

PixelBlaster CENTRAL USER MANUAL

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Chapter 1: Getting started

Before starting to create and edit objects, you should get an overview of the main controls of the application and know where to find the basic elements in the structure of PixelBlaster Central.

All elements are described at the same time as the actions are described in each chapter.

Topics

In this chapter:

- Setup and preferences 8
- The Menu bar and Context menu 15
- The Tools palette and Tool bar 16
- The Quick Production bar 20
- Document 22

Setup and preferences

Preferences

You can find the preferences for PixelBlaster Central:

- In Microsoft Windows, choose **Edit > Preferences**
- In Mac OS X, choose PixelBlaster Central > Preferences

General

The **General** preferences contain several preferences which apply to the general behavior of the PixelBlaster Central. You can change the following settings:

Setting	Meaning
Constrain angle	The constrain angle is the angle to which the movements will be limited when the Shift key is pressed.
Snap value	The cursor will snap to guidelines, points or designated points, if the cursor is within the snap distance as set in the preferences. By setting the snap distance you can work more accurate.
Undo levels	The undo level is the maximum number of actions which are remembered. No more than this number of undos are possible.
Display	When more than the given number of objects are selected, the bounding box of these objects (frame) will be dragged, instead of the outlines of the objects.
Fixed RIP server	The RIP server is normally found automatically. Enter the IP address of the machine running the RIP if it is not detected in the network automatically.
Fixed license server	The license server is normally found automatically. Enter the IP address of the machine for floating license distribution in the network if it is not detected in the network automatically.

See also:

Object - edit options > Moving objects > Move objects by dragging (manually)
 on page 31

Units

To change the units

- 1 Do one of the following:
 - In Microsoft Windows, choose **Edit > Preferences**
 - In Mac OS X, choose PixelBlaster Central > Preferences
- 2 Click the **Units** tab.
- 3 Select one of the available unit systems.
- 4 Click OK.

Work disk

PixelBlaster Central can temporarily need disk space if not enough free memory is available (virtual memory). This disk space will be taken from the disk which is indicated by the **work disk** preference. The startup disk will be used by default.

To change the work disk

- 1 Do one of the following:
 - In Microsoft Windows, choose Edit > Preferences
 - In Mac OS X, choose PixelBlaster Central > Preferences
- 2 Click the Workdisk tab.
- 3 Select one of the available work disks.
- 4 Click **OK**.

Document

The default size of a new document is defined by the Document size preference. The default document size can be copied from the default paper size of the default desktop printer or can be any custom size.

To change the default document size

- 1 Do one of the following:
 - In Microsoft Windows, choose **Edit > Preferences**
 - In Mac OS X, choose PixelBlaster Central > Preferences
- 2 Click the **Document size** tab.
- 3 Do one of the following:
 - Select **Desktop printer page size**.
 - Select Custom size and fill in the desired values.
- 4 Click OK.

Grid

You can use a grid and specify the distance between the horizontal and vertical lines of the grid. You can make your objects snap to this grid, for example to align them more easily.

Rulers, grid and guides are available for working more precise. With these options you can easily do your work and at the same time be sure you work precisely.

If you set a snap distance as described in the chapter **Setup and preferences**, you can first choose to precisely place guidelines or to use a grid in order to place points, objects or images on predefined coordinates. The rulers easily show you where you are in the document.

Using the grid

You can use a grid to work more precisely. You can also make it a magnetic grid with a snap distance set in the **Preferences**.

- 1 Choose View > Grid.
- If you want to use the grid with magnetic coordinates set with a snap distance, choose **View > Snap to grid**.

Using rulers and guides

After you have enabled the rulers you can drag guidelines from the ruler.

- 1 Choose **View > Rulers** to display the rulers.
 - The rulers appear with measures in the unit you have defined in the preferences.
- 2 Place your cursor on a ruler.
- 3 Drag a guideline from the ruler and release your mouse button if the guideline is in its place.
- If you want to use the guides as magnetic lines with a snap distance, choose **View > Snap to guides**.

You can precisely set the guides by means of a window in which you can define the exact coordinates. You can also make copies of existing guidelines.

- 1 Place your cursor on a ruler.
- 2 Drag a guideline from the ruler and release your mouse button if the guideline is in its place.
- 3 Double-click the guideline.
- 4 Set the precise coordinates for the guideline and set the angle for the guide.
- If necessary, you can set a number of copies, the angle and the space between the copies of the guide.
- 6 Click OK.

Remove guides

- 1 Choose View > Remove Guides.
- 2 Select the type(s) of guides which you want to remove.
- 3 Click OK.

Fonts

The font locations are used by the PostScript interpreter. Whenever the PostScript interpreter needs a font it will search the given paths (and its subfolders) in the given sequence. Default search paths are the fonts folder, the extensions folder and the disk on which the PixelBlaster Central is installed.

To add locations

- 1 Do one of the following:
 - In Microsoft Windows, choose Edit > Preferences
 - In Mac OS X, choose PixelBlaster Central > Preferences
- 2 Click the **Fonts** tab.
- 3 Click **Add** and select the folder which contains fonts.

To remove locations

- 1 Do one of the following:
 - In Microsoft Windows, choose **Edit > Preferences**
 - In Mac OS X, choose PixelBlaster Central > Preferences
- 2 Click the Fonts tab.
- 3 Select the fonts folder to be removed.
- 4 Click Remove.

These settings are not applied in the **Text** tool **T**. The **Text** tool is using TrueType and PostScript fonts.

See also:

Creating objects > Text Tool on page 47

Standard

To facilitate standardized printing, this tab defines what to do with files that do or do not contain an output intent and how you want to softproof view them in the Central.

Printing standard defines which reference is set when opening a file:

Setting	Meaning
Printing standard dropdown menu	Choosing an ICC profile from the dropdown menu assigns this ICC as output intent (or reference) to the file at opening.
Use PDF/X output intent	The embedded intent will be used rather than the profile set in ICC profile Printing standard . Produces the job exactly as the designer intended, including all transparency and overprint effects. Choosing this option will accurately convert all colors from input to output intent, and then to the printer profile.
	If this is not desired, the check box should be unchecked.
Colorimetric or Perceptual	Defines the default way to convert to the printer output profile when printing the job. This can be overruled in the Submit job dialog

Viewing defines how the file is soft proofed on screen:

Setting	Meaning
No Softproof	The file will be displayed as if there was no color management and it will not show the printed result.
Printing standard	This will display the chosen printing Standard or embedded output intent (when checked) on screen.
Printer output	This will display the result of the chosen printing Standard on the printer using the chosen render intent (Relative Colorimetric or Perceptual).

Errors

PixelBlaster Central contains an error-reporting tool, with which you can check the quality of the file when opening or at any stage of the job preparation. It contains checks on color spaces, text sizes, image resolutions and more.

To configure the setting for error messages

- 1 Do one of the following:
 - In Microsoft Windows, choose Edit > Preferences
 - In Mac OS X, choose PixelBlaster Central > Preferences
- 2 Click the **Errors** tab.
- 3 In the left **Report** pane check the items you wish to have verified in the file.
- 4 For some items you can choose the precise setting for the item to be checked in the right **Error Settings** pane.
- In the Generate report on open dropdown list choose the option for generating a report: **Ask**, **Always**, or **Never**.
 - Next to the default set of checks, you can create your own checklist:
- 6 Click the + symbol to enter a name for your checklist and save it by clicking **OK** in the edit window.
 - After this you can choose your this settings for document error checks from the **Report** dropdown menu.

See also:

Document > View document errors on page 25

Color

Defining color management preferences in the preferences dialog applies these settings when opening a file in the PixelBlaster Central. The preferences also define whether the settings should be applied automatically or semi-automatically by asking for a confirmation.

Color management for an individual image can also be set using the **Extra > Embed profile** menu option or the color button in the **Input Channels** palette.



The color management settings of the Input tab of the queue in Pixel-Blaster Engine are ignored, when sending a job from PixelBlaster Central. The Central fully defines the color management.

Under the **Embed profiles** section in the **Color** tab it is highly recommended to set **Apply on open** to **Never**.

See also:

- Document > Open a document on page 24
- Objects Images > Color profile information on page 108

Shortcut

You can assign key combinations to frequently used menu commands or change existing keyboard shortcuts.

To assign a shortcut to a menu command or change the assingnment

- 1 Do one of the following:
 - In Microsoft Windows, choose Edit > Preferences
 - In Mac OS X, choose **PixelBlaster Central > Preferences**
- 2 Click the **shortcuts** tab.
- In the left **Commands** pane choose the menu command which you wish to assign to a keyboard shortcut.
- 4 On the right side of the window enter the **Key** and, if desired, check the **Modifier** key (Strg, Alt, Shift).
- 5 Click **OK**.

PS Method (Mac OS only)

You can select the method to convert your PostScript files to PDF:

- Using Ghostscript
- Using the Adobe Normalizer

Text (Mac OS only)

You can specify the default font for new text which you type in PixelBlaster Central.

The Menu bar and Context menu

Menu bar

The menu bar contains the following entries:

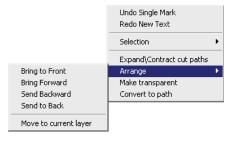
Menu	Description
File	Program and document related options like open, save and print.
Edit	Basic edit options like: preferences, cut, copy and select.
View	View options of your window: fit page, zoom, rulers, grid and guides.
Arrange	Arrangement of object options, like: group, compound, mask, lock and object sequence.
Image	Commands to make overall adjustments to an image.
Туре	Font type options, such as align and font size.
Extra	Options that give the program extra functionality: Twain, profiles, peel- lines and all other extra options. Most of these functions are only avail- able with the Advanced Production Editor option.
Window	Select the active window and define window sequence. From this menu you can also select the palettes.

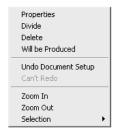
Context menu

Pressing the right mouse button, the Context menu offers quick access to commonly used menu bar functions.

The items in the context menu vary slightly, depending on the context where the context menu is called, e.g:







The Tools palette and Tool bar

Normally the Tools palette is always displayed in the program window. If it isn't:

1 Choose **Window** > **Tools** to display the **Tools** palette and the **Tool bar**.

Tools palette



The black and white selection tools.

See Selection tools on page 28



Path tool and Text tool



Ellipse/Circle/Multigon tools and Rectangle tool



Find contour/Vectorize tools and Sketch tool



• **Split** tool and **Join** tool



Mirror/Sharpen/Round tools and Align tool



tool and Boxletter/Distort/Fisheye/Perspective tools



 Super tile/Crop/Place holder tools and Measure/Dimension/Annotate tools



• Finishing tool and Cutter Registration Mark tool



• Pan tool (i.e. Hand tool) and Zoom tool



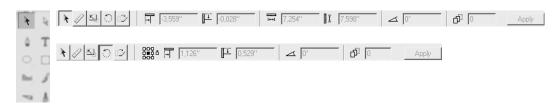
Generate white tool

Tools bar

The **Tool bar** below the menu bar goes together with the selected tool from the **Tools palette.**

The most controls in the **Tool bar** change according to the selected tool and expands its functionality – in some cases with sub-functions, which themselves may also change the other controls in the **Tool bar**.

For example some sub-tools of the black **Selection tool** and their further controls are represented as follows:



Hand Tool

Use the **Hand** tool to reposition your entire canvas instead of using the scroll bars. You can use a key shortcut to temporary switch to the hand from any tool by pressing the space bar.

Zoom Tool

Use the magnifying glass to magnify or reduce the view of the document.

- 1 Select the **Magnifying Glass** tool from the **Tools** palette.
- Click in the middle of the area from which you want a magnified view. If you want a reduced view hold the ALT key (Windows) or Option key (MacOS) while clicking.

Two symbols can appear within the cursor of the magnifying glass:

- The + sign tells the new view will be magnified.
- The sign tells the new view will be reduced.

You have reached the maximum or minimum magnification if there is no symbol at all.

You can also drag a frame for the area you want to magnify and use key shortcuts.

Key shortcuts

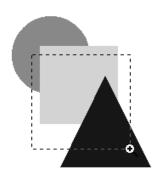
You can use a key shortcut to temporary switch from the tool you are using to the hand and zoom tool:

То	Do this in Windows	Do this in Mac OS
Switch to the Hand tool	Press the spacebar.	Press the spacebar.
Zoom in	Hold down the CTRL key, and then press the spacebar.	Hold down the Command key \mathcal{H} , and then press the spacebar.
Zoom out	Hold down the spacebar, press the ALT key, and then press the CTRL key.	Hold down the spacebar, and then press the Option key.

Magnify an area of the document

- 1 Select the **Magnifying Glass** tool from the **Tools** palette.
- 2 Drag a selection frame around the area you wish to magnify.
- 3 Release the mouse button.

The area will be shown in the maximum magnification which still shows the complete area.



In the lower left corner of the document window you will find three ways to quickly change the magnification. There's also an infobox for page number indication (in case of a multiple page document the active page is displayed) the arrows besides can be used to toggle between pages, in the last box the selected object dimensions are displayed.



You can do one of the following:

- Click the **Small Mountain** or **Big Mountain** button to reduce/increase the magnification by factor 2.
- Click the magnification percentage indicator and select a magnification factor.
- Choose **View > Fit page** to place the canvas fit in your window.
- Choose **View > Zoom 1:1** to have the canvas shown at 100 %.

Measure Tool

You use the **Measure** tool in combination with the **Tool bar**. It helps you to view information about the distance between two points:



- 1 Select the **Measure** tool from the **Tools** palette.
- 2 Drag a measure line from a start point to an end point.

The **Tool bar** shows the measures of the dragged line.

The Quick Production bar

The **Quick Production bar** is placed below Menu bar and Tool bar:



It gives access to:

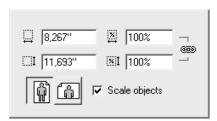
- set media size and orientation
- the Printer/Media/Mode popup
- the Cutter popup (if a cutter is configured)
- the **Submit Job** dialog

Media size

To set the media size for the current document:

- 1 Click 3.8.267 x 11.693 in the Quick Production bar.
- 2 Enter the horizontal or vertical dimension for the media.

If you wish to resize the media unproportionally, unlink height from width and enter the horizontal and vertical dimension.



- 3 To resize the image displayed in the media proportionally, select **Scale objects**.
- 4 Select landscape or portrait orientation of the media.
- 5 Press the Enter key or click in the document.

Printer/Media/Mode

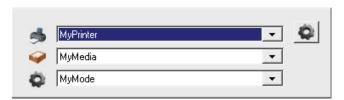
With the Printer/Media/Mode it is possible to print from PixelBlaster Central to any configured printer, media and mode (i.e. profile), without pre-configuring queues in PixelBlaster Engine.

So it is not necessary to create a queue for each printer and media combination, which potentially results in a huge number of queues on the network when multiple printers and media types are used.



Nevertheless, for cutting it is necessary to define queues in Pixel-Blaster Engine. For details how to set up Printer/Mode/Media, please refer to the PixelBlaster Profiler user manual.

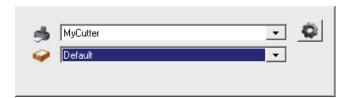
- 1 Click MyPrinter > MyMedia > MyMode in the Quick Production bar.
- 2 Choose printer, media and mode from the dropdown menues.



Cutter

The Driver settings button allows to define the settings of the job that are not fixed by the -mode like 'cut after', heater settings or cutting pressure.

- 1 Click MyCutter > Default in the Quick Production bar.
- 2 Choose cutter and media from the dropdown menues.



Submit job

Click in the Quick Production bar.
 The Submit Job window is displayed.

See also:

Job preparation and production > Printing tiles/Submit Job on page 136

Document

Create a new document

When the application is started, a new document will be created automatically. It is also possible to create a new document yourself.

Choose File > New.

An **Untitled** document appears.

See also:

• Save as stationery on page 125

Adjust the document size

1 Choose File > Document Setup.

You can change the size as follows:

Option	Meaning
Format	You can select a predefined size from the list or enter a custom width and/or height.
Orientation	Select portrait or landscape.
Scale objects	Scale the objects on the active page to the document size. You can scale the objects proportionally, meaning that width and height will be scaled with the same scaling factor.
Minimum Size	Calculates the smallest bounding box around the objects with an optional border. This border can be an absolute value or a percentage of the bounding box size. The default is 0 (no border).

2 Click OK

If you choose to enlarge your document you can check **scale objects** to have the objects already placed in the document scaled along with the document.

Information about a document

Information is added to a document so applications like Cumulus™ or Fetch™ can find and locate files using this information.

1 Choose File > Document Info.

A window appears in which the following information is shown or can be changed:

Information	Meaning
Fonts	Shows the fonts which are used in the document.
Description	A text page with information about the document for example contents description or production information can be entered.
Document	Shows technical description and numbers of contents

2 Click **Close** to confirm the changes.

Save the document

Save

The first time you save an untitled document **save as** is automatically invoked. **Save** can only be used when a document has been saved before.

Choose File > Save.

Save as

When you want to store the document in another format or when you want to store the document using another name you can use **Save as**.

- 1 Choose File > Save as.
- 2 Enter the name and choose the format in which you want to save the document.
- 3 Select the folder where you want to store your document and click **Save**.

Save layout

This saves the tile information and mounting instructions as low-res PDF that can be sent to the customer for approval.

Choose **File > Save Layout**.

Open a document

Open

- Start PixelBlaster Central.
- 2 Choose File > Open.
- 3 Select a file.

Depending on the setting in the **Color Preferences** you may be asked to perform color management for the document or leave the file's color setting untouched:

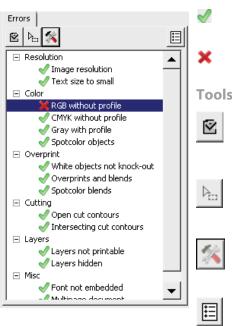
- 4 Choose Color Management or Leave untouched and click OK.
 - Depending on the setting in the **Errors Preferences** you may be asked to generate an error report for the file settings:
- 5 Choose **Generate report** or **No report** and click **OK**.



The color management can be changed after opening the document by selecting **Extra > Embed Profiles**, and the color management of the Pixel-Blaster Central overrides the color management settings for the file in Pixel-Blaster Engine.

View document errors

PixelBlaster Central contains an error reporting tool, with which you can check the quality of the file when opening or at any stage of the job preparation. It contains checks on color spaces, text sizes, image resolutions and more.



Indicators in the Errors window:

- No problem with this criterion found in the file.
- Problem with this criterion found in the file.

Tools in the Errors window:

Checks the document with the currently active checklist.

See Errors on page 13

- View the items that generated an error (e.g. image with too low resolution will be highlighted)
- Fix the reported problem, if possible.
 The problem must be selected and highlighted in the error list.
- Open the Report Settings window (containing the list of items to be checked)

See Errors on page 13

Chapter 2: Object - edit options

Topics

In this chapter:

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- Finding objects 30
- Moving objects 31
- Copying and replacing objects 33
- Pasting copied objects between two endpoints of an object 34
- Aligning objects 35

Selection tools RR

About the selection tools

To edit an object, it has to be distinguished from other objects. You can do this by using the black and white selection tools:

- The black selection tool selects entire objects only, it also can combining move, scale, rotate and skew.
- The white selection tool can select certain parts of paths, it allows also editing inside transparency group, masks, etc.

Quick switching to the selection tool

If you are using different tool you can still quickly select or deselect objects by pressing the Control key (Windows) or Command key (MacOS).

The Control key (Windows) or Command key (MacOS) lets you temporary use the black selection tool while another tool is selected from the toolbar.

Black selection tool

The **black** selection tool always selects an entire object:

- Selects all objects that are within the selection frame or are clicked.
- In combination with the Shift key: select multiple objects.
- In combination with the ALT key (Windows) or Option key (MacOS): Select an object only when it is entirely within the selection frame.
- In combination with the ALT key (Windows) or Option key (MacOS) and Shift key: Include whole object when entirely within frame.

You can activate the black selection tool from every tool by pressing the Control key (Windows) or Command key (MacOS) on your keyboard.

When you double-click an object using the black selection tool, the tool automatically switches to the tool that has created the object (for example rectangle, multigon, etc.)

White selection tool

The **white** selection tool selects parts of a path:

- Selects all points that are within the selection frame or are clicked. If an object is partially within the selection frame, only those points that are within the selection frame will be selected.
- Select a whole object by dragging it within the selection frame (this is the same as the black selection tool), or click the fill of the object.
- In combination with Shift key: select multiple points.
- In combination with the Control key (Windows) or Command key (MacOS): Clicking an entire object selects the whole vector element. If just one point is dragged within the selection frame, all other points will be selected too.
- In combination with the ALT key (Windows) or Option key (MacOS): select one path from a compound.
- In combination with the Shift key and the ALT key (Windows) or Option key (MacOS): Include all points of an object by just selecting one point.
- By selecting a point that defines a bezier, you can adjust the bezier handle with the use of the white selection tool.

Appearance

Appearance	Meaning
	Filled square: Selected point.
	Empty square: Not selected but part of an object from which other point(s) are selected.
~	Square with handles defining a bezier.
■-0-0	Path from which one point (filled) is selected.
8-8-8	Path from which all points are selected

Select all

Choose **Edit** > **Select all**. The selected objects are indicated by means of a colored selection line.

Invert selection

Choose **Edit** > **Invert Selection** to select all objects that are currently not selected.

Finding objects

You can select every object or item by using the **Find** function. This function lets you specify which objects or items need to be selected. The **Find** function roughly works identical to the MacOS **Find** function.

- 1 Choose **Edit** > **Find**.
 - A dialog box appears in which you can set the search criteria for the items you want to select.
- 2 Select where to search for items by clicking **Document** or **Selection**.
- 3 Select the type of object which you want to find:

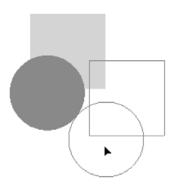
Object type	Meaning
Path	path width
End points	at start, end or both
Almost fluent	points with beziers in a certain angle
Transition	points where beziers or lines transfer to lines or beziers
Double contours	multiple contours with the same shape on the same place
Туре	items (not) equal to certain types of objects or items
Fill style	certain object fill styles
Pen width	pen width
Cap	cap of a certain kind
Join	join of a certain kind or with a certain miter limit
Color	color that (does not) meet the criteria
Short lines	lines of a certain length
Area	locate certain areas
Transparency	locate transparencies, these are often objects that need close inspection after color management
Softmark	locate shadows, these are often objects that need close inspection after color management
Overprint	locate overprints, these are often objects that need close inspection after color management

- 4 Select a comparison operator from the middle list, for example **less than** or **equal to**.
- 5 Fill in a value or select an item if needed for a specific criterion.
- 6 If necessary, click **More choices** to combine search criteria.

Moving objects

Move objects by dragging (manually)

Using the selection tool, click an object and drag it to its new position. Be sure to start dragging on an already selected object. Otherwise, if you start on an object that isn't selected, this object will be selected and all other objects will be deselected.



Constrain movement

Hold down the Shift key while dragging. The movement will only be along an axis which has an angle which is a multiple of 15°, or the value you set in the **Preferences**.

See also:

Getting started > Setup and preferences > Topics on page 8

Copy

Hold down the ALT key (Windows) or Option key (MacOS) while dragging. The cursor changes into a double cursor, indicating that a copy will be made when you release the button.

Move objects numerically

- 1 Select the objects which you want to move.
- 2 Select the selection tool from the **Tools** palette.
- 3 Move the objects using the **Tool bar**:
 - Enter the new position of the left top position of the selection.
 - Enter the horizontal and/or vertical displacement.
 - Enter a distance and an angle under which the selection has to move the entered distance. You can also make a copy of the selected item(s) by filling in the number of copies 👸.

4 Click Apply.

Move using the arrow keys (nudging)

- 1 Select the objects which you want to move.
- 2 Press the arrow keys on your keyboard to move the selected objects step by step.

Copying and replacing objects

Making copies

There are several ways to make copies of the selected objects:

- Hold down the ALT key (Windows) or Option key (MacOS) while dragging the selected objects. The cursor will change into a double cursor.
- Enter a value for the number of copies in the **Tool bar** settings will be applied on the copy.
- Choose Edit > Copy. A copy of the selected objects will be stored on the clipboard. This enables you to paste the objects in this or another Pixel-Blaster document (see Paste).

Replace

You can replace selected objects by the objects in your clipboard.

1 Copy an object.

This object is now stored on your clipboard.



- 2 Select the object you want to replace with the item on the clipboard.
- 3 Choose **Edit** > **Replace** and then one of the following commands in the submenu:

Original objects	Objects replaced by the copied object	Command	Meaning
	THE STATE OF THE S	Original	Width and height of the original are maintained.
	女 女 女	Smallest	Objects pasted, adjusted to the smallest width and height value of the original.
	本菜	Average	Objects pasted, adjusted to the average width and height value of the original.

Original objects	Objects replaced by the copied object	Command	Meaning
	1	Biggest	Objects pasted, adjusted to the biggest width and height value of the original.
	N A	Fit	Objects pasted, adjusted to fit the exact height and width values of the original.

Pasting copied objects between two endpoints of an object

Paste Special

You can paste objects between two endpoints of an object. To do this, you have to define:

- Two endpoints in the object that is to be cut or copied
- Two endpoints in the target path where the object in the clipboard must be pasted in between.



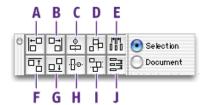
Proceed as follows:

- 1 Select an object (or a group of objects) with two endpoints.
- 2 Cut or copy the object(s) onto the clipboard.
- 3 Select an object (or a group of objects) with two endpoints where the item(s) stored in the clipboard has to be pasted in between.
- 4 Choose Extra > Paste Special.
- 5 Select the option to rotate or mirror the object that is to be pasted and click **OK**.

Aligning objects

About aligning objects

You can align selected object(s) using the **Align** palette as follows:



- **A.** Align to the left bound
- **C.** Centre vertically
- **E.** Stack objects vertically
- **G.** Align to the bottom bound
- **I.** Distribute vertically
- **B.** Align to the right bound
- **D.** Distribute vertically
- F. Align to the top bound
- H. Centre horizontally
- J. Stack objects horizontally

Align with selection

If you click **Selection** in the **Align** palette, the objects you selected are aligned relative to each other.

