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1. Installing the Software

Before you begin installing the software, read the hardware requirements below. For optimal performance we suggest that your system meet the recommended requirements. As with all computer software, systems with faster processors, more RAM, and greater amounts of storage space allow you to work with larger files and keep your processing time to a minimum.

Recommended System Requirements

	Windows	**Macintosh**
Processor	Pentium II 350 MHz	G3 300 MHz
RAM	256 Mbytes	
Install Space	200 Mbytes	
Working Disk Space	4 Gbytes	
Operating System	Windows 98 / ME / Windows NT4.0 / 2000 / XP	OSX 10.2 or later
Video	800x600 resolution monitor with 16 bit color	
Other	4x CD-ROM or DVD Drive	
	Free USB or LPT Port for hardware key	Free USB Port for hardware key
	Available Port for Output Device	

📄 Windows NT 4.0 requires Internet Explorer 5.x or greater & Service Pack 4 or higher.

Installation Procedures

The software will not run without a hardware protection key, also known as a dongle. The hardware key protects the software from being unlawfully copied and must be connected to your computer whenever you use the software.

There are two types of hardware keys: Parallel and USB keys.[1]

Parallel key (Windows only)

USB key

---

[1] The older Macintosh ADB key is no longer supported.

Installing a Hardware Key

1. Turn off your computer.

2. Plug the hardware key into the port (USB or LPT).

3. Turn on your computer.

📄 When using parallel port keys, we recommend that you plug your output device and key into separate parallel ports.

Once the USB hardware key driver has been installed, the driver will cause an LED built into the key to light. The USB driver is installed automatically as part of the software installation.

Installing the Software (Windows)

Follow these steps to install the software:

📄 If you're installing on a PC running Windows NT/2000/XP, you must have Administrator privileges. See your Windows user guide for details.

1. Insert the Installation CD.

2. Select a language and then click **Next**.

3. Enter your user number and password and then click **Next**. The User number and password can be found on the product hardware key.

4. Select the product and language to be installed and then click **Next**.

5. Click **Next** to continue.

6. Read the Software License Agreement and click **Yes** to accept.

7. Click **Next** to continue.

8. Click **Yes** to view the readme file.

📄 The readme file contains last-minute issues and information that are not included in this documentation.

9. You may change the default destination folder here. Click **Next**.

10. Select the type of installation to install. **Typical** is recommended. Click **Next**.

11. Select the folder where the software will be included. If you accept the default folder, a new folder will be created for the product. Click **Next**.

12. Click **Yes** to clear the preferences or **No** to retain old preferences.

13. Select the printers you want to install color profiles for then click **Next**.

14. Select **Yes** and click **OK** to restart your computer.

Uninstalling the Software (Windows)

1. Exit your software by selecting **Exit** from **File** menu.

2. In the Windows Control Panel, double-click the **Add/Remove Programs** icon.

3. Select your software from the list and click the **Change/Remove** button.

4. Click **OK** when finished.

5. Go into the drive containing the directory where the software was installed. Delete this folder.

Installing the Software (Macintosh)

Follow these steps to install the software:

1. Insert the Installation CD.

2. Double click the **Installer** icon.

3. Select a language and then click **OK**.

4. Enter your **User ID** and **Password** and then click **OK**.

   📄 The user ID and password can be found on the hardware key.

5. Select the product and language to be installed and then click **OK**.

6. Read the Software License Agreement and click **Accept**.

7. Check that your hardware and operating system meet the RIP Requirements and click **Next**.

8. Select the **Install Location** and click **Install**.

9. Click **Continue** to close down all other apps.

10. The software installs. Click **Stop** to halt installation.

11. Click **Yes** to clear the preferences or **No** to retain old preferences.

12. Enter your passphrase for the Rainbow Key installer and click **OK**.

13. Enter your passphrase for the Hasp Key installer and click **OK**.

14. Click **Continue**.

15. Click **Quit**.

16. Click **OK**.

17. Click **Restart**.

Follow these steps to install ICC color profiles for your printers:

1. Insert the ICC Profile CD.

2. Double-click on the installer for your language.

---

3. Select the folder the software was installed into and click **Choose**.

4. Select the printers you want to install color profiles for then click **OK**.

Uninstalling the Software (Macintosh)

1. Exit your software by selecting **Quit** from **File** menu.

2. Drag the alias for your software from the desktop to the Trash.

3. Drag the folder where your software was installed to the Trash.

Using a Hardware Key Over a Local Area Network
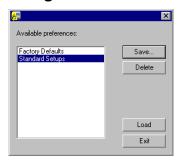
It is possible to run the software on a different computer than the one the hardware key is installed on. However, you cannot run more than one concurrent instance of the software using the same hardware key.

