Kodak

Prinergy PDF Trap Editor Help

English

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About Prinergy PDF Trap Viewer and Editor

The Kodak® Prinergy® PDF Trap Editor software is a Kodak plug-in for the Adobe® Acrobat® software that is available to suit different trapping workflows for commercial and packaging printers. This document describes how to use the PDF Trap Viewer and PDF Trap Editor.

Note: Throughout this document, the term PDF Trap Editor is used to generically refer to either plug-in.

Prinergy Trap JTP is a software that traps automatically within the workflow software and is part of the package workflow software. For more information, see the Kodak Prinergy Workshop Help.

Choosing a PDF Trap Editor Version

The PDF Trap Editor is vector-based trapping software available in different versions to suit different trapping workflows for commercial and packaging printers.

With This Version of the Trap Plug-In	Available As	You Can Do the Following to a Refined or Trapped PDF Page in Adobe Acrobat
PDF Trap Viewer	A standard feature with Prinergy when the Trap JTP is licensed	• Check selected trap properties • Check selected object properties • Delete all traps on the page
PDF Trap Editor	A licensed option used mainly by commercial offset and packaging printers	All PDF Trap Viewer functions, plus: • Trap whole pages • Trap selected objects • Edit existing traps • Add traps • Set trap geometry • Create keepaway traps
Trap JTP	A licensed option that includes some advanced features	Trap PDF pages as part of a Prinergy workflow. For more information, see the Prinergy Workshop Help.

Prinergy Trapping Workflow

A typical Prinergy trapping workflow consists of:

1. Refining, color matching, color mapping, and trapping a PDF file in a Kodak Prinergy® workflow system that includes the Trap JTP.
2. Opening the refined and trapped PDF page in Acrobat and using one of the following tools:
   - The PDF Trap Viewer plug-in to check the objects, traps, and borders on the page
   - The PDF Trap Editor plug-in to check and change object overprints, edit and generate traps on the page, set geometry, or create keepaway traps

Editing Objects Using Enfocus PitStop

In your trapping workflow, you may want to edit objects in a PDF page using Enfocus PitStop software. Here are some recommended ways of dealing with the effects of adding color separations and moving or deleting objects in a trapped PDF page.

Delete Traps Before Editing With PitStop

The recommended practice is to delete all traps with the PDF Trap Editor before editing the page with PitStop or any other editing tool.

Close the PDF Trap Editor

Close the PDF Trap Editor before opening and using the PitStop software.

After Adding Color Separations

If you add or change color separations while editing objects with PitStop, you must refine the PDF page again in Prinergy with color matching and trapping steps included.

After Moving an Object

If you move an object using PitStop in a page that still includes traps, the object's traps may no longer be associated with the object. These ghost traps must be cleared from the page.

You can do one of the following steps:

- Manually select and delete the object's traps using PitStop.
- Open the page in the PDF Trap Editor and delete all traps. You can then retrap the page. (Recommended method)

If only a few objects were changed, do the following step:

➢ Open the page in the PDF Trap Editor, select the object, and retrap the selection with the **Common object boundaries** check box cleared.

After Deleting an Object

If you delete an object using PitStop in a page that includes traps, the object's traps are automatically deleted the next time you open and select an item or retrap the file with the PDF Trap Editor.

Using Copydot Objects in a Trapping Workflow

The PDF Trap Editor is a vector-based trapper and does not trap along color intersections within raster data (that is, within images, and copydot, CT/LW, and CEPS data). Those images, if they require trapping internally, should be trapped with tools like Adobe® Photoshop® software. Copydot and CEPS data are usually already trapped.

The PDF Trap Editor can trap vector and text objects to raster data, and can trap the outline of raster objects to vector objects and other raster objects.

Checking Client Computer Requirements

You can use the PDF Trap Editor on client computers that meet the following minimum requirements.

Component	Minimum Requirements
Operating system	One of the following: • Microsoft® Windows® 2000 operating system with service pack as qualified by Kodak • Apple® Mac OS® X 10.2.3 or later **Note**: A Mac® client must have both a computer name and a user name assigned.
Software	Acrobat 7.0 or 8.0 If you send the refined and trapped files to another site for output, that site must have Prinergy 2.0 or later installed.
Hardware and connections	• 256 MB of RAM; 300 MHz PII or G3 processor • 100 MB of free disk space for temporary files • Mouse or trackball • TCP/IP network connection to the Prinergy primary server

Installing and Updating the PDF Trap Editor

PDF Trap Viewer

The PDF Trap Viewer is available when the Trap JTP is licensed. The PDF Trap Viewer is installed when Acrobat and Kodak Prinergy® Workshop software are installed on Prinergy servers or on Windows-based and Mac client computers.

PDF Trap Editor

The PDF Trap Editor is a licensed version. Obtain a special Prinergy license key to activate the PDF Trap Editor on servers or client computers that have Acrobat and Workshop installed.

Updating PDF Trap Editor

The PDF Trap Editor updates are included in Prinergy Workshop software updates.

Trap JTP

The Trap JTP is a licensed feature of a Prinergy job processing system. Obtain a special Prinergy license key to activate and use the Trap JTP with Kodak Prinergy® workflow.

Getting Technical Help

Finding Help Information

To open the PDF Trap Editor Help, from the Acrobat main menu, select **Help > Plug-In Help > Kodak PDF Trap Editor**.

Viewing the About Dialog Box

To display the version of PDF Trap Editor, from the Acrobat main menu, select **Help > About Third-Party Plug-Ins > Kodak PDF Trap Editor**.

Calling Customer Support

Call a service representative at 1.877.788.2727 (toll free).

Training

For information about customer training, contact your local service representative.

Preparing a File for Trapping

You will get better on-press results when you set up a PDF file correctly for a trapping workflow.

Checking File Names

Since the Prinergy server is a Windows-based computer and Prinergy clients may run either the Mac OS or Windows operating system, PDF files must be named to conform to both Mac OS and Windows standards.

File Names for Mac OS and Windows

When using the plug-in on a Mac or Windows-based computer, a valid file name:

- Is less than 32 characters long
- Does not contain the colon character (:)
- Does not contain control characters (that is, ASCII characters from 1 through 31)
- Does not contain a period (.) as the first character
- Does not contain any of the characters: < > ” | * : / \
- Is not a device name (such as: aux, con, lpt, com, prn)

Trap Set File Names

Trap set names for the PDF Trap plug-ins must conform to the naming standards and are limited to 18 characters in length. See Optimizing Your Workflow With Trap Sets on page 83 for more information about creating and using trap set files.

Preparing a File in Prinergy

Before checking and changing traps on a Portable Document Format (PDF) page, you must refine, color match, color map, and trap the PDF file in Prinergy. For best results, follow these steps.

General

1. Remove any traps made in a source software.
2. Use a composite Adobe PostScript® or PDF files as Prinergy input. Trapping and color matching can be performed only on composite files. Separated files (that is, with one color per PDF page) cannot be trapped by the PDF Trap Editor.
3. Embed any fonts used in the input file. You can do this either while creating the PostScript output file in the source software, or in Prinergy during the refine step.

Color

4. Set up the Color Matcher JTP in the refine process template to convert RGB colors to CMYK colors. Depending on your input file or design requirements, you may want to select **Map All Spot Colors to Process** (in the **Spot Color Handling** section), **Set Colors to Knockout**, and/or **Set Black to Overprint** (in the **ColorConvert** section).
5. Do not set colors to knock out when you will need double hits of spot colors.
6. Map spot colors to final output color separations.
7. For files with opaque colors, set the (Ink) **Printing Order** in the Prinergy Color Mapping dialog box to determine the trap directions for traps between opaque inks. You can also set the **Treat as Black** option for inks.
8. Add ink types to the color database in Prinergy Workshop.

   Ink type is set to **Normal** by default but can be changed in the Color Editor as follows:

   - **Normal** (for example, all process colors and the default for spot colors): A translucent color that traps to others according to its relative lightness or darkness, or neutral density. You can specify a neutral density in the Color Editor, or the PDF Trap Editor will derive a value based on the color's CMYK composition. Normal colors that border each other and are located under a translucent color may trap to each other.
   - **Transparent** (for example, for a varnish): A transparent color is not trapped. Transparent colored objects cannot be selected or trapped manually by the PDF Trap Editor. Colors that border each other and are located under the transparent color may trap to each other.
   - **Opaque** (for example, for a metallic ink): An opaque color will only be spread or choked in relation to other opaque inks that come after it in the print order. However, other colors may trap to an opaque color, and an object covered by the opaque color can be choked. Objects that border each other and are located under the opaque color will not trap.
   - **Opaque Ignored**: This color will not be spread or choked. Objects that border each other and are located under the opaque color will not trap.
   - **Die Line**: The die line color is not trapped but is instead treated like a transparent ink. For composite proofs, it is knocked out to ensure die lines are visible for proofing. For separations, it is overprinted.

     The PDF Trap Editor checks the color database for a spot color's opacity and neutral density values. If a color is not defined in the color database, the PDF Trap Editor assumes an opacity of Normal and derives its neutral density from the CMYK values in the file.

9. Map spot colors to final output color separations. Click **Color Mapping** in the Start Refine Process dialog box to access color mapping and change spot color properties in the Color Editor.
10. For files with opaque colors, set the (Ink) **Printing Order** from the Prinergy Color Mapping dialog box to determine the trap directions for traps between opaque inks. The color listed last defines the shape and all other colors will be pulled under it. For example, Color 1 traps to Color 2, 2 to 3, 3 to 4, and so on.
11. You can also set the **Treat as Black** option for inks (Prinergy 2.1 or later color database).
12. Once the PDF file is successfully set up and refined, you can check, change, and/or add traps in the refined PDF pages using the PDF Trapper for Acrobat.

    Note: If you send the refined and trapped pages to another site for output, that site must have installed Prinergy 2.0 or later.

See Ink types and trapping rules on page 10 for the relationship between ink types and trapping rules.

Table 1: Ink types and trapping rules

Ink Type	ColorsTrap to Ink?	Underlying Inks Trapped?	Black Trapping Rules Applied?	What Determines Trap Direction?
Normal	Yes	Yes	If process black or neutral density > black density limit or Treat as Black is on	Neutral density
Opaque-solid	Yes	No	Always	Print order
Opaque-screened	Yes	No	If ink intensity > black color limit	Neutral density
Opaque Ignored	No	No	N/A	N/A
Transparent (or die line)	No	Yes	N/A	N/A

For more about black trapping rules, see Trapping Black Ink on page 70.

Trapped By the PDF Trap Editor

Any PDF file refined and trapped using the Trap JTP will contain an identifying **trapped by** icon in the upper-left corner of the page when opened with the PDF Trap Editor. This is a standard Acrobat annotation that does not print.

The Trap JTP is used both when you trap using the refine process template and when you trap using the PDF Trap Editor.

To see the date that the page was trapped:

➢ Close the PDF Trap Editor, and double-click the **trapped by** icon.

To delete the trapped by icon:

1. In the Mac OS, press COMMAND, and click the icon.
   In Windows, right-click the icon.
2. From the list, select **Delete**.



Figure 1: The **trapped by** icon

Note: If you refine a file to PDF/X, the icon does not appear because the PDF/X standard does not allow annotations.

Setting Up Your Workspace and Preferences

The following sections provide you with the basic information for setting up your trapping workspace. The latter sections can help you set up some preferences using the Preferences dialog box.

Opening the PDF Trap Viewer

The PDF Trap Viewer workspace is a series of windows in which you can view objects and traps in a PDF file.

The PDF Trap Viewer and PDF Trap Editor use the same windows. The windows differ only in the features that are enabled. If you are licensed for both PDF Trap Viewer and PDF Trap Editor, you can switch between them without losing data.

To open the PDF Trap Viewer:

The Acrobat window displays the contents of the PDF file.

1. From the Acrobat main menu (Acrobat 7 and 8), select **Advanced > Kodak Tools > Kodak PDF Trap Viewer**.
2. Open a composite PDF file.
3. The following windows open:
   - **Trap Viewer window**—shows the rendered contents of the PDF file.
   - **Acrobat window**—shows the PDF Trap Viewer's viewing rectangle superimposed over the contents of the PDF file, outlining the current view that is shown in the PDF Trap Viewer window.
   - **Properties Viewer window**—is blank at first but shows object and trap properties once objects and traps are selected.

4. You can drag and resize windows in Acrobat. Make sure you use the standard right-handed button configuration on your mouse when resizing windows. Or, see Tiling PDF Trap Editor Windows on page 18.

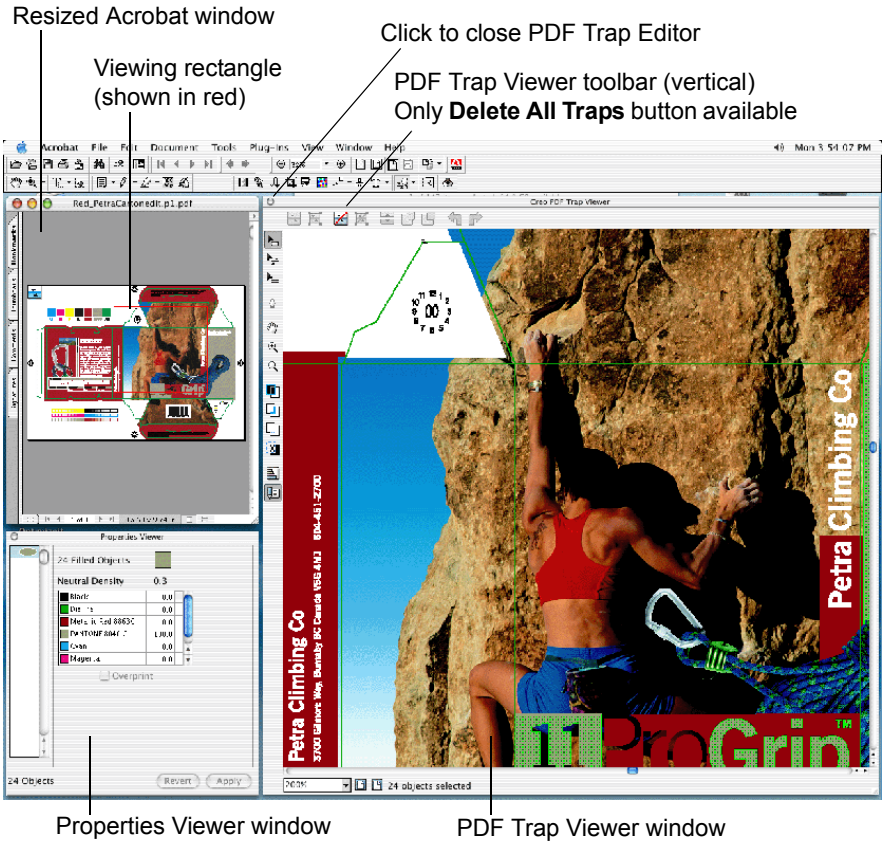
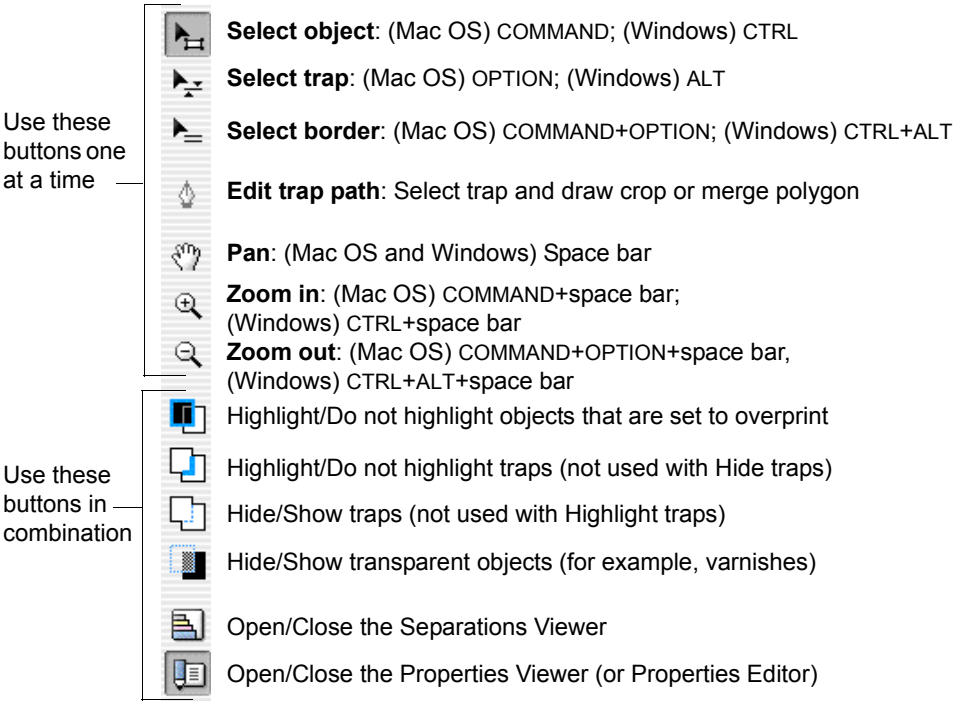


Figure 2: Opened PDF Trap Viewer

PDF Trap Viewer Toolbar

The PDF Trap Viewer toolbar is the vertical toolbar in the Trap Viewer window. The Trap Viewer toolbar is also available with the PDF Trap Editor.



Opening the PDF Trap Editor

The PDF Trap Editor workspace is a series of windows in which you can view, select, edit, and generate traps in a PDF file. The Prinergy primary server manages the licenses for the PDF Trap Editor. See About PDF Trap Editor Licensing on page 16.

The PDF Trap Viewer and PDF Trap Editor use the same windows. The windows differ only in the features that are enabled. If you are licensed for both PDF Trap Viewer and PDF Trap Editor, you can switch between them without losing data.