Align with document

If you click **Document** in the **Align** palette, the objects you selected are aligned relative to the document. For example, if you want to put an object in the upper left corner of your document, proceed as follows:

- 1 Select the object.
- 2 Select **Document** in the **Align** palette.
- 3 Click the 🗀 and 🗔 buttons.

Chapter 3: Creating objects

Topics

In this chapter:

- Overview of object types 38
- Circle and ellipse 39
- Creating a three-point circle 40
- Multigon/Star 41
- Rectangle 42
- Sketch Tool 43
- Path Tool 44
- Text Tool 47
- Putting text on a path 49
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- Using peellines 52
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Overview of object types

Below is an overview of the most common objects that you can create with Pixel-Blaster Central



Circle and ellipse 🖸

An ellipse is drawn in an imaginary rectangle. By defining the rectangle the maximal ellipse is calculated and drawn within this rectangle.

Create an ellipse (manually)

- 1 Select the **Ellipse** tool from the **Tools** palette.
- 2 Drag the ellipse.
- 3 You can do the following:
 - Hold down the Shift key while dragging to create a circle. The X-radius and the Y-radius will be the same.
 - Hold down the ALT key (Windows) or Option key (MacOS) while dragging to start from the middle point instead of the upper left corner.

Create an ellipse (numerically)

- 1 Select the **Ellipse** tool from the **Tools** palette.
- 2 You can now do the following:
 - To create an ellipse, enter the desired centre values in the **Tool bar**. Enter the desired x-radius and y-radius.
 - To create a circle, click the **Link** symbol (): both values will be the same.
 - To create a pie, fill in the values of the angles and select Wedge.
 - To create an arc segment, fill in the values of the angles and do not select
 Wedge.
- 3 Click Apply.

Create a pie manually

- 1 Create an ellipse.
 - A marked point will appear at the most right-centre of the circle.
- 2 Drag the point to create a pie.

Creating a three-point circle

You can create a circle or a circular path by using the three-point circle. When the three-point circle tool is active you can create a circle by defining three points.

Create a three-point circle manually

- 1 Click the **Circle** tool on the **Tools** palette and hold down the mouse button.
- 2 Select the **Three-point circle** tool **Q**.
- 3 Click at three positions in your document.

The three-point circle will automatically be drawn. You can create a circular path by shift-clicking the points.



Create a three-point circle numerically

Using the Tool bar, you can create a circle numerically.

- 1 Click the **Circle** tool on the **Tools** palette and hold down the mouse button.
- 2 Select the **Three-point circle** tool .
- 3 Fill in the values and coordinates in the **Tool bar** and click **Apply**.

Multigon/Star 🔄

Create a multigon or star manually

- 1 Click the **Circle** tool on the **Tools** palette and hold down the mouse button.
- 2 Select the **Multigon/Star** tool <
- 3 Drag the multigon or star.

Create a multigon or star numerically

- 1 Click the **Circle** tool on the **Tools** palette and hold down the mouse button.
- 2 Select the **Multigon/Star** tool <**□**.
- 3 Fill in the desired radius, angle and number of corners.
- 4 If necessary, fill in the desired centre in the Anchor boxes. By default (0,0) is used as centre.
- 5 Click the **Multigon** or **Star** button and specify the size.
- 6 Click Apply.

Edit multigons or stars (numerically)

- 1 Using the black selection tool, select the multigon or star which you want to change.
- 2 Click the **Circle** tool on the **Tools** palette and hold down the mouse button.
- 3 Select the **Multigon/Star** tool <
 ✓.
- 4 Change the desired values in the **Tool bar**.
- 5 Click **Change**.



If you have changed the number of corners in the Tool bar, this number will become the default value.

Rectangle

Create a rectangle (manually)

- 1 Select the **Rectangle** tool from the **Tools** palette.
- 2 You can do the following:
 - Draw the rectangle.
 - To create a square, hold down the Shift key while dragging. The width and height of the rectangle will be the same.
 - To start from the centre point instead of the upper left corner, hold down the ALT key (Windows) or Option key (MacOS) while dragging.

Create a rectangle (numerically):

- Select the **Rectangle** tool from the **Tools** palette.
- **2** Fill in the desired top-left corner values.
- 3 Fill in the desired width and height.
- 4 To create a square, click the **Link** symbol (): both values will be the same.
- 5 Click **Apply**.

Edit rectangles (numerically)

- 1 Using the black selection tool, select the rectangles you want to change.
- 2 Select the **Rectangle** tool from the **Tools** palette.
- 3 Fill in the desired height and width.
- 4 Click **Change**.

Sketch Tool 🗸

Sketch modes

You can use the **Sketch** tool to draw lines. There are three different sketch modes:



Freehand mode



Stroke mode



Calligraphic pen mode

Freehand mode (hairlines)

- 1 Select the **Sketch** tool from the **Tools** palette.
- 2 Select the **Freehand** mode | | in the **Tool bar**.
- 3 Draw a hairlined path.

Stroke mode

- 1 Select the **Sketch** tool from the **Tools** palette.
- 2 Select the **Stroke** option **/** in the **Tool bar**.
- 3 Enter the desired minimum and maximum pen width in the **Tool bar**.
- 4 Draw a stroked path.

Calligraphic mode

- 1 Select the **Sketch** tool from the **Tools** palette.
- 2 Select the **Calligraphic** pen mode in the **Tool bar**.
- 3 Enter the desired minimum and maximum pen width in the **Tool bar**.
- 4 Enter the desired angle in the **Angle** box of the **Tool bar**.
- 5 Draw the calligraphic path.

Path Tool

You can create lines and beziers by using the **Path** tool . The **Path** tool has extra functionality when you use the Shift, Control and ALT key (Windows) or Option key (MacOS). Using the **Path** tool, you can:

- Create any form or shape
- Create lines from and to existing points
- Add curves to existing lines
- Replace curves

Create a path manually

To create a path by clicking points:

- 1 Select the **Path** tool from the **Tools** palette.
- 2 Click a starting point and an end point to draw a line between these two points.
- 3 You can do the following:
 - Double-click the last point drawn to make it the endpoint
 - Place multiple points and double-click to stop creating more points for this particular path

To create a path by dragging:

- 1 Select the **Path** tool **a** from the **Tools** palette.
- 2 Click a starting point and drag to an end point.
- 3 You can do the following:
 - If necessary, you can drag multiple points and double-click to stop creating more points for this particular path.
 - You can combine the drag and place options to create a path.

By choosing another tool you'll define the last point placed as the end point.

If a point is going to be placed within the snap distance of another point, a guideline or a magnetic grid point, it will snap to that place. If that particular point is an end or starting point of another path, it will be joined. The snap distance is set in the Pixel-Blaster Central preferences.

To create a line that is constrained to a certain angle, hold down the Shift key. The constrain angle is set in the preferences.

See also:

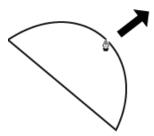
- Getting started > Setup and preferences > Topics on page 8
- Getting started > Setup and preferences > Grid on page 10

Creating beziers or circular paths

Creating beziers or circular paths is easy and precise because of the extra functionality of key combinations. There are more ways of creating circular paths than by drawing it manually, but the basics described below give you a powerful tool to create different objects.

Proceed as follows to turn a path into a bezier:

- 1 Using the white selection tool , select a path.
- 2 Select the **Path** tool from the **Tools** palette.
- 3 Click the selected path, hold down the mouse button and drag a bezier.



The selected line will be transformed into a bezier. Handles will appear from the points that define the start and end of the path.

See also:

Creating objects > Circle and ellipse on page 39

Key combinations

You can use different key combinations to create different path types:

- Dragging without a key pressed results in a cubic bezier going through the cursor position.
- If you hold down the Shift key while dragging, you create a similar bezier as
 would be if no keys were pressed. The difference is that in combination with
 the Shift key, the bezier will be drawn smoothly in regard to the previous
 and next path.
- If you hold down the Control key (Windows) or Command key (MacOS)
 while dragging, you create a circular path which consists of multiple points
 with handles.

Adjusting bezier handles

Using the white selection tool, you can adjust bezier handles. You can set both bezier handles separately by using the ALT key (Windows) or Option key (MacOS).

To adjust two handles at once:

- Select the point from which you want a bezier handle adjusted. If a point is the start or the end of a bezier then the handles will appear.
- 2 Drag one handle so that the bezier will get the correct shape. If one handle is adjusted, the other will automatically change along. If you release the mouse button, the bezier is adjusted.

To adjust only one handle:

- Select the point from which you want a bezier handle adjusted. If a point is the start or the end of a bezier then the handles will appear.
- 2 Click the handle and hold down the mouse button.
- While holding the mouse button press the ALT key (Windows) or Option key (MacOS).
- 4 You can now drag the selected handle so that the bezier can get the correct shape. If you release the mouse button, the bezier is adjusted.

Text Tool T

Combined use of the text tool and text-related palettes

You can easily and accurately place text by using of the **Text** tool $\boxed{\mathbf{T}}$ in combination with the **Tool bar**.

You can start to type text from any point. Text is put in text boxes or can be placed on paths. Within boxes, you can define the alignment and tabulator values. You can also align the text boxes or align text on paths.

Place text

Before actually typing the text, you should define the text specifications in order to see direct result. You can always alter the specifications afterwards. You can either choose for text in a predefined box or you can type your text directly. In the latter case, a box will be created outside the text you have typed. These boxes are for selection purposes only and will not be printed.

Proceed as follows:

- Select the **Text** tool T from the **Tools** palette.
- 2 In the **Text** palette, select a font from the **Font** list.
- 3 Specify the font size and, if necessary, the line spacing.
- 4 Choose **Text > Tabulator** to open the tabulator palette in order to set the tabulator alignment and width.
- 5 Select the text color in the **Color** palette.
- 6 Click on the canvas and type your text.

Drag text box

You can also drag a text box and define its size in the text **Tool bar**. Proceed as follows:

- 1 Make sure that no text is currently selected.
- 2 Select the **Text** tool **T** from the **Tools** palette.
- 3 Drag a text box on your canvas.
- 4 Specify the properties of the text box in the **Tool bar**, for example the size of the text box and the text alignment.
- 5 Click Apply.
- 6 Type your text in the text box.

Define style

You can set the text style in the text **Tool bar**. By filling out specific values you can adjust the text spacing, if the text has to be condensed or italic. Below are some examples of text with a specific style.

normal text
s p a c e d t e x t 3 m m
condensed text 60 %
condensed text 130 %
italic text 40°
italic text -20°

lcon	Meaning	
4./⁴	Spaced text	Defines the space between characters
Δ	Condensed text	Defines the stretch, above 100% means extended text

Putting text on a path

Text on path

You can place text on paths, also on paths that are in a compound. A compound is a group of objects put together as if it concerns one object.

- 1 Select the **Text** tool **T** from the **Tools** palette.
- 2 Move your cursor over a path or a compound of paths.
 The cursor change from the regular text symbol to a text symbol with a waved line.
- 3 Click the path of your choice to type text on a path.

Text is placed upon the path and will follow the shape of the path.



Place text upright

- Place text on path.
- 2 Choose Type > Upright characters.



Place text under a path

- 1 Place text on path.
- 2 Choose Type > Align bottom.



A combination is also possible: upright text aligned at the bottom of the path.



Convert text to paths (outlines)

You can convert text to paths, so that text becomes objects, also called outlines. You can apply more options to objects than to text. Once a text is converted into paths you can edit the shape. The text will obviously lose its text properties: you will no longer be able to edit the text using the **Text** tool.

- 1 Using the black selection tool, click a text box.
- 2 Choose Extra > Convert to path.
 The text is now converted to paths.

See also:

Object - extra options on page 91

Using tabs

Align text

In the text **Tool bar**, select the alignment for your text:



Align tabs

Tabs are used for text in columns. Every time a tab is inserted in the text a default tab distance is used. After typing your text with tabs you can set the tab stop positions with the help of the tabulator palette.

Choose **Text > Tabulator**.

The **Tabulator** palette appears.



- Select the text in which you want to align the tabs by using the **Text** tool **T**. 2
- After opening the **Tabulator** palette, if not already open, click **Snap**.

The **Tabulator** palette snaps to the text box so that it creates a temporary ruler in which you can define the tab stop positions.

- 4 Select one of the tabulator styles by clicking one of the buttons in the upper left corner of the palette.
- 5 Place a tab position by clicking in the part just above the ruler.
- Drag the tab to the wanted position.

After a tab is placed you can still change its specifications by clicking the tab and clicking of the buttons in the upper left corner. By double-clicking on a tab you can set additional specifications numerically. The next window will appear after you double-click a tab.



Using peellines

About peellines

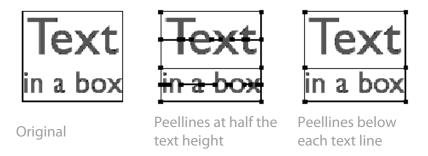
If text is used to create output for a cutting plotter that cuts out the text contours, you can use the option **Peellines**. If you have used peellines, you can easily peel off the media around the text without tearing up the text.

Proceed as follows:

- 1 Select a text box.
- 2 Choose Extra > Peellines

The **Peelline option** dialog box appears.

3 Select the option to place the peellines at half the text height or below every text line.



4 Click **OK** to create peellines.

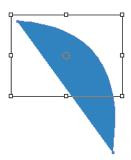
If you reposition the text, make sure you reposition the peellines also.

You can use the **Crop** tool **t** to resize objects to the selected frame, to rotate and move objects and to crop a file based on the PDF box.

Crop, resize, move and rotate

- 1 Select the **Crop** tool **t** from the **Tools** palette.
- **2** Drag a wireframe over the object, or:

In the **Tool bar**, specify the **Result size** of your wireframe numerically.



3 You can resize the wireframe by selecting and dragging one of the handles.

You can **rotate** the wireframe around the rotation center by clicking outside the selection and by dragging the handles (= rotation mode).

You can **move the rotation center** by clicking to the rotation center in rotation mode.







Or: You can choose a cutout from the **PDF Box** dropdown menu in the **Tool bar**, which allows quick removal of crop marks, if the document is cropped.

To resize the document based on one of the PDF boxes (e.g. Trim box). To do this, choose the appropriate item from the **PDF Box** drop down list:



- 4 Select **Resize document** in the **Tool bar**, if you wish to fit the selection into the document's borders.
- 5 Click **Apply** in the **Tool bar**.

Annotation tool

Function

The **Annotation** tool allows you to place an annotation in the active window, on a special layer. Annotations will not be printed or visible in further processes and are for use in PixelBlaster Central only.

To insert annotations

- 1 Do one of the following:
 - Select the **Annotation** tool on the **Tools** palette.
 - Click the **Measure** tool , or the **Dimension** tool on the **Tools** palette and hold down the mouse button until the **Annotation** tool appears.
- 2 Click at the location where you want to place an annotation.
- 3 Type an annotation in the **Tool bar**.

To view annotations

Select the **Annotation** tool and click the annotation icon in your active window.

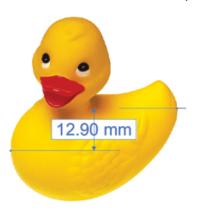
To remove annotations

- Select the **Annotation** tool and click the annotation icon you want to remove.
- 2 Click **Remove** in the **Tool bar**.

Dimension Tool

Function

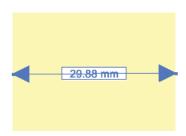
You can use the **Dimension** tool measure the distance between two points and include these dimensions in your drawing.



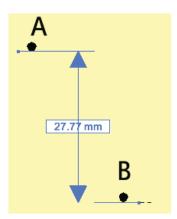
To add dimensions to your drawing

- 1 Do one of the following:
 - Click the **Dimension** tool 🥎 on the toolbar.
 - Click the **Measure** tool or the **Annotation** tool on the toolbar and hold down the mouse button until the **Dimension** tool appears.

2 You can now do one of the following:

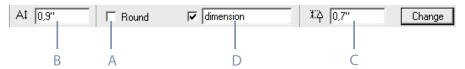


 To measure the distance between two points, drag a line from one point to another.



- To measure the vertical or horizontal distance between two points which are not aligned, hold down the Shift key and drag a line from one point to another.
- Select the **Round** option in the **Tool bar**, to round off the measured distance to the nearest whole number.

3 You can set the following in the **Tool bar**:



- A. Select whether the figures should be rounded off or not.
- **B.** Specify the size of the text in the dimensions box.
- **C.** Specify the size of the arrow.
- **D.** Use text in combination with or instead of the dimensions:
 - if you select the check box, the text will be displayed **instead of** the dimension, "width"
 - if you **do not** select the check box, but just type text in the box, the dimensions and the text will be displayed, for example "13 mm wide".

You can set font used in the dimension box by choosing a default font in the preferences.

See also:

Getting started > Setup and preferences > Fonts on page 11

Chapter 4: Editing objects

Topics

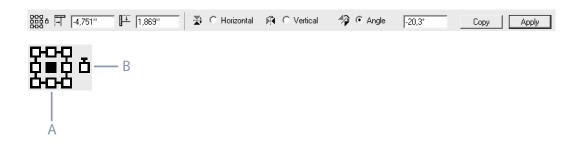
In this chapter:

- Positioning matrix 58
- Rotate objects 59
- Mirror objects 61
- Scaling objects 63
- Skew objects 65
- Join 66
- Split 67
- Round 68
- Sharpen 69
- Replace path part 70

Positioning matrix **886**

In the **Tool bar** for the **Mirror** tool (mirror, rotate, skew and scale) or **Selection** tools, you can use the positioning matrix to define the anchor that will be used as the point of origin. By clicking on the squares symbolizing the corners of an imaginary frame around the selected object(s), you can easily place the anchor on an exact spot.

The symbol right under the positioning matrix is to place the anchor on the centre of gravity. The centre of gravity is the visual centre of the object(s).



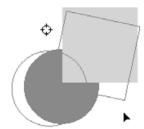
- A. Anchor used as point of origin
- **B.** Anchor placed on the centre of gravity

Rotate objects

You can rotate objects around an arbitrary point.

Rotate by dragging (manually)

- 1 Select the black **Selection** tool from the **Tools** palette.
- 2 Select the objects which you want to rotate.
- 3 Then select the **Rotate** tool from the **Tool bar**.
- 4 Click the point around which the object must be rotated.
 - An anchor point will be shown on that position.
- 5 Place the cursor on the second point of the imaginary axis and drag the axis until you reached the desired angle.



- To use a constrain angle, hold down the SHIFT key while dragging.

 The angle will be constrained to 15°, or the value you set in the **Preferences**.
- 7 To copy the object while rotating it, hold down the ALT key (Windows) or Option key (MacOS) while dragging.
 - The cursor changes into a double cursor indicating that a copy will be made when you release the button.

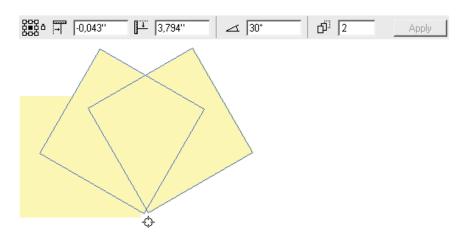
See also:

Getting started > Setup and preferences > Topics on page 8

Rotate numerically

- 1 Select the black **Selection** tool from the **Tools** palette.
- 2 Select the objects which you want to rotate.
- 3 Then select the Rotate tool from the Tool bar.
- 4 Do one of the following:
 - Click the anchor point around which the object must be rotated.

- Fill in the coordinates of the anchor numerically in the **Tool bar**.
- An anchor point will be shown on that position.
- 5 Specify the rotation angle:
 - A positive angle means that the rotation is counterclockwise.
 - A negative angle means that the rotation is clockwise.
- 6 If you wish to copy the object while rotating it, specify the number of copies.



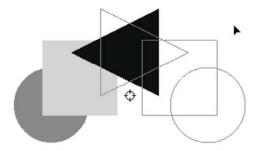
7 Click Apply.

Mirror objects 🖪

You can mirror an object through an imaginary axis. This axis can be horizontal, vertical or have any angle.

Mirror by dragging (manually)

- 1 Select the objects which you want to mirror.
- 2 Select the **Mirror** tool A from the **Tools** palette.
- 3 Click the first point of the imaginary axis through which the object must be mirrored.
 - An anchor will be shown on that position.
- 4 Place the cursor on the second point of the imaginary axis and drag the axis until you reached the desired angle.



- To use a constrain angle, hold down the SHIFT key while dragging.
 The angle will be constrained to 15°, or the value you set in the **Preferences**.
- To copy the object while rotating it, hold down the ALT key (Windows) or Option key (MacOS) while dragging.

The cursor changes into a double cursor, indicating that a copy will be made when you release the button.

See also:

Getting started > Setup and preferences > Topics on page 8

Mirror numerically

- 1 Select the objects which you want to mirror.
- 2 Select the **Mirror** tool from the **Tools** palette.
- 3 Do one of the following:
 - Click the first point of the imaginary axis in which the object must be mirrored.

• Fill in the coordinates of the anchor in the **Tool bar**.

An anchor will be shown on that position.

- 4 Specify the mirroring angle:
 - A positive angle means that the mirroring is counterclockwise.
 - A negative angle means that the mirroring is clockwise.
- 5 Click **Apply or Copy**.

Scaling objects 🖳

You can change the dimensions of objects by scaling them. By means of a scale adjustment you can enlarge or reduce the size of an image from the basis selected by yourself, horizontally (x-axis) as well as vertically (y-axis) or from both axes.

Scale by dragging (manually)

- Select the objects you wish to change with the black **Selection tool**.
- 2 Select the **Scale** tool **I** from the **Tool bar**.
- Click the position from where you wish to scale.An anchor appears on this position.
- 4 You can do the following:
 - Drag the cursor to scale the object.



- To scale the object proportionally, hold down the SHIFT key.
- To copy the object while scaling, hold down the ALT key (Windows) or Option key (MacOS).

Scale numerically

- 1 Select the objects you wish to adjust.
- 2 Click the **Scale** tool from the **Tool bar**.
- Click the position from where you wish to scale or fill in this position numerically in the **Tool bar**.
 - An anchor appears on this position.
- 4 You can enter new dimensions in the **Tool bar** in two ways:
 - **Size**. Enter the horizontal and/or vertical dimensions, the corresponding percentual scale will be calculated automatically.

- **Percentually.** You can enter the percentual enlargement or reduction as well, the corresponding sizes will be calculated automatically. To scale the object proportionally, click the **Link** symbol .
- 5 To create scaled copies, enter the number of copies.
- 6 Click **Apply**.

Skew objects 🗈

Skewing objects in two directions

You can skew objects horizontally and/or vertically.

Skew by dragging (manually)

- Select the object which you want to skew withe the black **Selection tool**.
- 2 Select the **Skew** tool from the **Tool bar**.
- 3 Click the point from where the object must be skewed.
 An anchor will be shown on that position.
- 4 You can do the following:
 - Drag the cursor to skew the object.



- To restrict the skewing direction to strictly horizontal or vertical, hold down the SHIFT key.
- To copy the object while skewing, hold down the ALT key (Windows) or Option key (MacOS).

Skew numerically

- 1 Select the object which you want to skew with the black **Selection tool**.
- 2 Select the **Skew** tool from the **Tool bar**.
- 3 Do one of the following:
 - Click the point from where the object must be skewed.
 - Fill in the coordinates of the anchor in the **Tool bar**.

An anchor will be shown on that position.

- 4 Specify the horizontal and vertical skew angles.
- 5 To create skewed copies, enter the number of copies.
- 6 Click **Apply**.

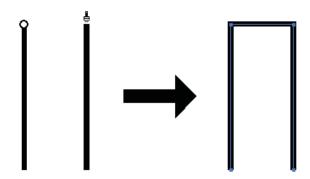
Join 👃

About joining

Points can be **joined** together by means of a path. This path will be drawn between two points, thus connecting them.

Join line between points

- 1 Select the **Join** tool **b** from the **Tools** palette.
- 2 Click one point that you want to connect to the next.
- 3 Click the second point.



A path will connect the two points.

Joining points within each others snap distance

Two points can be joined when they are within each others snap distance. Proceed as follows:

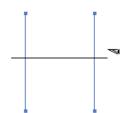
- 1 Select the **Join** tool **b** from the **Tools** palette.
- 2 You can do one of the following:
 - Drag a selection frame using the white selection tool and capture two points that are supposedly within each others snap distance. The two points will be joined if within each others snap distance. If not, you can click the points with the Join tool
 This will result in a line between the two clicked points.
 - Select and drag a point to another point. The two points will be joined if within each others snap distance.

Split 💌

You can use the **Split** tool to cut paths in two.

Cut path in half

- 1 Select a path.
- 2 Select the **Split** tool from the **Tools** palette.
- 3 Drag a line over a path and release the mouse button.



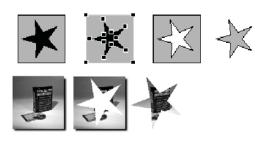
A point will appear on the place where the cut has been made.

Create masks

An extra function of the **Split** tool is to create masks. Using the Control key (Windows) or Command key (MacOS) you can cut out a part of an object. This single click action is roughly the same as making a compound of two paths and exclude the shape of the top object from the bottom object. **The objects have got to be paths.**

Cut shape from object

- 1 Select two objects that are placed on top of each other.
- 2 If the selected objects are no paths, choose **Extra > Convert to path**.
- 3 Select the **Split** tool from the **Tools** palette.
- 4 With all objects selected, control-click the top path (you can click a point or the path).
- 5 Move the top object using the selection tool.



Round 📐

You can use the **Round** tool to make round corners. All selected corners will be converted to fluent circle parts. If no corners are selected, then corners that are clicked will be rounded. The conversions will only be done when applied to paths; if you have selected a mathematical object and want to apply the **Round** function on it, you have to convert the object to paths by choosing **Extra > Convert to path**.

- 1 Select the corner(s) you want to round with the white selection tool.
- 2 Select the round tool from the **Tools** palette.
- 3 Insert the value in the **Tool bar** that stands for the round distance.
- 4 Click Apply.





Sharpen 📐

Using the **Sharpen** tool , you can convert multiple consecutive lines and beziers in one path to a point. This point straightens the paths in between.



Replace path part 🗈

The **Replace Path Part** tool lets you replace certain path parts by lines or beziers. Thus, you can easily change the shape of an object by defining two points on a path and replace it by one line or bezier.



Replace path part by line

- 1 Select the **Replace Path Part** tool 🏝 from the **Tools** palette.
- 2 Click the point that will become the start point of the replacement on a path.
- 3 Click a second point on a path that will become the end point of the replacement.
- 4 Double-click the end point.