To run the software using a hardware key installed on a different computer:

1. On the computer with the hardware key, make sure the software is not running.

2. Run Production Manager on the computer with the hardware key.

3. On the computer you want to run the software on, make sure the software is installed using the user number assigned to the hardware key.

When you run the software on the second computer, it will recognize the hardware key from the first computer and run.

Using Preference Manager

Preference Manager is a utility that allows you to save all of the settings in the software to a file, including all output device setups, setup properties, default job properties, and all application preferences.

You cannot load a set of preferences while either the design software or Production Manager is running. You can save preferences at any time.

Saving a Set of Preferences

To save the current set of preferences to a file:

1.   Run **Preference Manager**.

2.   Click **Save**.

3.   Type the name for the set of preferences in the field and click **OK**.

Loading a Set of Preferences

To reload a previously saved set of preferences:

1.   Exit the software.

2.   Run **Preference Manager**.

3.   Select the set of preferences you want to load.

4.   Click **Load**.

Restoring the Software to its Original State.

The default settings for the software are stored in the **Default** set of preferences. Restoring the software to its default state may be particularly helpful when troubleshooting any problems you may encounter with your software.

📄   Loading this set of preferences will remove all of the output device setups in Production Manager.

To clear the preferences stored in your system:

1. Exit the software.

2. Run **Preference Manager**.

3. Select **Default**.

4. Click **Load**.

Exiting Preference Manager

To exit Preference Manager, click **Exit**.

Password Installer

The Password installer is a utility that helps you manage the different passwords that come with the software. After you have installed the basic program with your main password, you should then launch the Password Installer to add any additional passwords you may have.

Application Password - This is your main application password for software.

Option passwords- If you have purchased additional options, you may enter the option passwords to this field to upgrade your software.
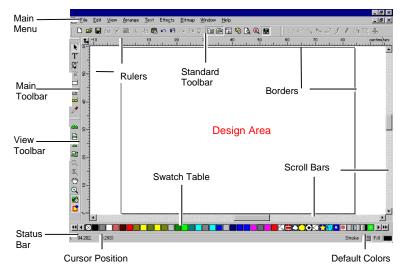
Note: Make sure that the software is not running when you add a new password.

To add additional passwords:

1. Launch the Password Installer.

2. Your main application password will appear in the top section.

3. Add your additional passwords to the optional password section by clicking the **Add** button, and entering the password into the dialog.

4. When you have finished, your password should appear in list in the optional password field.

2. Getting Started

The illustration below shows some of the basic elements of your software:

Basic Elements of your Software

Toolbars

Toolbars are a set of commands grouped according to their function.

Standard toolbar

To show or hide a toolbar:

1. From the **View** menu, select **Toolbars**.

2. Check or uncheck the toolbars that you want to show or hide.

   Or, in Windows:

3. Right click the area around the design area where the toolbars are docked.

4. In the menu, select or unselect the toolbar that you want to show or hide.

You can also hide a toolbar by clicking the **Close** button on the upper right side of the toolbar.
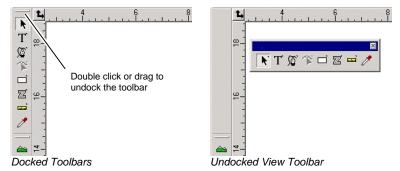
In Windows, toolbars are docked or floating. Docked toolbars are placed

at fixed positions around the design area. Floating toolbars can be placed anywhere in the design area. You can undock a toolbar, making it a floating toolbar and then place it at any location in the design area. Macintosh toolbars are always floating.
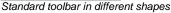
To undock a toolbar:

- Drag the toolbar from its docked position. (Do not drag buttons).

  Or

- Double click the toolbar. (Do not double click buttons).

📄 Dragging or double clicking the buttons will not undock or dock the toolbar.

Docked Toolbars   *Undocked View Toolbar*

The shape of a floating toolbar can be adjusted by dragging its borders.

Standard toolbar in different shapes

The shape of a floating toolbar can be adjusted by dragging its borders.

When a button has a small triangle on upper right corner, is an indication that this button is a part of a tear-off palette.
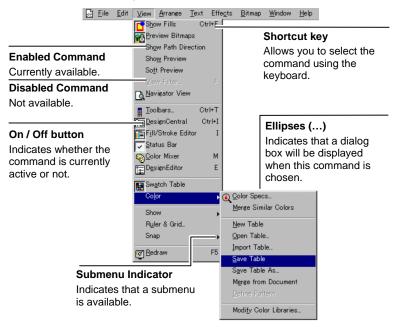
To use the tools in a tear-off palette:

1. Click once on the button and drag it slightly to display the full palette.

2. Once it is displayed, you can either select the desired tool and release the mouse button, displaying the new tool, or you can drag the entire palette away from the original palette and release the mouse to drop it on the drawing area.