To open the PDF Trap Editor:

1. From the Acrobat main menu (Acrobat 7 and 8), select **Advanced > Kodak Tools > Kodak PDF Trap Editor**.
2. Open a composite PDF file.
3. Once a Trap Editor license is obtained:
   - **Trap Editor window** opens—shows the rendered contents of the PDF file. Use for selecting and generating of traps.
   - **Acrobat window** is resized—now shows the PDF Trap Editor's viewing rectangle superimposed over the contents of the PDF file, outlining the current view that is shown in the PDF Trap Editor window.
   - **Properties Editor window** opens—at first it is blank; will show object and trap properties once objects and traps are selected. Use for checking and editing existing traps.
4. You can drag and resize windows in Acrobat. Use the standard right-handed button configuration on your mouse when resizing windows. Or, see Tiling PDF Trap Editor Windows on page 18.

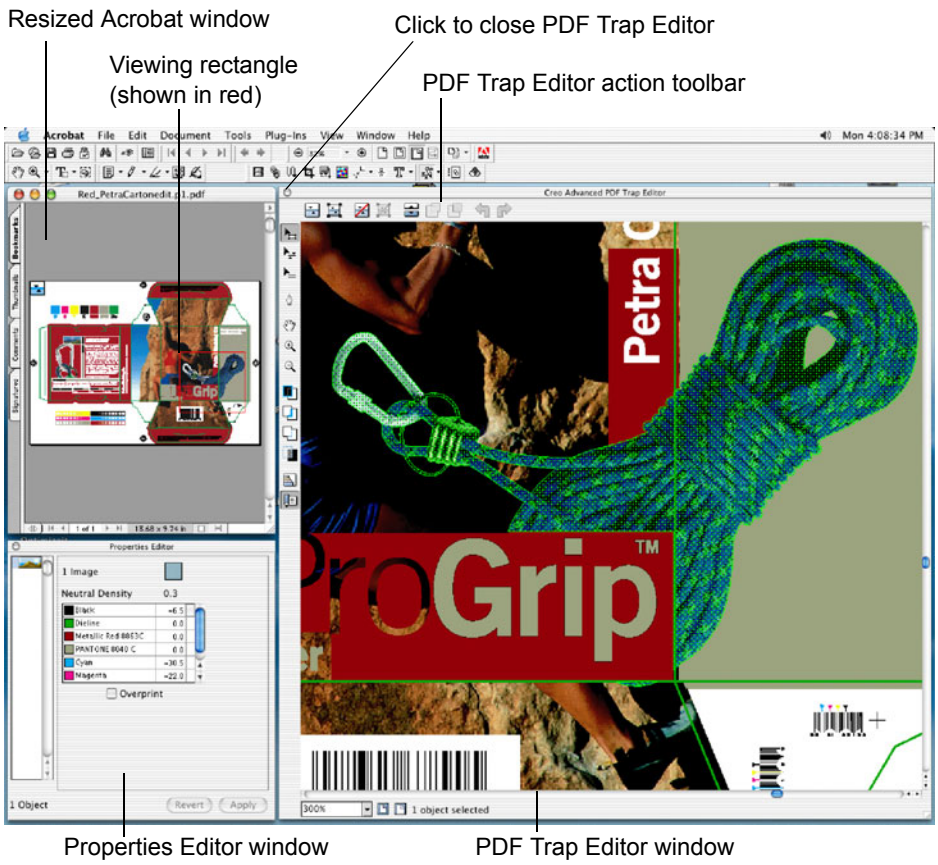


Figure 3: Opened PDF Trap Editor

About PDF Trap Editor Licensing

The PDF Trap Editor version that is made available for your session may depend on the number of PDF Trap Editor licenses currently in use at your site that are managed by the Prinergy server for network-connected clients.

For example, your site is licensed for operating several instances of the PDF Trap Editor. If you try to open the PDF Trap Editor from your client and all PDF Trap Editor licenses at your site are being used, the server will send a report that lists the currently licensed users and number of licenses on the server. After you receive this information, you can perform one of the following actions:

- Try to access the PDF Trap Editor again.
- Open the PDF Trap Viewer instead.

PDF Trap Editor Action Toolbar

The action toolbar is the horizontal toolbar in the PDF Trap Editor window.

Note: This toolbar is disabled in the PDF Trap Viewer except for the **Delete all traps** button.

Only one of these buttons can be used at any time:

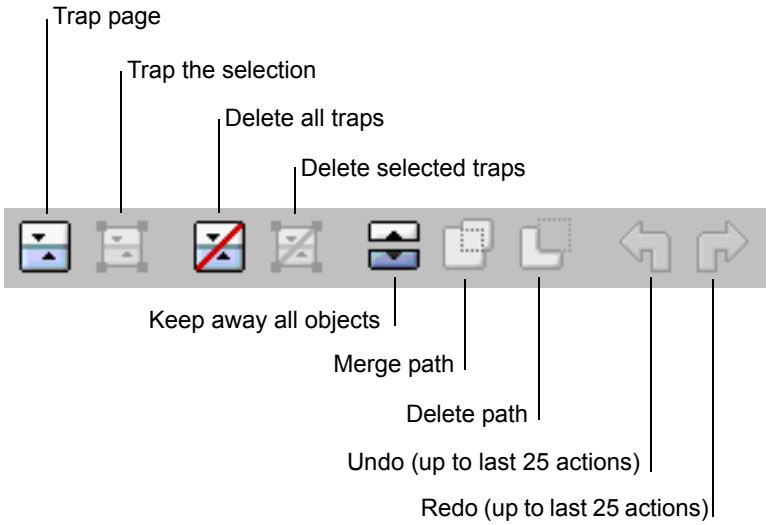


Figure 4: The PDF Trap Editor action toolbar

Tool	PDF Trap Viewer	PDF Trap Editor
Trap page		X
Trap selection		X
Delete all traps	X	X
Delete selected traps		X
Keep away all objects		X
Merge path		X
Delete path		X
Undo		X
Redo		X

Tiling PDF Trap Editor Windows

To reset the main trapping windows to their default sizes and positions on your computer monitor while in a trapping session:

1. From the Acrobat main menu (Acrobat 7 and 8), select **Advanced > Kodak Tools > Kodak PDF Trap Editor**.
2. Select **Window > Tile > Kodak PDF Trap Editor**.

The Acrobat window and the Properties window are resized and stacked one above the other on the left side of the screen. The PDF Trap Editor window is moved to the right side of the screen.

Switching Between Trap Plug-Ins

If your system is fully licensed for trap editing, you can switch back and forth between the PDF Trap Viewer and the PDF Trap Editor. You don't have to close the software or the PDF file being reviewed first.

Perform one of the following actions:

- Click the **PDF Trap Viewer** button  or a **PDF Trap Editor** button   on the Acrobat **Kodak Tools** toolbar.
- From the Acrobat main menu (Acrobat 7 and 8), select **Advanced > Kodak Tools > Kodak PDF Trap Editor**, or **Kodak PDF Trap Viewer**.

If you have items selected, you will lose the selection list while the trapping software reanalyzes the page.

Changing Magnification (Zooming)

You can change the magnification of the page that is shown in the plug-in window. This also changes the relationship between the viewing rectangle and the area that it covers on the PDF page in the Acrobat window. The zoom tool on the Acrobat toolbar affects only the Acrobat window.

- Click the **Zoom in** button or the **Zoom out** button on the vertical toolbar, and then click inside the plug-in window.
- Select a magnification value in the list on the plug-in's window status bar. You can set the zoom view to between 12 percent and 6400 percent magnification.
- Highlight the selected value in the list and enter a number from 12 to 6400.

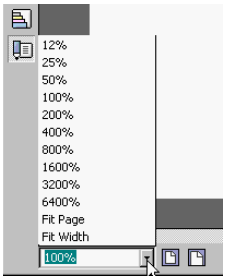


Figure 5: Magnification menu

Keyboard Shortcuts for Zooming

Zoom in: (Mac OS) Press the space bar+COMMAND; (Windows) press the space bar+CTRL

Zoom out: (Mac OS) Press the space bar+COMMAND+OPTION; (Windows) press the space bar+CTRL+ALT

Setting Fit Width and Fit Page Views

You can fit the image of a PDF page in the plug-in window according to the page's width or size.

On the plug-in's window status toolbar:

- Click the **Fit Width** button to resize the view of the PDF page according to its width.
- Click the **Fit Page** button to view the entire PDF page in the plug-in window.

Fit Page and **Fit Width** are also available on the plug-in window's magnification menu.

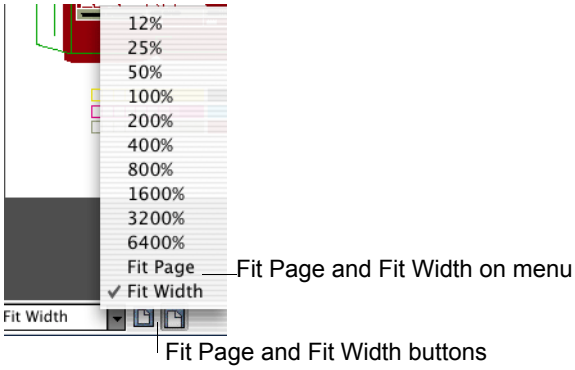


Figure 6: Finding Fit Page and Fit Width in the plug-in window

Viewing Different Parts of a Page (Panning)

The plug-in window viewing rectangle is superimposed over the contents of the PDF file and outlines the current view that is shown in the plug-in window. Perform one of the following actions to move the viewing rectangle:

- Use the mouse to grab the viewing rectangle in the Acrobat window and move it to another place on the displayed page. The new view shows in the plug-in window.
- Click the hand tool  on the plug-in toolbar, and then click in the plug-in window and hold the mouse button to move the focus of the Trap window to another part of the opened page.

The viewing rectangle in the Acrobat window moves in parallel so you know where the plug-in view is focused in the displayed page.

Tip: If the entire page is visible in the Acrobat window, increase the magnification in the plug-in window. Then you can move the viewer rectangle around in the Acrobat window to check page contents and traps more closely in the plug-in window.

Keyboard Shortcut for Panning

Hold down the space bar, click and drag the (left) mouse button. The hand tool appears and you can use it to move the image. The viewing rectangle in the Acrobat window moves in parallel.

Setting Selection and Highlight Colors

You can choose the colors that objects, traps, borders, and highlights will appear in when you select them in the PDF Trap Editor window. The **Preferences** menu is available whether the PDF Trap Editor plug-in is closed or opened.

1. From the Acrobat main menu (Acrobat 7 and 8):
   - In the Mac OS, select **Acrobat > Preferences > Kodak PDF Trap Editor**.
   - In Windows, select **Edit > Preferences > Kodak PDF Trap Editor**.
2. Click the color swatch for one of the following:
   - Object Selection
   - Trap Selection
   - Highlights
   - Border Selection
3. In the color selection chart, select a basic or custom color swatch.
4. Click **OK** to close the color selection chart.
5. Repeat steps 2 to 4 for each highlight preference or click **Defaults** to return the highlight items to their PDF trapper-defined colors.
6. Click **OK** to close the Preferences dialog box.

When you select an object, trap, and/or a border in the PDF Trap Editor, the selected items will appear in the colors you chose.

When you click the **Highlight objects set to overprint** and the **Highlight traps** buttons in the PDF Trap Viewer toolbar, the objects and/or traps will appear with the highlight color you chose.

Entering a Default Trap Set Name

See Optimizing Your Workflow With Trap Sets on page 83.

Setting Viewing and Editing Units

You can choose the measuring units to use when viewing, editing, and creating traps.

1. From the Acrobat main menu (Acrobat 7 and 8):
   - In the Mac OS, select **Acrobat > Preferences > Kodak PDF Trap Editor**.
   - In Windows, select **Edit > Preferences > Kodak PDF Trap Editor**.
2. Select one of the following from the **Units** list:
   - Points
   - Inches
   - Millimeters
3. Click **OK** to close the Preferences dialog box.

Entering a License Server Name

The first time you click the **PDF Trap Editor** button, the software checks the primary servers on your network for a server that has the trapping license for PDF Trap Editor. Once the PDF Trap Editor finds a primary server with a trapping license available for use, the server name is recorded in the PDF Trap Editor Preferences dialog box.

1. From the Acrobat main menu (Acrobat 7 and 8):
   - In the Mac OS, select **Acrobat > Preferences > Kodak PDF Trap Editor**.
   - In Windows, select **Edit > Preferences > Kodak PDF Trap Editor**.

   If you have more than one primary server running the floating license manager on your network, the server names are listed in **License Server**.
2. In the License Server box, type the name or the IP address of the server that is licensed for the PDF Trap Editor.
3. Restart the PDF Trap Editor for the new name to become the default license server.

Showing or Hiding Warnings

Typically, you receive warning messages about any limitations or illegal actions during a trapping session. You can suppress these messages from the dialog box that appears so that no more messages appear during the session.

1. From the Acrobat main menu (Acrobat 7 and 8):
   - In the Mac OS, select **Acrobat > Preferences > Kodak PDF Trap Editor**.
   - In Windows, select **Edit > Preferences > Kodak PDF Trap Editor**.
2. Select the **Enable all warning dialogs** check box to view suppressed warnings that occurred during your trapping session.
3. Click **OK** to close the Preferences dialog box.

If warnings were suppressed and you want to review them, you can reenable them by selecting the **Enable all warning dialogs** check box. If no warnings were suppressed, the check box is not available.

Selecting Objects, Traps, and Borders

The main ways to select objects, traps, or borders include:

- Using a mouse click—This is especially useful for adding for adding or removing one item from your selection.
- Drawing a marquee—This is especially useful for selecting or removing a text string, several items at a time, or an entire page.
- Using the contextual menu—This is especially useful for selecting items that share one or more attributes such as color, transparency, or overprint status.

For a training exercise on selecting objects, traps, and borders, see Selecting Objects, Traps, and Borders on page 97.

All of the PDF trapper selection methods can be used together to build a selection list in either the Properties Viewer or Properties Editor.

For each selection method, clicking in the PDF trapping window selects the closest item. You can add objects, traps, and borders to the same selection list.

Check the properties of a selected item in the Properties dialog box.

Selectable Object Types, Traps, Borders

When an object, a trap, or a border is selected, its icon appears in the Properties window.

Object Types and Icons

The following object types are recognized by the PDF Trap Editor:

- Filled object 
- Stroked object 
- Text object 
- Image 
- Masked image 
- Complex bitmap 
- Gradient (and axial and radial blends) 

Transparent objects and copydot images are recognized but cannot be selected or trapped.

The following object types can be selected but not trapped:

- Technical object (object colored with a transparent ink) 
- Copydot object 
- Soft mask (gray-scale mask)
- CEPS object 

- Bypass object 

Trap Icon

A trap icon in the Properties window appears as 

Border Icon

A border icon in the Properties window appears as 

See Inspecting Trapped Pages on page 34 for more information about selected objects, traps, and borders.

Selecting with a Mouse Click

The list of selected items appears in the Properties window.

1. Start a PDF Trap Viewer or PDF Trap Editor session.
2. Depending on the item you want to add to a selection list, click one of the following in the vertical toolbar:
   - **Select Object** button 
   - **Select Trap** button 
   - **Select Border** button 
3. To select the first item, click an object, trap, or border in the PDF Trap Editor window.

   A selected item will be highlighted with the color you specified in Setting Selection and Highlight Colors on page 23. In addition, an object is outlined and overlaid with a pattern of bright dots.
4. To add to the selection group, hold down the SHIFT key, and click another item.
5. To remove a selected item from a selection list, hold down the SHIFT key, and click the item.
6. Repeat steps 2, 4, and 5 until you are satisfied with your selection list.

Keyboard Shortcuts for Selecting with a Mouse Click

These shortcuts temporarily override the current mode.

You can also use these shortcuts with the SHIFT key to switch between adding and removing items.

To switch to object selection mode and select an object:

Mac OS: ⌘ (COMMAND)+click

Windows: CTRL+click

To switch to trap selection mode and select a trap:

Mac OS: OPTION+click

Windows: ALT+click

To switch to border selection mode and select a border:

Mac OS: ⌘ (COMMAND)+OPTION+click

Windows: CTRL+ALT+click

To add or remove a selection from a selection list:

Mac OS and Windows: Press SHIFT+click.

Selecting by Marquee

Marquee selection allows you to more easily select several items at a time. The list of selected items appears in the Properties window.

1. Start a PDF Trap Viewer or PDF Trap Editor session.
2. Depending on the item you want to add to a selection list, click one of the following in the vertical toolbar:
   - **Select Object** button 
   - **Select Trap** button 
   - **Select Border** button 
3. To select several items at a time, hold down the mouse button and drag a selection rectangle (a marquee) completely around the items you want.

   An object fully inside the marque will be selected. All traps or borders inside or intersecting with the marquee will be selected.

   A selected item shows highlighted with the color you specified in Setting Selection and Highlight Colors on page 23. An object is also outlined and overlaid with a pattern of bright dots.
4. To add selections to the list, press SHIFT and draw a marquee around the items to be added.
5. To remove selected objects from a selection list at any time, press SHIFT and draw a marquee completely around the objects you want to drop from the list. Any selected objects inside the marquee will be dropped from the list.
6. Repeat steps 2, 4, and 5 until you are satisfied with your selection list.

You can select all object, traps, and/or borders by drawing a marquee around the entire page.

Keyboard Shortcuts for Selecting by Marquee

These shortcuts temporarily override the current mode.

You can also use these shortcuts with the SHIFT key to switch between adding and removing items.

To switch to object selection mode and select object(s):

Mac OS: Press ⌘ (COMMAND)+marquee.

Windows: Press CTRL+marquee.

To switch to trap selection mode and select trap(s):

Mac OS: Press OPTION+marquee.

Windows: Press ALT+marquee.

To switch to border selection mode and select border(s):

Mac OS: Press ⌘ (COMMAND)+OPTION+marquee.

Windows: Press CTRL+ALT+marquee.

To add or remove a selection from a selection list:

Mac OS and Windows: Press SHIFT+click.