A line is drawn between the two defined points, replacing the original paths between the points.



Replace path part by bezier

- 1 Select the **Replace Path Part** tool 🗻 from the **Tools** palette.
- 2 Click the point that will become the start point of the replacement on a path.
- 3 Click a second point on a path that will become the end point of the replacement.
- 4 Click the cyan preview line and drag this line to a bezier.

Handles will appear and after releasing the mouse button, the bezier will be drawn between the two defined points replacing the original path parts between the points.



Chapter 5: Object - special F/X

Topics

In this chapter:

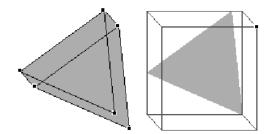
- Extrude 72
- Distort 73
- Fisheye 74
- Perspective 75

Extrude 👩

Using the **Extrude** tool , you can create objects with dimensions. Every created object can get a 3D look with this tool.

- 1 Select the object you want to convert to a three dimensional item.
- Select the Extrude tool from your Tools palette.A red box appears with one handle in the upper right corner.
- 3 Do one of the following:
 - Drag this point over your canvas. A box will be created in which the depth of your new object will be placed.
 - Enter the values for the displacement in the **Tool bar** and click **Apply**.

After dragging or inserting the values, a three dimensional object is created.



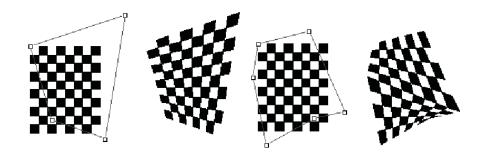
A red line with handles lets you define in what way the effect will take place. It gives a preview of how it will convert the objects you selected.

Distort 💆

The **Distort** tool lets you alter the dimensions of an object or a group of objects. You can give the object(s) a 3D look or create the illusion of perspective.

- 1 Select the object(s) you want to alter.
- 2 Select the **Distort** tool from the **Tools** palette.
- Select the type of distortion from the **Tool bar** that you want to apply.

 A red line with handles lets you define in what way the distortion will take place. It gives a preview of how it will distort the objects you selected.
- 4 Click Apply.

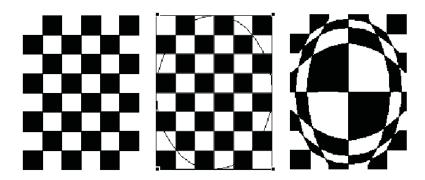


Fisheye 😝

Using the **Fisheye** tool , you can create the illusion of objects being round or hollow. This visual effect can make objects come out from the paper or sunk into it.

- 1 Select the object(s) you want to alter.
- 2 Select the **Fisheye** tool from the **Tools** palette.
- 3 Enter the values for the effect in the **Tool bar**.
- 4 Click **Apply**.

A red line with handles lets you define in what way the effect will take place. It gives a preview of how it will convert the objects you selected.

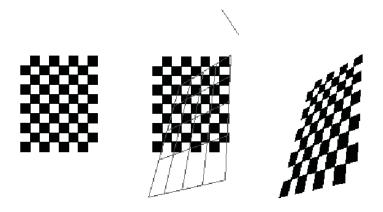


Perspective 🖻

The **Perspective** tool lets you apply 3D effects to your objects by the means of altering the angles on the XYZ axis.

Create perspective manually

- 1 Select the object(s) you want to alter.
- 2 Select the **Perspective** tool from the **Tools** palette.
- Click the canvas and hold down your mouse button.A red preview grid will appear.
- 4 Drag to get the right perspective.
- 5 Release the mouse button when the right perspective is reached.



Create perspective numerically

- 1 Select the object(s) you want to alter.
- 2 Select the **Perspective** tool from the **Tools** palette.
- 3 Enter the values for the XYZ angles in the **Tool bar**.
- 4 Click Apply.

Chapter 6: Object - Actions

Topics

In this chapter:

• About the Actions palette 78

About the Actions palette

You can use the **Actions** palette to apply conversions to points and paths.

To display the Action palette, choose **Window > Action**.

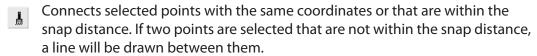
The **Action** palette appears.

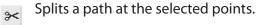


Whenever you select or define an action, this action will be stored in the memory for further use. Thus, the measuring and applying of the distance or angle between points can be applied to multiple objects consecutively.

In all cases, you first select the path or point and then apply the action. You measure the angle or distance, select the action and then apply it by clicking the points you want to have adjusted. By Shift-clicking, your can apply the action to more than just one pair of points.

Connect and Split





Round and Sharpen

Rounds a selected angle.

See Editing objects > Round on page 68

Replaces multiple paths by an angle.

See Editing objects > Sharpen on page 69

Style; measure and apply

If an object is selected and has a certain style, you can measure the style by clicking the **Measure style** action button. The measurement will be stored in memory. This means all style settings such as fill, stroke, cap, join, font, corps etc.

If a style is stored in memory after using the **Measure style** action, you can apply this style to the objects of your choice. All style settings will be applied to the selected objects when clicking **Apply style**.

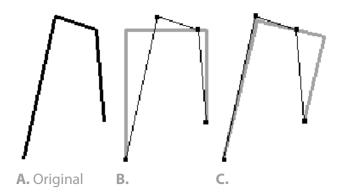
Proceed as follows to measure the style from one object and apply the style to another object:

- 1 Select the object of which you want to measure the style.
- 2 Click the **Measure style** button
- 3 Select the object to which to want to apply the style.
- 4 Click the **Apply style** button 🐧.

Square; forced and arbitrary

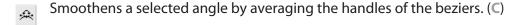
Forces selected angles to square angles with horizontal and vertical paths, moving the points describing the angle regardless of their coordinates. (B)

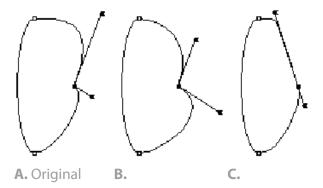




Bezier, bulge and smooth

Straightens the beziers of a selected point to beziers with the same bulge. (B)



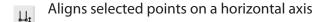


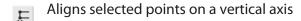
Bezier to line



Transforms a bezier to a line (1 displays the selected bezier; clicking the **convert to line** action tool results in a flattened line).

Align points







Angle and Distance; measure and apply



Measure the angle between two points.

- Select two points.
- 2 Click **measure angle**. The angle of the line in relation to the X-axis will be measured and stored in the memory.



Apply the measured angle to the path between two clicked points.

- Click **apply angle** to activate the measured angle in memory.
- 2 Select a point to define it as the starting point. A circle shows that the selected point is the starting point for this action.
- Select another point to define it as the end point. The measured angle stored in memory will be applied to the path between the two selected points.



Measure the distance between two points.

- Select two points.
- Click **measure distance**. The distance between two points will be measured and stored in the memory.



Apply the measured distance to the path between two clicked points Click **apply distance** to activate the measured distance in memory.

Select a point to define it as the starting point. A circle shows that the selected point is the starting point for this action.

Select another point to define it as the end point. The measured distance stored in memory will be applied to the path between the two selected points.

The measure and apply actions can be combined; you can measure both the angle and distance and apply them to selected points.

Chapter 7: Object - edit style

Topics

In this chapter:

- Object styles Colors, Fills, Strokes 82
- Finding colors 88
- Gradients and Gradient tool 89

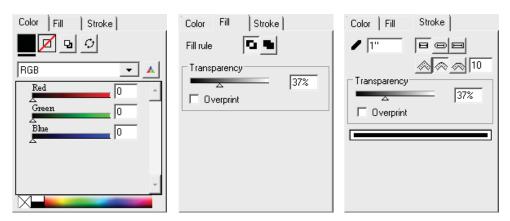
Object styles – Colors, Fills, Strokes

Style of vector-based objects

Every vector-based object (for example paths, rectangles, ellipses and text) has its own style. The style describes if the object is filled and with what color, gradient or pattern it is filled. The style also describes if the objects outline has a color and what the stroke width is.

The style of the selected objects is shown in the tabs of the **Color/Fill/Stroke** palette.

Choose Window > Color or Fill or Stroke.



The **Color/Fill/Stroke** palette shows per tab what fill or stroke color, gradient or pattern is applied to the selected objects. If a patch is crossed then no fill or stroke is applied. If a patch contains a question mark then the selection contains multiple fill and/or stroke styles.

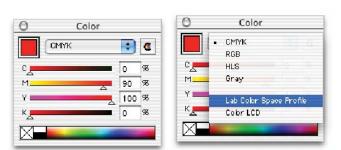
Color tab

You can create colors by using the **Color mixer** or you can select colors from the **Color list**. When you drop a color patch on the **Color palette**, the color will be applied to the currently selected objects. When you drop a patch directly on an object, only that object will be affected.

Color mixer

Using the **Color mixer**, you can create a color in uncalibrated CMYK, RGB and HLS. The **Color mixer** also supports calibrated colors. Monitor RGB and CIELab are available by default. The monitor RGB is taken from the **Tool bar** ColorSync^{TM} system profile.

By shifting the handles you can mix the color you want. By filling out the boxes you can also enter specific values to compose your color.



Calibrated colors

Add calibrated color space

- 1 Click the **ColorSync** symbol next to the Color space pop-up menu.
 - A dialog box appears listing all the ColorSync 2.0/ICC profiles which are installed in the **ColorSync Profiles** folder. You find this folder in the **Preferences** folder.
- 2 Select the profile that describes the color space of the device of which you want to create colors.
- 3 Click **OK** to add the color space.

If a color is mixed in a calibrated color space and you switch to another calibrated color space, the color will be matched automatically.

Color Picker

If you select the RGB color space from the menu, you can access the **Apple Color Picker**.

- 1 Click **Picker** just below the color sliders.
 - The default Apple **Color Picker** appears.
- 2 Using the color picker, compose a color.
 - The values you enter here will automatically be used in PixelBlaster. The exact values can be translated to all other color spaces available in PixelBlaster.
- 3 Click **OK** to add the color space.

Color list

You can use the **Color list** palette for the following purposes:

- To store frequently used colors or colors which are specially mixed
- To find a color in one of the color libraries

Add color

1 Drag a patch from the **Style** palette or the **Color mixer** palette.

2 Drag over the Color list palette.

A marker indicates the position at which the color will be inserted into the list.

3 Drop the patch.

The color is added to the list.

Remove color

- 1 Drag the color from the list.
- 2 Drop the color on the **Trash** button located in the top right corner of the palette.

Find color

There are two ways to look up a color:

- You can browse through the color libraries.
- You can mix a color and add it to the color list (or use another existing color) and find a color which is near to that color in the color library.

See also:

Finding colors on page 88

Browse

- 1 Click the book icon, which is the second icon from the left.
 - A dialog box appears, displaying the colors of the first library.
- 2 Select the desired library from the menu.
- 3 Select the color from the library.
- 4 Click **OK** to add the color to the list.

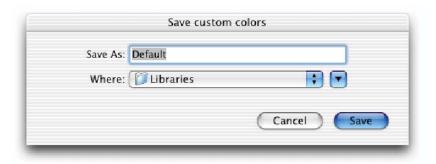
Custom library - Default library

The selection of colors in your color list can be saved as a custom color library. Thus, you can create sets of colors that can be opened for specific jobs.

- 1 Add colors to or remove colors from the list.
- 2 Click **Add library** (third button from the left).

A window appears to save your color list as a custom library.

3 Enter a name or save your color list as **default** library.
If you name it **default**, PixelBlaster will use the color sets in this library the next time it is started.



Fill tab

The **Fill** tab of the palette shows the fill properties. The patch displays the fill for the selected object(s). The section **Stroke** of the Style palette shows the stroke properties. You can set the stroke width in the edit field.



When you set the stroke width, make sure you press ENTER to apply it.

The patches can be changed by dragging a patch from the **Color Mixer**, **Color List**, **Gradient Editor** or **Pattern Editor** and drop it on the patch that has to be changed. The fill patch will accept colors, gradients and patterns. The stroke patch only accepts colors.

The **Dash Preview** shows if there is a dashed line applied to a path. The dash can be reset or adjusted by clicking the **Dash Preview**.

Even-odd Fill or Winding Fill

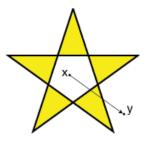
You can define the type of fill by choosing Even-Odd Fill or Winding Fill.





The **Winding Fill** style fills an object by establishing the direction of the path that it encounters. Every time a path is encountered that has the same direction as the previous path, the enclosed area will be filled. If, however, a path is encountered with the opposite direction, the enclosed area will not be filled.

Even-Odd Fill



The even-odd fill rule supposes that you draw a line between a point inside the shape outline (x) and a point (y) outside its outline. If that line crosses the line of the shape an odd number of times, the shape area to which the point (x) belongs, is filled. If the number of crossings is even, the area is not filled.

Transparency

You can set transparency for any color that is selected or composed. This means that you are able to use transparency for that color in your design and ultimately on your prints.

Overprint

If you want to use overprint instead of trapping, you can activate overprint for a particular object by checking the **Overprint** box.

Stroke tab

Cap & Join

You can control the way angles between and endings from lines will behave. By using the **Cap**-option you can set the ending of a line:

Straight cap: The line ends straight through the point.

Round cap: The line ends around the point. The cap size is defined by 1/2 of the line width.

Square: Defined as the round cap, but square.

Using the **Join** option, you can set the corner of an angle:



Sharp



Round

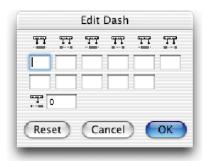


Flat

A sharp angle can be defined by setting the miter limit to the level up to where the angle should be truncated.

Dash Editor

Click the **Dash Preview** in the **Stroke tab** to invoke the **Dash Editor**.



You can use the **Dash Editor** to create dashed lines. By entering values for the drawn dashes and the "whitespaces", you can create custom dashed lines and apply them to paths.

Finding colors

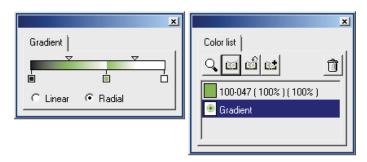
- 1 If necessary, choose **Window > Color** list to display the **Color list** panel.
- 2 Select the color which you wish to replace.
- Click the **Magnifier** button in the **Color list** panel.

 A dialog box appears in which the colors of the first library which are near enough are shown.
- 4 Enter the maximum tolerance in ΔE (distance in CIELab) that the colors may vary from the original color.
- 5 Select the desired library from the menu. The colors shown are sorted by ΔE distance.
- 6 Select the color from the library.
- 7 Click **OK** to replace the color.

Gradients and Gradient tool

You can use the **Gradient Editor** to create gradients:

- If you drop a gradient patch on the **Gradient** panel, the gradient will be applied to the currently selected objects.
- If you drop a patch directly on a object, only the object will be affected.



Add color

- 1 Drag a color patch from the **Color list** palette.
- 2 Drop it on the desired position on the gradient in the **Gradient** panel.
 The dropped color is added to the gradient on the dropped position.

Duplicate color

- 1 Hold down the ALT key (Windows) or Option key (MacOS) and drag a color patch from the gradient.
- Drop the color patch on the desired position on the gradient.The dropped color is added to the gradient on the dropped position.

Remove color

- 1 Drag the color patch out of the gradient slider.
- Release the mouse button in the area just below Linear and Radial in the Gradient panel.

The color is removed from the gradient. If there are no more than two colors, the remove action will be cancelled.

Move color

1 Drag the color patch you want to move from the gradient.

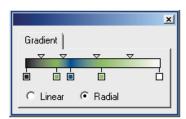
2 Drop it on the desired position on the gradient.

The color will be moved to the new position in the gradient. If there are not more than 2 colors than the move action will be cancelled.

Apply a gradient pattern

You can use the **Gradient** tool to assign the current gradient to one or more objects.

- 1 Select the objects to which the gradient must be assigned.
- You can move the slider(s) in the **Gradient** panel above the color scale to set and change the gradient pattern.



- 3 Do one of the following:
 - For linear gradients, drag a line from the start to the end point.
 - For radial gradients, drag a line from the inside to the outside.

Chapter 8: Object - extra options

Topics

In this chapter:

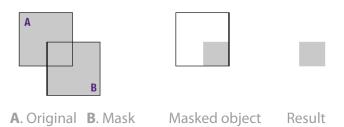
- Mask 92
- Convert to path 93
- Make pattern 94
- Expand strokes 95
- Outline 96
- Object arithmetic 97
- Group and ungroup objects 98
- Compound 99
- Layers 100

Mask

You can create a mask to display only a part of an object. A mask is an object containing vector information. A masked object is an object of which only the intersection with the mask is displayed.

Mask objects

- 1 Open or import the objects that have to be masked.
- 2 Create a vector object that you will use as a mask.
- 3 Place the mask on top of the objects that have to be masked.
- 4 Select the mask and choose **Arrange** > **Bring to Front**.
- 5 Select the mask object and the objects that have to be masked.
- 6 Choose Arrange > Mask.



Remove masks

- 1 Select a masked object.
- 2 Choose Arrange > Unmask.

The removed mask will be put on top of the unmasked object as a hairline path.

Convert to path

About converting objects to paths

You can use the function **Convert to path** to change vector objects or text into paths. Thus, you can alter the shape like any other path. This function comes in handy when you have created objects or text from which you wish to edit certain parts.

To convert an object to paths

- 1 Select the vector object which you want to convert to paths.
- 2 Choose Extra > Convert to path.

The selected objects will be converted to a path from which you can edit each part.



Make pattern

About patterns

You can open or create artwork and use this artwork as a fill pattern for objects or even text which you create in PixelBlaster Central. You can create patterns from line art, but also from pixel images.

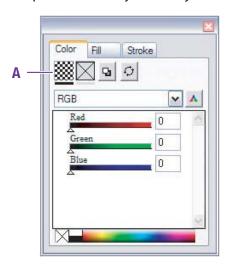


Text with a fill pattern created from a pixel image

To make a pattern

Proceed as follows:

- 1 Open or create the artwork which you want to use as pattern.
- 2 Select the object(s) and choose **Extra > Make Pattern**.
- 3 If necessary, choose Window > Color to display the Color palette.
 The pattern which you have just created is added to the Color palette (A).



A. Pattern in the Color palette.

You can now type text or create new objects using the PixelBlaster Central drawing tools and use the fill pattern you have just created.

Expand strokes

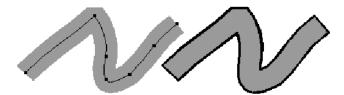
About expanding strokes

You can use the function **Expand strokes** to convert strokes into an object in the same way as you convert text to outlines. If a stroke has a pen width set, it can be transformed to a path covering the outlines of that stroke.

To expand strokes

- 1 Select the stroke(s) which you want to expand.
- 2 Choose Extra > Expand stroke.

The selected strokes are converted into an object.



Outline

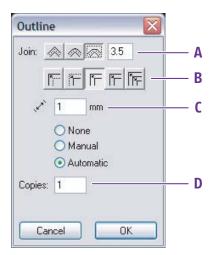
About outlines

You can convert objects to outlines using the outline definition of that object.

To convert objects to outlines

- 1 Select the object(s) which you want to convert.
- 2 Choose Extra > Outline.

The **Outline** dialog box appears.



- **A.** Join styles
- **B.** Result of the conversion
- **C.** Distance from original **D.** Number of outlines to be created
- Places the resulting item outside the original path by the value set in the distance field without the source object remaining on its place.
- Places the resulting item inside the original path by the value set in the distance field without the source object remaining on its place.
- Places the resulting item outside the original path by the value set in the distance field with the source object remaining on its place.
- Places the resulting item inside the original path by the value set in the distance field with the source object remaining on its place.
- Places the resulting item outside as well as inside the original path by the value set in the distance field with the source object remaining on its place.

See also:

Printing and contour cutting on page 138

Object arithmetic

Arithmetic operations

The following arithmetic operations are available:

- Union
- Intersect
- Exclude
- Subtract

You can apply these operations on a selection of vector objects by choosing **Extra > Object arithmetic**.

Union

Unites the objects.

Intersect

Results in an object which is the overlap of the original objects.

Exclude

Results in an object which is the union of the original objects minus their overlaps.

Difference

Results in an object which is the bottom object minus the other objects.

Simplify

Removes all overlaps and self-intersections.

Add intersection

Points are added to the objects where they intersect the other objects.

Group and ungroup objects

About grouping and ungrouping objects

Use the function **Group** to group two or more objects together. This group will be treated as one object. If you want to edit every object from a group separately, you need to ungroup the group.

To group or ungroup objects

- 1 Select a number of objects or a group of objects.
- 2 Do one of the following:
 - Choose **Arrange** > **Group**.
 - Choose **Arrange > Ungroup**.

Compound

About compounds

A compound is an object which consists of multiple paths and is handled like an ordinary path.

To create a compound

- 1 Select the objects of which you wish to make a compound.
- 2 Choose Arrange > Make compound.

If you want to edit every object of a compound separately you need to **release the compound**.

- 1 Select the compound which you want to release.
- 2 Choose Arrange > Release compound.

Layers

About layers

You can work with layers in which you can place objects, compounds and groups. Thus, you can make modifications to objects in a certain layer without having the problem of changing other objects by mistake. You can also define whether a layer should be printed, cut, creased, locked and be visible or hidden.

To work with layers, you use the **Layers** palette.

Choose **Window** > **Layers**.

Layer behavior

A layer can only have one action (cutting OR printing OR creasing, etc.). If a second layer is created it will take the properties of the layer underneath it.

By clicking on the layer underneath the printer icon will display a list of all available tools:

- None: the objects on that layer will not print nor show
- **Inherit**: the layer takes the same property as the layer below
- **Default**: the objects on the layer will be cut with the default tool of the cutter chosen in the job's Quick Production bar.
- **Print**: the objects on the layer will print

If a layer is set to other than print, the objects on it will show in outline, with the color associated with that layer. This color can be set/changed by clicking on the colored dot.

If the cutting device supports other tools (e.g. V-Cut, Routing, etc.), these will be available as choice also.

Create new layer

- 1 Open the **Layers** palette if not already open
- 2 Choose **New** from the **Layers** palette menu.
- 3 If necessary, double-click the layer name and rename the layer.

Duplicate layer

You can duplicate a layer with all elements into another one.

- 1 Open the **Layers** palette if not already open
- 2 Click the layer you want to duplicate.
- 3 Choose **Duplicate** from the **Layers** palette menu.
- 4 If necessary, double-click the duplicated layer name and rename the layer.

Remove layer

- 1 Open the **Layers** palette if not already open.
- 2 Click the layer you want to remove.
- 3 Choose **Remove** from the **Layers** palette menu.

Showing or hiding layers

You can show or hide layers. Sometimes, you may want to view all or just a few or even none of the layers. Every new layer which you create is visible by default. The visibility of a layer is marked under the **eye** icon.

Hide a layer

- 1 Open the **Layers** palette if not already open.
- 2 Click the mark under the **eye** icon.

Show a layer

- 1 Open the **Layers** palette if not already open.
- 2 Click in the respective position under the **eye** icon.

Hide all layers

- 1 Open the **Layers** palette if not already open.
- 2 Choose **Non visible** from the **Layers** palette menu.

Show all layers

- 1 Open the **Layers** palette if not already open.
- 2 Choose All visible from the Layers palette menu.

The strength of layers lies in the security of separated objects and in the fact that you can print one layer and cut the objects of another layer. Layers are typically used for print and contour cutting.

See also:

• Job preparation and production > Printing and contour cutting on page 138

MultiPage EPS

You can open multipage EPS files in PixelBlaster Central. Each page will be placed in a separate layer. Using the **Layers** palette, you can control which page you are going to use, edit and print.

Scroll through layers

You can scroll through layers by using the **Page Up** and **Page Down** keys on your keyboard.

Chapter 9: Objects - Images

Topics

In this chapter:

- Images 104
- Importing, extracting and replacing an image 105
- Scan images 106
- Image information 107
- Color profile information 108
- Vectorize 110
- Export RIP Script (saving color edits) 114

Images

Supported formats

Images are objects containing pixel and/or vector information. You can import images or directly scan from TWAIN compatible scanners. You can open images of the following file formats:

- PS
- EPS
- DCS
- PDF
- TIFF
- TIFF/IT
- PDF/IT
- nCT/nLW
- PNG
- BMP
- JPEG
- RAW
- DXF
- HPGL
- PSD
- Al
- PICT
- Targa

Some of these supported file formats are optional. Check your configuration and consult your dealer for optional file format plug-ins.

Importing, extracting and replacing an image

To import an image

Do one of the following:

- Choose **File > Place**, select the image and click **OK**.
- Drag an image file from the Mac OS Finder or Windows Explorer onto the canvas.

To extract an image

You can open a displayed image in the system-defined external editor (Photoshop, Illustrator etc.) to edit or save it to the disk.

After editing the image the result will be reloaded in PixelBlaster Central.

• Choose Image > Extract Image.

To replace an image

You can replace a displayed image in a document with a different image of the same file format (TIF, EPS etc.).

Choose Image > Replace Image.

Scan images

You can directly scan from TWAIN supporting scanners. The scanned image will be placed on the canvas of your document.

To select a scanner

- 1 Choose Extra > Twain Select Source.
- 2 Select your scanner and click **Select**.

To scan an image

1 Choose Extra > Twain Acquire.

The Twain scan preview window of your scanner manufacturer appears. For information on how to scan or set up your Twain preferences, refer to the user documentation of your scanner.

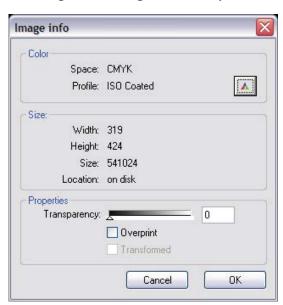
2 Select the area which you want to scan and click **Scan**.

Image information

You can see specific information about an imported or scanned image.

Using the black **Selection** tool , double-click the image.

The Image info dialog box shows you the following information about the image.

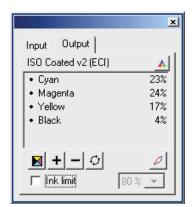


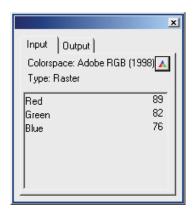
Color profile information

View colors of an image

You can view the color channels of the displayed image based on a selectable color profile.