Original palette

Dragging the tear-off palette and selecting a new tool

The new tool is selected
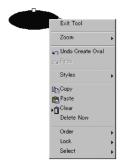
Menus

Menus are commands grouped by the types of operations they perform.

Enabled Command
Currently available.

Disabled Command
Not available.

On / Off button
Indicates whether the command is currently active or not.

Shortcut key
Allows you to select the command using the keyboard.

Ellipses (…)
Indicates that a dialog box will be displayed when this command is chosen.

Submenu Indicator
Indicates that a submenu is available.

When right clicking elements in your software, a context menu is displayed. The context menu will differ according to the element that you are right clicking on.

Right clicking a shape   *Right clicking a blank area*   *Right clicking the swatch table*
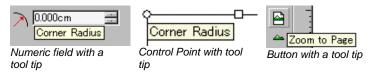
Tool Tips

All fields and control points that can be dragged will show tool tips to help. Some commands will also show a brief description at the bottom of your screen.

To show a tool tip, hover the cursor over the field, command or control point for a few seconds.

Numeric field with a tool tip   *Control Point with tool tip*   *Button with a tool tip*

Design Area

The design area is the white area inside the software's screen. It has a border that serves as a guide and represents the size of your substrate. The size of the design area does not limit the size of your design or where the design is placed on your media during output.

Margins can be placed inside the design area. Those margins are used to distribute and align objects inside the design area. You can change the size and the color of the drawing area and show or hide the borders. See "DesignCentral - Document Tab" on page 43 for more information on how to set up your document properties.

Swatch Table

Swatch tables includes a group of standard colors, gradients and patterns that can be applied to objects in your design. See "Working With Swatch Tables" on page 80 for more information on swatch tables.

To toggle the display of swatch tables on and off, from the **View** menu, select **Swatch Table**. This will also force hidden swatch tables to be displayed.

Rulers and Grid

Rulers appear along the top and left side of the main screen to help you measure and align objects. As you move the cursor in the design area, a tick mark on each ruler follows the movement of the cursor. Also, the coordinates of the cursor position are displayed at bottom left corner of the screen.
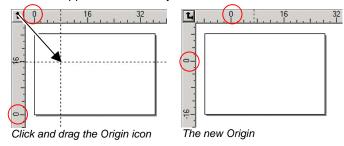
To show or hide the rulers, from the **View** menu, point to **Show** and click **Show Rulers**.

Grids, like rulers, can help you align objects in the design area. Grids are a series of horizontal and vertical dotted lines within the design area. They will not show as part of the output.

To show or hide the grids, from the **View** menu, point to **Show** and click **Show Grid**.

The rulers, grids and all other numeric values that represent a length follow a unit system defined in your software. To change the unit system, right click a ruler and select the new unit. On Macintosh, click and hold on the mouse button on the rulers.

By default, the origin of the rulers is located in the lower left corner of the design area. To change the origin, you can click and drag the origin icon in the upper left corner of your screen.

Click and drag the Origin icon   *The new Origin*

You can also adjust the origin's position by using the Ruler and Grid Settings dialog box. To display this dialog box:

- Double click the **Origin** icon in the upper left hand corner of design area

  Or

- From the **View** menu, select **Ruler and Grid**.

The Ruler & Grid dialog box consists of two Tabs, **Rulers** and **Grid**. To select a Tab, click the tabs on the top of the dialog box.

You can adjust the following on the **Ruler** Tab:

Origin   Enter the X, Y coordinates of the new origin.

Orientation   Click one of these buttons to change the orientation of the coordinates in the X, Y rulers.

Units	Select the unit system that will be used for length values from this list.

You can adjust the following on the **Grid** tab:

Spacing	Horizontal and vertical space between adjacent dots.
Snap to grid	Check this option to snap the objects to the grid while moving or resizing an object.
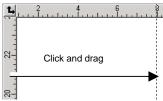
Guides

Guides allow you to visually align design elements on your document.

To show or hide the guides, from the **View** menu, point to **Show** and then click **Show Guides**.

You can create a guide line by:

- Clicking and dragging one point on the ruler. Horizontal or vertical guide lines are created, depending on which ruler you dragged the point from.
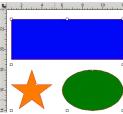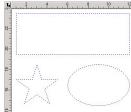
Click and drag a point in the ruler   *A new vertical guide is created*

- Select objects and from the **Arrange** menu, point to **Guides** and click **Make Guide**. Select **Release Guide** in the same menu to convert guides back to original objects.