Selecting by Attribute and Context

You can select objects, traps, and borders according to their attributes and their context within the page. The list of selected items appears in the Properties window.

A contextual menu provides the following choices:

- You can select any traps and borders that are associated with an object. That is, with a contextual method of selection, you can group borders and traps with similar color combinations and retrap.
- You can select the closest object, several objects, or all objects with similar properties. That is, a select by attribute method of selection. You can select objects of the same type and/or color and with the same overprint status.

1. Start a PDF Trap Viewer or PDF Trap Editor session:
   - In the Mac OS, press CONTROL and click an item in the PDF Trap Editor window.
   - In Windows, right-click an item in the PDF Trap Editor window.

   The contextual menu opens and shows menu choices that vary according to the type of item selected, its attributes, and its context.
2. Click one of the following menu items:
   - Select object
   - Select object's traps
   - Select object's traps and borders
   - Select objects of the same transparency/opaque settings, type and overprint status
   - Select objects of the same transparency/opaque settings, color and overprint status
   - Select objects of the same transparency/opaque settings, type, color, and overprint status

   Or, depending on where you click in the page (on or outside an object, the object type, if there are overlapping objects, if there are traps, and so on):
   - Select color pairs' trap/border
   - Select all color pairs' traps/borders
   - Select traps for selected objects
   - Select borders for selected objects
   - Deselect all

   A selected item appears, highlighted with the color you specified in Setting Selection and Highlight Colors on page 23.

   Selecting **Deselect all** clears the entire selection list.
3. To add more items:
   - In Mac OS, press CONTROL+SHIFT+click.
   - In Windows, SHIFT+right-click to bring up the contextual menu.

4. Select a menu item.

   This adds to the already-accumulated selection list in the Properties dialog box.



Figure 7: Selecting items by context or attribute

5. To remove a selected item from the selection list using the contextual menu, bring up the contextual menu and click on a menu item to clear that selection.

Removing a Selection from the List

The items you select are listed in the Properties Viewer or Properties Editor. To remove them from the list, perform one of the following actions:

- Hold down SHIFT, and click the selected item.
- Hold down SHIFT, and marquee the selected item.
- Hold down SHIFT, and select the item again using the contextual selection menu.

Finding Selected Items Easily

The PDF Trap Editor's flashing highlight makes selected items easier to see in the PDF Trap Editor window.

- In the Mac OS, click and hold on one or more item icons in the Properties window.
- In Windows, click and hold the left mouse button on one or more item icons in the Properties window.

The selected item or items flash with the highlight color you specified in Setting Selection and Highlight Color.

Tip: Using this flashing highlight feature is helpful for highlighting a group of items with the same characteristics to check that the items have been trapped or edited correctly.

Inspecting Trapped Pages

You can check the characteristics of your selected objects, traps, and borders using the Properties Viewer that is available with the PDF Trap Viewer.

The Properties Viewer functions are added to with the Properties Editor that is available with the PDF Trap Editor licensed plug-ins. See Editing Properties and Generating Traps on page 41.

See also Selecting Objects, Traps, and Borders on page 27 and Finding Selected Items Easily on page 33.

Opening the Properties Viewer

All information about the objects, traps, and borders you have selected is listed in a Properties window:

- In a PDF Trap Viewer session, it is listed in the Properties Viewer.
- In a PDF Trap Editor session, it is listed in the Properties Editor.

Note: The Properties Viewer window and the Properties Editor window look identical except that the Viewer window has features that are disabled.

➢ From within a PDF Trap Viewer session, click to toggle the **Properties Viewer** button  in the PDF Trap Viewer's vertical toolbar.

Use the Properties Viewer to check:

- Object type, number of objects, neutral density, color formula, and overprint status, and whether the object is opaque, transparent, or a soft mask.
- Number of traps, adjacent objects, neutral density, color formula, size, and, possibly line join style.
- Number of borders, and the neutral density and color formula of adjacent objects.

Use the Properties Editor to change eligible object, trap, and border properties. See Editing Properties and Generating Traps on page 41.

Checking an Object's Properties

Check what you see in the PDF Trap Editor window against the object properties in the Properties window. Change the magnification or the focus in the PDF Trap Editor window to improve your view.

For a selected object, the Properties window shows:

- Object type icon in left pane of the dialog box
- Object type name (such as image, masked image, filled object, gradient, text object, stroked object)
- Object type count (That is, objects are grouped and counted according to similar characteristics, if they exist.)
- Neutral density
- Color swatches and separations (colors shown are median colors) with CMYK percentages and spot colors.
  - A ~nn.n value appears in a color separations cell for an object, where nn.n is a value between 0 and 100 percent. This is the tint value for an image or gradient.
  - A #nn.n value appears in a color separations cell for an object, where nn.n is a value between 0 and 100 percent. This is the mask and tint value for a complex bitmap.
  - An nn.n value appears in a color separations cell for an object, where nn.n is a value between 0 and 100 percent. This is the tint of the separation color.
- Overprint status (on/off)

To change an object's status to overprint or to knock out, see Setting an Object to Overprint or Knock Out on page 42.

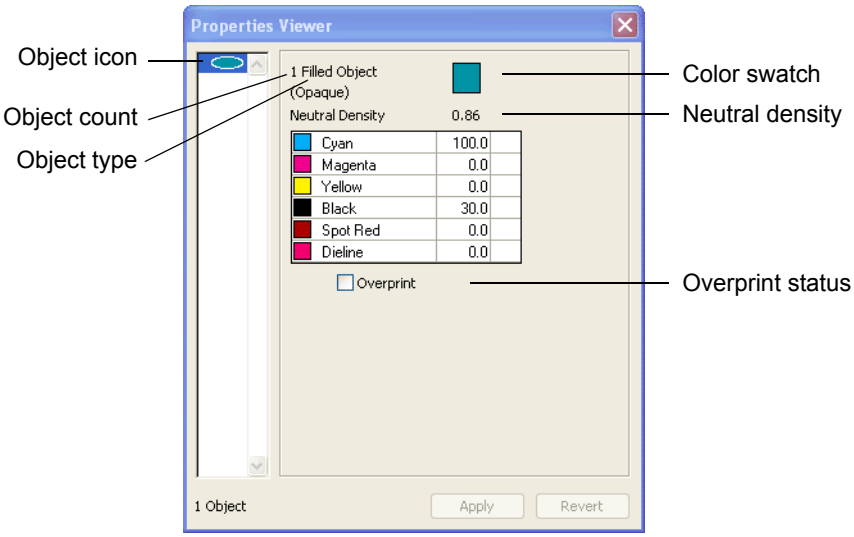


Figure 8: Properties Viewer window showing object properties

Checking a Trap's Properties

Check what you see in the PDF Trap Editor window against the trap properties in the Properties window. Change the magnification or the focus in the PDF Trap Editor window to improve your view.

For a selected trap, the Properties window shows:

- Selected trap icon in left pane
- Number of traps selected
- Swatches for trap and adjacent colors
- Trap direction
- Neutral density
- Color separations for trap and adjacent objects (with CMYK percentages and spot colors). For more details, see Editing Trap Color on page 44.
- Trap size (width and height)
- Trap trimming
- Line join style
- Miter limit
- 3-color joins (mitered corners, clipped chokes)

Note: If a selected grouping such as a color pair contains more than one trap, any differing or mixed trap values will be indicated in the Properties window with an * (asterisk), the **Line Join Style** list may show as blank, and the toggle button may show a modified check mark. If a grouping contains a least one untrapped border, only the colorant is shown and other values are disabled.

To change trap direction, color, or size, see Editing Properties and Generating Traps on page 41.

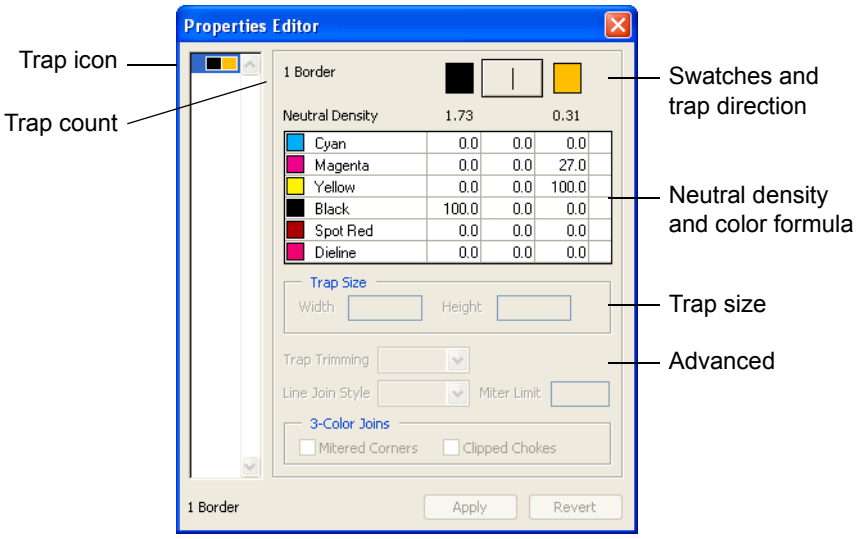


Figure 9: Properties Viewer window showing traps selected

Checking a Border's Properties

Check what you see in the PDF Trap Editor window against the border properties in the Properties window. See also Trapping a Border Using the Properties Editor on page 47.

For a selected border, the Properties window shows:

- Selected border icon in left pane
- Number of borders selected
- Object and border swatches
- Trap direction (the potential for a trap appears as)

  The trap direction is blank until you set trap direction using the PDF Trap Editor.
- Neutral density
- Color separations for adjacent object (CMYK percentages, spot colors)

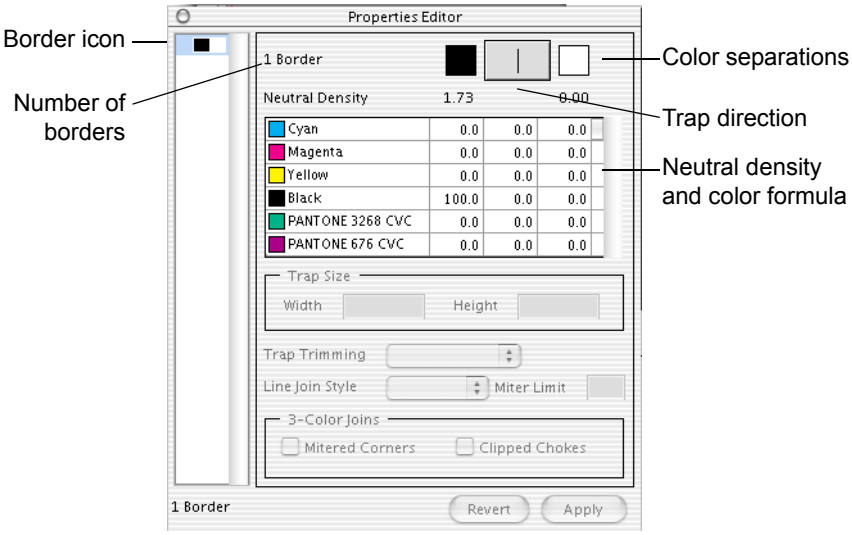


Figure 10: Properties Viewer window showing border properties

Checking Color Separations

The Separations window displays swatches of any CMYK and spot colors present in the opened PDF file. You can also manipulate these colors to better view the color boundaries between separations in your page, if needed. You can check color separations in the PDF Trap Viewer and PDF Trap Editor versions.

With the Separation Viewer opened, any overprints in the PDF file are rendered in the PDF Trap Editor view, which is helpful when checking the look and properties of objects and their traps.

Tip: With the Separation Viewer closed, the PDF Trap Editor view redraws faster when you are panning, zooming, or applying property changes.

1. Perform one of the following actions to open the Separations window:

   Note: You can access the Separations window through a PDF Trap Editor session or as a stand-alone tool.

   - Click the **Separation Viewer** button  in the vertical toolbar.

     The Separations window shows the colors present in the file (CMYK and spot colors), their slider bars, and color names.

   - From the Acrobat main menu (Acrobat 7 and 8), select **Advanced > Kodak Tools > Prinergy Separation Viewer**.

   You can view *swatches only* by dragging the lower-right corner in to make the dialog box smaller.

2. In the Separations window, drag the triangles on the sliders for each swatch to lighten or darken the colors in the PDF Trapper view. For example, lighten the color on a darker colored trap to see other colors that may be underneath the trap or to see if the object is set to knock out.

3. In the Separations window, click the eye icon to hide or show that color from the PDF Trapper view of the page. Click again to rehide or restore.

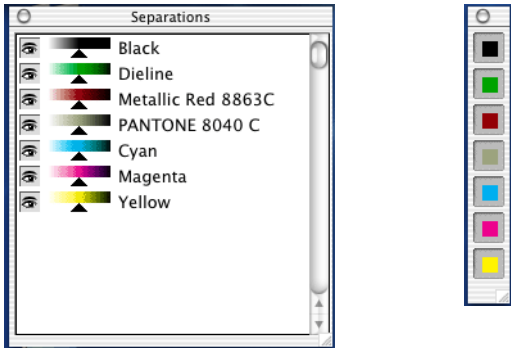


Figure 11: Separation Viewer window and Swatches Only view

Note: Lightening, darkening, and turning off a color using the Separation Viewer only affects the color in the Separation View; it does not change the color that is output.

Highlighting Objects Set to Overprint

The highlight for objects currently set to overprint increases the visibility of overprints in the PDF file so that you can check and/or change the overprint status for objects more easily.

1. In a PDF Trap Editor session, click the **Highlight objects set to overprint** button  on the vertical toolbar.

   All overprinted objects will appear in the highlight color you selected when setting up your PDF Trap Editor workspace.

2. When ready, click the **Highlight objects set to overprint** button again to turn off the highlight.

Highlighting All Traps

The highlight for all traps increases the visibility of traps in the PDF so that you can check and/or edit the traps more easily. Cannot be used with **Hide traps**.

1. In a PDF Trap Editor session, click the **Highlight traps** button  on the vertical toolbar.

   All traps will appear in the highlight color you selected when setting up your PDF Trap Editor workspace.

2. When ready, click the **Highlight traps** button again to turn off the highlight.

Hiding All Traps

You can hide all traps to see how the PDF page would look if untrapped. This feature is especially useful if a current trap obscures an object on the page. It cannot be used with **Highlight traps**.

1. In a PDF Trap Editor session, click the **Hide traps** button  on the vertical toolbar.

   No traps will be visible in the PDF Trap Editor window.

2. When ready, click the **Hide traps** button again to see all traps.

Hiding Transparent Objects

When you set an ink to transparent while setting up the PDF file, the objects in that ink are visible but not selectable in the PDF Trap Editor view.

See Ink types and trapping rules on page 10 for allowable ink types.

1. In a PDF Trap Editor session, click the **Hide transparent objects** button  on the vertical toolbar.

   Objects that are in transparent ink no longer appear in the PDF Trap Editor window.

2. When ready, click the **Hide transparent objects** button again to see the objects that are in transparent ink.

Editing Properties and Generating Traps

Use the Properties Editor to change the overprint status of an object, edit traps and trap borders, and use the PDF Trap Editor's trapping dialog boxes to change or regenerate traps.

You can undo and redo actions during a PDF Trap Editor session.

For a training exercise on editing trap properties, see Editing Trap Properties on page 100.

Opening the Properties Editor

The Properties Editor shows the same object, trap, and border information as the Properties Viewer. The difference is that you can also use the Properties Editor to change a selection's attributes, depending on whether you selected an object, a trap, or a border.

To open the Properties Editor:

➢ From within a PDF Trap Editor session, click to toggle the **Properties Editor** button  on the PDF Trap Editor's vertical toolbar.

Use the Properties Editor to:

- Set an object to overprint or knock out
- Change trap direction and trap separation colors
- Change trap size (width, height)
- Change trap trimming, line join style, miter limit, and three-color joins
- Trap a border

Note: When you edit a grouping containing more than one item—such as a grouping of traps—you can change the trap property for all the traps in the grouping. Any different or mixed values for that property, as indicated by an * (asterisk), become constant values. If you leave the mixed value unedited, each trap retains its original properties.

To erase any editing changes you just entered in the Properties Editor and before clicking on **Apply**, click **Revert**.

Setting an Object to Overprint or Knock Out

You can change an object's overprint state in the Properties Editor window.

Changing an object's overprint status is the only change you can make to an object.

1. From within a PDF Trap Editor session, select an object.
2. Select the object's icon in the left pane of the **Properties Editor** dialog box.
3. Select the **Overprint** check box to set an object to overprint, in effect, floating the object over any other objects, traps, and borders in the page and making any traps for this object unnecessary.

   Clear the check box to remove an overprint and set the object to knock out, or remove, any other objects, traps, and borders under it. You may then have to trap the object.
4. Click **Apply**.

The object is set to overprint or to knock out. If the object had been trapped previously, setting it to overprint will delete all of its traps.

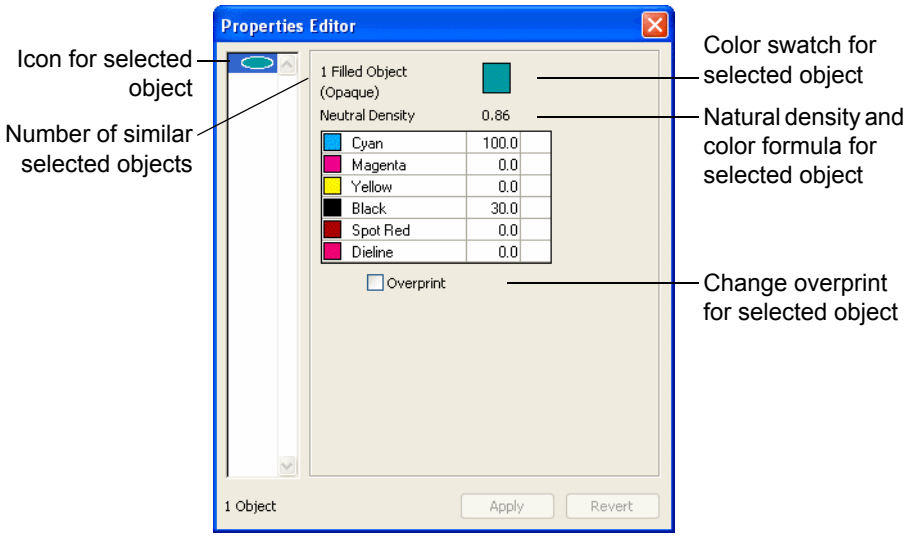


Figure 12: Properties Editor window showing selected objects for changing object status

Editing Trap Direction

You can adjust trap direction using the Properties Editor.