1 If necessary, choose **Window > Input** or **Window > Output** to display the **Color channel** panel.





2 Drag the mouse over the image.

The color of the image input and printer output are displayed in the **Input** and **Output** tab for the spot where the mouse curser is placed.

The **Input** tab also displays the Type of the currently selected spot (Raster, Path, etc.)

Switch profile

Switch Input profile

1 In the **Input** tab click the **ColorSync** button **A**.

The **Embed Profile** window is displayed.

This window corresponds to the **Color** tab in the **Preferences** and the window when selecting **Extra** > **Embed Profiles**.

- 2 Select the desired **Colorspace**, **Profile** and **Intent** for the input.
- 3 Click OK.

Switch Output profile

- 1 In the **Output** tab click the **ColorSync** button **\textstyle{\Lambda}** to choose an output profile.
- In the bottom of the Output tab you can also set the following:

- Convert spot colors to named colors
- Add and remove extra Colorant definitions
- Map spot color
- Tonal corrections
- Set a percentage for the lnk limit
- 3 Click **OK**.

Vectorize

About vectorizing images

You can vectorize images. This means that the bitmap data will be converted to paths. These paths are created according to the amount of colors you want to consider being of one path. Vectorizing is useful if want your image to be cut out on a plotter.

The calculated paths will resemble the background picture automatically. In the **Tool bar**, you can set the values for determining lines, beziers, when to create a corner and when to consider a color range to be of one path.

Line tolerance

The line tolerance defines the extent to which lines will need to get around points sticking out or cutting into the picture. The value is set in points or pixels (the same pixels which make up the image).

Bezier tolerance

The bezier tolerance indicates by how many points (points which make up the image) the bezier curves may deviate from the calculated lines. The greater the tolerance, the fewer the amount of beziers.

Create corner at

The setting **Create corner at** indicates the extent to which the transitions in the paths must be fluent. If two successive lines form an angle that is greater than the value set, the path will not be fluent at that point. By default the angle is set at 60°. If the value is set to 0°, the contour will not be fluent at any point and so will create straight lines only.

Number of colors

The value for number of colors defines when or if a certain color is included in one path. The greater the value, the higher the amount of paths.

Set values

- 1 Select the image you want to convert to vectors.
- 2 Select the **Vectorize** tool from the **Tools** palette.
- 3 Enter the vectorization values for the conversion in the **Tool bar**.
- 4 Click Apply.

Vectorizing bitmap images interactively

You can interact in the vectorizing process when you are going to vectorize bitmap images. At this moment it is not possible to do this with color images.

The calculated paths will automatically resemble the background picture. In the **Tool bar**, you can set the values for determining lines, beziers, when to create a corner and when to consider a color range to be of one path as you would do with color images (described at the previous page).

The interaction lies in the fine tuning of the preview path that is calculated and applied after clicking **Apply**.

If you select the **Vectorize** tool and the image is a bitmap image (black and white), a cyan preview path will appear which you can alter as follows:

- Hold down the Shift key and click the path to add or delete points where the path will be calculated through.
- Press the ALT key (Windows) or Option key (MacOS) to add points where the path will be calculated fluently through.

In the palette you can choose to view the preview path as lines or as curves.

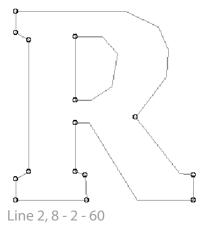
Examples



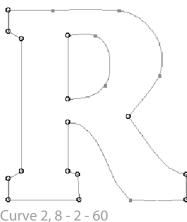
Original

Below you see two examples of cyan previews. The numbers define the values set in the **Tool bar** for the following settings:

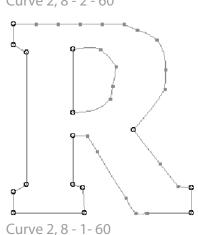
- Line or bezier
- Line tolerance
- Bezier tolerance
- Create corner at



This example shows the preview where the contour will be formed by **lines**. The set line tolerance will have no effect because there will not be any curves. The value set for the corner tolerance will define the amount of corners.

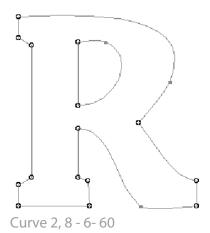


This example shows the preview where the contour will be formed by **curves**. The values set in this example are the same as the example above. The bezier tolerance that is set in the **Tool bar** defines when a point is placed. These points can be removed by using the Shift key. You can also add a point by holding down the Shift key and clicking the original.



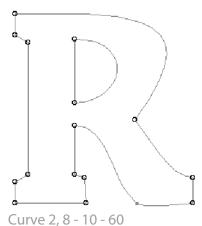
These are examples of a change in the value for the bezier tolerance.

By using a low value you can define a contour that may not differ from the original too much. The result will be close to the original, but will be formed by a lot of points.



The values set are the same except for the bezier tolerance. A moderate value will give a reasonable comparison to the original without forming too many points.

The little closed points reflect the fluent angles whereas the bigger open points stand for non fluent corners.



The example is a rather simple image, but when you are vectorizing a complex design it may be better to choose for moderate values; you can always change points, add or remove them. Higher values will create a more or less round result and will deviate from the original.

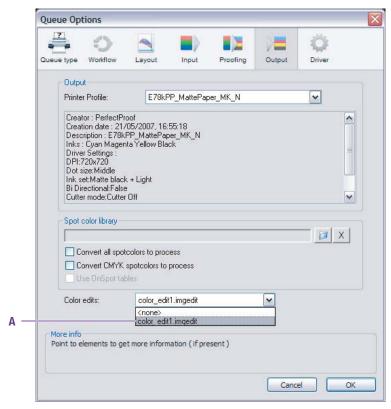
Export RIP Script (saving color edits)

About RIP scripts and color edits

If you have licensed the Advanced Editor option, you can adjust the colors of images by using the commands in the **Image** menu:

- Levels
- Hue/Saturation
- Brightness/Contrast
- Color balance

If you do so, you permanently alter the colors of the image. However, you may also wish to keep the original image, but only apply the color edits when you print the image on a specific PixelBlaster Queue. Or you may wish to apply the same color edits to multiple images. You can do so by using the **Export RIP Script** command: you then save your color edits and use these color edits in your PixelBlaster Queue without having to change the printer profile of that queue.



A. Color edits used in a PixelBlaster Queue.

To save your color edits

Proceed as follows:

- 1 Open an image and adjust its colors using one or more commands in the **Image** menu.
- 2 Choose Image > Export RIP Script.
- 3 Save your color edits in the PixelBlaster/ImageEdits folder. For Mac and Windows XP this folder is located in the PixelBlaster installation folder, for Windows Vista and Windows 7 either in the individual user's folder or in the public folder.



Color edit files can only be used in PixelBlaster Queues if:

- They are saved in the PixelBlaster/ImageEdits folder
- They have the imgedit extension

Do not rename or move a color edit file once you have used it in a Pixel-Blaster Queue.

- In PixelBlaster Engine, select the queue in which you wish to use the color edits and do one of the following:
 - Double-click the PixelBlaster Queue.
 - Choose File > Queue > Setup.
 - Click the **Queue Options** button (*) and choose **Setup Queue**.
- 5 Click the **Output** tab.
- 6 Select your impedit file from the **Color edits** list.



7 Click OK.

See also:

 "Creating and configuring PixelBlaster queues > Output" in the PixelBlaster Engine User Manual.

Chapter 10: Job preparation and production

Topics

In this chapter:

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- Creating templates 120
- Finishing Tool 127
- Super Tile Tool 130
- Generate White Tool 132
- Combine tool 134
- Cutter registration marks tool 135
- Printing tiles/Submit Job 136
- Printing and contour cutting 138

Production basics

Preconditions

Before starting to produce your output:

 You have to assign the profile and setup and the preferences for color handling (Standards). Also, a profile for your printer, media and ink has to be set in the PixelBlaster Engine.



To be able to create a queue in PixelBlaster Engine, or to print to the PixelBlaster Engine from PixelBlaster Central you need to have profiles installed for that printer in the Calibration folder.

You first need copy profiles in the Calibration folder, or – if you don't have any - create them with PixelBlaster Profiler.

You can find existing printer profiles in:

- The **PixelBlaster** library of printer profiles, which is distributed on CD, and updated in the Support area of http://pbsupport.saintl.biz.
- The PixelBlaster/Calibration/ folder on your computer, which can contain standard or user-defined printer profiles.
 For Mac and Windows XP this folder is located in the PixelBlaster installation folder, for Windows Vista and Windows 7 either in the individual user's folder or in the public folder.

Before starting to produce your output you also have to make sure that PixelBlaster Engine is launched.

Extended production features

PixelBlaster Central has extended production features which enable you to completely control your output. The pre-production work that you have to do to create output the way you want it to be consists of:

- Making sure that your image fits the media or is placed on tiles
- Assigning the proper profiles to the images
- Gather all information needed to print

Profiles are needed to use color management in your production process. Before printing, you have to assign profiles to your images and specify to which plotter or printer your data will be sent.

In short: color management is based on controlling the translation between different devices and color spaces and its color information. Profiles contain the information to correctly translate the colors and they have to be assigned to particular data in order to let color management do its work. PixelBlaster Central seeks PixelBlaster Production on the network or at the system. There has to be a computer running PixelBlaster Production in order to send data to the printer/plotter.

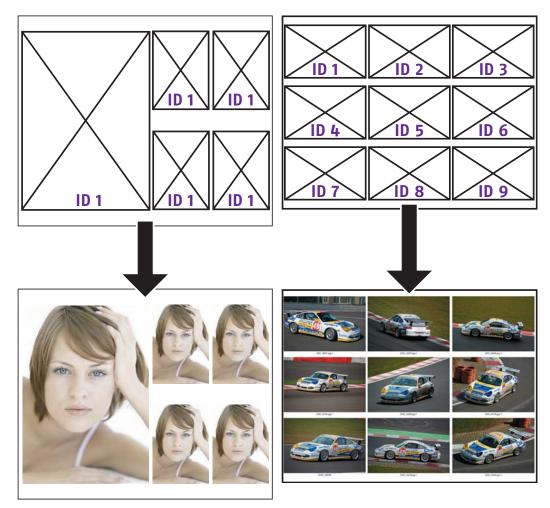
The production in PixelBlaster Central comprises to setting dimensions, options (such as spacing and cutting marks), and output specifics.

Creating templates

About templates

You can create templates for creating Billboards and banners, as well as photo contact sheets or photo album sheets. The idea is that you:

- 1 Create placeholders.
- 2 Save your file as a stationery file.
- 3 Use this stationery file as a template in PixelBlaster Central or your PixelBlaster Queue.



A. Template for a photo album sheet

B. Template for a photo contact sheet

To create a template

Proceed as follows:

1 Do one of the following:

- Click the **Placeholder** tool on the toolbar.
- Click the **Crop** tool **t** or the **Super Tile** tool **n** on the **Tools** palette and hold down the mouse button until the **Placeholder** tool appears.
- 2 Using the **Placeholder** tool , draw the placeholders on your canvas.
- 3 In the **Tool bar**, specify the size and position of the placeholders.
- 4 Specify the identifier (ID) of the placeholder.

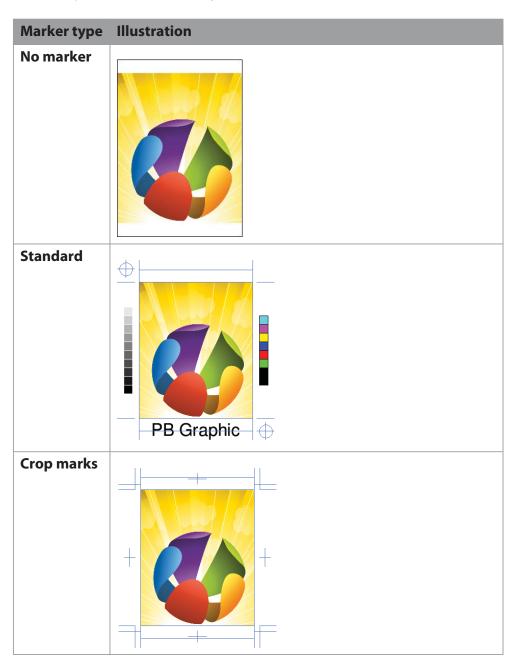
Placeholders with the same identifier (ID) will contain the same image, so:

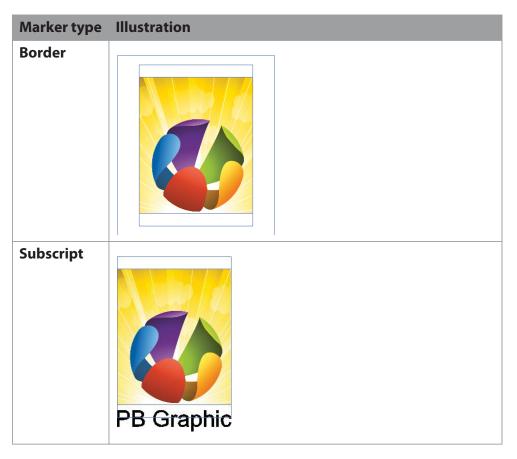
- If you are creating a template for a photo album sheet, make sure that all your placeholders have the same ID.
- If you are creating a template for a photo **contact** sheet, make sure that all your placeholders have a **unique** ID.
- 5 Specify the alignment of the image in the placeholder.
- 6 If necessary, select **crop** to crop the image to the size of the placeholder.
- In the **Resize type** list, select the way in which the image will be resized to fit in the placeholder:

Resize type	Meaning / illustration
Original	Keep the original size of the image.
Smallest	Resize the image proportionally to the smallest side of the placeholder.

Resize type Meaning / illustration Average Resize the image proportionally to the average of the smallest and biggest side of the placeholder. **Biggest** Resize the image proportionally to the biggest side of the placeholder. Resize the image to fit the width and height of the place-Fit holder.

8 If necessary, select the **Marker type** and **size**:





- 9 Choose **File > Save as** and save your template as a stationery file (* . st3).
- 10 In PixelBlaster Engine, select the queue in which you wish to use the template and do one of the following:
 - Double-click the PixelBlaster Queue.
 - Choose File > Queue > Setup.
 - Click the **Queue Options** button (*) and choose **Setup Queue**.
- 11 Click the **Layout** tab.



12 Select your template from the **Template** list.

13 Click OK.



Alternatively a template can also be opened in PixelBlaster Central. This is necessary when files needs specific settings in the **Submit job** dialog.

Cancel

OK

See also:

• <u>Creating and configuring PixelBlaster Queues > Layout on page 43</u> in the Pixel-Blaster Engine User Manual.

Save as stationery

Besides saving your document as a PostScript or PixelBlaster file, you can choose to create a stationery file. A stationery file is a file that you can open as an untitled document to be used as a template. Proceed as follows to create a default stationery file:

- Start PixelBlaster Central.
- 2 Choose File > Document Setup.
- 3 Check and, if necessary, change the settings, for example the document format or orientation (portrait/landscape).
- 4 Choose File > Save as and save your file as Default stationery in the Pixel-Blaster folder.

5 Quit and restart PixelBlaster Central.

The default stationery will now be used each time you start PixelBlaster Central.

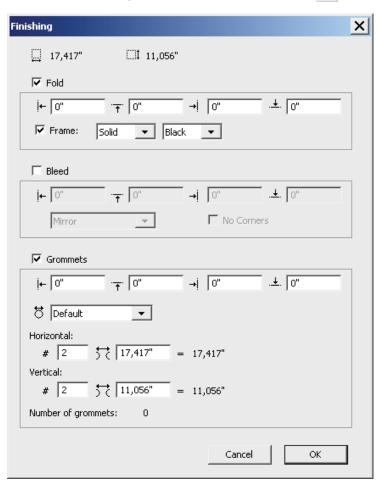
Finishing Tool

The **Finishing tool** allows to

- place grommets (rings and eyelets),
- add borders (for sewing, cutting or folding) and
- add bleed.

The borders and bleed functionality offer the necessary tools for creating flags, banners and more, with specific parts of the image which need to be mirrored and enlarged.

6 Select the **Finishing tool** from the **Tools** palette [80].



7 Set the following, as needed:

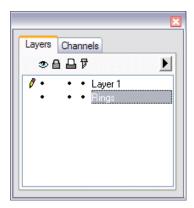
- **Fold**: introduce the extra "material" you need to add to provide fold, tunnel or stitch. The values introduced in the "left", "top", "right" and "bottom" fields will be added to the current job size.
 - Checking the **Frame** checkbox adds a line (choice between solid, dashed or dotted, in the primary colors c, m, y or k) on the current job size. This can be used as folding line.
- **Bleed**: introduce in the "left", "top", "right" and "bottom" fields the amount of image you want to put into the added extra "material" specified in step 1.
 - **Mirror**: will mirror the pixels (e.g. used when creating tunnels for flags)
 - **Stretch**: will duplicate the last pixel
 - Solid: presents you with a chooser to choose a solid color (e.g. used to create a solid border for canvas frames).
- Grommets: will add grommet marks (also referred to as eyelets) at the specified distances. You can also create your own markers and save in the "Grommets" folder inside the application folder. It will then appear in the pop up list.
 - The value set in the "left", "top", "right" and "bottom" fields will be the center of the grommet relative to the current job size.
 - No grommets will be placed on a side if "0" is set as value.
 - Grommets will be placed outside of the current job size if a negative value is set.

Either define a specific number of grommets horizontally and vertically (# fields) or specify the desired distance between grommets.

8 Click OK.

Grommet layer

If you add grommets, these will be put on a separate layer (Rings layer).





If you specify an invalid number of rings with respect to their size and position, the **OK** button will be dimmed. If so, change the size, position or number of rings.

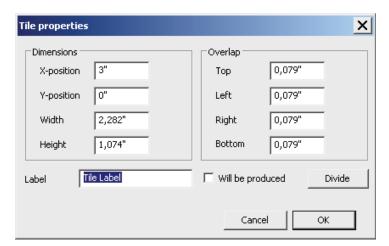
See also:

Layers on page 100

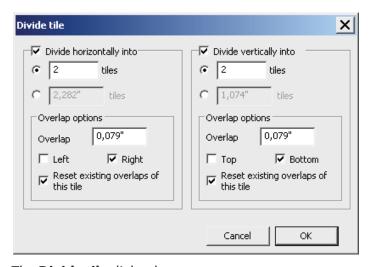
Super Tile Tool 🚳

Tilling a job

- 1 Click the **Super Tile** tool 🕥 on the **Tools** palette.
- 2 Double click on the job to open the **Tile Properties** dialog.



3 Then click the **Divide** button to access the **Divide tile** dialog.



The **Divide tile** dialog lets you:

- specify number of tiles horizontally and vertically,
- or specify a specific size of tiles
- and specify a general overlap -top/bottom or top + bottom and left/right or left + right- for every tile.
- 4 Click **OK** to apply the tiling to the document.

Tiling a job manually via dragging

- 1 With the **Super Tile tool** selected, move to the outer boundaries of the job until the cursor changes from cross to <|>.
- 2 Then click and drag to define the tile size.
- 3 Repeat until tiling setup is as desired.

Modifying tiles

You can double click a tile to access the **Tile Properties** dialog, where you can define the tile's size, coordinates and overlaps.

If you click the **Divide** button to access the **Divide tile** dialog you can even sub-tile an existing tile.

Using multiple tile setups in one job

This is used for special applications like vehicle wrapping, where you use multiple materials (self adhesive vinyl and one-way vision material) in one job:

- Mirror tile setup (e.g. for left/right side of cars).
- Multiple tile setups per document (e.g. for different media, 1 on gray back, 1 on contravision, etc.). This is ideal for vehicle wrapping setups.

Proceed as follows:

- 1 Set up a tiling setup for one material, as explained in "Tiling a job".
- Then click the 'pencil' button in the **Tool bar** to name the created tiling setup (e.g. Vinyl)
- Duplicate the tiling setup using the button in the **Tool bar** and give a name to it (e.g. One way vision)
- 4 You can now switch between the two tiling setups with the drop down menu from the **Tool bar**.
- Deactivate the tiles that don't need to be printed per tiling setup by clicking them once. They will get a gray overlay.
- 6 You can modify each tiling setup individually.



To create a mirrored version of an existing setup, click the 'mirror tiles vertically' button or the 'mirror tiles horizontally' button in the **Tool bar**.

See also:

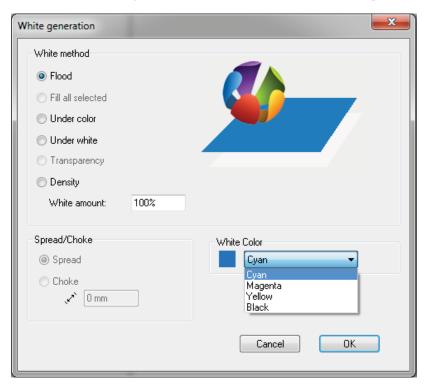
Job preparation and production > Printing tiles/Submit Job on page 136

Generate White Tool

White printing

For printing on glass or dark (e.g. Black forex) material, it is often necessary to print a white base layer before printing the image. This and more can be done using the **Generate white** tool

- 1 Click the **Generate White** tool won the **Tools** palette.
- 2 Double click on the job to open the **Tile Properties** dialog.



- 3 Select the White Method.
 - Flood: fills the whole document with a white base layer
 - Fill all selected: (Selection must be done before opening the dialog) fills the selected area with a white base layer
 - Under color: prints white under parts that contain image
 - Under white: prints white under non-image areas
 - Transparency: uses the information in the image's alpha channel if present
 - Density: fills with white ink relative to the density of the image, the more density in the image the lesser white ink is used
 - White amount: the percentage of white ink generated
- 4 Select the **Spread/Choke**.

- Select the presentation of the **White Color** from the dropdown menu. This can be any color channel available on the output device.
- 6 Click **OK**.

If you have generated white, the object(s) are put on a separate layer (White layer).

Combine tool

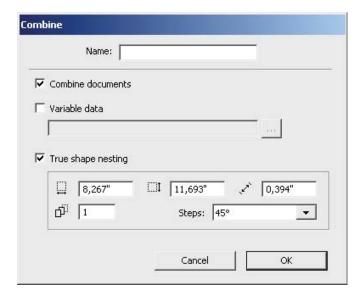
The combine tool allows to:

- Combine open documents into one multi page document
- Apply variable data on a template
- Nest jobs together with True shape nesting.

All of the functions can be combined as needed. When using combine and true shape nesting at the same time for example, you can nest several open documents into one sheet, ready to print and contour cut.

1 Choose File > Combine.

The **Combine** dialog is displayed.



- 2 Apply one or more of the following:
 - **Combine documents**: when checked it will combine all the open documents into one multipage document. This allows to nest multiple jobs when printing from Central.
 - Variable data: when checked and a tab delimited text file is chosen, it will
 replace all indicated text strings and load images in the placeholder, when
 used. The supported file format is regular tab delimited text file, which can
 contain texts and paths to files (like images).
 - **True shape nesting**: creates a new file at the specified dimensions with the number of copies specified. Nested on the shape of the item.
- 3 Click OK.

Cutter registration marks tool

With this tool you can manually place Cutter registration marks for use with Zund Cut Center or iCut based systems.

- 4 Select the **Cutter registration marks** tool from the **Tools** palette \diamondsuit .
- If needed, set the tool options in the **Tools bar**.
- 6 Either place the marks randomly by clicking, or choose a defined space around the contour cutter guides or a specific number of marks per to be cut object.

Printing tiles/Submit Job

Dividing jobs into tiles

If your image exceeds your media size, you have to divide your job into tiles. These tiles can be printed separately and later put together to get the complete image.

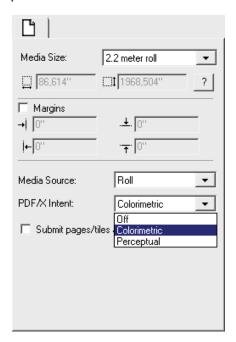
See also:

Super Tile Tool on page 130

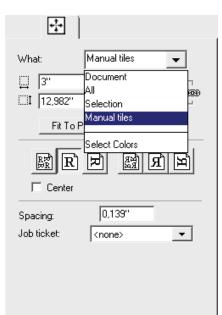
To print tiles

Proceed as follows:

- 1 Choose **File > Submit Job**.
- 2 Select the **Media Size** to which you want to print and set the **Margins**.
- 3 Select the **Media Source** and the **PDF/X Intent** to which you want to print. The PDF/X intent drop down menu lets you specify the render intent to use to go from the chosen/embedded output intent of the file to the printer's output profile.



- 4 Select, if you want to **Submit pages/tiles as separate jobs** or nor.
- 5 Click the **Document Setup** tab **⊡**.



6 In the What list, select Manual tiles.

7 Select or specify the other document setup options and click **OK**.

Printing and contour cutting

About printing and contour cutting

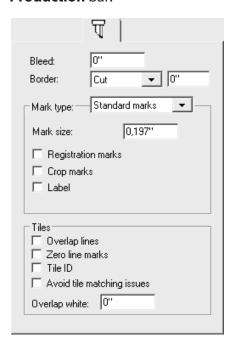
Printing and contour cutting can be divided into two application domains:

- Cutting the bounding box of the job (e.g. cutting the border of a banner or Billboard)
- Cutting out a (predefined) shape (POS, display, etc.)

Cutting the bounding box of the job

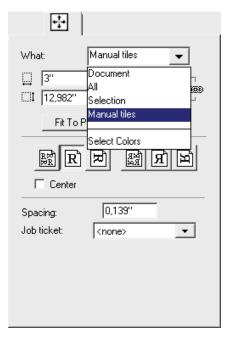
Proceed as follows:

- 1 Prepare job as usual (tiling, finishing tool adding fold etc).
- Select File > Submit Job to enter Submit Job dialog.
- In the Cutting tab, select **Cut** for **Border**. This will send the border of the file (also the borders of individual tiles) to the cutter selected in the job's **Quick Production** bar.



4 Set the other options in this tab, as needed.

Then choose the mark type, which is depending on the cutter chosen in the job's Quick Production bar.





The border of the image can also be printed as a solid or dotted line in the primary colors for manual cutting.

Nesting

If your document contains multiple pages, you may want to click the **Best Fit** button and make sure that the **Center** option is not selected. Thus, you will "nest" the pages to make optimum use of the media.