📄 To create a diagonal guide, create a horizontal or vertical guide, unlock the guides and then rotate the horizontal or vertical guides in DesignCentral - Rotate Tab

Select the objects   *Objects converted to guides*

- In DesignEditor, drag objects from generic layer to **Guide** Layer. For more information about the Guide Layer see "DesignEditor - Layers Tab" on page 49.

To lock the guides:

- From the **Arrange** menu, point to **Guides** and click **Lock Guides**.

📄 Guides cannot be selected by dragging a bounding box around them. You have to click the guide.

To select all guide lines:

1. From the **Edit** menu, point to **Select** and then click **Select by Attributes** command.

2. Select **Guide Line** in Object Tab.

3. Click **OK**.

Status Bar

The Status bar is the area located on the bottom of your screen and displays the following information:

The present X, Y coordinates of the cursor or additional information about the selected command.

The default fill and stroke colors or the foreground and background colors (when in bitmap editing mode).

Changing the View

You have several commands to change how the design area is viewed.
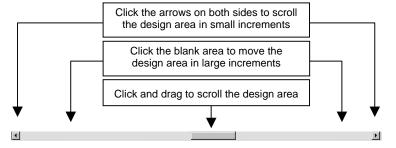
Using a Wheel Mouse

If your computer is equipped with a wheel mouse, you can use the mouse wheel to control the view:

• Moving the mouse wheel up and down pans the view up and down.

• Holding the **SHIFT** key and moving the wheel up and down pans the view left and right.

• Holding the **CTRL** key and moving the wheel up and down zooms the view in and out.

Using Scroll bars

Scroll bars are horizontal and vertical bars located in the bottom and right side of your design area. Use them to scroll the design area.

Click the arrows on both sides to scroll the design area in small increments

Click the blank area to move the design area in large increments

Click and drag to scroll the design area

Zooming and Panning

The Zoom tools changes the magnification of items within the document to allow you to see more or less detail. This does not change the output size.

Magnifies the center of the view to twice the size of current view.

Magnifies the center of the view to half the size of current view.

Adjust the view size to fit the design area size.

Switches the view to previous magnification.

Adjusts the view size to fit the selected objects. When there are no objects selected, this button is disabled.

Adjusts the view size to fit all existing objects. When there are no objects in the design, this button is disabled.

Select this tool and click and drag inside the design area to pan the view position.

Select this tool and
- Click to zoom in at twice the magnification of the current view. The point you click on will become the center of the view.
- Hold **CTRL** and click to zoom out to half the magnification of the current view. The point you click on will become the center of the view.
- Click and drag to magnify one particular portion of the design area.

Every time you click the Zoom or Pan tool, the view is magnified or panned. By default the cursor will return to the previous tool after using these tools. You must reselect the tool to use the Zoom or Pan tool again. If you want to use the Zoom or Pan tool without selecting it before each use do one of the following:

- Double click the **Zoom** tool and uncheck the **Resume previous tool after zooming once** option.

    Or

1. From the **Edit** menu, select **Preferences** command.

2. Click **Tools** Tab.

3. Select **Zoom** in the list.

4. Uncheck **Resume previous tool after zooming once** option.

5. Click **OK.**

Using Navigator View

Navigator View allows you to view your entire document and specify which portion to display.

To show the Navigator View, from the **View** menu, select **Navigator View**.

View Area

Design Area *Navigator View*

To change the view:

- Click and drag a point inside the View Area to pan the portion displayed in the design area.

- Click and drag a control point around the View Area to resize it, causing a zoom in or zoom out in the design area.

Showing an Object's Fill

When the Show Fill option is enabled, every vector object is displayed with its fill. When disabled, only the outline will be visible.

To show or hide the fill, from the **View** menu, select **Show Fills**.

When Show Fills is disabled, the outlines can be displayed using the following modes:

Show layer color	All outlines are displayed using the layer color. See "Changing the Layer Color" on page 51 about how to change the layer's color
Show fill color	The outlines are displayed using the object's original fill color
Show path direction	The outlines are displayed using three colors. **Green** for clockwise paths, **Magenta** for counter clockwise paths and **Gray** for open paths. Selected objects will still be displayed using the layer color.

Show Fills Enabled *Show Fills Disabled (Show fill color)* *Show Fills Disabled (Show layer color)* *Show Fills Disabled (Show path direction)*

To change the way the outlines are displayed:

Double click the **Fill Mode** tool and select the **Wireframe** option.

Or

1. From the **Edit** menu, select **Preferences** command.

2. Click **Tools** Tab.

3. Select **Show Fills** in the list.

4. Select the Wireframe option.

5. Click **OK.**

Showing Path Directions

The direction in which the path will be cut or plotted is determined by the path direction. See "Path Direction" on page 150 about how to change the path direction.

You can visualize the path direction using **Show path direction** mode as described in previous item, or show direction arrows in each path.