1. From within a PDF Trap Editor session, select a trap.
2. In the **Properties Editor** dialog box, select the trap's icon in the left pane.
3. Click the trap swatch button  to cycle through possible trap direction arrows: left, right, or centerline. These indicate the direction in which the trap will expand or contract in relation to the adjacent colors.

   Select a trap direction.
4. Click **Apply**.

Editing Trap Color

The colors of adjacent objects are added together to make their mutual trap color and may result in a color that is too dark and visible. You can set colorants so that any resulting trap colors are lighter.

You can adjust trap color using the Properties Editor or a trapping dialog box. This procedure uses the Properties Editor. See also Scaling a Trap Color on page 77.

Note: With the Prinergy Separation Viewer opened, any overprints in the PDF file are rendered in the PDF Trap Editor view, which is helpful when checking the look and properties of objects and their traps.

1. From within a PDF Trap Editor session, select a trap.
2. In the Properties Editor dialog box, select the trap's icon in the left pane.

   The trap swatch shows the trap color . The trap's color separations appear in cells in the trap color column and may contain the following:

   - A ~nn.n value appears in a color separations cell for a trap, where nn.n is a value between 0 and 100 percent. This is the average tint value derived from an adjacent image or gradient within the trap area.
   - A #nn.n value appears in a color separations cell for a trap, where nn.n is a value between 0 and 100 percent. This is the mask and average tint value contributed by a complex bitmap. When more than one object is painting a separation, such as a normal object plus one or more complex masks, #nn.n is the maximal tint value derived from those objects.
   - An nn.n value appears in a color separations cell for a trap, where nn.n is a value between 0 and 100 percent. This is the tint of the separation color.
3. To change the trap's color separations for a trap, you can color with any ink available in the page.

   Double-click in a color separation cell and:

   - Enter a new tint value nn.n for that separation, where nn.n is a value between 0 and 100 percent.
   - Enter ~ (tilde) to request that the trap data be derived from an adjacent image or gradient for that separation. An average tint value will be automatically calculated and displayed once you click **Apply**.
   - Enter # (hash) to request a mask and tint derived from a complex bitmap for a separation. The average tint value will be automatically calculated and displayed once you click **Apply**.
   - Enter #nn.n, where nn.n is a value between 0 and 100 percent, to request a mask derived from a complex bitmap for a separation in the tint you specify.

   The Neutral Density for the trap changes as you edit the trap separations.

4. Click **Apply**.

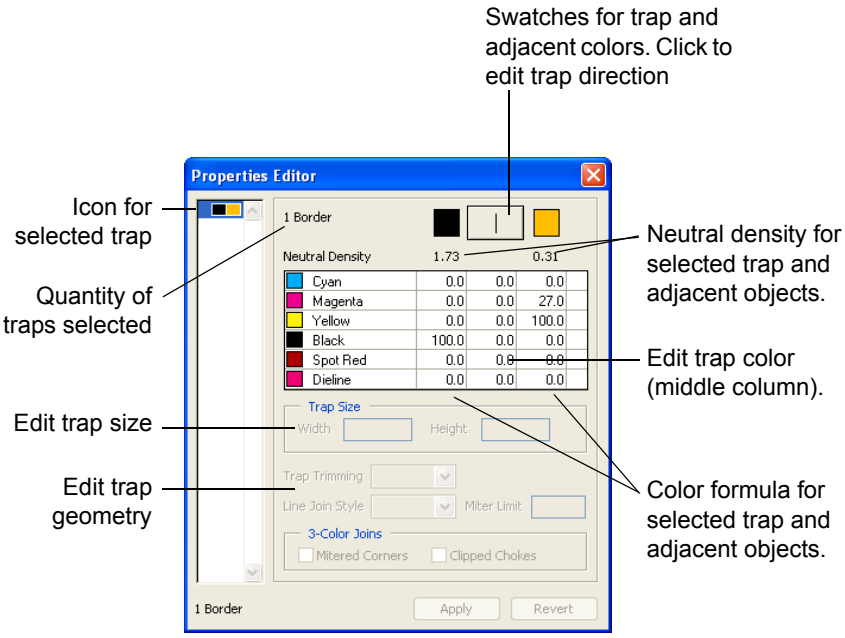


Figure 13: Properties Editor window showing selected trap for editing

Changing Trap Size

You can adjust trap size using the Properties Editor or a trapping dialog box to compensate for a misregistration that may occur on press. This procedure uses the Properties Editor. See also Setting Trap Size on page 67.

Tip: Ask your press operator for a recommended trap size for the job.

1. From within a PDF Trap Editor session, select a trap.
2. In the Properties Editor dialog box, select the trap icon in the left pane.
3. For **Trap Size**, enter trap **Width** and **Height**. The trap width range is 0.03 to 15 pt (or 0.001 to 0.208 in. or 0.011 to 5.291 mm).

   The height is automatically filled in with the same value when you enter the trap width. You can fill in the height with a different value than the width if you are printing with a flexo medium and need predistorted pages and traps.
4. Click **Apply**.

You can use the **Geometry** parameter in a page or selection trapping dialog box to automatically adjust the trap thickness when trapping to thin objects. See Using Advanced Trapping Functions on page 90.

Changing Trap Geometry

You can use the advanced features of the Properties Editor or the trapping dialog boxes to change trap shape (geometry) where two-and three-colored traps meet.

See Using Advanced Trapping Functions on page 90.

Trapping a Border Using the Properties Editor

This is a general procedure for trapping an object's border. For the special case of manually spreading or choking the border of a complex bitmap, see Spreading or Choking a Complex Bitmap on page 58.

1. From within a PDF Trap Editor session, select a border.
2. Click the border's icon in the left pane of the **Properties Editor** window.
3. Click the border's trap swatch button to cycle through possible trap direction arrows: left, right, or centerline. These indicate on which side of the border the trap will be placed. Select a trap direction.

   The trap swatch shows the trap color.
4. The trap's color separations appear in cells in the trap color column in the color separations table and may contain elements and be changed as described in Editing Trap Color on page 44.
5. For **Trap Size**, enter trap **Width** and **Height**.
6. You can also specify:
   - **Trap trimming**
   - **Line join style: Bevel, Miter, or Round**
   - **Miter limit**
   - **3-color joins: Mitered Corners and/or Clipped Chokes**

   See Using Advanced Trapping Functions on page 90 to find out how to set these parameters.
7. Click **Apply**.

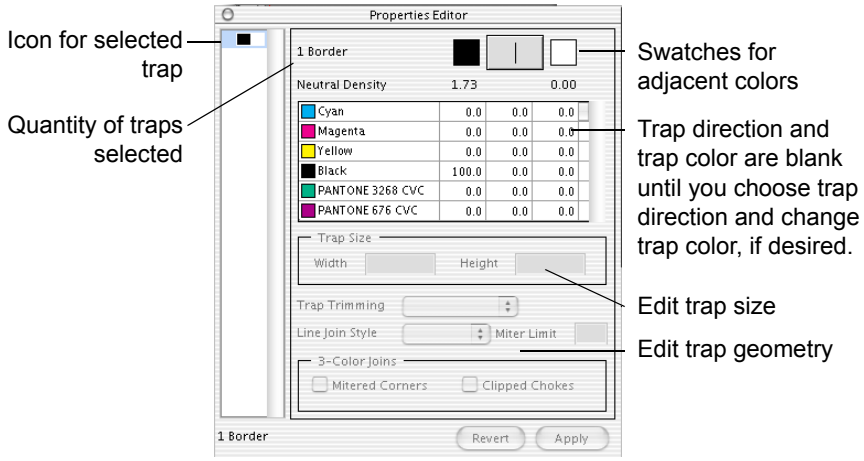


Figure 14: Properties Editor window showing selected border for trapping

Opening and Selecting a Trapping Dialog Box

You can change and generate traps using the Simplified or Detailed trapping dialog boxes available with the PDF Trap Editor.

1. Perform one of the following actions:
   - From within a PDF Trap Editor session, click the **Trap Page** button .
   - Select items in the PDF file and click the **Trap the Selection** button .
2. In the trapping dialog box, select either the **Simplified** or the **Detailed** view, as needed.

   Each trapping dialog box includes three main sections:
   - Trap Set
   - Trapping Parameters
   - Trapping Options

   Trap Set

   For more information about trap sets, see Optimizing Your Workflow With Trap Sets on page 83.

   Trapping Parameters

   In addition to the trapping procedures in this section, see Changing the Number of Traps Generated on page 61 and Setting Up Your Own Trapping Parameters on page 67.

   Trapping Options

   The Trapping Options are different for trapping a selection or trapping a page. See the how the trapping options are used in editing and trapping topics and in Setting Up Your Own Trapping Parameters on page 67.
3. With a Simplified trapping dialog box, you can use the following trapping parameters:
   - Trap size. See Setting Up Your Own Trapping Parameters on page 67.
   - Trapping threshold. See Changing the Number of Traps Generated on page 61.

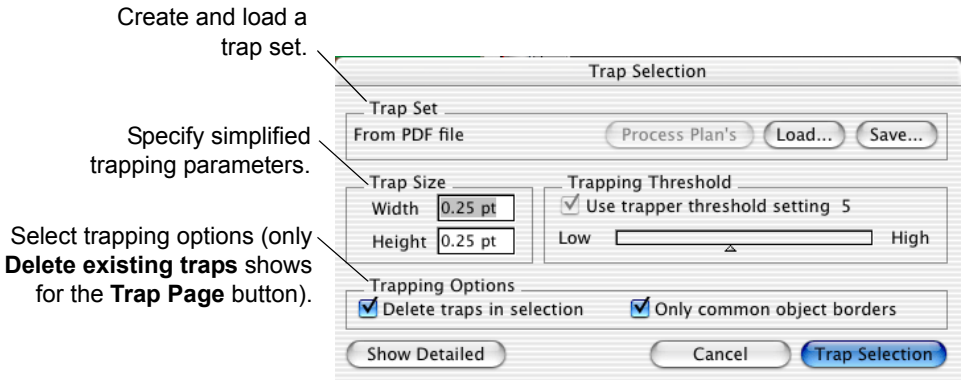


Figure 15: Simplified trapping dialog box

4. With a Detailed trapping dialog box, you can use the following parameters.
   - General: trap size, trap decision, trap placement
   - Geometry: trap trimming, line join style, miter limit, three-color joins
   - Black: black width scaling, trapping for inks of certain intensities, overprinting
   - Small text: small colored text scaling, small black text overprinting
   - Images: image-object, image-image, trap direction, resolution, bitmap processing
   - Inks: colorant type, neutral density, step limit, color scaling, treat as black, minimum relative step limit, colorant order
   - Thin lines: split-line traps for strokes, overprint black strokes.

   See Changing the Number of Traps Generated on page 61 and Setting Up Your Own Trapping Parameters on page 67 for more details about using these parameters.

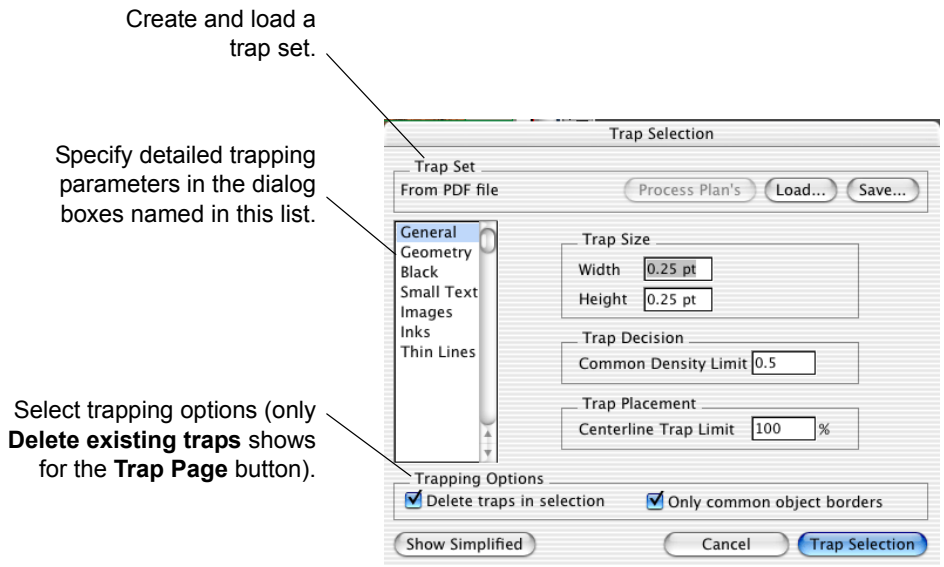


Figure 16: Detailed Trapping dialog box

Trapping a Page

You can trap a page using the same trapping parameters for all traps. See Trapping Different Areas of a Page on page 52 for more about trapping a page using different parameters.

Note: If you open a file that contains advanced traps, you can retrap the page using PDF Trap Editor features. The advanced traps will remain unless you specifically delete or retrap them.

To trap, or retrap, a page:

1. From within a PDF Trap Editor session, click the **Trap Page** button .
2. Select either the **Simplified** or the **Detailed** view of the Trap Selection dialog box.
3. Perform one of the following actions:
   - Specify trap attributes according to your press operator's recommendations about trap size and (ink) print order. See Setting Up Your Own Trapping Parameters on page 67.
   - Click the **Load** button to load a previously-saved Trap Set. See Optimizing Your Workflow With Trap Sets on page 83.
4. If the page has been previously trapped, select **Delete existing traps**.
5. Click **Trap Page**.

Keyboard Shortcut for Trapping a Page

TO bypass the Trapping Parameters dialog box:

- (Mac OS) Press OPTION, and click **Trap Page**.
- (Windows) Press ALT, and click **Trap Page**.

Trapping Selected Objects or Borders

For a training exercise on trapping selected objects or borders, see Trapping Vector Objects on page 99.

To trap, or retrap, a selected object or border:

1. From within a PDF Trap Editor session, select the objects or borders you want to trap.
2. Click the **Trap the Selection** button  in the PDF Trap Editor horizontal toolbar.
3. Select either the **Simplified** or the **Detailed** setting for the Trap Selection dialog box.
4. Perform one of the following actions:
   - Specify trap attributes according to your press operator's recommendations about trap size and (ink) print order. See Setting Up Your Own Trapping Parameters on page 67.
   - Click the **Load** button to load a previously saved Trap Set. See Optimizing Your Workflow With Trap Sets on page 83.

   Tip: To bypass choosing a trap set and instead reuse the last-used settings:
   - In the Mac OS, press OPTION, and click **Trap the Selection**.
   - In Windows, press ALT, and click **Trap the Selection**.
5. Select one of the following trapping options:
   - To add traps, clear the **Delete traps in selection** trapping option. This leaves any previous traps in place so that any new traps are added instead of replacing existing traps.
   - To replace all traps, check the **Delete traps in selection** trapping option. This removes all previous traps on the selected objects before adding new traps.
   - To trap only the selected items and not adjacent objects or adjacent objects and borders, select **Only common object borders**. This results in trapping only the common border between the selected items.
6. Click **Trap Selection**.

   Note: When regenerating a selected trap or generating a trap for a border, the **Only common object borders** trapping option does not apply.

Trapping Different Areas of a Page

You can trap some parts of a page differently from the rest of the page by using **Trap Page** and **Trap the Selection** together. You typically trap the entire page first and then select areas or items in other parts of the page to trap with other trapping parameters. The file then contains page traps and specially selected traps that were generated with different sets of parameters.

Editing a Trap Path

You can use the Trap Path Editing tool to change the shape of a trap manually. See Using Advanced Trapping Functions on page 90.

Deleting a Selected Trap

1. From within a PDF Trap Editor session, select a trap (or more than one trap).
2. Click the **Delete Selected Traps** button  in the PDF Trap Editor toolbar.

Deleting All Traps

➢ From within a PDF Trap Editor session, click the **Delete All Traps** button  in the PDF Trap Editor toolbar.

Undoing and Redoing Actions

Use the **Undo** and **Redo** buttons in the action toolbar to step back through your session work or to restore a step or sequence of steps. This applies to work done with both the Properties Editor and the action toolbar.

To undo or redo actions:

- From within a plug-in session, click the Undo button  or the Redo button  up to 25 times.

Each step is labeled with the action you took during that step to help you go backward or forward to the point you choose.

Tip: If opened, the Separation Viewer closes when you click **Undo** and **Redo**. This is to improve screen redrawing when multiple steps are being processed. If you need it, open the Separation Viewer when you finish undoing or redoing steps in your session.

Trapping a Complex Bitmap

For a training exercise on trapping a complex bitmap, see Trapping a Complex Bitmap on page 102.

Automatic Trapping of a Complex Bitmap

Converting the complicated outline of a raster bitmap to an equivalent vector outline for trapping can be very time-consuming and can result in dense traps which distort the bitmap's original appearance. To avoid these problems, you can set the PDF Trap Editor to automatically skip complex bitmaps that are likely to cause vector trapping and rendering problems.

Processing Option	Action
Trap All	Trap all bitmaps and masked images as vector objects.
Ignore Complex	Trap only those bitmaps that don't define a complicated shape of painted and unpainted regions, that is, bitmaps that take more than 30 seconds to process and/or that are high resolution. Tag any untrapped bitmaps and masked images as complex bitmaps.
Ignore All	Tag all bitmaps and masked images as complex bitmaps.