Cutting out a (predefined) shape

Proceed as follows:

- 1 Make sure you have cutting information in a layer selected for cutting
- 2 Set the right tool in the layer (if none then set **Default**)
- 3 Select **File > Submit Job** to enter Submit Job dialog.
- 4 In the cutting tab set **Off** for **Border**, if you don't want the border to be cut as well.
- Then choose the mark type, which is depending on the cutter chosen in the job's Quick Production bar.

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PixelBlaster ENGINE USER MANUAL

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Chapter 1

Chapter 1: Installing PixelBlaster

Topics

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Installation overview

System requirements

The system requirements are listed on the product pages on the SAi Web site: http://pbsupport.saintl.biz.

Administrator account required

To install and use PixelBlaster, you need to log on to your computer with an administrator account.

Installation steps

Installation for PixelBlaster includes:

- 1 Installing driver software for peripherals.
 - Inkjet printers
 - Spectrophotometer
- 2 Installing the PixelBlaster software.
- 3 Registration and activation of software and license options.
- 4 Configuring output devices.
- 5 Sharing PixelBlaster queues across the network.
- 6 Setting up the spectrophotometer.

Installing driver software for peripherals

Peripherals used by PixelBlaster, and requiring driver software, include:

- Inkjet printers
- Spectrophotometer

Installing printer and cutter drivers

Manual installation of printer drivers

Requirements for installing manufacturers' driver software are generally platform-specific. Manual installation of printer drivers is:

- Almost never necessary on Macintosh computers. Mac OS X displays messages in the exceptional cases that include Canon printers with USB connections.
- Required on Windows computers for USB printers and FireWire connections, but unnecessary for network-connected printers.



Automated configuration of the first printer used by PixelBlaster depends on your connecting and turning on the device prior to installing Pixel-Blaster software.

On Windows PCs, manufacturers' printer drivers establish printer ports that PixelBlaster detects on installation. If the driver for a printer connected to a USB port or parallel (LPT) port of a PixelBlaster computer is unavailable, the printer is not configurable upon completion of the installation procedure.

Installing the spectrophotometer

When do you need a spectrophotometer?

You need spectrophotometers to perform the following tasks:

- Creating printer profiles
- Relinearizing printers that have fallen out of calibration

See also:

- Calibrating printers in the PixelBlaster Profiler User Manual
- Relinearizing the printer profile in the PixelBlaster Profiler User Manual

Supported spectrophotometers

PixelBlaster supports the following spectrophotometers, and any others identified on http://pbsupport.saintl.biz.

Manufacturer	Models
Barbieri	Swing, 50xy, LFP, LFP-RT
GretagMacBeth	Spectroscan/Spectrolino, Eye-One, Eye-One-IO, iSis
XRite	DTP41, DTP41 USB, DTP45, DTP70

For other supported devices please refer to PixelBlaster Profiler.

You or your SAi reseller (if they are the actual user of the device) should install necessary driver software on the PixelBlaster computer if it is a Windows PC. Refer to the installation instructions of the respective spectrophotometer.

See also:

• Setting up the spectrophotometer on page 22

Installing the PixelBlaster software

Mac OS or Microsoft Windows?

Instructions for installing PixelBlaster software are specific to:

- Macintosh computers
- Microsoft Windows computers

Installing PixelBlaster software on a Macintosh computer

To install PixelBlaster software on a Macintosh computer

Proceed as follows:

1 Connect and turn on the first printer (of those licensed) to be configured for PixelBlaster.



If USB printers are daisy-chained, ensure that the printer you want to set up for PixelBlaster is the first one in the chain.

- 2 Log in with an administrator account to the PixelBlaster computer.
- 3 Insert the PixelBlaster CD into the CD-ROM/DVD-ROM drive of your computer.
- 4 Locate and double-click the PixelBlaster installer.
- 5 Follow the on-screen installation instructions.

See also:

- Configuring output devices on page 18
- Configuring a PixelBlaster Queue on page 35

Installing PixelBlaster software on a windows computer

To install PixelBlaster software on a Windows computer

Proceed as follows:

1 Connect and turn on the first printer (of those licensed) to be configured for PixelBlaster.



If USB printers are daisy-chained, ensure that the printer you want to set up for PixelBlaster is the first one in the chain.

- 2 Log in with an administrator account to the PixelBlaster computer.
- 3 Insert the PixelBlaster CD into the CD-ROM/DVD-ROM drive of your computer.
- 4 Locate and double-click the PixelBlaster installer.
- 5 Follow the on-screen installation instructions.



You can select custom installation to modify the path of **Destination Folder**. If you do so, do not deselect installation of individual PixelBlaster options.

See also:

Configuring output devices on page 18

Registration and activation of software and license options

About PixelBlaster licensing

Licenses are linked to the computer hardware and software activations will require a valid activation code.



The computer on which you will register the software, does not have to be the computer running the software, but the licensed computer and the software running computer must be in the same network. However, typically you would install and register on the same machine.

To license your PixelBlaster installation, you will need to:

- Receiving your license voucher
- Create a http://pbsupport.saintl.biz user account
- Register your license
- Activate your license

Make sure to register yourself and your software on http://pbsupport.saintl.biz first to receive the necessary activation rights.



Detailed information about is given in the FAQ on http://pbsupport.saintl.biz for instructions on registering and software activation.

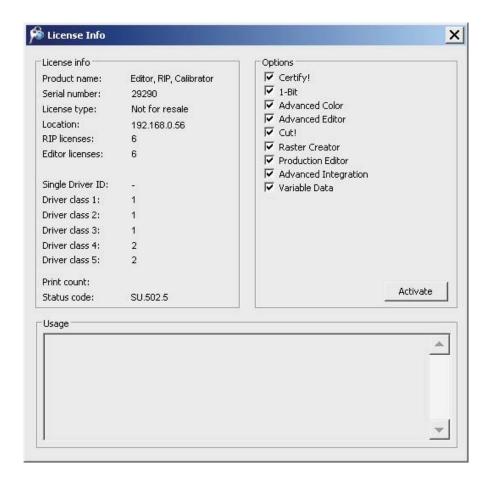
Check the license information

All PixelBlaster options are installed on the PixelBlaster computer, but individual software options must be licensed to your site. You can verify the licensing of purchased options through **PixelBlaster Engine**.

Do one of the following:

- In Microsoft Windows, choose **Help > License Info**.
- In the Mac OS, choose PixelBlaster Engine > License Info.

The **License Info** has a **Status code** showing internal details about the license acquired:



License info

This shows detailed information about installed PixelBlaster products, license type, which licenses are in use on which computers (IP addresses), number of licenses, the validated driver classes for the license and the status code of the license.

Options

This shows all installed options. You can install the license, add or remove options.

Add/remove licensed options

- Start **PixelBlaster Engine** on the license server with an administrator account.
- 2 Choose Help > License Info.
 - The **License Info** window appears with all licensed options checked, which are currently installed.
- 3 Activate/deactivate the checkbox(es) for the option(s).
- 4 Click Activate.
 - The **Activate license** window is displayed.
- 5 Enter the registration code from your license voucher and click **OK**.

6 Quit and restart **PixelBlaster Engine**.

About license server

License Server is a program which allows you to use multiple PixelBlaster programs on multiple computers in a network. It does so by distributing the licenses over your network.

Only one License Server can run in a network. If a second License Server is started, the first one will quit without warning (but this event will be logged on the Mac OS).

If you use License Server and check the **License Info** in PixelBlaster, you will see .

To check whether License Server is running

Do one of the following:

- In Microsoft Windows: Check Control Panel > Administrative tools >
 Services > PixelBlaster License Server.
- On the Mac OS: check the **Console Log.**

To delete License Server (Mac OS)

Remove the following components from your System Library:

- System/Library/Application Support/PixelBlaster/LicenseServer
- System/Library/LaunchDeamons/LicenseServer

Configuring output devices

Supported devices

Supported output devices for PixelBlaster Engine are:

- Printers
- Cutters and
- Files

Configuring found USB or Bonjour printers (Macintosh only)

In Macintosh OS X, PixelBlaster can detect the printer model and connection type on the local network for:

- Printers with USB connections
- Bonjour-compatible printers (Bonjour is the Apple technology formerly known as Rendezvous)

PixelBlaster automatically configures Bonjour printers for processing jobs.

PixelBlaster opens the **Printer Options** dialog after installation, on detection of the first printer in a USB chain. To configure the found printer, do one of the following:

- Click **Install** for automatic configuration of a USB or Bonjour printer.
- Click **Manual** and follow the instructions in <u>Configuring additional physical</u> printers, starting with step 4.

Integration with Zünd Cut Center (ZCC)

The Zünd drivers with Zünd Cut Center integration in offer extensive functionalities:

- Automatic retrieval of the material list in ZCC, displayed in PixelBlaster Engine
- Tool selection (cut, kiss cut, route, ...) specified from within PixelBlaster Central
- Tool configuration from within PixelBlaster Central
- Allows for all the processes (cutting, creasing, perforation, etc.) to be done in one go.

Configuring additional physical printers

You can configure additional licensed printers at any time after installing Pixel-Blaster software. Proceed as follows:

Start PixelBlaster Engine.

2 Choose File > Printer > New.

The **Printer Options** dialog appears.

- 3 Select a configuration method:
 - Install, for the automatic configuration of a USB or Bonjour printer
 - Manual, and proceed with step 4.
- 4 Select the **Printer Manufacturer** and **Model** from the list.
- 5 Specify the **Connection** settings:
 - For USB connections, select a printer **Port**.
 - For TCP/IP connections, enter the IP address of the printer.
 - Choose **ROOM queue** and define a folder where the ripped files will be placed that need to be printed using PixelBlaster Profiler.



Network hardware sometimes prevents PixelBlaster from communicating via a TCP/IP connection. If you cannot configure a supported printer, append the printer port to the IP address. Use the manufacturer-specific port number in the following table, and insert a colon (:) in between the IP address and the printer port number.

Network Card Manufacturer	Printer Port
Epson	515
Canon	515
HP	9100

6 Set your own printer name in the name input field:



This way you can easily identify your printers later on.



When you have multiple printers of the **same brand and model**, you have to name them differently. Otherwise the software will not allow you to add a printer.

7 Click **OK**.

The **Queue Options** dialog appears. You now have to configure the queue for the printer.

See also:

- Creating and configuring PixelBlaster Queues on page 31
- Managing a PixelBlaster Queue > PixelBlaster Q on page 69

Sharing PixelBlaster queues across the network

PixelBlaster queue presented as a printer

When you set up a PixelBlaster queue, you will at some point have the option **Register as a printer**. The PixelBlaster queue will then appear as a printer:

- In the list of **Printers and Faxes** in **Control Panel** (Windows)
- In the **Printer List** (Mac OS)

You can then share this PixelBlaster queue across the network, just as you would do for a regular printer.

To register a PixelBlaster queue as a printer

Proceed as follows:

- In PixelBlaster RIP, select the PixelBlaster queue which you want to share and choose **File > Queue > Setup**.
- In the Queue Options dialog, click the Workflow tab and make sure Register as a printer is selected.
- 3 Click OK.

See also:

Creating and configuring PixelBlaster Queues > on page 31.

To share a PixelBlaster queue across the network

You can share a PixelBlaster queue across the network in the same way as you share a regular printer. Refer to the Help of your operating system for more information on sharing printers.

Setting up the spectrophotometer

Configure and calibrate

If you use a spectrophotometer with **PixelBlaster Profiler**, you need to configure and calibrate it on the PixelBlaster computer. Configuring the spectrophotometer is necessary:

- When you use the spectrophotometer for the first time
- If the configuration changes.

To set up the spectrophotometer

Proceed as follows:

- In Microsoft Windows, make sure that the spectrophotometer driver is already installed on the PixelBlaster computer.
- 2 Do one of the following:
 - Start PixelBlaster Calibrator, select a queue and click Create printer profile.
 - If you're in PixelBlaster Engine, select a queue and click the **Go to Profiler** button (☑) in the main printer window.
- 3 Click the **Measuring** tab.
- Select your Type of spectrophotometer and the Port to which it is connected.
- 5 Click Calibrate Device.

See also:

Installing the spectrophotometer on page 11

Setting the PixelBlaster preferences

To access the PixelBlaster preferences

- 1 Choose Edit > Preferences.
- 2 Set the PixelBlaster preferences in the following tabs:
 - General
 - Views
 - Fonts
 - Files

General

Work folder

The PixelBlaster work folder is the place where the actual jobs will be saved. The default work folder is the PixelBlaster installation folder. If you wish to change this, click **Select** and select a different work folder.



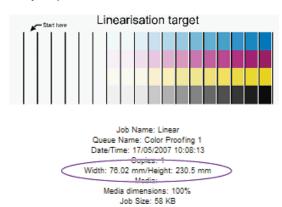
Make sure you select a folder on a hard disk or network drive which has sufficient free disk space.

See also:

Files on page 25

Units

You can select the unit of measurement which you want to use in PixelBlaster. Also the job previews will use this unit of measurement.



See also:

Changing the job preview on page 94

Add job method

Set here wether to open a new added job in the Preview pane of the RIP or in Pixel-Blaster Central:

- Easy using build-in job setup: Opens a new added job in the RIP Preview pane
- Advanced using Editor: Opens a new added job in PixelBlaster Central (and Submit job window).

Fixed License Server

The license server is normally found automatically. Enter the IP address of the machine for floating license distribution in the network if it is not detected in the network automatically.

Views

You can select the columns you wish to see in the jobs list of your printer. Proceed as follows:

- 1 If you have set up multiple printers, click in one of the main printer windows.
- 2 Choose Edit > Preferences and click Views.
- 3 Select the columns you wish to see in the jobs list of this printer.

The following columns have an icon in the column heading:

Column	Icon	Meaning
Cut job	¥	Jobs sent from PixelBlaster Central for cutting.
RIP job	<u>a</u>	Jobs sent from PixelBlaster Central with the RIP option selected for that layer.
Certification	©	Jobs which are certified using color certification strip.

If you select a new column to be displayed, it will be inserted to the right of the columns which are currently displayed. You can move this column as follows:

- 1 Click the column heading.
- 2 Drag the column to the position of your choice.



Sorting the Job queue table

If you click an arrow in the table head either of the **Job Name**, or **Queue Name**, or **User** or **Date/Time** column, you can sort the table ascending or descending based on this column, e.g.:



A: Table is sorted descending by Date/Time criterion

Fonts

If necessary, click **Add** and select any folders which contain fonts.

Files

To save disk space, you can delete files of processed jobs automatically, either immediately after the job has been printed or after a given number of days.

If you activate **Delete PDF Jobs** and/or **Delete Print Jobs** in the **Files** tab jobs are deleted automatically after the set period. The following will happen:

- The jobs will be removed from the **Processed Jobs** list in the main printer window.
- The folder of the jobs will be removed from your PixelBlaster work folder, for example <Path>\PixelBlaster\Work folder.

See also:

General on page 23

Backing up and restoring your PixelBlaster configuration

About backup and restore

Once you have set up and properly configured your PixelBlaster printers and queues, it is recommended to create a backup of this configuration. You may also wish to do this before you are going to make any thorough changes in your configuration.

A PixelBlaster backup is essentially a ZIP file which contains:

- ICC profiles
- Printer profiles (*.dfp); i.e. only the ones chosen in queues
- Job tickets
- DeviceLink profiles
- Substrate simulation files
- An XML file containing the settings of your PixelBlaster preferences, printers and queues

To create a backup of your PixelBlaster configuration

Proceed as follows:

- 1 Choose **Edit** > **Back up settings**.
- 2 Select a folder and save the ZIP file.

To restore a backup configuration

Proceed as follows:

1 If necessary, create a backup of your current PixelBlaster configuration.



Any changes which you have made to your PixelBlaster configuration since the latest backup will be removed when you restore the backup. For example, if you created a new queue since then, the queue will be removed.

- 2 Choose **Edit** > **Restore**.
- 3 Select the backup file (*.zip) which you created earlier and click **Open**.
- 4 Restart PixelBlaster RIP.

Checking for updates

Automatic update check for PixelBlaster software and printer profiles

Updates for PixelBlaster software and printer profiles are always checked automatically, when the computer is connected to the internet.

When there are updates for printer profiles or software available, you are asked to download them now or to update later; e.g.:



- Select **Install Update** to update immediately and follow the instructions displayed on your monitor.
- 2 Select **Remind Me Later**, when you want to install the update the next time, when an automatic check is done, or when you want to install manually.

Manual update for PixelBlaster software

Proceed as follows:

- 1 Make sure that there aren't any jobs in progress, because PixelBlaster will automatically quit when updates are installed.
- 2 Do one of the following:
 - In Microsoft Windows, choose Help > Software Update.
 - In the Mac OS, choose PixelBlaster Engine > Software Update.
- 3 Follow the instructions displayed on your monitor.



Printer profiles can be updated only automatically.

Chapter 2

Chapter 2: Creating and configuring PixelBlaster Queues

Topics

In this chapter:

- About PixelBlaster Queues and Printer/Media/Mode 32
- Creating a new PixelBlaster Queue for a printer 34
- Configuring a PixelBlaster Queue 35
- Workflow 37
- Layout 43
- Input 47
- Proofing 50
- Output 53
- Driver 56
- Screening 58

About PixelBlaster Oueues and Printer/Media/Mode



To be able to create a queue in PixelBlaster Engine, or to print to the PixelBlaster Engine from PixelBlaster Central you need to have profiles installed for that printer in the Calibration folder.

You first need copy profiles in the Calibration folder, or – if you don't have any - create them with PixelBlaster Profiler.

You can find existing printer profiles in:

- The **PixelBlaster** library of printer profiles, which is distributed on CD, and updated in the Support area of http://pbsupport.saintl.biz.
- The PixelBlaster/Calibration/ folder on your computer, which can contain standard or user-defined printer profiles.
 For Mac and Windows XP this folder is located in the PixelBlaster installation folder, for Windows Vista and Windows 7 either in the individual user's folder or in the public folder.

You can set up the following types of PixelBlaster Queues:

- Color proofing queues
- Photo printing queues
- 1-Bit proofing queues
- Screen printing queues

Or you can use the Printer/Media/Mode technology:

About Printer/Media/Mode

Color proofing queues

A color proofing queue simulates a specific printing process. The queue is configured to reproduce the colors of the reference profile when you print a proof on your inkjet printer.

Photo printing queues

A photo printing queue prints reproductions of source images and vector graphics. Output is optimized for the gamut of the target inkjet printer. Applications include large-format printing, photo printing, poster printing, and fine-art printing.

1-Bit proofing queues

A 1-bit proofing queue simulates a halftone printing process for which 1-bit TIFF source files are created, such as for offset or flexographic printing. Using the same 1-bit files generated for the press, **PixelBlaster** composes and prints color-corrected proofs. As for color proofing queues, the color space is limited to that of the reference profile. The 1-bit TIFF format is secure, and halftones in the prepress source files are preserved.

Screen printing queues

A screen printing queue generates halftone separations, from pre-separated or composite files. Outputs are ready-to-use silkscreen films.

About Printer/Media/Mode

With the Printer/Media/Mode technology you can print from PixelBlaster Central to any configured printer, without pre-configuring the RIP with queues. This way you can avoid to set up many different queues per printer.



Nevertheless, for cutting, it is necessary to define queues in PixelBlaster Engine.

For details how to set up Printer/Mode/Media, please refer to the PixelBlaster Calibrator user manual.

Creating a new PixelBlaster Queue for a printer

To create a new PixelBlaster Queue for a printer

Once you have defined a printer, you can create one or more PixelBlaster Queues for this printer. Proceed as follows:

1 If you have more than one printer defined, choose **View** and select the printer for which you want to create a new PixelBlaster Queue.



- A. Name of the printer in the active printer window
- 2 Do one of the following:
 - Choose File > Queue > New.
 - Click the Add Queue button (+).

The **Queue Options** dialog appears.

3 Configure the PixelBlaster Queue.

See also:

- Configuring a PixelBlaster Queue on page 35
- Configuring output devices on page 18

Configuring a PixelBlaster Queue

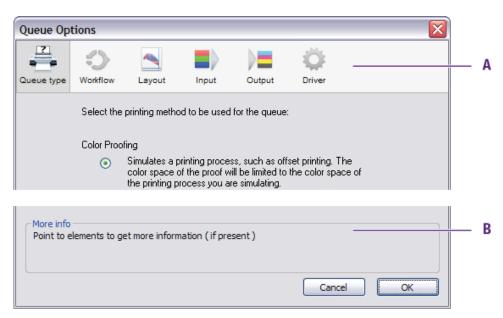
Using the Queue Options dialog

To configure a PixelBlaster Queue, you use the **Queue Options** dialog. You do this when you create a new queue, but you can also change the configuration of a queue later. The idea is that you:

- 1 Select a queue.
- 2 Open the **Queue Options** dialog.
- 3 Go through the tabs and select the appropriate options.



Observe the tips in the More info area to help you make the correct choices.



- A. Tabs
- B. More info area

To access the Queue Options dialog

Do one of the following:

- Double-click a PixelBlaster Queue in the Output to pane.
- Select a PixelBlaster Queue and choose File > Queue > Setup.

Overview of PixelBlaster Queue properties

The properties of a PixelBlaster Queue are arranged in categories, presented by the various tabs in the **Queue Options** dialog. Some tabs are available for some types of queues only. For example, the **Proofing** tab is only available for **Color Proofing** and **1-Bit Proofing** queues. You can click the greater-than signs (>>) in a cell to navigate to the respective configuration instructions.

Queue type	Workflow Workflow	Layout	Input	Proofing	Output	Driver	Screening
Queue Type	Workflow	Layout	Input	Proofing	Output	Driver	Screening
Color Proofing	<u>>></u>	<u>>></u>	<u>>></u>	<u>>></u>	<u>>></u>	<u>>></u>	
Photo Printing	<u>>></u>	<u>>></u>	<u>>></u>		<u>>></u>	<u>>></u>	
1-bit Proofing	<u>>></u>	<u>>></u>		<u>>></u>	<u>>></u>	<u>>></u>	
Screen Printing	>>	<u>>></u>	<u>>></u>		<u>>></u>	<u>>></u>	<u>>></u>



The settings of the color management in PixelBlaster Engine are overridden by the settings from PixelBlaster Central, when the job is submitted directly from PixelBlaster Central. The job will only use the printer profile set in the Output tab

Workflow

To set the workflow properties of a PixelBlaster Queue

Proceed as follows:

- 1 Double-click the PixelBlaster Queue of your choice.
- 2 Make sure that the correct **Queue type** is selected.
- 3 Click the Workflow tab.
- 4 Set the workflow properties of the PixelBlaster Queue:
 - Input
 - Job name recognition (1-bit proofing queues only)
 - Export



Observe the tips in the More info area to help you make the correct choices.

Input

1 Enter a unique, descriptive name for the queue in the **Queue Name** box.

By default, PixelBlaster names the queue as follows: queue type + number, for example "Color Proofing 1". You may wish to rename this queue, so that the name reflects the printer make and model, and printing media, as in Epson7600_SemiMatte. Observe the following when (re)naming PixelBlaster Queues:

- The first character of the name must be a letter of the alphabet.
- Use underscore characters (_), not spaces, to separate the elements of a compound name.
- Use only characters which are allowed in file names by your operating system. For example, do not use a backslash (\) in Microsoft Windows or a colon (:) in the Mac OS.

If you want to share the PixelBlaster Queue across the network, make sure that the option **Register as a printer** is selected.



If you configure a **1-bit proofing** queue, click to clear the **Register as a printer** check box. Otherwise, people may try to print 1-bit TIFF files by mistake before PixelBlaster processes them.

PixelBlaster actually prints composite reproductions of 1-bit TIFF files on inkjet printers. The composite reproduction printed for each job integrates the set of 1-bit TIFF files placed in the input hot folder of the queue for processing.

Click the **Browse** button () in the **Input** area and specify the input hot folder.

Every PixelBlaster Queue has a hot folder for processing input. Any file which arrives in this hot folder will automatically be processed by the queue, provided that the file format is supported.

By default, the input hot folder:

- Has the same name as the queue
- Is a subfolder of PixelBlaster/Hot Folders/
 For Mac and Windows XP this folder is located in the PixelBlaster installation folder, for Windows Vista and Windows 7 either in the individual user's folder or in the public folder.

If necessary, you can change the name or path (location) of the input hot folder. This does not have any effect on the name of the PixelBlaster Queue. An input hot folder:

- Need not be a subfolder of PixelBlaster/Hot Folders/
- Can be located on a server volume mounted before PixelBlaster Engine starts

SAi recommends setting up queue-specific hot folders for processing input files generated by workflows.

4 If you do not want **PixelBlaster** to monitor subfolders of the main hot folder for incoming files, check **No subfolder scan**.



PixelBlaster should not monitor subfolders if a workflow (for example, Screen TrueFlow) outputs files to temporary folders in the process of producing input files in the main hot folder.

In the **Timeout** box, specify the number of seconds that **PixelBlaster** should allow for ensuring that copying of individual files to the input hot folder is complete.



For 1-bit jobs, PixelBlaster uses the timeout period to determine whether each of the files needed for processing the jobs is completely written to the hot folder. The queue can process files as the conditions are met.

Files in the hot folder are checked every three seconds while the specified timeout period is elapsing. The timeout period defines the total number of seconds allowed for each file to comply with all of the following conditions during a periodic check:

- The file has increased in size.
- The file can be overwritten (is not write-protected).
- The file is stable (readable).

PixelBlaster assumes that multiple files belong to the same job if:

- The file names are identical except for embedded color (plate) indicators (C, M, Y, K)
- The files appear in the hot folder during the same timeout period.

The composite reproduction includes all files that meet these criteria.

See also:

- Adding a job to a queue > To add jobs by using a hot folder on page 77
- Managing a PixelBlaster Queue > Duplicating a queue on page 65

Job name recognition (1-bit proofing queues only)

In the **Job name recognition** area, you define conventions for identifying the 1-bit files which a RIP outputs to the hot folder.

File name structure: definition

A file name structure is a user-defined sequence that can include:

- Constants
- Variables
- Separating characters

A file name structure does not include an extension (such as ".tif"). The structure is the same for all of the multiple files that belong to a 1-bit job.

The embedded color indicators that vary with the files and offset plates include:

- Cyan or C
- Magenta or M

- Yellow or Y
- Black or K

The file name structure must contain the color indicator, but need not include any other elements. The number of expected files or colors can be preset in terms of the number of offset plates.