To show or hide the direction arrows:

1. From the **View** menu, select **Show Path Direction**.

2. Select the object.

Paths with direction arrows
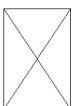
Previewing Bitmaps

You can display or hide bitmap images.

To show or hide the bitmap, from the **View** menu, select **Preview Bitmaps**.

Preview Bitmaps Enabled   *Preview Bitmaps Disabled*
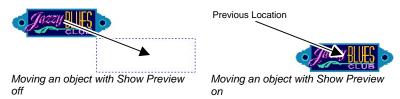
Showing Preview

When Show Preview is on, a copy of the object as it is being edited or moved is displayed. When this option is off, a rectangle representing the bounding of the object is displayed. Performing memory-intensive operations in complex objects may slow the system performance when Show Preview is on.

To show or hide the preview, from the **View** menu, select **Show Preview**.

Moving an object with Show Preview off

Moving an object with Show Preview on

Redrawing the Design Area

Occasionally, when you edit your design, those changes are not reflected accurately. To make sure that the design area is fully updated, select **Redraw** command from the **View** menu. This forces a redrawing of the design area.

Previewing Objects in CMYK

If you are going to print your document, you can preview how your output will look by using the CMYK soft preview. This feature will alter the colors in your document to show how they will look when printed. The colors outside the CMYK gamut will be adjusted to the nearest possible CMYK color value.

To preview the colors in CMYK mode, from the **View** menu, select **Soft Proof**.

📄 If objects in your document and the swatch table appear "washed out", it may be because the Soft Proof feature is on.

Soft Proof is Off

Soft Proof is On

To accurately preview the colors, you have to set up the correct Color Profiles and Rendering Intents that will be used in printing. See "Configuring the System for Color Printing" on page 219 for more details.

Filtering Objects by Color

Objects may be filtered by their color in the design area. For example, you can show all objects using RGB color space, or all green objects.

To filter objects using the Color Filter:

1. From the **View** menu, select **View Filter**.

2. Select the colors that will be visible.

    *   Click the color space checkbox to select all colors from this color space.

    *   Click the specific color within one color space to select or unselect this color.

    *   Click **Show All** to select all colors from all color spaces.

    *   Click **Show None** to unselect all colors from all color spaces.

3. Click **OK**.

📄 Filtering settings will not be saved with your document. The next time you open this file, all objects will be visible.

You can also filter objects by color using the context menu in the Color Swatch table:

1. Place the cursor over the color in the Swatch Table.

2. Right-click the Swatch Table. A menu is displayed.

3. From the **View** menu select the filtering option. The following options are available:

Hide This Color	Objects using this color will **not** be visible.
Show This Color	Objects using this color will be visible.
Show All Except This Color	Only the objects using this color will **not** be visible.
Hide All Except This Color	Only the objects using this color will be visible.
Show all colors	All objects will be visible.
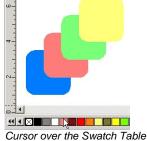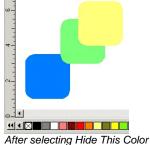
Cursor over the Swatch Table

After selecting Hide This Color

Tracking your Steps

Your software contains several tracking tools to retrace your steps, making it easier to recover from operation mistakes.

Undoing and Redoing the Last Step

To undo the last operation, from the **Edit** menu, select **Undo _____**. The name of the last operation is displayed after the **Undo** command.

To redo a step that you have just undone, from the **Edit** menu, select **Redo _____**.

Undoing and Redoing Multiple Steps

Instead of undoing just the last operation, you can undo a sequence of multiple steps.

1. From the **Edit** menu, select **Undo Multiple**.
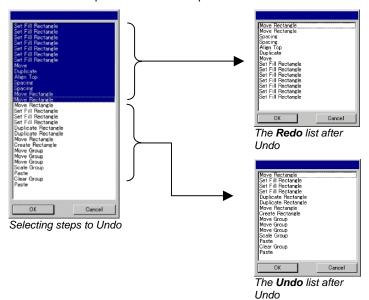
    A list with all recent steps is displayed. The steps are shown in order, with the most recent step appearing on the top of the list.

2. Click to select the steps that you want to undo, starting from the top.

    The design area dynamically shows a preview of the undoing process.

3. Click **OK** to confirm and apply the undo.

    The selected steps are undone and placed in a redo list.

Selecting steps to Undo

*The **Redo** list after Undo*

*The **Undo** list after Undo*

After undoing multiple steps, if you decide that you didn't want to undo those actions:

1. From the **Edit** menu, select **Redo Multiple**.

   A list with undo steps is displayed.

2. Click and drag to select the steps that you want to cancel the undo, starting from the top.

   The design area dynamically shows a preview.