You will get a warning message if a complex bitmap is identified and skipped during trapping with either the PDF Trap Editor or the Trap JTP.

If needed, see Trapping Images on page 73 for more information about using the PDF Trap Editor to run these bitmap processing options.

Manual Trapping of a Complex Bitmap

A newly identified complex bitmap will have different selection and trapping behaviors than other vector objects. The PDF Trap Editor does not distinguish between painted and unpainted regions within a selected raster bitmap. Similar to an unmasked image, the selected border for a complex bitmap is the exposed boundary of the rectangular raster bitmap.

Without a vector outline of the painted area, the PDF Trap Editor can seldom generate traps automatically between complex bitmaps and other objects on the page. However, with the PDF Trap Editor, you can manually trap complex bitmaps with raster traps as follows:

- Instead of trapping a dark bitmap, you can set the bitmap to overprint any objects painted below it. See Setting a Complex Bitmap to Overprint on page 56.
- You can trap between a complex bitmap and objects painted above it by selecting borders and specifying desired trap attributes using the Property Editor. See Trapping a Complex Bitmap to an Object on Top on page 57.
- You can trap between a complex bitmap and objects painted below it by manually choking or spreading the trap of the painted mask region. Choke and spread traps can only be generated for complex bitmaps. See Spreading or Choking a Complex Bitmap on page 58.

Setting a Complex Bitmap to Overprint

Overprinting a Complex Bitmap Using the Properties Editor

1. To make any complex bitmaps available for manual trapping, select the **Ignore Complex** or **Ignore All** option when processing the PDF file.
2. In a PDF Trap Editor session, perform one of the following actions to select the complex bitmap:
   - Click **Select object** and click on a complex bitmap.
   - In the Mac OS, press CONTROL, and click a complex bitmap.
     In Windows, right-click the complex bitmap.
   - In the context selection menu, click **Select object**.

   When a complex bitmap is selected, the complex bitmap icon  appears in the left pane of the Properties Editor and the bitmap is highlighted over its area.
3. Click **Overprint**.
4. Click **Apply**.

The complex bitmap will overprint when output.

If the complex bitmap had been trapped previously, setting it to overprint will delete all of its traps.

Overprinting a Complex Bitmap Using a Trapping Parameter

See Overprinting All Black-Filled Objects on page 71 for how to use the **Overprint all black bitmaps** trapping parameter.

Trapping a Complex Bitmap to an Object on Top

In this case, a knockout object is placed over the complex bitmap.

1. Choose the **Ignore Complex** or **Ignore All** option when processing the PDF file to make any complex bitmaps available for manual trapping.
2. In a PDF Trap Editor session, perform one of the following actions to select the borders of the complex bitmap:
   - Click **Select border** and click on the border you want to trap.
   - In the Mac OS, press CONTROL, and click a complex bitmap.
     In Windows, right-click the complex bitmap.
   - In the context selection menu, click **Select object's traps and borders**.

   With the contextual menu, all of the traps and borders for the complex bitmap and its adjacent objects appear in the Properties Editor.
3. In the left pane of the Properties Editor, select the border between the complex bitmap and the object placed on it.
4. Click the trap swatch button  and select a trap direction. This button cycles through possible trap direction arrows: left, right, or centerline. These indicate the direction in which the trap will spread or choke in relation to the adjacent colors.

   The trap swatch shows the trap color. The complex bitmap and the object on top can both contribute to the trap's color.
5. The trap's color separations appear in cells in the trap color column in the color separations table and may contain elements and be changed as described in Editing Trap Color on page 44.
6. Click **Apply**.

The border between the complex bitmap and the object placed over it is trapped. Within the trap area, the trap color may be masked by a portion of the complex bitmap underneath the neighboring object. The result is an area along the object border that shows the bitmap through the neighbor object. The resulting trap is often less visible than the vector trap created along the complicated border of the painted pixels.

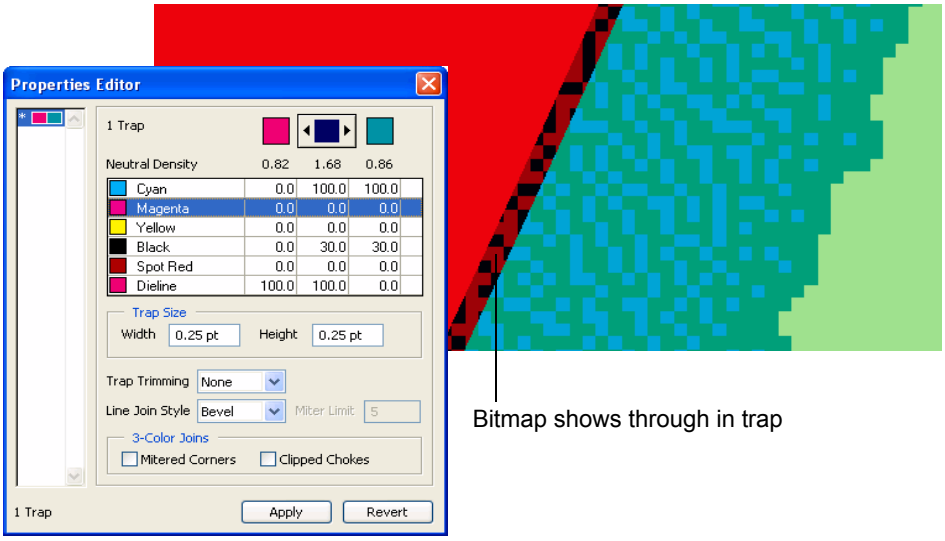


Figure 17: Trapping complex bitmap and object on top

A #nn.n value in a trap separation means that the color is being masked by the bitmap.

Spreading or Choking a Complex Bitmap

Using the Properties Editor, you can spread, or overlap, the border of a complex bitmap to an underlying object or substrate. You can also choke, or shrink, the border of a complex bitmap for a color separation. A choke or spread trap permits objects painted below the bitmap to show through along the outline of the painted region.

Where objects are layered in the page, manually spreading or choking a complex bitmap can only affect the appearance of exposed objects under the complex bitmap and will not affect the appearance or border of any objects drawn on top of the complex bitmap.

Note: With the Prinergy Separation Viewer open, any overprints in the PDF file are rendered in the PDF Trap Editor view, which is helpful when checking the look and properties of objects and their traps.

1. Select the **Ignore Complex** or **Ignore All** option when processing the PDF file to make any complex bitmaps available for manual trapping.
2. In the Mac OS, press CONTROL, and click a complex bitmap.
   In Windows, right-click the complex bitmap.

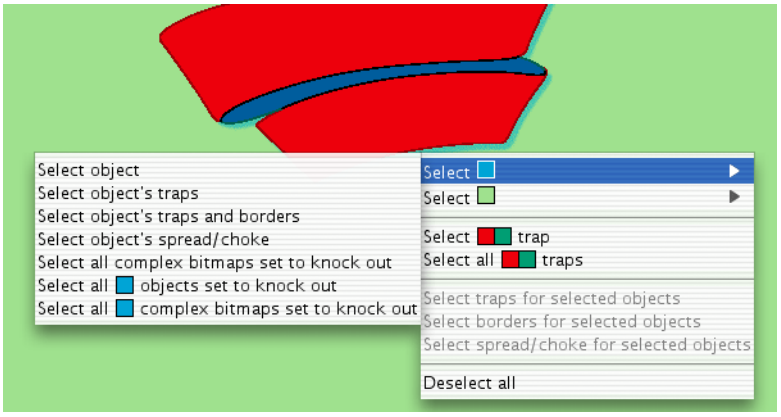


Figure 18: Contextual selection menu for complex bitmaps

3. Click on **Select object's spread/choke**. If you have more than one complex bitmap already selected, you can click on **Select spread/choke for selected objects**.

   The complex bitmap appears in a rectangular outline, or border.

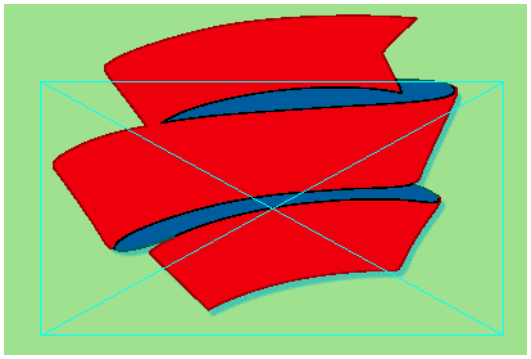


Figure 19: Complex bitmap with outline selected

4. Click the trap swatch button  to choose the right or left trap direction arrows. These indicate the direction in which the trap will spread or choke. Centerline trapping is not supported when trapping the outline, or border, of a complex bitmap.

   The trap swatch shows the trap color.

5. The trap’s color separations appear in cells in the trap color column in the color separations table and may contain the following:
   - A - (hyphen) that appears in a color separations cell for a trap means that this ink is not contributing to the trap or that the trap overprints on this ink. The hyphen will appear only when manually spreading or choking a complex bitmap.
   - A #nn.n value appears in a color separations cell for a trap, where nn.n is a value between 0 and 100 percent. This is the mask and average tint value contributed by a complex bitmap. When more than one object is painting a separation, such as a normal object plus one or more complex masks, #nn.n is the maximal tint value derived from those objects.
   - An nn.n value appears in a color separations cell for a trap, where nn.n is a value between 0 and 100 percent. This is the tint of the separation color.
6. To change the trap’s color separations for a trap, double-click in a color separation cell and:
   - Enter a new tint value nn.n for that color separation, where nn.n is a value between 0 and 100 percent.
   - Enter - (hyphen) to prevent that color separation from contributing to the trap or to let the trap overprint on this ink. You can only use the hyphen when manually spreading or choking a complex bitmap.
   - Enter # (hash) to request a mask and tint derived from a complex bitmap for that separation. An average tint value will be automatically calculated and displayed once you click **Apply**.
   - Enter #nn.n, where nn.n is a value between 0 and 100 percent, to request a mask derived from a complex bitmap for that separation, in the tint you specify.

   The Neutral Density for the trap changes as you edit its trap separations.
7. Set a **Trap Size**.

   When spreading or choking a complex bitmap, the final trap width depends on the complex bitmap's pixel resolution. The trap width you specify will be automatically mapped to the integer value of the image resolution and displayed once you click **Apply**. The final trap width will be a minimum of one pixel.

8. Click **Apply**.

A choke or spread trap includes a dilated or contracted version of the original raster mask. Only one raster choke or spread trap can be generated around the entire outline of the painted mask and the trap's width is restricted by the resolution of the original bitmap. You can edit the properties of a spread or choke trap but you cannot edit its trap path if one exists.

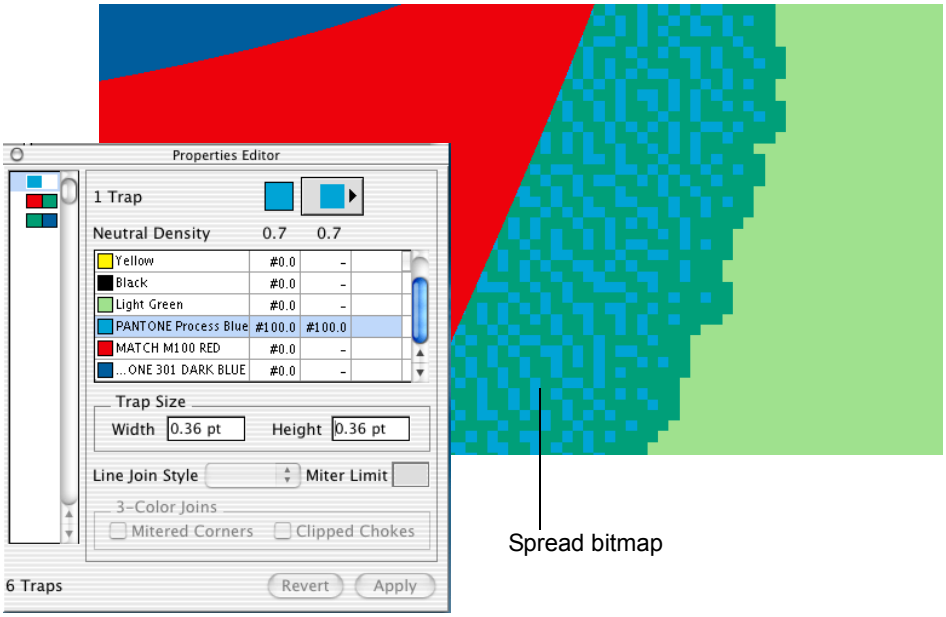


Figure 20: Complex bitmap with spread trap

The bitmap's trap is a blue that overprints the underlying green to produce a dark blue-green trap.

Changing the Number of Traps Generated

Building on the procedures in Editing Properties and Generating Traps on page 41, you can reset a number of trapping decision parameters when using the PDF Trap Editor to generate traps in a PDF file.

The PDF Trap Editor makes it easy to adjust the number of traps that may occur on a page with the Trapping Threshold slide bar.

You can also set each trap decision parameter separately.

What's Involved in a Trapping Decision?

The PDF Trap Editor assesses many values and aspects of the PDF file before applying traps. Some of these are trap decision parameters that are automatically set according to PDF Trap Editor defaults.

You can choose to reset some of the trap decision parameters using the trapping dialog boxes. The trap decision parameters include:

- Common density limit
- Relative step limit
- Minimum absolute step limit

Also included as an important element of trap decisions but not under direct user control when generating traps is:

- Trap direction

However, you can still edit trap direction in the Properties Editor and override trap direction for images.

Setting a Trapping Threshold

You can use the Trapping Threshold slide bar to adjust the number of traps that may occur on a page. The slide bar changes the **common density limit** and **step limit** parameters.

However, you can still manually set the values for step limit and common density limit. In this case, the Trapping Threshold check box will be unavailable.

1. From within a PDF Trap Editor session, select the **Simplified** view of the **Trap Page** or **Trap Selection** dialog box.
2. Perform one of the following actions:
   - Check the box for **Use trapper threshold setting 5** for the median value.
   - Click the triangular arrow and slide along the threshold scale to select a point near **Low** or **High**. The corresponding numerical range is 1 to 10.

Trapping Threshold	Result
5 (default)	If the Trapping Threshold is 5, the Common Density Limit is set to 0.5 and the Relative Step Limit to 25 percent.
Lower value	The Common Density Limit is lower and the Relative Step Limit is higher. More traps generated than with the default setting.
Higher value	The Common Density Limit is higher and the Relative Step Limit is lower. Fewer traps generated than with the default setting.

Setting a Common Density Limit

You can set a common density limit to affect whether a trap will be generated between adjacent objects that have color in common.

Common density is a measure of the colors (inks) in common between two objects, in terms of neutral density (a measure of color darkness). Neutral density is a calculation of the strength of a color, or ink, on paper.

Generally, adjacent objects are assessed to see if they have enough common colors so that any potential flashes will not be noticeable. No traps will be generated if the common density is above the Common Density Limit. You can raise and lower the common density limit to trap more or fewer of these common colors.

1. From within a PDF Trap Editor session, select the **Detailed** view of the **Trap Page** or **Trap Selection** dialog box.
2. Click the **General** tab.
3. Set **Common Density Limit** to a value between 0.001 and 10.

Common Density Limit	Result
0.5 (default)	No trapping if the common neutral density of adjacent objects is greater than 0.5. Effectively reduces traps between rich colors, that is, when there are fewer differences in color between objects, or more colorants in common.
Lower value	Fewer traps generated. More traps can occur between lighter colors than rich colors. That is, more traps occur between those colors with fewer colorants in common.
Higher value	More traps generated. More traps can occur between rich colors, that is, those colors with more colorants in common.
10 (maximum)	High number of traps generated because the limit has no effect.

About Trap Direction

Trap direction is considered part of a trap decision calculation but is itself automatically calculated by the PDF Trapper software according to the neutral density for adjacent colorants, or inks. Generally, lighter colors trap into darker colors.

However, you can use the Properties Editor to change the direction of a generated trap or traps. See Editing Trap Direction on page 43.

In addition, you can set a value for traps for images that will override the automatically-calculated trap direction. See Trapping Images on page 73.

Setting Relative Step Limit

You can set a relative step limit to affect whether a trap will be generated between adjacent colors (objects) depending on the relative difference in their amounts of colorants (inks). If the relative difference in amounts of colorants between two objects is less than the step limit, then no traps are generated.

You can set the step limit for each colorant or for all colorants.

To set the relative step limit for individual colorants:

1. From within a PDF Trap Editor session, select the **Detailed** view of the Trap Page or Trap Selection dialog box.
2. Click the **Inks** tab.
3. In the colorants table, double-click the step limit cell for a chosen colorant.
4. Enter the desired step limit.

To set the relative step limit for all colorants:

1. Select the **Detailed** view of the Trap Page or Trap Selection dialog box.
2. Click the **Inks** tab.
3. Double-click the **Step Limit** button in the header row of the colorants table.
4. In the Step Limit dialog box, enter the step limit value to use for all inks. The range is 1 to 100 percent.

Relative Step Limit (%)	Result
25 percent (default)	No trapping between adjacent objects if the relative difference in their amount of colorants is less than or equal to 25 percent. Traps are generated if the relative difference is over 25 percent.
Lower value	More traps generated
Higher value	Fewer traps generated

5. Click **OK**.

The Step Limit column shows the step limit value just entered.

Setting Minimum Absolute Step Limit

You can set a minimum absolute step limit as a threshold below which no traps will be generated between adjacent colors (objects) if the absolute difference in the amount of colorants between two objects is less than the absolute step limit. This limit is intended to prevent traps between very light colors or colors with very small color steps, as found in blends.

For a trap to occur, the difference between amounts of colorants (separations) must be greater than this **minimum absolute step limit** and the value set for the **relative step limit**. See also Setting Relative Step Limit on page 65.