PixelBlaster uses the matching condition set up for the queue to ensure identification of the color indicator embedded in the file name structure. The color indicator must occur at the same location in the name of each of the incoming files for a job. The placement of the **%c** variable defines this location in relation to the other elements of the file name structure.

To configure job name recognition

1 Enter the file name structure.

You can combine constants, separating characters, and the following variables in any order:

Variable	Description
%с	Color-specific indicator whose value is different for each file and corresponding plate.
%j	Fixed job name.
%n	Number.
%p	Page number.
%x*	Fixed number (x) of sequential, nonspecific characters in the file name that PixelBlaster ignores when parsing the name of an incoming file.

Valid separating characters depend on the imagesetter RIP that generates the 1-bit files. **PixelBlaster** can recognize these characters:

- Space (" ")
- Underscore ("_")
- Period (".")
- Left and right parentheses ("()")
- Left and right curly brackets ("{}")

For example:

Color Indicator	File Name Structure	Examples of Valid Incoming File Names
In between sepa-	%j(%c)	FixedText(Cyan).tif
rating characters	%j_%c_	FixedText_Ctif
	%j %p (%c)	FixedText 01 (Cyan).tif
	%j_%n_(%c) %P	FixedText_1_(Cyan) 01.tif
Extension	%j.%c	FixedText.Magenta, FixedText.M
File name	%с	Yellow.tif, Y.tif
Part of file name	%10*%1c	FixedText_C.tif,FixedText_M.tif, and FixedText_Y.tif

Select the matching condition that is compatible with the file name structure.
Options include:

Condition	Description
In between	Expects a color indicators within each file name, in between the character selected from the list.
As extension	Expects a color indicator as the extension of each file name.
As file name	Expects a color indicator for each file name.
As part of name from	Expects a color indicator within the section of the file name delimited by the first and last characters selected from the list.
Custom	User-defined.

3 Enter the number of offset plates (files) submitted for recognizable jobs, in the **Number of plates** box.

Use this option when the number of plates is constant, as in newspaper printing, which always requires four separations because spot colors are never used. Do not select this option for queues whose jobs' plates and separations vary in number.

Export

If necessary, click the **Browse** button () in the **Export** area and specify the output hot folder.

PixelBlaster Queues do not have export folders by default. Queues for which you do not set up export folders, do not export files for processed jobs.

Multiple PixelBlaster Queues can share an export folder. SAi recommends setting up queue-specific export folders for generating files for the next application in a workflow, that is, when PixelBlaster export folders function as input hot folders of other applications.

2 Select the export file format: Original, PS or PDF.



1-Bit proofing queues can only export the original file format.

See also:

- Sharing PixelBlaster queues across the network on page 21
- Exporting a job on page 89

Layout

To set the layout properties of a PixelBlaster Queue

Proceed as follows:

- 1 Double-click the PixelBlaster Queue of your choice.
- 2 Make sure that the correct **Queue type** is selected.
- 3 Click the **Layout** tab.
- 4 Set the layout properties of the PixelBlaster Queue:
 - Media selection
 - Resize
 - Position
 - Marks
 - Mirror
 - Automatic job rotation
 - Template
 - Job ticket



Observe the tips in the More info area to help you make the correct choices.

Media selection

1 If necessary, select the size of the media loaded in the printer, or select a custom media size.



If you do not replace the default setting **<Specified by Job>**, users must specify a paper size for every individual job processed by this queue.

2 Select the feed method from the Paper source list.

The default setting — Tray, Roll, or Manual — is determined by printer make and model. If there is potentially more than one paper source of the selected type, the actual source is determined by the combination of paper size and availability.

Resize

You can select one of the following **Resize** options:

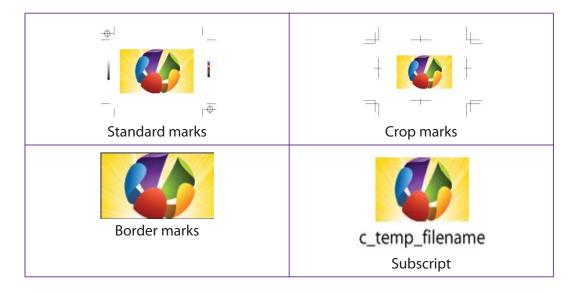
Option	Meaning
○ □ cm	Resize only the width of the print to a given size.
○ ☐ 5 cm ☐ 7 cm	Resize the width and height of the print to a given size.
● 📓 100 %	Resize the width and height of the print proportionally to a given percentage of the original.
Scale to fit	Scale the print to fit the media size.

Position

Select the position on your media where you want to print the file. Observe the tips in the **More info** area.

Marks

You can select one of the following marks and specify the length of the marks:



Mirror

PixelBlaster mirrors printing in the horizontal direction. You typically select this option:

• To compensate for mirrored plates of 1-bit source files

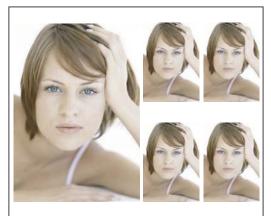
• To print on the back of transparent material

Automatic job rotation

PixelBlaster can automatically adapt the orientation of your jobs to economize on media.

Template

You can lay out and print multiple copies of a document as defined in a template. You may want to do this, for example, to create a photo contact sheet or a photo album sheet.





A. Template for a photo album sheet

B. Template for a photo contact sheet

You can select one of the templates in the list. The templates you see here are stationery files (*.st3). You find these files in the PixelBlaster\Templates folder.

For Mac and Windows XP this folder is located in the PixelBlaster installation folder, for Windows Vista and Windows 7 either in the individual user's folder or in the public folder.

You can use PixelBlaster Central to create your own templates.

Job ticket

A job ticket can be:

- A media wedge or control strip
- Job-specific information

A job ticket is appended to the bottom of each print job. You can use one of the predefined print jobs that come with PixelBlaster, for example the PixelBlaster control strip, or you can generate your own job ticket. The job tickets which you generate are saved in the <Path>\Public\PixelBlaster\Tickets folder.

Select the job ticket of your choice from the list.



Note for proofing queues:

Using PixelBlaster you can measure the <u>IDEAlliance</u> media wedges to verify that the colors of the proof are within industry-standard or user-defined tolerances. PixelBlaster:

- 1 Compares the colors of the patches of the media wedge to points in the reference profile.
- 2 Determines whether delta E values are within the limits defined by the chosen standard (ISO or custom).

See also:

• Generating a job ticket on page 92

Input

To set the input properties of a PixelBlaster Queue

Proceed as follows:

- 1 Double-click the PixelBlaster Queue of your choice.
- 2 Make sure that the correct **Queue type** is selected.
- 3 Click the **Input** tab.
- 4 Set the input properties of the PixelBlaster Queue:
 - ICC profiles and rendering intent
 - Honor embedded profiles
 - Black point compensation
 - Pure hue
 - Load CSF



Observe the tips in the More info area to help you make the correct choices.

Screen printing queues

Color conversion of images depends on the selection of a reference profile that serves as a "separation" profile. This reference profile is embedded in the printer profile used by the queue.

For example, to set up generation of halftone separations from an RGB image, you could:

- 1 Select Adobe RGB as the input profile (set on the **Input** tab).
- 2 Select ISO Coated ICC as the separation profile (embedded in the printer profile set on the **Output** tab).

PixelBlaster in turn:

- 1 Converts the supplied image from RGB to CMYK with reference to the profile settings.
- 2 Generates halftone separations from the resulting CMYK image.

ICC profiles and rendering intent

You can set the input ICC profiles and rendering intents for images and vector graphics.

If you're going to print images or vector graphics of a given color space to this queue, it is strongly recommended that you select and ICC profile for that color space. If the workflow uses a known ICC profile, you can use that profile. If you select the RGB to Gray profile, conversions are from RGB to Lab Gray.

For the Cie Lab color space, PixelBlaster always uses the CIE Lab D50 profile.



For proofing queues, it is recommended not to select any profiles.

Honor embedded profiles

Images and vector graphics may already be tagged with an ICC profile. If you expect this to be the case, you can select the option **Honor embedded profiles**. The ICC profiles embedded in images and vector graphics will then take precedence over the input ICC profiles you specify for the PixelBlaster Queue.



For **proofing** queues, it is recommended not to select this option.

Black point compensation

If you want **PixelBlaster** to map the black point of input profiles to the black point of the output (printer) profile, check **Black point compensation**.



In some cases, black point compensation can enhance shadow detail. For **proofing** queues, it is recommended not to select this option.

Pure hue

Select **Pure hue** if you want to print text and vector graphics using pure primary and secondary colors (red, green, blue, cyan, magenta, yellow).

This option turns off color management for text and vector graphics composed of primary and secondary colors, but not for images. In other words, only vector elements that are built up with primary and secondary colors are printed with pure ink colors. For example, a yellow vector element is printed using yellow inks only. The resulting output is pure yellow, but colorimetrically incorrect.



For **proofing** queues, it is recommended not to select this option.

Load CSF

This option is only recommended for photo printing queues.

To synchronize color handling by **PixelBlaster** and Adobe Photoshop, you can click **Load CSF** and select a Color Settings File (*.csf) created through Photoshop.

See also:

Adobe Photoshop Help > Search for "color settings file"

Proofing

To set the proofing properties of a PixelBlaster Queue

Proceed as follows:

- 1 Double-click the PixelBlaster Queue of your choice.
- 2 Make sure that the correct **Queue type** is selected.
- 3 Click the **Proofing** tab.
- 4 Set the proofing properties of the PixelBlaster Queue:
 - Reference profile
 - DeviceLink profile
 - Paper color simulation
 - Prefer PDF/X reference profile
 - Substrate simulation
 - Solid black (color proofing queue only)
 - 1-Bit



Observe the tips in the More info area to help you make the correct choices.

Reference profile

Select the reference profile for the printing process you want to simulate.

DeviceLink profile

Select the DeviceLink profile, if appropriate and already available.



You can configure a DeviceLink profile later on, after linking the target reference and printer profiles in **PixelBlaster Profiler**.

You can create a DeviceLink profile only if the **Advanced Color** option is licensed.

See also:

"Creating a DeviceLink" in the PixelBlaster Profiler User Manual

Paper color simulation

You can simulate the paper color described in the reference profile using absolute colorimetric rendering intent.

Paper color simulation applies absolute colorimetric rendering to the reference-to-printer conversion.

Prefer PDF/X reference profile

You can select the option **Prefer PDF/X reference profile** if a reference profile embedded in a PDF/X file should always take precedence over the reference profile set up for this queue. This option does not affect how **PixelBlaster** converts input color spaces to the output intent set in a PDF/X-3 file.

Substrate simulation

If you have licensed the **Advanced Color** option for PixelBlaster, you can simulate the texture (substrate qualities) of the reference media. To do this, you proceed as follows:

- 1 In PixelBlaster Profiler, select and edit a substrate for the reference profile of this queue.
- In PixelBlaster Engine, select **Substrate simulation**.

The **Advanced Color** option provides additional functionality relating to substrate simulation.

See also:

• "Selecting and editing a substrate" in the PixelBlaster Profiler User Manual

Solid black (color proofing queue only)

Select this option to use only the black ink instead of four inks to print all vector graphics and fonts that are 100 % black. You can thus preserve the sharpness of small text.

Do not select this option for contract proofs.

1-Bit

Select a raster-printing mode from the **Output mode** list:

Option	Meaning
Accurate Color	Provides full color management by printing color-corrected CMYK and spot color raster points.
	Recommended for: color proofing.
Accurate Color + Pure Black	Provides partial color management by printing color-corrected CMY and spot color raster points. K (black) raster points are only color-corrected if mixed with CMY. In other words, a set of CMYK plates is under full color management; a K plate is omitted only in the absence of other colors.
	Recommended for: newspaper proofing.
Pure dot	Prints all CMYK raster points without color correction. Pure dot can improve moiré detection and visibility of the rosette structure of a print.
	Recommended for: imposition printing

If you want to compensate for a plate curve in the imagesetter or platesetter RIP that generates the 1-bit source files, then define and select a similar curve from the **Plate curve compensation** list.



Applying an appropriate plate compensation call. Inear. The list contains all user-defined curves defined for this purpose and Applying an appropriate plate compensation curve makes printed output stored in the PixelBlaster/PlateCurves/ folder. You can click **Define** to create or modify a user-defined plate compensation curve.

- If you want to print 1-bit separations in black only, select **Print separations as** 3 black.
- If 1-bit sources provide negative plates or films and you want to print positive 4 proofs, select **Negative plates**.

Output

To set the output properties of a PixelBlaster Queue

Proceed as follows:

- 1 Double-click the PixelBlaster Queue of your choice.
- 2 Make sure that the correct **Queue type** is selected.
- 3 Click the **Output** tab.
- 4 Set the output properties of the PixelBlaster Queue:
 - Printer profiles
 - Spot color library
 - Convert all spot colors to process
 - Convert all CMYK spot colors to process
 - Color edits



Observe the tips in the More info area to help you make the correct choices.

Printer profiles

A printer profile is specific to each printer and media type that you are using for each queue.

Select the printer profile that most closely matches the target inkjet printer-media combination.



To be able to create a queue in PixelBlaster Engine, or to print to the PixelBlaster Engine from PixelBlaster Central you need to have profiles installed for that printer in the Calibration folder.

You first need copy profiles in the Calibration folder, or – if you don't have any - create them with PixelBlaster Profiler.

You can find existing printer profiles in:

- The **PixelBlaster** library of printer profiles, which is distributed on CD, and updated in the Support area of http://pbsupport.saintl.biz.
- The PixelBlaster/Calibration/ folder on your computer, which can contain standard or user-defined printer profiles.
 For Mac and Windows XP this folder is located in the PixelBlaster installation folder, for Windows Vista and Windows 7 either in the individual user's folder or in the public folder.

If the best match is not close enough, you can create a printer profile with Pixel-Blaster Profiler.

See also:

Calibrating printers in the PixelBlaster Profiler User Manual.

Spot color library

You can use a specific spot color library for this queue.

Click the **Browse** button () and select the library file you want to use.

The custom spot color library supplements the standard spot color libraries provided in the PixelBlaster/Libraries/ folder.

For Mac and Windows XP this folder is located in the PixelBlaster installation folder, for Windows Vista and Windows 7 either in the individual user's folder or in the public folder.

You can add or modify a custom spot color library later on.

Convert all spot colors to process

You can convert all spot colors to process colors. When you select this option, **Pixel-Blaster** looks up the process values for spot colors used by a job:

- In the input CMYK profile set on the **Input** tab of photo printing queues
- In the reference profile of proofing queues

See also:

Input > ICC profiles and rendering intent on page 47

Convert all CMYK spot colors to process

You can convert all CMYK spot colors to process colors. To be convertible, CMYK spot colors must have process CMYK names (C or Cyan, and so on). **PixelBlaster** looks up process values:

- In the input CMYK profile set on the Input tab of photo printing queues
- In the reference profile of proofing queues

See also:

• Input > ICC profiles and rendering intent on page 47

Color edits

You can create color edits in PixelBlaster Central and save these as *.imgedit files in the PixelBlaster/ImageEdits/ folder.

For Mac and Windows XP this folder is located in the PixelBlaster installation folder, for Windows Vista and Windows 7 either in the individual user's folder or in the public folder.

If you have done this, you can select the color edit file for this queue here. Color edits do not modify either the source files that are printed, or the printer profile.

See also:

• "Export RIP Script (saving color edits)" in the PixelBlaster Central User Manual

Driver

To set the driver properties of a PixelBlaster Queue

Proceed as follows:

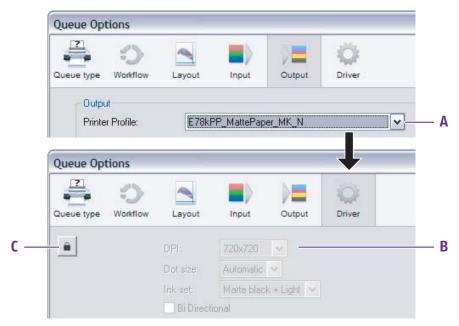
- 1 Double-click the PixelBlaster Queue of your choice.
- 2 Make sure that the correct **Queue type** is selected.
- 3 Click the **Driver** tab.
- 4 Set the driver properties of the PixelBlaster Queue.



Observe the tips in the More info area to help you make the correct choices.

Locking and unlocking driver settings

Some of the driver settings may be dimmed. These are color-critical settings which have been locked, because you previously selected a printer profile in the **Output** tab.



- **A.** Printer profile selected in the **Output** tab.
- **B.** Dimmed driver options.
- C. Padlock button indicating that the options are locked.

You have the following options:

• You can click the padlock button () to unlock the color-critical settings and change these settings **temporarily**. Temporary changes remain in effect until you click the padlock button () again. An exclamation mark will appear on the PixelBlaster Queue icon.



Exclamation mark on the queue icon indicating that some of the color-critical driver settings have been unlocked and changed temporarily.

• You can **permanently** change color-critical driver settings by creating a printer profile in PixelBlaster Profiler. You can then select this printer profile for your queue in the **Output** tab.

Screening

To set the screening properties of a PixelBlaster Queue

Proceed as follows:

- 1 Double-click the PixelBlaster Queue of your choice.
- 2 Make sure that the correct **Queue type** is selected.
- 3 Click the **Screening** tab.
- 4 For each of the color channels, check and, if necessary, change the:
 - Halftone screen angle
 - Screen frequency (lpi)
 - Dot shape



Observe the tips in the More info area to help you make the correct choices.

If you want PixelBlaster to smooth (dither) the edges of the printed dots, select Anti-aliased halftones.







B. Anti-aliasing off

To add a channel

Proceed as follows:

Click the button.

2 If necessary, double-click **New Channel** and rename the channel.



You can give the new channel a **generic** or a **specific** name:

- If you don't rename the channel and use the **generic** name "New Channel", all non-CMYK channels will be screened using the angle, frequency and dot shape settings which you specified for this particular channel.
- If you use a specific name, for example "Warm Red", only the non-CMYK channel with that particular name will be screened using the angle, frequency and dot shape settings which you specified for this channel.
- If necessary, double-click the color patch next to the channel name and define its display color.

Chapter 3

Chapter 3: Managing a PixelBlaster Queue

Topics

In this chapter:

- Pausing and resuming a queue 64
- Duplicating a queue 65
- Deleting a queue 66
- Grouping queues 67

Pausing and resuming a queue

To pause and resume a queue

Proceed as follows:

- 1 Select a queue in the **Output to** pane.
- 2 Choose File > Queue > Hold.
- 3 To resume processing, choose **File > Queue > Hold** again.

Duplicating a queue

Creating a new queue based on an existing one

Duplicating a queue allows you to quickly create a new queue which is similar to one of the existing queues. Once you have duplicated a queue, you can change the properties, for example the media settings, of the queue.

To duplicate a queue

Proceed as follows:

- 1 In the Output to pane, select the queue which you want to duplicate.
- 2 Choose File > Queue > Duplicate.
- 3 If necessary, select a different **Queue type**.
- 4 Click the Workflow tab.
- 5 Enter a unique, descriptive name for the queue in the **Queue Name** box.
- 6 Click the **Browse** button () in the **Input** area and specify the input hot folder.
- 7 Check and, if necessary, change the other properties of the queue and click OK when finished.

See also:

Creating and configuring PixelBlaster Queues on page 31

Deleting a queue

About deleting a queue

If you delete a queue, it will be removed from the **Output to** pane. If this queue was registered as a printer, it will also be removed from:

- The list of **Printers and Faxes** in **Control Panel** (Windows)
- The **Printer List** (Mac OS)

The jobs which were processed by this queue, however, will not be removed. They will stay in the list of **Processed Jobs** and the folders and files of these jobs will still be in the work folder which you selected in the PixelBlaster preferences. If you wish, you can still reprint these jobs.

See also:

- Sharing PixelBlaster queues across the network > To register a PixelBlaster queue as a printer on page 21
- > General on page 23

To delete a queue

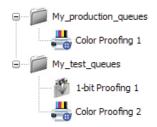
Proceed as follows:

- 1 Select a queue in the **Output to** pane.
- 2 Choose File > Queue > Delete.

Grouping queues

Managing multiple queues

If you've got multiple queues for a printer, you can organize them into groups. This will make them easier to manage.



Queues organized into groups

To create a group of queues

Proceed as follows:

- 1 Select a queue in the **Output to** pane.
- 2 Choose File > Queue > New Group.
- 3 Type a name for the group and click **OK**.
- 4 Select a queue and drag it into the group folder.

To rename a group

Proceed as follows:

- 1 Do one of the following:
 - Double-click the group.
 - Select a group and choose **File > Queue > Edit Group**.
- 2 Change the name of the group and click **OK**.

To delete a group

If you delete a group, all queues in that particular group will be deleted too. If you just want to remove the group, but keep the queues, you have to move the queues out of the group first. Proceed as follows:

1 If necessary, select the queues in the group which you wish to keep and drag them out of the group.



2 Select the group and choose **File > Queue > Delete Group**.

A warning appears saying that all the queues in the group will be deleted too, even if the group does not contain any queues anymore.

3 Click **Yes** to confirm.

PixelBlaster Q

PixelBlaster Q is an interface to manage jobs ready for output on the printer.

Furthermore, sending multiple jobs via PixelBlaster Q to the printers can unburden the RIP.

Instead of driving the printer directly from the RIP, you can choose to RIP a file once from the **ROOM queue** (Rip Once Output More), and define number of copies, nesting, positioning etc in PixelBlaster Q.

Prerequisite

When creating a new printer, or changing the printer's setup set the following:

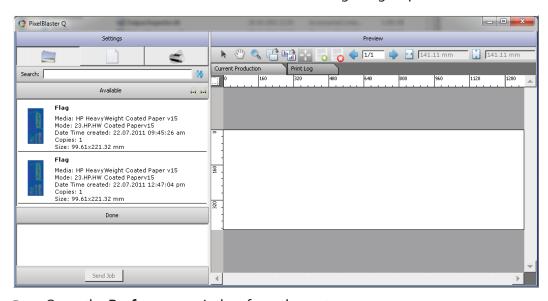
 Choose ROOM queue and define a folder where the ripped files will be placed that need to be printed using PixelBlaster Q.

See also:

Installing PixelBlaster > Configuring output devices on page 18

Setting up PixelBlaster Q

1 Launch PixelBlaster Q from the PixelBlaster Program group.



2 Open the **Preferences** window from the system menu.



In PixelBlaster Q preferences, set up the same printer as described in <u>Prerequisite</u> on page 69.



- 4 Set up the connection to the device, either by USB port, FireWire or Ethernet IP address.
- 5 Under **Local folder** browse to the folder chosen in Prerequisite on page 69.
- 6 Check **Fast job intake** if you want to start printing when the job is being buffered.
 - **Note:** if the printer seems to pause because it does not receive data fast enough, uncheck this option.
- 7 Click **OK**.

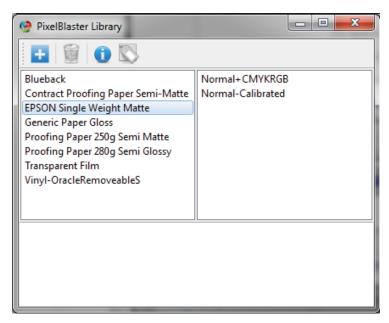
PixelBlaster Library

PixelBlaster Library lets you manage media and mode names for existing profiles. It scans the Application/Calibration folder at startup to check for available media.

To launch the PixelBlaster Library, proceed as follows:

• in PixelBlaster Engine select File > Media Manager.

The PixelBlaster Library is displayed.



The media names present in the profiles (.dfp) from the profile folder will show on the left pane. If no media names have been defined (the case with pre-v2 profiles) then the **Generic Media** name will show.

Check media and modes

To check media and modes, proceed as follows:

Select a media name in the left pane.

All modes (profiles) available associated to that media are displayed in the right pane.

Every Mode name corresponds to a physical profile in the Calibration folder.

Change media name

If you want to change the media name contained in a profile proceed as follows:

Click the + button to create a new media name.

This name will appear in the left pane.

- 2 Select the media, then the mode that needs to be changed.
- 3 Drag the mode from the right column onto the newly created media in the left pane.
- 4 The mode is now associated with the new media name.

Change mode name

If you want to change the mode name contained in a profile, proceed as follows:

- 1 Double click on the **Mode** name that needs to be changed
- 2 Enter the new mode name
- 3 Click **OK**.

Chapter 4

Chapter 4: Managing jobs

Topics

In this chapter:

- Adding a job to a queue 76
- Reprinting a job 78
- Canceling a job 80
- Pausing and start jobs and printers 81
- Viewing a processed job 83
- Deleting a job 84
- Media and nesting 85
- Certifying a job 87
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- Creating a backup of a job 90
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- Generating a job ticket 92
- Changing the job preview 94
- Spot color handling 95

Adding a job to a queue

Various ways to add a job to a queue

You can add a job to a queue in various ways:

- In PixelBlaster Engine, using the File > Add Job command or Add Job ()
 button
- By dragging a file to the main printer window. This is handy if you want to add multiple jobs simultaneously.
- By printing to a queue from within your source application, for example Adobe InDesign or QuarkXPress.
- By printing to a queue from within PixelBlaster Central
- Using a hot folder.

Supported file formats

The way in which you add jobs to a queue depends on the file formats you are using and the method you prefer:

File format	Way to add a job	Method
Single-file formats, for example: PostScript (PS), EPS, PDF, PDF/X (1a, 3, 4), PSD, JPG, PNG, BMP, TIFF, AI, HPGL, DFX, etc.	In PixelBlaster Engine, using:	File by file
	• The File > Add Job command	
	• The Add Job button (🔛)	
	In your source application: print to queue	File by file
	Drag and drop	Multiple files at once, manually
Single-file and multi-file formats, for example: 1-bit TIFF, TIFF/IT, nCT, nLW, etc.	Hot folder	Multiple files at once, automatically

To add a job in PixelBlaster Engine

Proceed as follows:

- 1 Select a queue in the **Output to** pane.
- 2 Choose **File > Add Job** or click the **Add Job** button (**■**).
- 3 Select a file and click Open.
- 4 If you are using multiple queues, make sure that the correct queue is selected in the print options dialog box.
- 5 Select other print options, and then click **OK**.