3. Click **OK**.

The number of undo and redo operations that is allowed can be adjusted. For example, if you set the number of steps to 50, after performing the 50th step, the 1st step will be discarded and the 51st step will be placed at the top of the list.

To adjust the number of steps stored in undo list :

1. From the **Edit** menu, select **Preferences**.

2. In **General** Tab, enter the number of steps in **Maximum undo/redo**

3. Click **OK**.

Repeating the Last Step

To repeat the last step, select **Repeat** from the **Edit** menu. The name of the last operation will be displayed after the Repeat command.

Only the following commands can be repeated:

- Moving objects
- Duplicating objects
- Scaling objects
- Applying effects

Using Workspaces

Workspace stores how and where the menus, buttons, commands and keyboard shortcuts are defined. By changing the Workspace feature, you can rearrange the software's interface to look more like the design software that you are more comfortable with.

To change the workspace, from the **File** menu, point to **Workspace** and select the workspace.

Entering Numerical Values

The software supports a number of unique features that make it easier to enter numerical values.

Using Spinner Controls

30.00cm

Spinner Control

Use the spinner controls to increase or decrease the value. When you click, or click and hold, the mouse on one of the arrows, the value is increased or decreased incrementally. Using the arrow keys on your computer's keyboard will have the same effect.

Using Built-In Arithmetical Operations

The software is able to perform a number of calculations whenever a numerical value is being entered.

Automatic Unit Conversion

If you enter a value using a different unit of measurement than the default unit, the software will automatically convert the value to the default unit.

For instance, if your default unit is inches, you can enter a value of **1 ft**, and the software will convert the measurement to **12 in**.

Supported units are:

in, "	inch
ft, '	foot
mm	millimeter
cm	centimeter
m	meter
pt	point

Calculation of Ratios

If you enter a ratio in the format **A:B**, the software will scale the previous value in the field by the ratio entered.

For instance, if a value is set to **12**, and you enter **2:3**, the new value will be **8**.

Calculation of Percentages

If you enter a percentage in the format **X%**, the software will scale the previous value in the field by the percentage entered.

For instance, if a value is set to **10**, and you enter **90%**, the new value will be **9**.

Simple Arithmetic Operators

If you enter a simple arithmetic expression, the software will calculate the result of the expression and enter that value in the field.

The available arithmetic operators, in order of precedence, are:

/	Division
*	Multiplication
+	Addition
-	Subtraction

For example, if you enter **1/8**, the value **0.125** will be calculated.

Operator precedence determines the order in which the arithmetic operations will be calculated when more than one operation is specified. In the previous list, operators are listed from top to bottom in order of operator precedence. For instance, if you enter **6/2*3**, the software will calculate **6/2** first then multiply the result by **3**, yielding a result of **9**.

Automatic Application of Entered Values and Arithmetic

Once you enter a numerical value, ratio, or arithmetic expression in a numerical field, the software will automatically apply that value after a brief delay. You can also press **TAB** to apply the value immediately. Avoid pressing **ENTER**, as it will trigger the **OK** button and close the dialog.

Setting Preferences

Many aspects of your software may be saved so that they are set up the way you like every time you open a new file. These settings are known as **program preferences**.

There are other settings that are saved on a document basis. Which means that each time you open or save a document, the settings will be applied only for that particular document. These settings are known as **document preferences**.

To change the program preferences, from the **Edit** menu, select **Preferences**.

Preferences - General Tab

In this dialog box, you can set the general attributes of your software:

Maximum Undo/Redo	Determines the number of operations stored in the undo / redo list. Smaller values in this field use less memory.
Selection Tolerance	Determines how close the cursor must be from the object to select it. Setting a larger value makes it easier to select points.
Constrain Angle	Sets the constrain angle when you rotate an object with the **SHIFT** key pressed. The rotation will be performed in increments defined by this field.
Save Documents Every	Open documents will be periodically saved. You can specify the time period between saves.
Trash Capacity	Number of objects that can be saved in the trash layer.

Precision	Number of decimals in numeric fields.
Restore Defaults	Click this button to restore the default settings for above fields.

Preferences - File Path Tab

In this dialog box, you can set the default folders used in your software:

Document	The default folder used to store your documents.
Temporary Files	The default folder used to create temporary files. If you have multiple hard disks, select a folder in the hard disk with more free space available.
Adobe Plug-ins	If you have the Adobe Photoshop installed, specify here the folder where the plug-ins are stored.
Browse	Click this button to change the folder.
Restore Defaults	Click this button to restore the default settings for above fields.

Preferences - Font Tab

In this dialog box, you can set the default settings for external FSfonts:

Path	The folder where the FSfonts are stored.
Add	If the FSfont is protected by a password, click this button to enter the password.
Delete	Click this button to delete the selected password.
Browse	Click this button to change the folder.
Restore Defaults	Click this button to restore the default settings for above fields.