1. From within a PDF Trap Editor session, select the **Detailed** view of the Trap Page or Trap Selection dialog box.
2. Click the **Inks** tab.
3. Enter the absolute step limit value. The range is 1 percent to 100 percent.

Absolute Step Limit	Result
5 percent (default)	If two adjacent colors (objects) differ by less than or equal to 5 percent, then do not trap.
Lower threshold	More traps generated. Traps are generated between adjacent colors with small differences in amount of colorant, depending on the values set for other trap decision parameters.
Higher threshold	Fewer traps generated. Traps are generated between adjacent colors only if there are large differences in amount of colorant, depending on the values set for other trap decision parameters.
100 percent (maximum)	No generated traps.

Setting Up Your Own Trapping Parameters

Building on the procedures in Editing Properties and Generating Traps on page 41, you can set a number of trapping parameters separately when using the PDF Trap Editor to generate traps in a PDF file.

You can set trapping options for different trapping results.

Setting Trap Size

You can adjust trap size to compensate for the misregistration that may occur on press.

Tip: Ask your press operator for a recommended trap size for the job.

1. From within a PDF Trap Editor session, select either the **Simplified** or the **Detailed** view of the Trap Page or Trap Selection dialog box.
2. If Simplified, set trap size in the **Width** and **Height** boxes.

   If Detailed, click the **General** tab and then set trap size in the **Width** and **Height** boxes.

   The range is between 0.03 and 15 points (or 0.001 to 0.208 in or 0.011 to 5.291 mm).

   The height is automatically filled in with the same value when you enter the trap width. You can fill in the height with a different value than the width if you are printing with a flexo medium and need predistorted pages and traps.

Setting Centerline Trap Limit

Instead of the usual trapping of a light color into a dark color, you can use a centerline trap. A centerline trap is a trap that is placed in the middle of two objects that have similar values for neutral density.

You can use the centerline trap limit to control whether centerline traps are created between objects with similar values for neutral density.

Note: You cannot add a centerline trap between black or opaque inks.

1. From within a PDF Trap Editor session, select the **Detailed** view of the Trap Page or Trap Selection dialog box.
2. Click the **General** tab.
3. Enter a value for **Centerline Trap Limit**. The range is from 0 to 100 percent.

Centerline Limit	Result
100 percent (default)	No centerline traps unless adjacent objects have exactly the same value for neutral density
Higher values	Adds a centerline trap between colors with similar values for neutral density
Lower values	Adds a centerline trap between colors with different values for neutral density
0 percent	Almost all traps will be centerline traps.

Setting Trap Geometry

Using the advanced features of the Properties Editor or the trapping dialog boxes, you can adjust trap shape (geometry) where two-and three-colored traps meet. See Using Advanced Trapping Functions on page 90.

Trapping Black Ink

You can set the following parameters for defining how black inks will trap:

- Black width scaling
- Trap using black trapping rules for ink intensities above an n percent limit
- Overprint all black filled objects

Setting Black Width Scaling

Black width scaling determines the size of the traps to black objects. Any traps involving black objects will be scaled by the value you set.

1. From within a PDF Trap Editor session, select the **Detailed** view of the Trap Page or Trap Selection dialog box.
2. Click the **Black** tab.
3. Set **Black Width Scaling**. The range is between 1 and 100 percent.

Black Width Scaling	Result
100 percent (default)	Pulls back an object's color separations, except for the black, the same distance as the trap width used on the rest of the page. Traps to black objects are the same size as other traps.
Lower values	Produces narrower traps. For example, a 50 percent scale means that traps to black objects will be 50 percent of the usual trap width.
Higher values	Produces wider traps. For example, a 200 percent scale means that traps to black objects will be twice the usual trap width.

Setting Black Color Limit to Invoke or Ignore Trapping Rules

Black trapping rules include:

- Traps to objects defined as black are affected by the black width scaling.
- Colors placed underneath overprinting black solid objects form rich blacks. In areas where a rich black borders an unpainted object such as the substrate, the color under the black will be kept back from the border.

  Rich Blacks—Often a designer or printer wants black objects to have more impact, that is, to look as black as possible, so one or more additional colors are added. Commonly, 40 percent cyan or 30 percent each of cyan, magenta, and yellow are added to the 100 percent black. The extra ink makes objects colored this way look darker than 100 percent black when printed.

  These rich black objects need a reverse trap to pull the extra inks, often called booster colors, in from the edges of the object, to avoid having them appear along the edges if there is a misregistration on press. These reverse traps are sometimes called stayaway or keepaway traps.

  For a training exercise on trapping rich blacks, see Trapping Rich Blacks on page 104.
- The rules above do not apply unless the tint of the black object is greater than, or equal to, the black color limit.

To determine which objects will have black trapping rules applied:

1. From within a PDF Trap Editor session, select the **Detailed** view of the Trap Page or Trap Selection dialog box.
2. Click the **Black** tab.
3. Enter a value for **Trap using black trapping rules for ink intensities above n%**. The range is between 1 and 100 percent.

Black Color Limit	Result
95 percent (default)	Black trapping rules apply if the black tint value is 95 percent or greater.
Higher values (100 percent)	Only 100 percent black objects are processed with black trapping rules.
Lower values	Black trapping rules apply if the black object's tint value is greater than the entered value.

Note: An object can be set to **Treat as Black**. See Setting an Ink to Treat as Black on page 78.

Overprinting All Black-Filled Objects

The color of black ink is usually dark enough to hide underlying colors. In such cases, you can overprint black ink to reduce the number of traps that must be generated.

1. From within a PDF Trap Editor session, select the **Detailed** view of the Trap Page or Trap Selection dialog box.
2. Click the **Black** tab.
3. Perform one of the following actions:
   - Select the **Overprint all black filled objects** and/or **Overprint all black bitmaps** check boxes to set black-filled objects and/or black bitmaps to overprint.
   - Clear the **Overprint all black filled objects** and/or **Overprint all black bitmaps** check boxes to return black-filled objects and/or black bitmaps to the status set in the creating software.

Trapping Small Text

You can adjust the size of traps for small colored text or set black text to overprint to ensure the text remains legible.

1. From within a PDF Trap Editor session, select the **Detailed** view of the Trap Page or Trap Selection dialog box.
2. Click the **Small Text** tab.
3. To set a different trap width than the default for small colored text, set the following **Small Colored Text** options.
   - **Scale traps by**
     The range for scaling trap width is 0 to 1000 percent of the session's trap width. The default is 75 percent.
   - **for colored text up to**
     The range for colored text point size is 0 to 100 points (pt). The default is 6 pt.
   - **Trap large colored text like any other object**
     Colored text larger than specified will be trapped using the regular trap width for the page.
4. To prevent over-inking on small text, set different trapping rules than the default for small black text. The range for overprinting black text is from 0 to 1000 pt, with a default of 12 pt. In **Overprint black text up to**, type the size of the black text over which the trapper will trap as a text object and black trapping rules will apply.

Trapping Images

When trapping images, the software calculates the neutral density of the image by determining the average of a sample of image points along the trapped border. Neutral density is one of the parameters that affects a trap decision. See Changing the Number of Traps Generated on page 61 for more about trap decisions.

Note: Image border color is measured along the border, while image color (as an object), is an average of the whole image.

You can change how images will trap by enabling or disabling specific parameters.

1. From within a PDF Trap Editor session, select the **Detailed view** of the Trap Page or Trap Selection dialog box.
2. Click the **Images** tab.
3. Select the **Trap between images and objects** check box to allow traps between images and other objects; clear the box to prevent trapping between images and other objects.
4. Select the **Trap between images and images** check box to allow traps between images and other images; clear the box to prevent trapping between images and other images.
5. When trapping images, you can specify an image **Trap Direction** by selecting one of the following from the list:
   - **Automatic**: Choose the trap direction based on neutral density (default).
   - **Center**: Creates centerline traps between images and objects
   - **Into image**: Traps object into image (choke the image)
   - **Into object**: Traps image into object (spread the image)

   Choosing one of the last three settings will override any automatic assignment of trap direction by the software using the neutral density (relative brightness) of adjacent objects.
6. To help reduce file size, you can specify that any image data in the trap area be resampled to a lower resolution. The range is 10 to 1000 dpi.

   When output, the nontrapped area of the image will be high resolution and the area inside the trap will be low resolution.
7. To trap a page containing colorized bitmaps, the PDF Trapper must trace the outline of all nonwhite pixels to create vectors to use as traps.

   You can specify how you want a bitmap to be processed by selecting one of the following from the list:
   - **Trap All**: Traps all colorized bitmaps with vector traps no matter how complex the bitmaps are. This can take some time, even hours, to complete.
   - **Ignore Complex** (default): Converts and traps colorized bitmaps except for too-complex bitmaps. Any bitmap that is estimated to take more than 30 seconds to trap or that has a high resolution is considered a complex bitmap and is not trapped.
   - **Ignore All**: All bitmaps are considered complex bitmaps and are not trapped.

   Note: Copydot images are ignored for trapping.

Setting Ink Type

Ink type for the colorants in the PDF file is key information for trapping decisions, as is the ink printing order.

You can specify the following ink types in the PDF Trap Editor:

- **Normal**
- **Transparent**
- **Opaque**
- **OpaqueIgnored**

A special ink type available in the Prinergy global or per job color database is die line. Die line colors are considered the same as transparent colors and are not trapped.

For more information about ink types, see Preparing a File for Trapping on page 8.

1. From within a PDF Trap Editor session, select the **Detailed** view of the Trap Page or Trap Selection dialog box.
2. Click the **Inks** tab.

3. Select each colorant in turn and click in its **Type** column cell to open a list.

   Select an option from the ink type list for each colorant:

   - Normal

     A normal ink is treated as translucent. Traps between normal inks are calculated based on the neutral density of the adjacent colors.

   - Transparent

     A transparent color is not trapped but a non-transparent object under a transparent color is trapped.

   - Opaque

     Opaque inks are treated differently during trapping because they completely hide underlying inks so that colors underneath do not show through. This means that opaque inks that are light in color can actually be trapped as though they were very dark.

     Some rules about trapping opaque inks:

     - An ink can appear to be a very light ink. However, if it is set to opaque, a darker color will spread into the ink.
     - Opaque inks will be the shape-defining color in a border between a normal ink and an opaque ink.
     - In borders composed of two opaque inks, the ink that is later in the print order will be the shape-defining color.
     - An opaque ink is considered solid if its tint value is greater than the value for the **Black Color Limit**. Where a solid opaque ink overprints another color, the combination of the two inks forms a rich black area. The underlying color is always choked back from any borders with rich black objects, leaving the opaque ink to define the border shape.
     - An opaque color is not spread.
     - Other colors can trap to an opaque color.
     - An object covered by an opaque color can be choked back when bordering an unpainted object such as the substrate.
     - Trap direction is determined by print order.

     For a training exercise on trapping with opaque inks, see Trapping with Opaque Inks on page 103.

   - OpaqueIgnored

     An OpaqueIgnored color is not trapped. Other colors will trap to the edges of an OpaqueIgnored color. An object covered by an OpaqueIgnored ink will not trap.

Altering Neutral Density

The PDF Trap Editor will derive a value for the neutral density of a color based on the color's CMYK composition or the CMYK equivalent of a spot color. You can also specify neutral densities in the Prinergy color database and trapping process template settings. When comparing the neutral density of adjacent colors, the PDF Trap Editor will determine trap direction.

You can specify or change a color's neutral density to affect the trap decision and trap direction. This is typically done only for spot colors; however, the CMYK equivalent is usually adequate to derive a useful neutral density.

1. From within a PDF Trap Editor session, select the **Detailed** view of the Trap Page or Trap Selection dialog box.
2. Click the **Inks** tab.
3. Select each colorant in turn and double-click in its **Neutral Density** column cell to clear the current value. Enter the desired value in the cell. The range is between 0 and 10.

   Typical values for the SWOP® ink set are:

   - Cyan: 0.610
   - Magenta: 0.760
   - Yellow: 0.160
   - Black: 1.700

Scaling a Trap Color

The colors of adjacent objects are added together to make their mutual trap color. This can result in a trap color that is too dark and visible. You can reset colorants so that trap colors will be lighter. Pastel colors benefit the most from trap color scaling since their traps are often noticeably darker than the contributing objects if scaling is not used.

Of the actual colorants used for a specific trap color, those from the lighter adjacent color are scaled, that is, the color separations for adjacent dark and light objects are subtracted, the difference is reduced by the color scaling percentage, and the result added to the separation with the lesser value.

1. From within a PDF Trap Editor session, select the **Detailed** view of the Trap Page or Trap Selection dialog box.
2. Click the **Inks** tab.
3. Do one of the following:
   - To enter a scaling value to use for all inks, double-click the **Color Scaling** button in the header row of the colorants table.

     In the Color Scaling dialog box, type the scaling value to use for all inks. The range is 0 to 100 percent.

     Click **OK**.
   - To enter a different value for one or more colorants (usually only spot colors), select each colorant and double-click in its **Color Scaling** cell to clear the current value.

     Enter the desired value in the cell. The color range is between 0 and 100 percent.

     Click **OK**.
   - Enter a scaling value for all inks and change one or two of the colorants to different values.

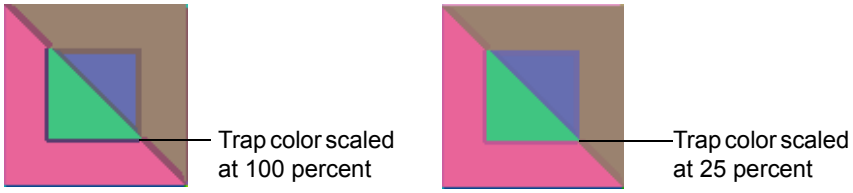


Figure 21: Trap color scaling

Setting an Ink to Treat as Black

You can specify that a colorant (usually only a spot color) be trapped like a black color. Keep in mind the following rules about ink types:

- Normal inks can be trapped as black if set to **Treat as Black**.
- Other colors trap to opaque inks as opaque inks are always treated as black.
- A screened ink is only treated as black if set to **Treat as Black** and its tint is greater than the **Black Color Limit**. See Trapping Black Ink on page 70 for more information about the **Black Color Limit** and black trapping rules.
- Transparent or Opaque Ignored inks are never treated as black.

To set an ink to be trapped like black:

1. Select the **Detailed** view of the Trap Page or Trap Selection dialog box.
2. Click the **Inks** tab.
3. Select a colorant and select the **Treat as Black** check box to have colors underneath kept back from the borders. Clear the check box to remove the **Treat as Black** status for a colorant.

   Tip: Use **Treat as Black** to trap double hits of spot colors using two spot colors, one for the first hit, the other for the second. Set the overprinting second hit to **Treat as Black** so that a choke trap will be applied to the first hit, usually a tint, to keep it away from the borders.

   Spot Colors—There are times when a printed document containing a spot color needs to emphasize a particular spot-colored element, typically a logo graphic. This is often done by printing the element twice with the same spot color ink. This requires careful handling in the desktop page-creation software, and in the downstream workflow.

   You cannot simply print the same element twice with 100 percent of the spot ink, because the second printing will attempt to put ink on top of wet ink. Usually there are ink adhesion problems, and not all the ink gets transferred to the paper. To avoid this, the first impression is often screened 30 percent to 60 percent with the spot ink, and the second impression is 100 percent. The screening allows the second impression to adhere to the paper.

   If there is misregistration between the first and second spot ink impressions, you will see an objectionable screened edge showing. To prevent this, the PDF Trap Editor can apply the same stayaway that it applies to rich blacks. This is enabled by the **Treat As Black** setting in the **Inks** trapping parameters.

   For a training exercise on trapping double hits of spot color, see Trapping Double Hits of Spot Color on page 105.

In the same way, set a rich black object to **Treat as Black** so that a choke trap will be applied to its booster colors.

Setting Colorant Order

Colorant print order affects trap decisions for opaque colors especially: trap direction for opaque inks is determined only by print order and not by neutral density. You can set and/or change the order of the list of colorants.

1. From within a PDF Trap Editor session, select the **Detailed** view of the Trap Page or Trap Selection dialog box.
2. Click the **Inks** tab.
3. Select a colorant listed in the table. Click the up or down **Colorant Order** arrows to move the colorant up or down in the list.
4. Repeat step 3 for each colorant as desired.

Tip: To determine trap directions in files with many opaque colors, set the printing order using the Color Mapping dialog box in Prinergy Workshop. The color printed last defines the shape and all other colors will be pulled under it. For example, Color 1 traps to Color 2, 2 to 3, 3 to 4, and so on.

Setting Traps for Thin Lines

You can change the trapping rules for trapping between a stroked line and another object. There are two ways to do this:

- Reduce the size of the inside trap between a stroke and another object.
- Set a black stroke to overprint.

To change the trapping rules for thin lines:

1. From within a PDF Trap Editor session, select the **Detailed** view of the Trap Page or Trap Selection dialog box.
2. Click the **Thin Lines** tab.
3. To ensure that objects trapping into a stroke do not either overshoot the stroke or show with a misregister, trim the trap by setting **Strokes with width up to n times the global trap width will get an inside trap with half the stroke width**. The range for n is between 2 and 100.

   In effect, this option ensures that the traps do not extend past the centerline.
4. **Black strokes with width up to n (pt) will be set to overprint**. The range for n is 1 to 100 points.