To add a job by dragging it to the main printer window

Proceed as follows:

- 1 If you have set up multiple printers, do one of the following:
 - Resize the main printer windows, so that you can see all of them.
 - Choose **View** and select the printer to which you want to add a job.
- In the Finder (Mac OS) or Windows Explorer, select one or more files and drag them to a queue in the **Output to** pane.
- If you are using multiple queues, make sure that the correct queue is selected in the print options dialog box.
- 4 Select other print options, and then click **OK**.

To add a job to a queue from within your source application

Proceed as follows:

- In your source application, for example Adobe InDesign or QuarkXPress, open the file which you want to add to a queue.
- 2 Choose File > Print.
- 3 Select a PixelBlaster queue instead of a regular printer.
- 4 Select other print options, and then click **OK** or **Print**.
- 5 Switch to PixelBlaster Engine.

The file which you just printed to a queue will appear in the **Job queue** list.

To add jobs by using a hot folder

When you set up your queue, you specified a hot folder for that queue (in the **Workflow** tab). Now, you can simply collect your files in this hot folder. After a given number of seconds, they will automatically be added to the queue and processed.

There are various ways to collect your files in a hot folder. You can do the following:

- Select files in Windows Explorer or the Finder (Mac OS) and copy or move them to the hot folder.
- You can print to a file from within your source application and specify the path of the hot folder, for example:
 - C:\PixelBlaster hot folders\queue 1\color ad.ps
- You can use an existing output folder of a third-party application as your PixelBlaster hot folder.

See also:

Creating and configuring PixelBlaster Queues > > on page 31

Reprinting a job

About reprinting jobs

You can reprint a job, or part of it. If you do so, you can also decide whether the job should be rerendered or not. You may wish to rerender the job if:

- An error occurred when printing
- Settings of the queue have been changed
- You wish to use a different queue than last time.

Job waiting for media

You can specify which media type and size you have loaded on your printer.

When printing jobs to the printer that require other media type or size, they will remain paused and will only be processed when the right media and/or size has been loaded.

The meaning is: The job currently doesn't have loaded the required minimal size and/or media type. As soon as the requested media has been loaded the icon will disappear and the jobs will start printing.



It is only possible to select media for which you have ready profiles on your system in the Application/Calibration folder.

To reprint a job without rerendering

Proceed as follows:

- 1 Check the list of Processed Jobs and locate the job which you wish to reprint.
- Click the Completed status indicator of the job in the Print column and drag the job to the Job queue list.
- 3 Specify the pages which you wish to reprint and the number of copies, and click **OK**.

The job is reprinted.

To reprint and rerender a job using the same queue

Proceed as follows:

1 Check the list of **Processed Jobs** and locate the job which you wish to reprint and rerender.

- 2 Click the **Sompleted** status indicator of the job in the **Render** column.
- 3 Drag the selected job to the **Job queue** list.

The job is rerendered and then reprinted.

To reprint and rerender a job using a different queue

Proceed as follows

- 1 Check the list of **Processed Jobs** and locate the job which you wish to reprint and rerender.
- 2 Click the **Sompleted** status indicator of the job in the **Render** column.
- 3 Drag the selected job to a different queue in the **Output to** pane.
- 4 Select the **Paper Size** and **Paper Source**, and click **OK**.
 - The job reappears in the **Render** column of the **Job queue** list. Its status is now on hold: $\frac{1}{2}$
- If necessary, double-click the 📆 o Hold status indicator of the job in the Render column and check the information about the job.
- Click the ★ Hold status indicator of the job in the Render column and click the Start job button () in the upper-right corner of the main printer window.

The job is rerendered and then reprinted.

Canceling a job

To cancel a job

Proceed as follows:

- 1 Select a job in progress in the **Job queue** list.
- Click the Pause job button ().
 The job stops and moves to the Processed Jobs list.

See also:

• Deleting a job on page 84

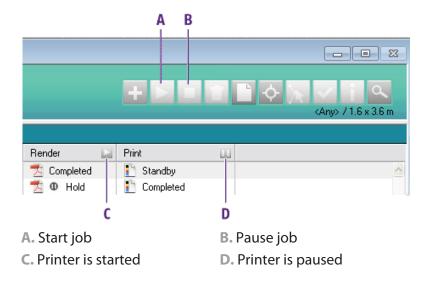
Pausing and start jobs and printers

About pausing and starting

You can pause and start (resume) jobs but also printers. You can do so in either in one of the following processing stages:

Pause/start	Interpret	Render	Print
Job	Yes	Yes	Yes
Printer	No	Yes	Yes

You can use the following buttons to pause and resume jobs or printers:



If you pause a printer, the processing of jobs which are currently in progress will continue. Only jobs which you added to the queue since you last paused the printer will be stopped. The status of these jobs change to **Standby**. They will be processed as soon as you start the printer again.

To pause a job

Proceed as follows:

- In the **Job queue list**, click the status indicator of the job which you want to pause.
- 2 Click the **Pause job** button (**III**) in the upper-right corner of the main printer window.

The status indicator of the job changes to 🥦 o Hold.

To start (resume) a job on hold

Proceed as follows:

- 1 In the **Job queue list**, click the 📆 o **Hold** status indicator of the job which you want to pause.
- 2 Click the **Start job** button () in the upper-right corner of the main printer window.

The status indicator of the job changes to **Standby** and the job will be processed.

To pause a printer

Click the printer status icon in the **Render** or **Print** column heading.

The status icon changes to **u** and all jobs which you add to the queues for this printer from now on will be put on standby.

To start (resume) a printer

Click the printer status icon **u** in the **Render** or **Print** column heading.

The status icon changes to
and all jobs on standby will be processed.

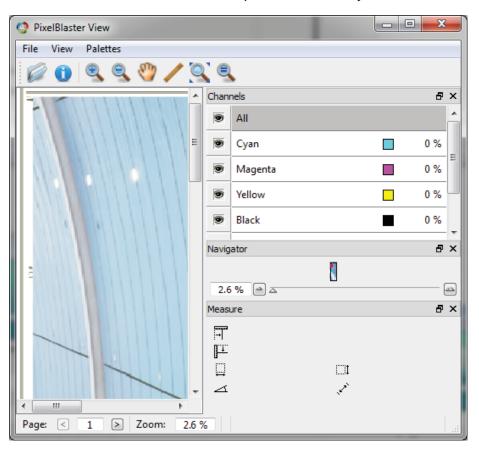
Viewing a processed job

PixelBlaster Q

The PixelBlaster Q allows previewing the currently ripped result sent to the printer. You can preview the exact data which is sent to the printer, it includes raster and color information.

Proceed as follows:

- Select a job from the **Processed Job list**.
 Make sure you only select the part in the **Print** column.
- Then right click and select Edit job from the contextual menu.
 The PixelBlaster Q is launched and opens the selected job.



This allows you to:

- View processed jobs before they are printed (and/or cut).
- Sample actual ink percentages of each ink channel by moving the mouse cursor over the image.
- Inspect screening for both stochastic as halftone.

Deleting a job

Deleting a complete job or part of a job

You can delete a complete job or just the interpreting, rendering or printing part of a job. For example, you may want to delete the interpreting and rendering parts to save disk space but keep the printing part for reprints.

To delete a job

Proceed as follows:

- 1 In the jobs lists, locate one or more jobs which you want to delete.
- 2 Do one of the following:
 - To delete a complete job, click the job name. Notice that the Interpreting,
 Rendering or Printing parts of the job are selected.
 - To delete a job in progress, click the status indicator in the **Render** or **Print** column and click **Pause job** (**III**).
 - To delete multiple jobs, hold down the SHIFT key when clicking the job names.
 - To delete part of a job, click the respective status icon in the Interpret,
 Render or Print column.
- 3 Click the **Delete job** button ().
 The job is removed from the list.

See also:

• Canceling a job on page 80

Media and nesting

The media size set in the **Media settings** dialog defines the nesting size, not the media size set in a queue.

About nesting

To save media, you can 'nest' (i.e. combine several images) on one printed sheet.

The media settings allow to define the nesting settings for the printer. The nesting preferences are specific for all jobs sent to the printer.

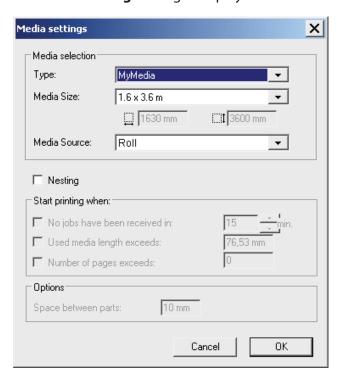
The nesting will be applied on all jobs sent to the printer. It will only combine jobs with the same media type and print mode and reference profile (when originating from a proofing queue).

Jobs that are going to be nested will stay in the active print job list until the nesting criteria are met. As soon as the criteria are met all jobs that are nested together will start printing and show a progress bar. The nesting layout can be inspected by double-clicking a job that is currently waiting to be nested.

To load a roll

Proceed as follows:

Click the Load Roll button () or choose File > Printer > Load roll.
The Media settings dialog is displayed.



- 2 Under **Media selection** select a previously **Type** of media previously defined for the device, select **Size** and the **Media Source** input.
- If the print should be nested, activate the **Nesting** checkbox and set the criteria for **Start printing when**, and under **Options** set the space between the nested images.
- 4 Click **OK**.

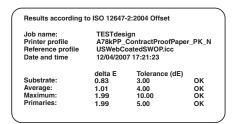
To start printing a job without waiting until the nesting criteria are met can easily be done by selecting the print job and clicking the **Play** button.

Certifying a job

About certifying jobs

Certifying jobs means that you check whether the proof's colors are up to ISO or custom standards. The process goes as follows:

- 1 You print a job with a IDEAlliance control strip.
- 2 You measure the values and compare these values with the tolerances allowed by the standard.
- 3 You save the result of this comparison in a certification report.
- 4 You print a summary on a label, which you can then attach to the proof.



To certify a job

Proceed as follows:

1 If necessary, double-click a queue in the **Output to** pane and make sure that your queue has the components necessary for certifying jobs:

Tab	Component
Layout	An IDEAlliance control strip selected as Job ticket .
Proofing	A reference profile.
Output	A printer profile.

Check whether the queue is **not** set for nesting jobs: it should **not** have the nesting icon. If so, click the queue and choose **File > Queue > Nest** to clear the nesting setting.



Jobs processed by queues set for nesting cannot be certified

- 3 Add the job which you want to certify to the queue.
- 4 In the **Processed jobs** list, locate and select the job.
- 5 Choose File > Certify Job.

- 6 Measure the control strip with a spectrophotometer and click **Next**.
- 7 Do one of the following:
 - Select a standard from the list.
 - Click New set, and create your own set of custom tolerances.

PixelBlaster evaluates data for certification with reference to the technology of the target press. To achieve certification, proofs must be within tolerances set by ISO 12647 for the selected printing technology.

8 Compare the results and click **Next**.

PixelBlaster displays the color difference for each of the test patches, highlighting in red any test patches for which the color difference (**delta E**) exceeds the tolerances allowed by the selected standard.

- 9 Determine whether the proof passes certification and, if not, take the necessary corrective measures.
- 10 Do one of the following:
 - To create a detailed report in PDF format, click Report and then save the report.
 - To create a summary of the report on a label, click **Print**.

See also:

- Creating and configuring PixelBlaster Queues > on page 31
- Creating and configuring PixelBlaster Queues > on page 31
- Creating and configuring PixelBlaster Queues > on page 31
- Adding a job to a queue on page 76

Exporting a job

To export a job

You can specify an export folder for your queue and then export the original, Post-Script or PDF file of a job to this folder.

Proceed as follows:

- 1 Make sure that you have specified an export folder for the queue: double-click the queue in the **Output to** pane and click the **Workflow** tab.
- 2 Select a job in either one of the jobs lists.
- 3 Click the Export Job button (☑).
 The job is exported to your export folder.
- 4 Check your export folder.

See also:

Creating and configuring PixelBlaster Queues > > on page 31

Creating a backup of a job

About job backups

A backup of a job is a ZIP file containing all the files which were used to process the job:

- ICC profiles
- Printer profiles (*.dfp)
- Job tickets
- PDF files
- An XML file containing the settings of your PixelBlaster printers and queues

You may want to create a backup of a job in case you need support.

To create a backup of a job

Proceed as follows:

- 1 In the jobs lists, locate the job of which you want to create a backup.
- 2 Do one of the following:
 - In Microsoft Windows, right-click the job.
 - In the Mac OS, Control-click the job.
- 3 Choose Back up Job.
- 4 Select a folder and save the ZIP file.

Viewing job information

To view job information

You can view information about a specific job. This can be information about the job itself, but also information about the queue in which the job was processed.

To view job information, do one of the following:

- Double-click the status indicator of the job in the **Render** or **Print** column.
- Select a job in the Job queue or Processed Jobs list and click the Job Info button () in the upper-right corner of the main printer window.

Generating a job ticket

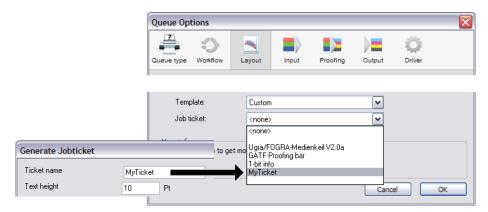
What is a job ticket?

A job ticket can be:

- A media wedge or control strip
- Job-specific information

A job ticket is appended to the bottom of each print job. You can use one of the predefined print jobs that come with PixelBlaster, for example the PixelBlaster control strip, or you can generate your own job ticket. The job tickets which you generate are saved in the <Path>\Public\PixelBlaster\Tickets folder.

Once you have generated a job ticket, you can select it for your queue.



Generating a job ticket and selecting it for your queue.

To generate a job ticket

Proceed as follows:

- 1 Choose File > Generate Job Ticket.
- 2 Type the name of your job ticket.
- 3 Specify the size of the text.
- 4 If necessary, click **Image** to select an image and specify its width and height.
- 5 Select the information which you want to see in the job ticket.
- 6 Click OK.

See also:

Creating and configuring PixelBlaster Queues > > on page 31

To change a job ticket

You can open and edit a job ticket in PixelBlaster Central. Refer to the PixelBlaster Central User Manual or Help.

Changing the job preview

To show or hide the job preview

Click the **Show/Hide Preview** button (<u> </u>) in the main printer window.

To change the location of the job preview

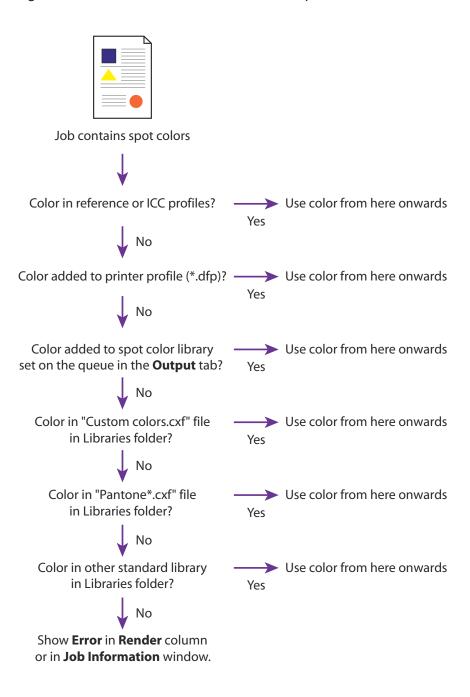
Proceed as follows:

- 1 If necessary, click the **Show Preview** button (<u> </u>) in the main printer window to display the job preview.
- In the **Preview** pane, click the **Switch Preview Location** button (*) and select a location for the job preview: to the right or at the bottom of the jobs lists.

Spot color handling

How PixelBlaster handles spot colors in jobs

Jobs may contain spot colors. If so, PixelBlaster will check the profiles and libraries for these colors in a given sequence. If the spot color cannot be found, an error will be generated. This is how PixelBlaster handles spot colors:



See also:

• Viewing job information on page 91

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PixelBlaster PROFILER USER MANUAL

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Chapter 1

Chapter 1: Calibrating printers

Precondition



Before doing anything with PixelBlaster Profiler make sure that PixelBlaster Engine is started!

Topics

In this chapter:

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Creating a printer profile for photo printing, color proofing and 1-bit proofing queues 10

- Preparing the printer, media and spectrophotometer 11
- Profile wizard Specifying the printer profile name and info 12
- Profile wizard Printer linearization 14
- Profile wizard Select printer gamut and adjusting ink limits 17
- Profile wizard Dotgain 20
- Profile wizard Ink bleeding 23
- Profile wizard Color engine 25

Creating a printer profile for screen printing queues 28

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Printer profiles

About printer profiles

PixelBlaster controls the output of inkjet printers through the use of printer profiles. Printer profiles optimize output for printing and proofing applications by:

- Maximizing the color accuracy and quality of printed output
- Minimizing consumed quantities, and costs, of ink

A printer profile targets a highly specific combination of driver settings for a printer model (the "printer setup") and media. Each printer profile bundles interdependent information into a neat package. Bundled information includes:

- Printer model-specific driver settings
- Compensation data for ink limits and linearization
- A custom-generated ICC profile

Printer profiles and PixelBlaster Queues

Each PixelBlaster queue uses one printer profile. Many queues can use the same profile. SAi provides a library of printer profiles that target standard printer setup/media combinations.



To be able to create a queue in PixelBlaster Engine, or to print to the PixelBlaster Engine from PixelBlaster Central you need to have profiles installed for that printer in the Calibration folder.

You first need copy profiles in the Calibration folder, or – if you don't have any - create them with PixelBlaster Profiler.

You can find existing printer profiles in:

- The **PixelBlaster** library of printer profiles, which is distributed on CD, and updated in the Support area of http://pbsupport.saintl.biz.
- The PixelBlaster/Calibration/ folder on your computer, which can contain standard or user-defined printer profiles.
 For Mac and Windows XP this folder is located in the PixelBlaster installation folder, for Windows Vista and Windows 7 either in the individual user's folder or in the public folder.

See also:

 Creating and configuring PixelBlaster Queues > Output in the PixelBlaster Engine User Manual

About calibration

Using **PixelBlaster Profiler**, you can create and maintain custom printer profiles that target user-defined printer setup/media combinations. If you do so, you will need to calibrate your printer. Calibration comprises the following major steps:

- The calibration process proper describes unmanaged and managed behaviors of the target printer setup/media combination by:
 - Measuring unmanaged output, to capture nonlinearized results.
 - Modeling ink limits and linearization, to optimize managed output.
- 2 The characterization process generates a custom ICC profile by:
 - Measuring managed output, to capture linearized results.
 - Generating and recording lookup data required for color conversion.

Creating a printer profile for photo printing, color proofing and 1-bit proofing queues

Process

The process of creating a printer profile for photo printing, color proofing and 1-bit proofing queues goes as follows:

Calibration

- 1 Preparing the printer, media and spectrophotometer
- 2 Profile wizard Specifying the printer profile name and info
- 3 Profile wizard Printer linearization
- 4 Profile wizard Select printer gamut and adjusting ink limits
- 5 Profile wizard Dotgain

Characterization

- 1 Profile wizard Ink bleeding
- 2 Profile wizard Color engine

See also:

• Creating a printer profile for screen printing queues on page 28

Preparing the printer, media and spectrophotometer

Preparatory steps

- 1 Prepare the following items:
 - Printer, of the target model, and connected to the **PixelBlaster** computer
 - Media, of the target type
 - Spectrophotometer, of a supported model
 - Third-party ICC profiling software (Optional)

PixelBlaster displays Lab values, but actually uses spectral data to perform linearization. You must use a spectrophotometer to input spectral measurements of linearization targets. Colorimeters do not provide spectral data.

On Windows PCs, driver software for the spectrophotometer must be installed on the computer to which the printer is connected.

ICC profile generation by **PixelBlaster** is a feature of the Advanced Color option.

- 2 Turn on the target printer and perform a nozzle check.
- 3 Log on with an administrator account to the PixelBlaster computer.
- 4 Start PixelBlaster Engine.
- **5** Set up the spectrophotometer:
 - Configure the spectrophotometer for use by **PixelBlaster**, if necessary.
 - Calibrate the spectrophotometer. (Optional)

See also:

Setting up the spectrophotometer in the PixelBlaster Engine User Manual

Profile wizard – Specifying the printer profile name and info

About the profile wizard

The generation of a profile to use with Printer/Media/Mode method is done by a wizard which will guide you through all the necessary settings depending on the device for which the profile is to be generated.

The wizard has an intro page explaining the process, what is needed (printing and measuring) and giving an indication of time needed to complete the process.

At the end of the calibration process a summary page provides following feedback:

- Printer name
- Media name
- Mode name
- Name of the profile in the Operating System
- Creation date
- Internal delta E: gives an idea on the internal quality of the ICC profile
- Delta E calculated against ISO Coated v2: gives an idea of whether the printer/media combination's gamut is sufficient to print to ISO Coated v2 (important for Standardized printing and proofing)



Printers under calibration – and affected queues if available – can remain in use during the calibration process.

To define the printer profile

- 1 In the Profiler choose the printer where you want to create a profile for.
- 2 Set media pop-up to **new media** and click **Create**.
 - The information window of the wizard is launched.
- 3 Click Next.
- 4 In the **Print mode setting** step set the driver settings you want to use for this media/printer setup.
- 5 Click **Next**.
- In the **Profile name and info** step click the + symbol to create a new media name (if needed).
- 7 Then enter a name for the print mode.
- 8 Enter the name the profile; this is the name of the profile in the finder.
- If desired: Give an extra optional comment for the profile in the bottom text box.

10 Click **Next** to get to the next wizard step.

See also:

- Profile wizard Printer linearization on page 14
- Profile wizard Dotgain on page 20

Profile wizard – Printer linearization

Previous steps

Make sure you have completed the previous steps:

1 Profile wizard – Specifying the printer profile name and info, see page 12

Measuring the linearization chart

Measure the nonlinearized behavior of the target printer with the selected media. Proceed as follows:

- 1 Load media in the printer.
- 2 Click **Print** to produce the linearization target.

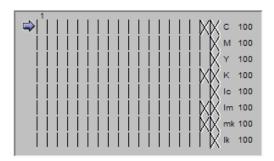
PixelBlaster starts a print job named Linear. The resulting linearization target contains one 18-patch step wedge for each channel/print head.

- Allow at least 15-30 minutes for the linearization target to dry unless the chart is obviously too wet.
- 4 Check the linearization target and make sure that it does not contain any patches which are:
 - Too wet to measure
 - Dry, but too thick (too wet on application)
 - Non-uniform in gloss
 - Mottled
 - Sticky
 - Swollen

If the target shows any of these above-mentioned symptoms, you will have to cut off patches and reprint it to be able to take accurate measurements. You are most likely to observe these symptoms when printing on plastic media or with ultraviolet-resistant inks, but they can also occur in other situations.

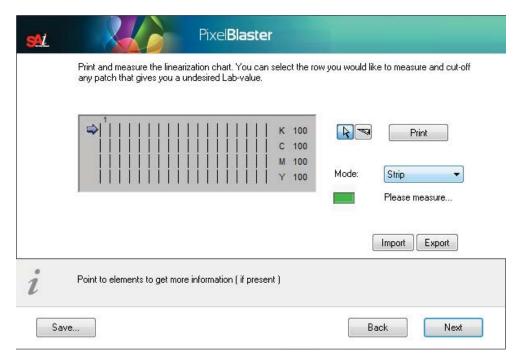
If necessary, use the cutter tool () and click the patches which are too wet or too solid.

PixelBlaster marks patches selected for cropping with an **X**, and does not allow you to skip over adjacent patches.



After cutting, you need to reprint the linear file.

6 Click **Measure** to measure the dry linearization target with the spectrophotometer.



- Before you start measuring, the window shows the linearization target as gray. Each step wedge transforms into color patches as you measure the printed chart.
- **Import/Export** buttons: You can import or export measure data in *.csv format.
- The arrow indicates which step wedge to read next. If it is necessary to reread a row (for example, because you read the wrong row, or the meter was tilted), use the arrow to reset focus to the beginning of the target row.
- 7 Click **Next** to get to the next wizard step.

See also:

- Profile wizard Select printer gamut and adjusting ink limits on page 17
- Relinearizing the printer profile on page 30

Profile wizard – Select printer gamut and adjusting ink limits

Previous steps

Make sure you have completed the previous steps:

- 1 Profile wizard Specifying the printer profile name and info, see page 12
- 2 Profile wizard Printer linearization, see page 14

Defining the gamut of the target printer

Define the gamut that you want the target printer to use for the target media. Proceed as follows:

1 Select one of the following options:

Option	Meaning
Maximum gamut	Maximizes the printer gamut by optimizing the amounts of inks used. This option is generally appropriate for photo printing queues.
Reference profile	Matches the color space of the printer as closely as possible to that of the chosen reference profile, by reduction. This option is generally appropriate for proofing queues.
	Select the target reference profile from the list of available profiles.

You may select a CMYK reference profile for a photo printing queue. See "<u>To adjust</u> ink limits" on page 18.

The calibration process *never* modifies a reference profile, which represents a standard.

The reference profile is not embedded in the printer profile.

2 Click **Next** to get to the next wizard step.

See also:

- Profile wizard Dotgain on page 20
- Profile wizard Ink bleeding on page 23

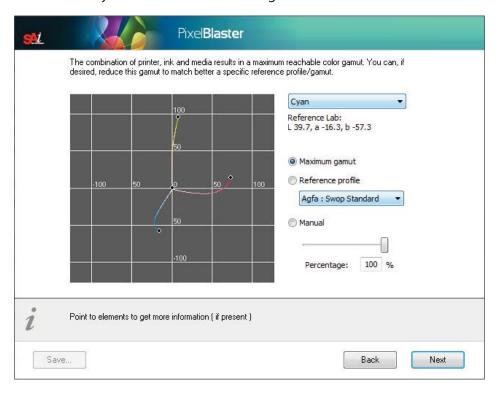
About adjusting ink limits

Inkjet printers sometimes cannot constrain output as required by the gamut of reference profiles selected for calibration. You can manually increase or decrease the channel-specific ink limits that **PixelBlaster** sets for a printer profile on the basis of the spectral measurements of the linearization strip.

To adjust ink limits

Proceed as follows:

- 1 Select an ink channel from the list.
- 2 Adjust the ink limit by moving the slider.
- 3 Select the mode **Maximum gamut** or a **Reference profile** or select **Manual** to set the percentage manually via numerical input or via slider.
- 4 Observe the dynamic effects of the change.