Preferences - Tools Tab

In this dialog box, you can set the default settings for some of the tools available in the software.

Apply Template	These preferences allow you to specify the default template used when you apply a template. See "Using Templates" on page 38.
Combine Options	These preferences allow you to specify the options used in Combine effect. See "Combine Effect Options" on page 192.
Cut/Plot or **RIP and Print**	This tool allows you to specify that the software must communicate with Production Manager using TCP/IP.
	▤ Clear this box if the operating system is not Windows NT, 2000 or XP, or if the computer is running firewall software that might interfere with TCP/IP communications.
	▤ This setting is not present on the Macintosh.

	Meter	These preferences allow you to specify the colorimeter used in your software to measure color values and the port where the measurement device is connected. For more information about how to use the measurement device, see "Defining New Colors Using the Color Specs Dialog" on page 87 and "Modifying Existing Color Libraries (Windows Only)" on page 93.
	Paste	These preferences allow you to specify if the copied objects will be automatically created when pasted, and the offset distance from the original object. See "Duplicating Objects Using Copy and Paste" on page 64 for more information.
	Select Tool	These preferences allow you to specify how the objects will be selected. See "Selecting Objects Using Select Tool" on page 55 for more information.
	Show Fills	These preferences allow you to specify how the paths are displayed when the **Show Fill** option is off. See "Showing Object's Fill" on page 15 for more details.
	Text Tool	Sets several aspects of the text tool. See "Text Preferences" on page 138 for more information.
	Tip of the Day	Displays a tip when you start your software.
	Zoom	Selects if the zoom and pan tool will be used only once. See "Zooming and Panning" on page 13 for more information.

Macintosh User Interface Features

The following section lists features of the Macintosh user interface that are different than the corresponding features under Windows.

Macintosh Shortcut Keys

When keyboard shortcuts are listed, use the following list to find the equivalent shortcut key on the Macintosh.

Windows System		Macintosh System
Right-click the mouse	=	Click the mouse while holding down the **CONTROL** key
CTRL key	=	**COMMAND** key (apple/clover)
ENTER key	=	**RETURN** key
BACKSPACE key	=	**DELETE** key
DELETE key	=	**DEL** key

📄 You can access the context menu for the ruler and swatch table by clicking on them and holding the button down.

Macintosh Menus

The following menu items are in different places on the Macintosh than they are under Windows.

Windows Menu > Item		Macintosh Menu > Item
File > **Exit**	=	[Application] > **Quit**
File > **Print Setup**	=	**File** > **Page Setup**
Recently viewed files (bottom of **File** menu)	=	**File** > **Open Recent**
Edit > **Preferences**	=	[Application] > **Preferences**
Edit > **Paste Special**	=	[No Macintosh equivalent.]
Help > **About**	=	[Application} > **About**

Other Controls

The following controls are found in a number of dialogs, and are named differently on the Mac.

Windows Control		Macintosh Control
Browse button	=	**Choose** button

Getting Help

From the **Help** menu, point to **Help Topics** to view the full online documentation for the software. The online help contains all of the information in this guide, plus information on all the other commands in your software.

Exiting the Software

To exit the software under Windows:

- From the **File** menu select **Exit**.

- Right-click on the software icon in the system tray and select **Exit** from the context menu.

To exit the software under Macintosh OS X:

- From the **FlexiSIGN-PRO** menu, select **Quit FlexiSIGN-PRO**.

- Hold down the **CONTROL** key and click on the **FlexiSIGN-PRO** icon in the dock. From the contextual menu, select **Quit**.

3. Working with Files

Your document can contain any combination of vector, bitmap, OLE or PostScript objects.

Vectors   Vectors are a collection of straight or curved segments. These objects can be scaled to any size without losing detail or clarity. Shapes like rectangles, circles and text are vector objects.

Bitmaps   Also called raster images, bitmaps are formed by a grid of small dots, known as pixels to represent images. Each pixel is assigned a specific location and color value. A low resolution bitmap image can appear jagged when printed.

PostScript   Images described using a page-description language known as *PostScript*. These objects can contain a combination of vector and bitmap images. When imported into your document, PostScript objects can be parsed or previewed.

OLE   OLE is the abbreviation of *Object Linking and Embedding* and it is available only for Windows. OLE is a compound document standard developed by Microsoft and it enables you to create objects with one application and then link or embed them in your document.

Vector objects   *Bitmap object*   *Parsed PostScript object*   *OLE object*

Creating New Documents

To create a new document:

- From the **File** menu, select **New**.