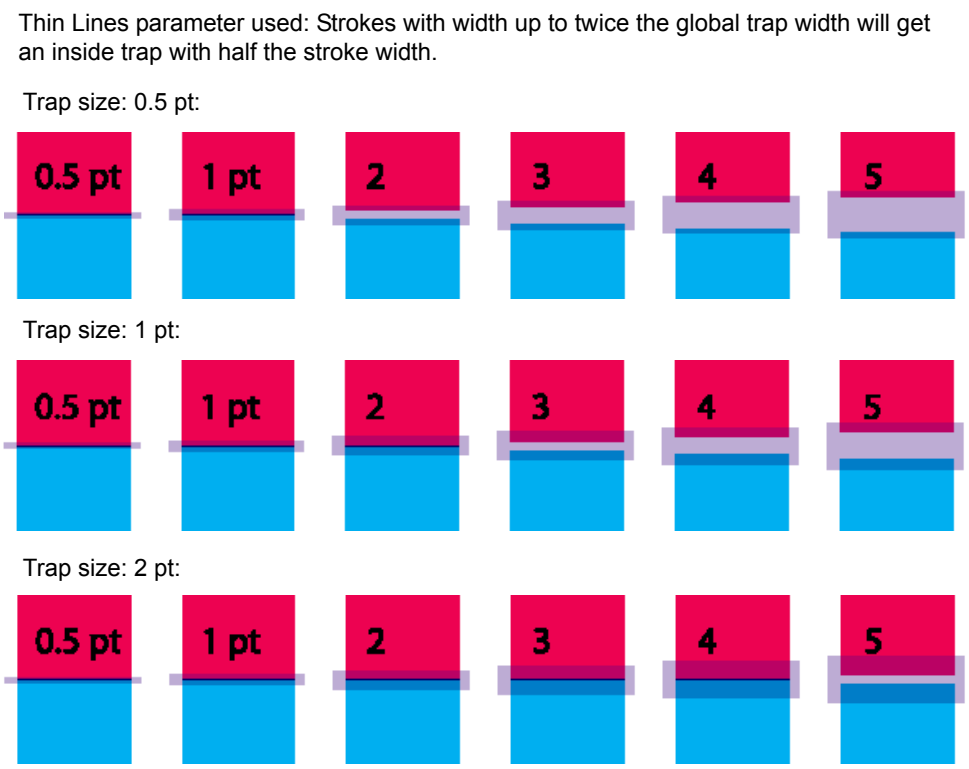


Figure 22: Trapping thin lines with different trap sizes

Delete Existing Traps

The **Delete existing traps** check box is available on the Trap Page dialog boxes, and its counterpart, **Delete traps in selection**, is available on the Trap Selection dialog boxes.

Delete Existing Traps	Delete Traps in Selection	Result
Selected	Selected, object selected	Removes all previous traps so that any newly-generated traps can replace them
Cleared	Cleared, object selected	Leaves any previous traps in place so that any new traps are added instead of replacing existing traps

Note: When you change an ink type and try to retrap without selecting **Delete existing traps** or **Delete traps in selection**, you will get a message warning you that you have changed an ink type and that existing traps may no longer be valid. You can delete all existing traps or continue without deleting existing traps.

For more information about how to use this option, see Editing Properties and Generating Traps on page 41.

Only Trap Common Object Borders

The **Only common object borders** check box is available in the Trap Selection dialog box only.

Only Common Object Borders	Result
Checked, objects selected	Traps only those boundaries shared by the selected objects
Cleared, object(s) selected	Traps all of the selected object's borders

Note: The **Only common object borders** trapping option does not apply in the following cases:

- When trapping one selected object
- When regenerating a selected trap or traps
- When generating a new trap for selected borders

For more information about how to use this option, see Editing Properties and Generating Traps on page 41.

Optimizing Your Workflow With Trap Sets

A trap set is a collection of trapping parameters such as trap size, trap geometry, black ink rules, and colorant print order. You can save preferred trapping parameters in trap sets that you can use and reuse to generate traps for a selection or for an entire PDF page.

You can create, change, and apply trap sets in a number of ways.

Creating a Trap Set From a Prinergy File

A common workflow includes sending a PDF file for refining and trapping in Prinergy, and then checking or adjusting its traps. You can capture the trap settings made for the Trap JTP and make them available in the PDF Trap Editor.

1. Open a file that was refined and trapped in Prinergy.
2. From within a PDF Trap Editor session, click **Trap page** or select items and click **Trap the selection**.

   For a newly processed file, the Trap Set status in the trapping dialog box shows **From process template**. That is, the PDF Trap Editor reads a set of trapping parameters from the trapped PDF file and these are the parameters you see in the trapping dialog box.
3. Perform one of the following actions:
   - Click **Save**.
   - Make a number of changes to the trapping parameters in the trapping dialog box. The Trap Set status now shows as **Modified/unsaved**. Then click **Save**.
4. In the Save Trap Set dialog box, supply a file name no longer than 18 characters for the trap set file. See Checking File Names on page 8.
5. Save the trap set file in the default Prinergy plug-in **TrapParams** folder or in a folder you can browse to on your network.
6. Click **Save** to close the Save Trap Set dialog box.
7. (Optional) Check the trapping options and apply the new trap set to the PDF.

The next time you open this file and click **Trap page** or **Trap the selection**, the Trap Set status shows **From PDF file** because the file has been trapped by the PDF Trap Editor. The trapping parameters from the last changes applied will appear in the trapping dialog box.

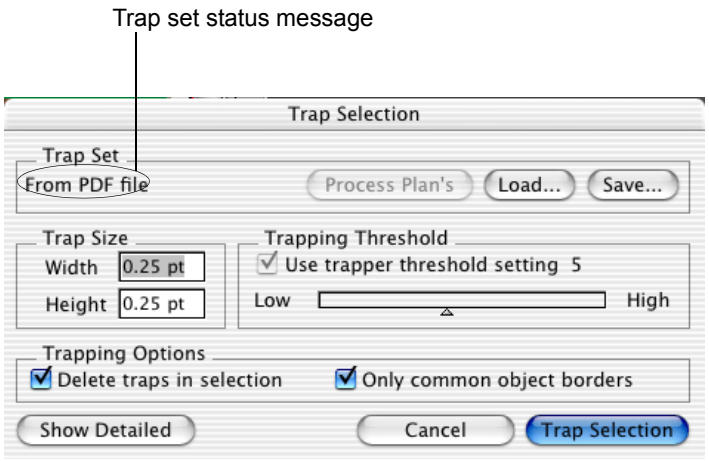


Figure 23: Trap set status in the Trap Selection dialog box

Creating a Trap Set From a File Edited in the PDF Trap Editor

You can create a trap set based on the settings in a PDF file you currently have open that was edited in the PDF Trap Editor. This way, you capture a current trapping solution for future use.

1. Open a file that was refined and trapped in Prinergy, and then edited with the PDF Trap Editor.
2. From within a PDF Trap Editor session, click **Trap page** or select items and click **Trap the selection**.

   The Trap Set status in the trapping dialog box is **From PDF file**. That is, the PDF Trap Editor reads a set of trapping parameters from the file that was trapped and edited the PDF Trap Editor. These are the parameters you see in the Trap Page or Trap Selection dialog box.
3. Perform one of the following actions:
   - Click **Save**.
   - Make a number of changes to the trapping parameters in the trapping dialog box. The Trap Set status shows as **Modified/unsaved**. Then click **Save**.
4. In the Save Trap Set dialog box, type a file name no longer than 18 characters for the trap set file. See Checking File Names on page 8.
5. Save the trap set file in the default Prinergy plug-in **TrapParams** folder or in a folder you can browse to on your network.
6. Click **Save** to close the Save Trap Set dialog box.
7. (Optional) Check the trapping options and apply the new trap set to the PDF.

The next time you open this file and click **Trap page** or **Trap the selection**, the Trap Set status will still show **From PDF file** and the trapping parameters from the last changes applied will appear in the trapping dialog box.

Loading a Saved Trap Set

You can use a saved trap set to change or regenerate traps in your PDF file.

1. Open a file that was refined and trapped in Prinergy or a file that was refined and trapped in Prinergy, and then edited with the PDF Trap Editor.
2. From within a PDF Trap Editor session, click **Trap page** or select items and click **Trap the selection**.

   If the file is a new file from Prinergy, the Trap Set status shows **From process template**; if the file was edited in the PDF Trap Editor, the Trap Set status shows **From PDF file**.
3. Click **Load**.

   In the Load Trap Set dialog box, select an existing trap set in the default **TrapParams** folder or in your own last-accessed folder.

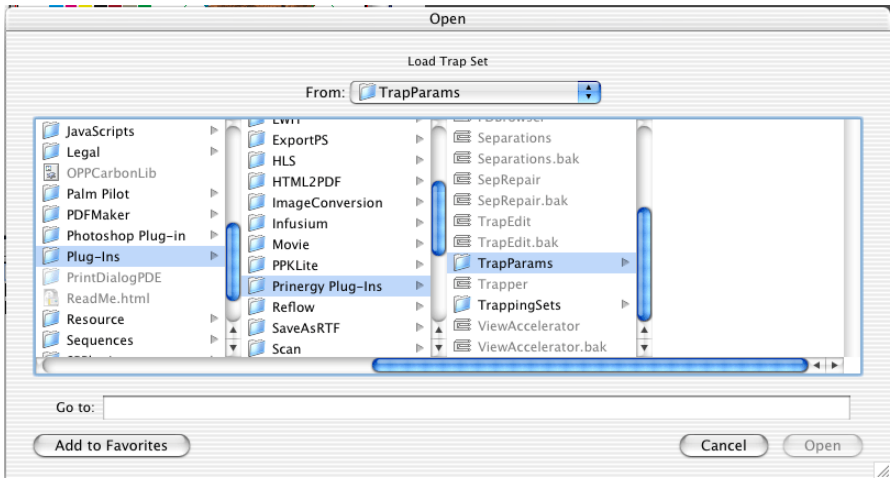


Figure 24: Loading a saved trap set from the default **TrapParams** folder

4. Click **Open** to return to the trapping dialog box. The Trap Set status shows as **Trap Set <filename>**.
5. Check the trapping options and apply the new trap set to the PDF.

The next time you open this file and click **Trap page** or **Trap the selection**, the Trap Set status will show **From PDF file** and the trapping parameters from the last changes applied will appear in the trapping dialog box.

Tip: You can apply different trap sets to different selected objects, traps, and borders in your PDF page.

Changing a Trap Set

You cannot edit a trap set file directly, but you can change its trapping parameters and save the changes into an existing trap set file.

1. Open a file that was refined and trapped in Prinergy or a file that was refined and trapped in Prinergy, and then edited with the PDF Trap Editor.
2. From within a PDF Trap Editor session, click **Trap page** or select items and click **Trap the selection**.

   In the trapping dialog box, if the file is from Prinergy, the Trap Set status shows **From process template**. If the file was edited in the PDF Trap Editor, the Trap Set status shows **From PDF file**.
3. Click **Load**.
4. In Load Trap Set dialog box, select an existing trap set in the **TrapParams** folder or in your own last-accessed folder.
5. Click **Open** to return to the trapping dialog box. The Trap Set status shows as **Trap Set <filename>**.
6. Make changes to trapping parameters in the trapping dialog box. The Trap Set status shows as **Modified/ unsaved**.
7. Click **Save**.
8. Select the same trap set name and folder to save into.
9. Click **Save** to close the Save Trap Set dialog box.
10. (Optional) Check the trapping options and apply the new trap set.

The next time you open this file and click **Trap page** or **Trap the selection**, the Trap Set status will show **From PDF file** and the trapping parameters from the last changes applied will appear in the trapping dialog box.

Reloading the Process Template's Trap Set

You can use the original trapping parameters used by the Prinergy process template to reset trapping parameters in a PDF file.

1. Open a file that was refined and trapped in Prinergy or a file that was refined and trapped in Prinergy and then edited with the PDF Trap Editor.
2. From within a PDF Trap Editor session, click **Trap page** or select items and click **Trap the selection**.

   In the trapping dialog box, if the file is from Prinergy, the Trap Set status shows **From process template**. If the file was edited with the PDF Trap Editor, the Trap Set status shows **From PDF file**.
3. Make a number of changes to the trapping parameters in the trapping dialog box.
4. Click **Trap page** or **Trap selection**.
5. At this point, you change your mind about the changes you made. Click **Trap page** or select items and click **Trap the selection**.

   In the trapping dialog box, the Trap Set status shows **From PDF file**.
6. Click the **Process Template** button.

   The Trap Page or Trap Selection dialog box shows the trapping parameter values from the process template.
7. Check the trapping options and apply the new trap set to the PDF.

The next time you click **Trap page** or **Trap the selection**, the Trap Set status will show **From PDF file** and the trapping parameters from the last changes applied will appear in the trapping dialog box.

Entering and Using a Default Trap Set

You can create a default trap set and make it available to the PDF Trap Editor. When you open an untrapped PDF file and then open a trapping dialog box, the plug-in will automatically load the trapping parameters from the default trap set into the trapping dialog box.

1. Create and save preferred trap settings in a trap set. See Creating a Trap Set From a Prinergy File on page 84 or Creating a Trap Set From a File Edited in the PDF Trap Editor on page 85.
2. From the main Acrobat menu (Acrobat 7 and 8):
   - In the Mac OS, select **Acrobat > Preferences > Kodak PDF Trap Editor**.
     In Windows, select **Edit > Preferences > Kodak PDF Trap Editor**.
3. In the Preferences dialog box, in **Default Trap Set** box, type the full path name for the saved trap set. Alternatively, click **Browse** and navigate to and select the saved trap set.
4. Click **OK**.
5. Open a file that was refined and color matched but not trapped in Prinergy.
6. From within a PDF Trap Editor session, click **Trap page** or select items and click **Trap the selection**. In the trapping dialog box, the Trap Set status shows **Default**.
7. Check the trapping options and apply the new trap set to the PDF.

   The trapping parameters are applied to the page or selection. The Trap Set status shows **From PDF file**.

Using Advanced Trapping Functions

The Advanced PDF Trap Editor provides additional trapping for packaging printers.

Setting Trap Geometry

You can use the **Geometry** parameter in a detailed trapping dialog box to change trap shape (geometry).

1. From within a PDF Trap Editor session, select the **Detailed** view of a Trap Page or Trap Selection dialog box.
2. Click the **Geometry** tab.
3. To automatically adjust the shape of a thick trap around thin objects, click **Automatic** in the **Trap Trimming** list box.

   In flexo packaging, where traps sizes are usually larger than commercial work, there is increased chance of misregistration caused by large traps around thin objects. Trap trimming automatically clips traps that might extend into the object receiving the trap. This results in a trap with variable thickness, as shown in the illustration.



   Figure 25: Trap trimming automatically clips the trap where required

   Note: If trap trimming is enabled, the trapping time can be longer, so only use on files where it is needed. Use with caution around overprinted objects because trap trimming does not ignore overprinted objects. Note that you cannot force two traps to butt against each other underneath a keyline.
4. Set the shape of the corner between two trap segments by clicking in the list box for **Line Join Style** and choosing from **Bevel** (default), **Miter**, or **Round**.



   (Traps are highlighted in red to increase visibility.)

   Figure 26: Bevel and round line joins
5. If needed, set the **Miter Limit**. The range is 1 to 100.

   The Miter Limit shortens the mitered trap to a bevel according to the angle of the join—for example, the more acute the angle of the join, the more beveled the mitered trap.

Miter Limit	Result
5 (default)	Miter traps for acute angles are beveled if the mitered point of the trap is greater than 5 times the trap width.
Lower values	Miter traps for less acute angles are beveled or shortened.
Higher values	Miter traps for very acute angles only are beveled.



(Traps are highlighted in red to increase visibility.)

Figure 27: Mitered line joins with different miter limits

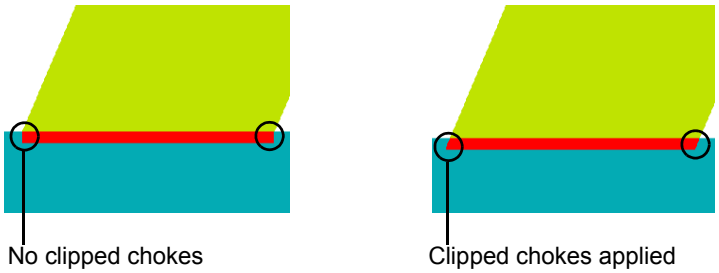
Check **Mitered Corners** to miter the corners of a trap located where at least three colors meet. This reduces ink buildup at the intersection.



(Magenta separation is dialed back to make the traps more visible.)

Figure 28: Mitered corners

6. Check **Clipped Chokes** to angle the ends of a choked trap located where at least three colors meet. The line of the trap continues the line of the object. In case of a misregistration, the angled contour is less noticeable.



(Traps are highlighted in red to increase visibility.)

Figure 29: Clipped chokes

Editing Trap Geometry

Using the Properties Editor in the PDF Trap Editor, you can adjust trap shape (geometry) where two-and three-colored traps meet See Setting Trap Geometry on page 69 for more information on each of the geometry options.

1. From within the PDF Trap Editor session, select the trap to reshape.
2. In the Properties Editor dialog box, select the trap's icon in the left pane.
3. To automatically prevent the trap from extending into thin objects, click **Automatic** in the **Trap Trimming** list.
4. For **Line Join Style**, select **Bevel** (default), **Miter**, or **Round**.
5. Select **Miter Limit**. The **Miter Limit** shortens the mitered trap to a bevel according to the angle of the join.

   For example, the more acute the angle of the join, the more beveled the mitered trap. The range is 1 to 100. See the miter limit table in Setting Trap Geometry on page 69 for more information.
6. Check **Mitered Corners** to miter the corners of a trap located where at least three colors meet. This reduces ink buildup at the intersection of the three colors.
7. Check **Clipped Chokes** to angle the ends of a choked trap located where at least three colors meet. In case of a misregistration, the angled contour is less noticeable.
8. Click **Apply**.

Setting a Keepaway Trap

You can use the **Keep away all objects** button in the PDF Trap Editor to apply a keepaway trap (also called a reverse trap) to all of the objects on a page.

1. From within the PDF Trap Editor session, click the **Keep away all objects** button in the PDF Trap Editor toolbar.
2. In the Keepaway dialog box, specify trap **Width** and **Height** parameters.
3. If needed, specify **Line Join Style** and **Miter Limit**.
4. Click **Keep away all objects**.