- Percentage shows the channel capacity utilized at the current setting (position of the slider).
- **Reference Lab** shows the Lab value of the selected channel at the current setting of the slider.
- The chart shows the effects of the current setting on the printer gamut, with the yellow and green outlines delimiting the printer and reference gamuts respectively.

- 5 Repeat steps $\underline{1}$ through $\underline{4}$ for each of the ink channels.
- 6 Click **Next** to get to the next wizard step.

See also:

- Profile wizard Dotgain on page 20
- Profile wizard Ink bleeding on page 23

Profile wizard – Dotgain

Previous steps

Make sure you have completed the previous steps:

- 1 Profile wizard Specifying the printer profile name and info, see page 12
- 2 Profile wizard Printer linearization, see page 14
- 3 Profile wizard Select printer gamut and adjusting ink limits, see page 17

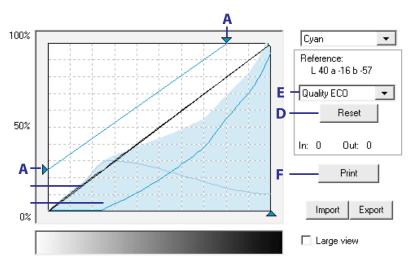
About adjusting ink mixing curves

Ink mixing curves can sometimes direct printers to lay down more ink than target media can absorb for sufficient drying. You can reduce ink output by manually adjusting the channel-specific ink mixing curves that **PixelBlaster** sets for a printer profile. For example, you can correct over-inking by adjusting the mixtures of light and dark inks applied by individual channels to low-quality paper or plastic media.

To adjust ink mixing curves

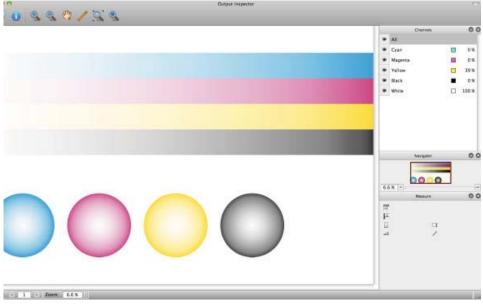
Proceed as follows:

- 1 Select an ink channel from the list.
- Adjust the ink mixing curve in terms of light and solid ink utilization by moving either handle of the ink-mixing lever (A).



A. The ink-mixing lever functions as a "virtual border" that ink-mixing curves cannot cross. Pulling the lever down changes the mixture such that less light ink, and more solid ink, is used.

- **B.** The black diagonal line (B) models the linearity of the ink channel given the proposed settings. Pulling the ink-mixing lever "too hard" can result in a non-linear curve that compromises the quality of printer output.
- **C.** The colored background (**C**) models ink laydown given the proposed settings.
- **D.** You can click **Reset** to undo manual edits performed on the curves themselves. This action does *not* undo manipulation by the ink-mixing lever.
- **E.** To facilitate the choice in ink mixing, there is a fixed set of ink mixing presets (only visible when light inks are present):
 - Typical: default setting, as in previous versions. This still allows the same manipulations as before.
 - Economy: uses less light ink (Max 30%), reducing the overall ink usage (but can lower print quality)
 - Quality: keeps using minimum of 20% light inks. Improves smoothness of the print (can trigger over inking of the print)
 - Quality ECO: keeps using minimum of 10% light ink, while reducing the overall usage of light ink to 30% (compromise between quality and economy).
- **F.** A target to check linearity and print quality will be printed using the linearization and ink mixing when click-ing the "Print" button. This chart contains linear and radial blends of the primary inks:



3 Repeat steps 1 through 2 for each ink channel.

4 Click **Next** to get to the next wizard step.

See also:

• Profile wizard – Ink bleeding on page 23

Profile wizard – Ink bleeding

Previous steps

Make sure you have completed the previous steps:

- 1 Profile wizard Specifying the printer profile name and info, see page 12
- 2 Profile wizard Printer linearization, see page 14
- 3 Profile wizard Select printer gamut and adjusting ink limits, see page 17
- 4 Profile wizard Dotgain, see page 20

Evaluating Managed Output

Evaluate the effects of the proposed ink limits and linearization on the behavior of the target printer setup/media combination.

The ink bleeding chart demonstrates ink usage as limited by the previous steps in this procedure. Visual examination is the basis for further limiting ink usage.

Proceed as follows:

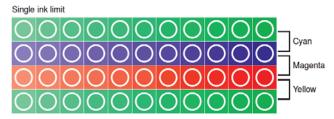
- 1 Load target media in the printer.
- 2 Click **Print** to produce the ink bleeding chart.
 - PixelBlaster starts a print job named Inkbleeding.
- 3 Examine the ink bleeding chart immediately, without waiting for it to dry.

Study the patches from right to left (more ink to less ink). Paying particular attention to identify physical problems, such as:

- Obviously wet
- Dry, but too thick (too wet on application)
- Non-uniform in gloss
- Mottled
- Sticky
- Swollen

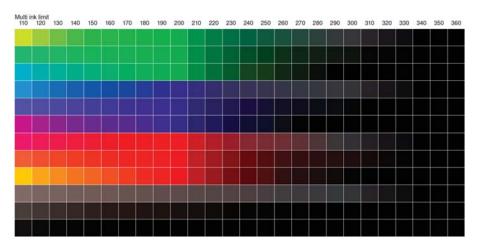
• Single ink limit:

Judging the target from right to left, look for uniformity issues, bleed, mottling, matting effects and other visual artifacts. When detected check the name of the primary inks associated with the lines that show problems and limit the ink in the linearization faze (in the beginning of the procedure).



• Total ink limit:

judge from right to left until the patches show no physical problems like drying, smudging, uniformity issues, bleeding, mottling, matting effects etc. then check the % to fill in in the Wizard



- 4 Identify the first patches at which the above problems do not occur anymore.
- 5 Enter the value of this column for the ink limit.
- 6 Click **Next** to get to the next wizard step.

See also:

Profile wizard – Color engine on page 25

Profile wizard – Color engine

Previous steps

Make sure you have completed the previous steps:

- 1 Profile wizard Specifying the printer profile name and info, see page 12
- Profile wizard Printer linearization, see page 14
- 3 Profile wizard Select printer gamut and adjusting ink limits, see page 17
- 4 Profile wizard Dotgain, see page 20
- 5 Profile wizard Ink bleeding, see page 23

Characterizing Managed Output

Set up generation of the ICC target and custom ICC profile to embed in the printer profile. **PixelBlaster** complies with the <u>Committee for Graphic Arts Technologies Standards (CGATS)</u> standards for data interchange format, and is compatible with compliant applications such as GretagMacBeth ProfileMaker and Color Solutions BasicColor.

Proceed as follows:

1 Select the preferred method for generating the ICC profile. Options include:

Option	Generation Methods		
	ICC Target	ICC Profile	
PixelBlaster Color Engine, see page 25	PixelBlaster-internal col	or engine	
Third-party color engine, see page 26	Existing third-party ICC target	Any third-party application	



The **PixelBlaster Color Engine** method is available if the Advanced Color option is licensed. In this case, you do not need any third-party applications.

2 Click **Next** to get to the next wizard step.

PixelBlaster Color Engine

Generate the ICC target for the compensated printer setup/media combination. Proceed as follows:

1 Load media in the printer.

2 Select the ICC target.



The **Save** and **Load** buttons support access to previously used ICC targets.

- 3 Click **Print** to produce the ICC target.
 - PixelBlaster starts a print job named Target.
- 4 Click **Next** to advance to the **Measure color chart** window.
- 5 Using a spectrophotometer, measure the color patches in the ICC target.



Do not quit PixelBlaster during the process of generating and calculating the ICC profile. Instead, minimize the PixelBlaster Engine and Profiler windows.

- 6 Specify the **Black start** value (see profile wizard):
 - If your printer has light black ink, you can leave the **Black start** value set at 0.
 - If your printer does not have light black ink, it is recommended to set this value between 40 % (for high-resolution printers) and 60 %.
- 7 Specify the **Max. black** value.
- 8 Select a color replacement technique:
 - **GCR** (Gray Component Replacement), to replace process colors with black over a greater tonal range
 - **UCR** (Undercolor Removal), to replace process colors with black ink in the shadow areas of an image and in neutral shades

Third-party color engine

Generate the ICC target for the compensated printer setup/media combination. Proceed as follows:

- From **PixelBlaster**, obtain the ink limit that the third-party application of your choice should use for generating the ICC target.
- 2 Through the third-party application, generate the ICC target using the ink limit.
- 3 Load media in the printer.
- 4 In PixelBlaster Profiler, click **Choose** to import and print the ICC target.
- 5 Browse to and select each of the files that comprises the ICC target.
- Through the third-party application, use the spectrophotometer to measure the color patches in the ICC target.
- **7** Generate the ICC profile:

- Through the third-party application of choice, generate the profile.
- Through **PixelBlaster**, import the generated profile.



Do not quit PixelBlaster during the process of generality the ICC profile. Instead, minimize the PixelBlaster Engine and Profiler Do not quit PixelBlaster during the process of generating and calculating

Creating a printer profile for screen printing queues

Process

The process of creating a printer profile for screen printing queues goes as follows:

- 1 Preparing a linearization target, using PixelBlaster Engine
- 2 Creating the printer profile, using PixelBlaster Profiler

Preparing a linearization target

PixelBlaster provides a standard halftone step wedge whose percentages are read by the densitometer.

Proceed as follows to prepare the linearization target:

- 1 Prepare the following items:
 - Printer, of the target model, and connected to the **PixelBlaster** computer
 - Film media, of the target type
 - Densitometer
- 2 Turn on the target printer, load film and perform a nozzle check.
- 3 Log in with an administrator account to the PixelBlaster computer.
- 4 Start PixelBlaster Engine.
- 5 Select a screen printing queue..
- 6 Click the **Screening** tab and make sure that the halftone angle, frequency and dot shape are set correctly.
- 7 Click **OK** to close the **Queue Options** dialog box.
- 8 In the main printer window, click the **Add Job** button (**1**).

See also:

In the PixelBlaster Engine User Manual:

- Creating and configuring PixelBlaster Queues > Input
- Creating and configuring PixelBlaster Queues > Output
- Creating and configuring PixelBlaster Queues > Screening

Creating the printer profile

- In PixelBlaster Engine, select the queue that you just configured for creating the profile and where you printed the target on.
- 2 Click the **Go to Profiler** button (☑) in the main printer window.

- Refer to Profile wizard Specifying the printer profile name and info, see page 12
- 4 If necessary, click **Choose** to import an existing ICC profile, for a press or other CMYK target, into **PixelBlaster**.



The selected ICC profile is a CMYK profile that:

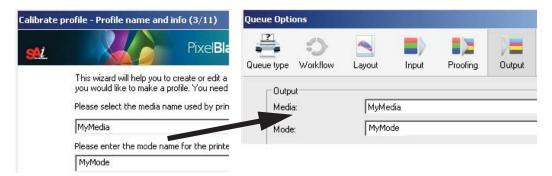
- Is chosen for embedding in the printer profile set on the Output tab of the Queue Options dialog box.
- Serves as a "separation" profile.

PixelBlaster produces rasterized CMYK output from RGB images by converting incoming images' colors:

- From those in the profiles set on the Input tab.
- To those in the embedded separation profile.

Do not quit **PixelBlaster** during the process of generating and calculating the ICC profile. Instead, minimize the **PixelBlaster** Engine and Profiler windows.

5 Click **Finish** to save the desktop fingerprint (*.dfp) file. in the Calibration folder. PixelBlaster automatically sets this printer profile for your queue.



If necessary, you can now switch to PixelBlaster Engine and select input profiles for your screen printing queue. This is not necessary, however, for applications that rasterize only CMYK files.

See also:

 <u>Creating and configuring PixelBlaster Queues</u> > <u>Input</u> and <u>Output</u> in the Pixel-Blaster Engine User Manual

Relinearizing the printer profile

What does relinearizing mean?

Relinearization is the process of adjusting the existing calibration of the printer to the color shift that this printer has gone through. This color shift can have various reasons:

- Changing environmental conditions
- Degrading print heads
- Differences in media quality

When to relinearize?

You need to relinearize the printer profile in the following cases:

- When you notice a color shift in your prints
- When the printer shifts in such a way that the prints are out of tolerance of the ISO specifications

To relinearize the printer profile

Proceed as follows:

- 1 If necessary, click the Printer tab.
- 2 Select the queue which contains the printer profile which needs relinearizing.
- 3 Click Edit.
- 4 Click Next until you reach the Printer linearization window. in the profile wizard
- 5 Print and measure the linearization target.
- 6 Click Save.
- 7 Check your proofs by means of certified jobs. Recalibrate your printer if the results of the relinearization are not satisfactory.

See also:

- Calibration on page 10
- Profile wizard Printer linearization on page 14
- Certifying a job in the PixelBlaster Engine User Manual

Regenerating the ICC profile

About regenerating ICC profiles

You can regenerate the ICC profile if you wish to recalculate it with different settings without having to go through the complete calibration process. You may wish to do this to test which ICC profile produces the best results.

To regenerate the ICC profile

Proceed as follows:

- 1 If necessary, click the **Printer** tab.
- 2 Select the queue which contains the ICC profile which needs regenerating.
- 3 Click **Edit**.
- 4 Follow the instructions in the profile wizard to regenerate the ICC profile.

See also:

- Profile wizard Select printer gamut and adjusting ink limits on page 17
- Profile wizard Dotgain on page 20
- Profile wizard Ink bleeding on page 23
- Profile wizard Color engine on page 25

Editing the dot gain or gray correction curve

About dot gain correction

You can compensate for dot gain curves in the imagesetter or platesetter RIP. You can also edit the dot gain curve if you want to make visual color adjustments.

The dot gain correction curve is saved in the ICC profile.

See also:

"Curves" in the Adobe Photoshop Help.

About gray balance correction

You can use gray balance correction to visually correct the gray balance.

To edit the dot gain or gray correction curve

Proceed as follows:

- 1 If necessary, click the **Printer** tab.
- 2 Select the queue of which you wish to edit the dot gain or gray correction curve.
- 3 Do one of the following:
 - Click **Dot Gain correction > Edit**.
 - Click Gray correction > Edit.
- 4 Select an ink channel.
- 5 You can now do the following:
 - Select the respective curve and drag it to the desired position and/or
 - d/or
 - Click on a point in the curve and fill in the input and output percentages of this point.
- 6 Repeat steps 4 through 5 for each of the ink channels.
- 7 Click Save.



You can always click **Reset** to revert to the original position of the curves, even after you have saved the curves.

8 If necessary, change the name of the printer profile.

You may wish to change the name of the printer profile to indicate that dot gain compensation or gray correction has been used. If you do so, PixelBlaster will automatically use this new printer profile for the queue you selected in step $\underline{2}$.

9 Click **OK**.

See also:

 <u>Creating and configuring PixelBlaster Queues</u> > <u>Output</u> in the PixelBlaster Engine User Manual

Chapter 2

Chapter 2: Advanced applications

Topics

In this chapter:

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- Editing dot gain correction and break-off percentage (Advanced Color option only) 40
- Using a DeviceLink profile 42
- Editing the paper color simulation (white point correction) 45
- Editing the spot color list of a printer profile 47

Selecting and editing substrates (Advanced Color option only)

About substrates

If you have licensed the **Advanced Color** option, you can set up your PixelBlaster queue to simulate substrates. The process goes as follows:

1 You create an image of your substrate, for example by scanning it.

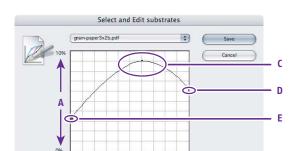


- 2 You select the substrate in PixelBlaster Profiler and edit it.
- 3 You select the option **Substrate simulation** for your queue.

To select and edit substrates

Proceed as follows:

- 1 Create a grayscale image of your substrate and save the file as PDF in the PixelBlaster/Substrates folder.
- 2 In PixelBlaster Profiler, click the **Reference** tab.
- 3 If necessary, select the queue for which you want to select and edit substrates.
- 4 Click Select and edit substrates > Edit.
- 5 Select your substrate from the list.



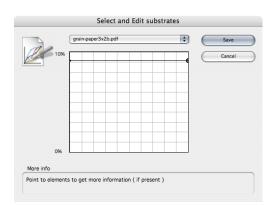
6 Adjust the curve, as shown in the examples below

Typical curve for lower-quality media used in offset and gravure printing:

A. Intensity of the simulation

Point to elements to get more information (if present)

- **B.** Tonal scale
- C. Curve rises to 90 % in the midtones
- D. Curve falls to 60 % in the shadows
- E. Curve has 30 % effect in the highlights



Typical curve for textile printing: the effect of the textile substrate is equally visible over the entire tonal scale.

- 7 Click Save.
- 8 Type a name for the changed reference profile and click **OK**.
 From now on, this reference profile will be used by your queue.
- In PixelBlaster Engine, double-click the queue, and then click the **Proofing** tab.
 Notice that the reference profile is now the one with the information for substrate simulations.
- 10 Select the option **Substrate simulation** and click **OK**.

Editing dot gain correction and break-off percentage (Advanced Color option only)

About dot gain correction and break-off percentage

For flexography or gravure printing, you can edit the dot gain curves of the reference profile of your queue and/or insert a break in the curve to simulate loss of detail in the printing process, which is typical for these printing techniques.

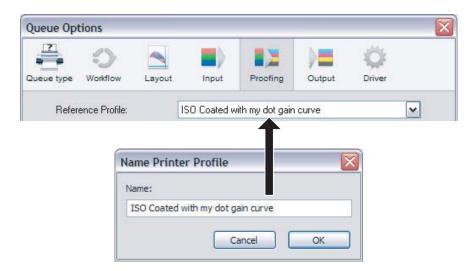
To edit dot gain correction and break-off percentage

Proceed as follows:

- In PixelBlaster Engine, double-click a proofing queue, then click the **Proofing** tab and check which reference profile this queue uses.
 - This reference profile will be replaced by the reference profile with the edited dot gain correction curves.
- 2 In the PixelBlaster Profiler, click the **Reference** tab.
- If necessary, select the queue for which you want to edit a dot gain correction curve.
- 4 Click Dot Gain correction and % break-off > Edit.
- 5 Select the ink channel for which you want to specify dot gain correction.
- 6 Specify the Break-off position and click Break to apply it.
- 7 Do one of the following:
 - Enter the input percentage and measured output percentage in the **In** and **Out** text boxes respectively.
 - Click on the curve to add an adjustment point, and drag the point to the required position. The input and output percentages change correspondingly in the In and Out text boxes.
- 8 Repeat steps 5 through 7 for all the ink channels.
- 9 Click Save.
- 10 Type a name for the changed reference profile and click **OK**.

11 In PixelBlaster Engine, double-click the queue, and then click the **Proofing** tab.

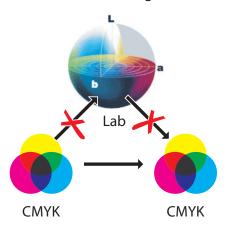
Notice that the reference profile is now the one with the edited dot gain curves.



Using a DeviceLink profile

About DeviceLink profiles

To improve the color accuracy of your proofs, you can create and use a DeviceLink profile. A DeviceLink is a link between the reference profile and the printer profile of your queue. The DeviceLink profile directly transforms color from one color space to another, without using an intermediate, device-independent color space (CIELab).





You can use a DeviceLink profile in the standard version of PixelBlaster. To create and tune a DeviceLink profile however, you need to license the **Advanced Color** option.

To create a DeviceLink profile (Advanced Color option only)

Proceed as follows:

- In PixelBlaster Engine, make sure that the queue in which you want to use a DeviceLink has a reference profile and a printer profile. Double-click the queue and check the **Proofing** and **Output** tabs.
- 2 Click **OK** to close the **Queue Options** dialog box.
- 3 In PixelBlaster Profiler, click the **DeviceLink** tab.
- 4 If necessary, select the queue for which you want to create a DeviceLink.
- 5 Click Tune DeviceLink > Tune.
- 6 Type the name of the DeviceLink and click **Generate**.
- 7 In PixelBlaster Engine, double-click the queue, and then click the **Proofing** tab. Notice that the DeviceLink which you just created is now selected for this queue.

To tune a DeviceLink (Advanced Color option only)

Tuning a DeviceLink can improve the delta E values for proofing and can make color reproduction more accurate through an iterative process. However, tuning can only be effective if the following conditions are met:

- The reference profile must be suitable for proofing on the printer with the respective media. If not, the combination of the reference profile with the printer profile may not be optimal.
- The quality of the printer profile must be good enough.

Proceed as follows:

- Click the **DeviceLink** tab.
- 2 Click Tune DeviceLink > Tune.
- 3 Click Print target.
- 4 Select the target's position and orientation and click **OK**.
- 5 Click Next.
- 6 Measure the printed DeviceLink target with a spectrophotometer.
- Wait until all the rows of patches display the measured data, and then click Next.



An overview of all measured patches is displayed, with their respective reference and measured Lab values, and the difference between both as delta E values.

8 Click Next.

A summary of the delta E statistics is displayed:

- If this is the first proof which you printed and measured, this set of measurements will be called "Measurement0". This is the current status "as is", without any adjustments made.
- If this is the second proof and measurement, the set of measurements will be called "Measurement1", indicating that these are the first adjustments you have made.
- 9 You can now do one of the following:
 - If the results are not satisfactory, click **Refine**. The target will automatically be reprinted and you can then measure this refined target again. Repeat this step a number of times, typically three to four times, until the results are satisfactory.

• If the results of a particular set of measurements are satisfactory, select the set in the list and click **Finish**. For example, you may have four sets of measurements, of which the set "Measurement3" had the best results. If so, select "Measurement3" in the list and click **Finish**.

Editing the paper color simulation (white point correction)

About paper color simulation (white point correction)

If you selected the option **Paper Color Simulation** when you configured your queue (**Proofing** tab of the **Queue Options**), you can change the simulation of the paper color in PixelBlaster Profiler. This function changes the white point in the printer profile in accordance with the reference profile.



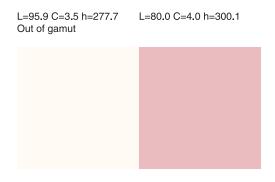
To edit the paper color simulation (white point correction)

Proceed as follows:

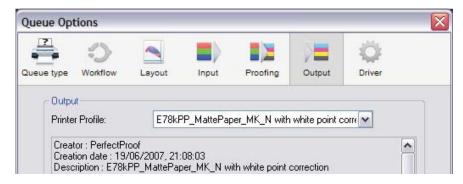
- 1 In PixelBlaster Profiler, click the **DeviceLink** tab.
- Select the queue of which you want to change the paper color simulation.
 A reference profile and a printer profile need to be specified for this queue.
- 3 Fill in the target values (in Lab or LCh) of the simulation of your choice.

 Notice the CMYK values of the inks at the bottom of the **White point**correction dialog box.
- 4 Click **Print** to print two patches: one with the current values and one with the adjusted values.

A job named "paper white target" is added to the queue. If the values you specified are out of the printer's gamut, it will be indicated on the print.



- 5 Adjust and print the values until the result is satisfactory.
- 6 Click Save and, if necessary, change the name of the printer profile.
 The printer profile you have just saved will automatically be used by the respective queue.



Editing the spot color list of a printer profile

About editing the spot color list of a printer profile

You can add spot colors to a printer profile, and you can do this in various ways:

- You can load spot colors from an existing printer profile or a spot color library.
- You can measure a spot color on a proof and save the measured values.
- You can specify the spot color's values and opacity.

Once you have defined spot colors, you can also tune their visual representation. The spot colors which you add to the printer profile take precedence over any other custom or standard spot color libraries.

See also:

Spot color handling in the PixelBlaster Engine User Manual

To edit the spot color list of a printer profile

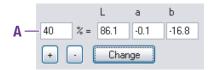
Proceed as follows:

- 1 Click the **Spot Color** tab.
- Select the queue which has a printer profile of which you want to edit the spot color list.
- 3 Click Select and Tune Spot Colors > Edit.
- 4 You can now do one of the following:
 - To add spot colors to the printer profile
 - To remove a spot color from the printer profile
 - To edit the properties of a spot color
 - To tune the visual representation of the spot color
 - To load spot colors from an existing printer profile or spot color library

To add spot colors to the printer profile

- 1 Click the plus button () below the spot color list
- 2 Type a name for your spot color.

- 3 Do one of the following:
 - To enter the values of your spot color manually, select CIELab or CMYK
 values and specify the respective values. Specify the Opacity by moving the
 slider or by entering a value.
 - Measure the spot color using a spectrophotometer.
- If you have purchased and installed the Advanced Color option, you can also add tints of a spot color by specifying a percentage in the % box and clicking the plus button ().



A. Tint of a spot color

- 5 Click Change.
- 6 Click **OK**.

To remove a spot color from the printer profile

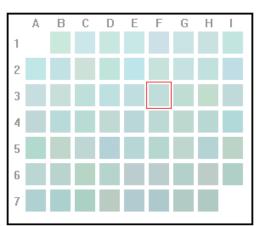
Select a spot color in the list and click the minus button (\[\]).

To edit the properties of a spot color

- 1 Select a spot color in the list and click **Edit**.
- 2 You can now the following:
 - Change the name of the spot color
 - Select **CIELab** or **CMYK** and change the values of the spot color
 - Change the **Opacity** of the spot color by moving the slider or by entering a value.

To tune the visual representation of the spot color

- 1 Select a spot color in the list and click **Tune**.
- 2 If necessary, move the slider from **Fine** to **Coarse** to increase the variations.
- 3 Click **Print** to print the variations on the selected queue.
 - A job named "SpotColors" is added to the queue.
- 4 Check the proof and determine the printed patch which matches your reference spot color best.



5 Indicate this "best match" **Spot Color Tuning** dialog box and click **OK**.

The values of the spot color are automatically adjusted to the values of the patch you selected.

6 Click **OK**.

To load spot colors from an existing printer profile or spot color library

- 1 Click **Load**.
- 2 Select a printer profile (*.dfp) or spot color library (*.cxf) and click **Open**.

The PixelBlaster folders where you can find printer profiles and spot color libraries are:

- PixelBlaster/Calibration for printer profiles
- PixelBlaster/Libraries for spot color libraries

You can also use cxf libraries from other cxf-compatible programs.

3 Click **Done**.

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