select this option to have Prinergy detect device-independent data in the input file, for example L*a*b* data.

The selection for **Digital Master Control** determines Prinergy's actions when it finds device-independent data.

The **Detect Device Independent** check box is unavailable if the **Digital Master Control** selection is set to **Ignore**.

Separated File Control

These control settings let you detect nongray images (raster data) and nongray vector data in separated input files.

In each of the **Detect Non Gray Images** and the **Detect Non Gray Vector Data** lists, select one of the following options:

- **Ignore**—no warning is issued
- **Warn**—a warning is issued when Prinergy detects nongray data (of the type specified)
- **Fail**—the refine process fails when Prinergy detects nongray data (of the type specified)

Detect painted colorants in

Select the area of the PDF page from which painted colorants are extracted.

Select **Entire Page** to extract painted colorants from the entire PDF page.

Select **Media Box** to extract painted colorants from the media box only.

Select **Trim Box** to extract painted colorants from the trim box only.

For example, there might be objects outside the trim box painted in cyan. If there are no cyan objects inside the trim box and you select this option, then there will be no cyan in the list of colors for the page and you will not have a cyan separation to print.

Selecting **Media Box** or **Trim Box** might decrease performance.