All traps in the page are deleted and a knockout trap is added between adjacent objects painted by different inks, that is, each object is painted by at least one ink that does not paint the other.

Figure 30 demonstrates the rule: the background is a mixture of cyan, magenta, and yellow, and the characters are pure cyan, magenta, yellow, and black. So there are keepaway traps between the characters, and between the black and the background, but not between the cyan, magenta, or yellow and the background. The knockout trap lets the substrate show through.



Figure 30: Keepaway traps

Editing a Trap Path

You can change the shape of a trap manually using the trap path editing tool that is provided with the PDF Trap Editor.

1. From within the PDF Trap Editor session, select one trap.

   The **Edit Trap Path** button on the vertical toolbar is enabled.

2. Increase the magnification in the PDF Trap Editor window as needed.
3. Using the pen tool, create at least three control points in the trap area that outline the shape to add or remove.
   - You can click and drag any of the drawing control points to adjust the shape before you merge or delete.
   - If you do not complete the shape by clicking again on the starting point, the tool closes the shape for you.
   - If you close the shape by clicking on the first point you've created, you can then insert new control points anywhere on the path by clicking at the desired location.
   - To delete an active control point, press BACKSPACE. To delete an entire path, press DELETE. Clicking on another selection tool, trapping the page, or deleting traps will result in losing a trap path shape that is being drawn.

   The **Merge path** and **Delete path** buttons on the PDF Trap Editor action (horizontal) toolbar are enabled.
4. Perform one of the following:
   - To add to the trap shape, click the **Merge path** icon on the PDF Trap Editor action toolbar (horizontal).

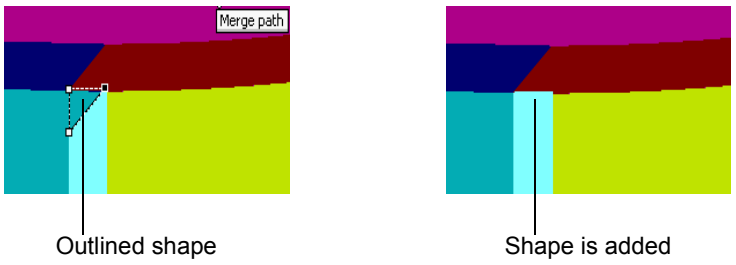


Figure 31: Using the trap path tool to merge an addition to a path

- To delete from the path shape, click the **Delete path** icon on the PDF Trap Editor action toolbar (horizontal).

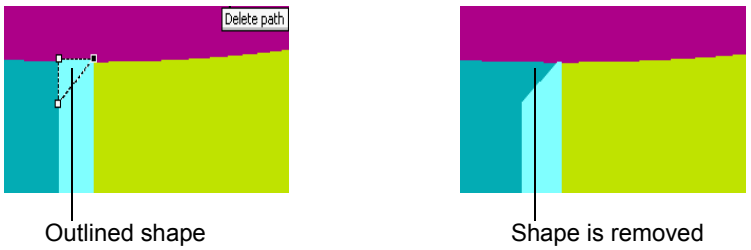


Figure 32: Using the trap path tool to delete part of a path

After you merge or delete a path, the Properties Editor shows the edited trap's swatch overlaid with a drawing of the trap path pen tool.

5. To restore the original trap shape, click the trap swatch button that shows the trap path pen tool.

   The pen icon disappears from the swatch button.

6. Click Apply.

   The trap shape changes back to its original shape.

Appendix: Trapping Exercises

Introduction

The following trapping exercises will show you how to perform the following tasks:

- Select objects, traps, and borders
- Trap vector objects
- Edit trap properties
- Trap a complex bitmap
- Trap with opaque inks
- Trap rich blacks
- Trap double hits of spot color

Selecting Objects, Traps, and Borders

For detailed information about selecting objects, traps, and borders, see Selecting Objects, Traps, and Borders on page 27.

Goals

At the end of this exercise, you should be able to perform the following tasks:

- Open a trapped file and select one or several vector objects, traps, and/or borders using the three selection methods
- Remove an item from the selection list
- Check the number, type, and other properties of selected items in the Properties Viewer

Procedure

Print the procedure and follow the steps using the opened drawing file:

1. Click to open NoCurvesTrapped.PDF.
2. Open the PDF Trap Viewer.
3. Click the object selection tool, and click to select the black car object.

   Does the item description appear in the Properties Viewer?
   What is the object's overprint status?

   The overprint status is knockout.
4. Using the mouse, draw a marquee around several typed objects. (The marquee method is also useful for selecting lines of text objects.)

   Do the item descriptions appear in the Properties Viewer?

   What is the object's status?

   The object's status is overprint.
5. Select the background color and SHIFT-marquee to enclose the entire CURVES word in the marquee. Use SHIFT-click to add the yellow sign.

   How many icons are present in the Properties Viewer? What is their type and color?

   Each of the three icons represents the selected items, which are filled objects with their own color formulas.

   Click the icon for the selected CURVES word in the Properties Viewer. What do you observe?

   Each letter in CURVES is counted as an object and is set to knock out.
6. Use SHIFT-click to remove the C from the selection list.

   Check the Properties Viewer. How many red-filled objects are there now?

   There are five red-filled objects.
7. Now select objects according to object type, color, or overprint status using the contextual menu.
   - In the Mac OS, press CONTROL and click the O in NO.
     In Windows, right-click the O in NO.

8. In the contextual menu, click **Select** **trap**.

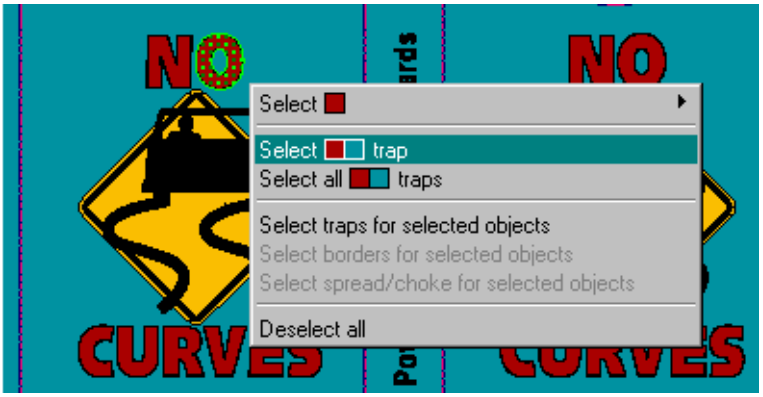


Figure 33: Contextual menu

Does the trap description appear in the Properties Viewer?

9. Context-select the O again, and this time click **Select all** **traps**.

What appears in the Properties Viewer this time?

The traps for every combination of the red and turquoise color appear in the Properties Editor, in this case, all of the traps for NO CURVES on the front and back of the card box.

10. Repeat steps 3 to 9 for traps and borders.

For traps, check trap direction and trap color.
For borders, check that there is no trap direction or trap color.

11. Close **NoCurvesTrapped.PDF** without saving.

Trapping Vector Objects

For detailed information about trapping vector objects, see Trapping Selected Objects or Borders on page 51.

Goals

At the end of this exercise, you should be able to perform the following tasks:

- Use default trapping parameters to trap a page containing vector objects.
- Correct overprint status for different objects.
- Retrap the page.

Procedure

Print the procedure and follow the steps using the opened drawing file:

1. Click to open NoCurves.PDF.
2. Open the PDF Trap Editor.
3. On the PDF Trap Editor action toolbar, click the **Trap page** button.

   In the Trap page dialog box, what is the status of the trap set?

   The status is Default, that is, the system trapping parameters are loaded.
4. Do not change any trap parameter settings.
5. Click the **Trap Page** button in the dialog box.
6. Click **Highlight traps** to display traps. What objects have been trapped on this page?

   Car and diamond objects, large text, and small text.
7. Turn off **Highlight traps**.
8. Select the O object in NO. What is the object type? Check the trap width for the O object.

   The O is a filled object and traps like any other object.

   Would you change the traps on the NO CURVES phrases or leave them as they are?
9. Click **Highlight objects set to overprint**.
10. What is the overprint status of the car drawings and the black diamond lines? Is this status producing the right results?

    The car objects and diamond lines are black-filled objects set to overprint. Slide back the black color in the Prinergy Separation Viewer to see that the car objects intersect with two different colors so they should be set to knock out and trapped.
11. Select and set car objects and diamond lines to knock out.
12. Click **Highlight objects set to overprint** to check that they are no longer set to overprint.
13. Turn off **Highlight objects set to overprint**.
14. Retrap the page.
15. Click **Highlight traps** to check that cars, lines, and phrases are trapped correctly. Use the Prinergy Separation Viewer to confirm this.
16. Close **NoCurves.PDF** without saving.

Editing Trap Properties

For detailed information about editing trap properties, see Editing Properties and Generating Traps on page 41.

Goals

At the end of this exercise, you should be able to perform the following tasks:

- Use default trapping parameters to trap a page containing vector objects.
- Edit traps for color, size, and line join style.

Procedure

Print the procedure and follow the steps using the opened drawing file:

1. Click to open EditProperties.PDF.
2. Open the PDF Trap Editor.
3. On the PDF Trap Editor action toolbar, click the **Trap page** button.
4. In the Trap page dialog box, do not change any trap parameter settings.
5. Click the **Trap Page** button in the dialog box.
6. Check the trapped page.

   Why didn't the 7 in the second drawing get a trap?

   The color values for the 7 and its background are too close to need a trap. Select each item as an object and check its color formula in the Properties Editor.
7. Using the Trap page dialog box, experiment with retrapping the page with different trap width settings.
8. Check the traps in the file. What trap width best suits this page. Why?

   Smaller trap widths are more suitable for commercial printing.
9. On the PDF Trap Editor action toolbar, click the **Trap page** button. In the Trap page dialog box, change the **Trap Width** setting back to the default 0.25 pt.
10. Check the traps for the first drawing in the file. Do some traps look too dark?

    Do the traps between objects Pantone® 3268 and Pantone 676 look too dark?
    Between 42c60m0y12k and Pantone 676?
    Between 89c12m27y0k and Pantone 676?
    Between 60c0m70y0k and Pantone 676?

11. Select a trap or traps from the list above and scale the trap color to your satisfaction by changing the trap's color separation values in the Properties Editor.
12. Select the circular object in the middle of the multicolored square. Change its status from knockout to overprint. What happens?

    The underlying objects/colors show through the object. When printed, the inks for the underlying objects are laid down, then the overprinting object is painted on top. Since the top color doesn't have enough density to obscure the underlying colors, the underlying colors bleed through.
13. In the third drawing, select the trap where the two rectangles meet, and check its shape. Now apply clipped chokes to the trap using the Properties Editor. What happens to the trap?

    The trap forms a continuation of the yellow shape, which is less noticeable if a misregistration occurs.
14. Select the trap between the blue triangle and its pink background and change the default beveled line join to a miter.
15. Experiment with applying different miter limits. What do you see?

    A low miter limit produces a bevel on the trap join.
16. Close **EditProperties.PDF** without saving.

Trapping a Complex Bitmap

For detailed information about trapping a complex bitmap, see Trapping a Complex Bitmap on page 54.

Goals

At the end of this exercise, you should be able to perform the following tasks:

- Process bitmap images as complex bitmaps
- Apply spread or choke traps to complex bitmaps

Procedure

Print the procedure and follow the steps using the opened drawing file:

1. Click to open ComplexBitmap.PDF.
2. Open the PDF Trap Editor.
3. Click the **Trap page** button.
4. In the **Images** tab, set the **Bitmap** option to **Ignore All**. Use the default settings for the other options.
5. Click **Trap page**.

   You will see a message saying that bitmaps have been ignored.
6. Click **OK**.
7. Click the object selection tool, and then right-click the blue area just below the red ribbon.
8. Roll your mouse over the top blue flyout menu and choose **Select all complex bitmaps set to knockout**.

   This should select the two blue bitmaps.
9. Right-click again in the same place and choose **Select Spread/choke for selected objects**. What is selected?

   This selects the spread/choke borders for the two bitmaps.
10. In the Properties Editor, click the **Trap Direction** button once, so that the direction is away from the blue swatch.
11. (Optional) Change the trap size.
12. Click **Apply**.
13. Zoom into the drop shadow and click to deselect the trap to view it. What do you see?

    The blue bitmaps are spread to their backgrounds.
14. To apply a choke trap, reselect the trap by right-clicking the shadow and rolling the mouse over the top blue flyout menu. From the contextual menu, choose **Select object's spread/choke**.
15. In the Properties Editor, click the trap direction button once so that the arrow points towards the blue swatch and click **Apply**. The background will choke under the bitmap.

    Notice that the entire bitmap must be trapped in the same direction.

    If you want to have the bitmap spread to the dark green background but have the light green choke under the bitmap, retrap the file using the **Trap All** *option in step 3. If you use this option, you sacrifice trapping speed to get the desired result because processing takes several minutes longer.*
16. Close **ComplexBitmap.PDF** without saving.

Trapping with Opaque Inks

For detailed information about trapping opaque inks, see Setting Ink Type on page 74.

Goals

At the end of this exercise, you should be able to vary the ink types between opaque and normal, and check the difference in trap direction that results.

Procedure

Print the procedure and follow the steps using the opened drawing file:

1. Click to open OpaqueInks.PDF**.**

   This page contains dark blue text on a gold background.
2. Open the PDF Trap Editor.
3. On the PDF Trap Editor action toolbar, click the **Trap page** button.
4. Select the Inks dialog box.

   Locate the dark blue color in the drawing. What are its properties?

   Dark blue is set to normal, its neutral density is 1.14, and it appears before the gold color in the print order.

   Locate the gold color in the drawing. What are its properties?

   Gold is set to opaque, its neutral density is 0.44, and it is the last color in the print order.
5. Select **Normal** for the gold ink type, clear the **Treat as Black** check box, and click **Trap page**.

   Click the **Select trap** button, and click the edge of the dark blue type to see the trap between gold and blue in the Properties Editor. What is the trap direction?

   The dark blue defines the shape and the gold background is choked under the blue.
6. Click **Trap page**.
7. Select the **Inks** dialog box.
8. Select **Opaque** for the gold ink type, and click **Trap page**.

   Click **Select trap**, and click the edge of the dark blue type to see the trap between gold and blue in the Properties Editor. What is the trap direction?

   The gold defines the shape and the blue text spreads into the gold background.
9. (Optional step) Experiment with ink opacity and print order. Remember that changing an ink to opaque and then trapping causes the **Treat as Black** check box in the Inks parameters to be automatically selected.
10. Close **OpaqueInks.PDF** without saving.

Trapping Rich Blacks

For detailed information about trapping rich blacks, see Trapping Black Ink on page 70.

Goal

At the end of this exercise, you should be able to use the **Treat As Black** ink parameter to apply stayaway traps for rich black graphics.

Procedure

Print the procedure and follow the steps using the opened drawing file:

1. Click to open RichBlack.PDF**.**

   This is a logo that has been colored 40 percent cyan and 100 percent black.
2. Open the PDF Trap Editor.
3. On the PDF Trap Editor action toolbar, click the **Trap page** button.
4. Select the Inks dialog box.
5. Find the black colorant, and make sure its **Treat as Black** check box is selected. There's usually no need to ever turn it off.
6. Click **Trap Page**.

   The PDF Trap Editor now traps the page, creating a stayaway trap for the rich black logo.

To see the effect better, follow these steps:

7. Click **Highlight Traps** to see the stayaway traps.
8. Click to turn off **Highlight Traps**, and open the **Separation Viewer**.
9. Select the black color in the **Separations** window and move its triangle slider to the left. What do you see?

   This lightens the display of black, and makes the stayaway traps more obvious.
10. Close **RichBlack.PDF** without saving.

Trapping Double Hits of Spot Color

For detailed information about trapping double hits of spot color, see Setting an Ink to Treat as Black on page 78.

Goal

At the end of this exercise, you should be able to use the **Treat As Black** ink parameter to apply stayaway traps for graphics that have double hits of spot color.

Procedure

Print the procedure and follow the steps using the opened drawing file:

1. Click to open DoubleHit.PDF

   This is a logo that has been colored 40 percent Pantone Cyan spot color, and then duplicated and positioned exactly on top of the original. The duplicate has its color changed to be 100 percent Pantone Cyan 2nd Hit spot color, and set to overprint.
2. Open the PDF Trap Editor.
3. Using a marquee, select the entire logo.

   What do you read in the Properties Editor?

   The different layers of cyan are represented by icons that, when selected, show 40 percent and 100 percent cyan for the first and second hits of color.
4. On the PDF Trap Editor action toolbar, click the **Trap page** button.
5. Select the Inks dialog box.
6. Find the Pantone Cyan 2nd Hit colorant, and select the **Treat as Black** check box.
7. Click **Trap page**.

   The PDF Trap Editor will now trap the page, creating a stayaway trap for the double-hit spot color logo.

To see the effect better, follow these steps:

8. Click **Highlight Traps** to see the stayaway traps.
9. Click to turn off **Highlight Traps**, and open the **Separation Viewer**.
10. Select the Pantone Cyan 2nd Hit color in the **Separations** window, and move its triangle slider to the left. What do you see?

    This lightens the display of the second hit of the spot color, and makes the stayaway traps more obvious.
11. Close **DoubleHit.PDF** without saving.

Using This Document

Cross-references: Cross-references appear in a different color than the rest of the text, for example, see Prinergy Trapping Workflow on page 3. Click a cross-reference to go to that section.

Table of Contents: Click a heading in the table of contents to go to that section.

Index: Click on the page number for an entry to go to that page.

Navigation pane and bookmarks: The navigation pane on the left side of the window (unless you've hidden it), includes a complete list of the headings in the document. Click a bookmark to go to that section.

Search: To search for a specific word or phrase from the **Edit** menu in Acrobat, select **Search**.

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