Opening Files

To open an existing file:

1. From the **File** menu, select **Open**.

2. Select the file format, folder and the file that will be opened. See "Appendix C - Supported File Formats" at page 333 for all supported file formats.

3. Click **Open**.

   If the file contains fonts that are not installed in your system, a dialog box will appear, allowing you to select a replacement font.

📄 Double clicking the file icon in Windows Explorer or dragging the file icon to your software icon on desktop, will start the application and open the file.

——— Double click to open the file

Importing Files

To import an existing file into the current document:

1. From the **File** menu, select **Import**.

2. Select the file format, folder and the file that will be imported. See "Appendix C - Supported File Formats" at page 333 for all supported file formats.

3. Click **Import**. A bounding box will be displayed.

   TAB key changes the position of the cursor on the bounding box. **ESC** key stops the import operation.

4. Click the design area and place the imported object.

If the file contains fonts that are not installed in your system, a dialog box will appear, allowing you to select a replacement font.

📄 If the **Auto-place on paste and import** option in **Paste preferences** is enabled, the file will be imported immediately after clicking the **Import** button in step (3).

Saving Documents

To save the current document:

1. From the **File** menu, select **Save** or **Save as**.

2. If you have selected the **Save as** command or your are saving the document for the first time, a dialog box is displayed. Enter the name and the location that will be used to save the document.

3. Click **Save**.

Exporting to Files

To export the current document or part of it into a file:

1. If you are exporting only part of your document, select the objects that will be exported.

2. From the **File** menu, select **Export**.

3.   Select the file format, folder and the file name. See "Appendix C - Supported File Formats" at page 333 for all supported file formats.

The following options are available:

Selection only	Check this option to export only the selected objects.
Suppress options	Some file formats will show an option dialog box before exporting to a file. Check this option to bypass the options dialog box.

4.   Click **Export**.

Emailing a Job (Windows Only)

To send the current job to someone as an email attachment, from the **File** menu, select **Send**.

A new email message will be created in your default email program, and the current job will be added to the message as an attachment.

Sending a Job to EnRoute (Windows Only)

If you have the EnRoute program installed on your computer, the software allows you to transfer the current design directly to EnRoute.

To transfer the current design to EnRoute, from the **File** menu, select **Send to EnRoute**.

Closing Documents

To close the current document:

1.   From the **File** menu, select **Close**.

2.   If your document have been changed since the time it was last saved, a dialog box is displayed asking if you want to save the current document.

     - Click **Yes** to save the document before closing it.

     - Click **No** to close the document without saving.

     - Click **Cancel** to exit the closing procedure.

Linked and Embedded Files

When importing bitmap, EPS or PostScript files, you can link or embed the file into your document. A link is a connection between the document and the original file.
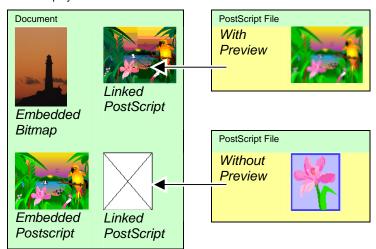
Embedded object	An embedded object is contained in your document. Once a file is embedded, there is no longer a connection between it and the file from which it came. Changes to the original file have no effect on the embedded object.
Linked object	When an object is linked, only a reference to the image file is stored in the document. The image information remains in the original image file. If the image file is changed, those changes will also appear in your document. Since linking to a picture preserves the original attributes of the image file, it is recommended for color printing.

📄 PostScript files often contain an optional preview graphic. When you link or embed a PostScript file, the preview graphic will be displayed in your document. If the PostScript file does not contain a preview, a "X" will be displayed instead.

Embedded PostScript files will automatically be converted into the equivalent drawing objects from the software, at which point they can be displayed and edited like any other object.

Embedding Linked PostScript Files

To read in and parse a linked PostScript file, so that it becomes an embedded file:

1. Select the preview of the linked PostScript file.

2. Select the **PostScript** tab in DesignCentral.

3. Click **Parse**.

Using OLE Objects (Windows Only)

The OLE (Object Linking and Embedding) feature of Windows allows you to import objects that were created using other software installed on your computer such as spreadsheet and word processors.

Inserting OLE Objects

1. From the **Edit** menu, select **Insert New Object**.

2. Select the type of object you want to create. Only programs that are installed on your computer that support OLE appear in the list.

3. Select **Create New** option to create a new OLE object using the selected application.

   📄 Check **Display As Icon** to show the OLE object simply as an icon. Click **Change Icon** button to change the icon.

4. The selected programs will start, creating a window inside your software.

5. Resize and edit the contents of the window, using the selected program.

6. To finish using the selected program, press **ESC** key or click anywhere outside the program window.

Design area with an Excel spreadsheet.

After the OLE object has been inserted

Inserting Existing Files as OLE Objects

1. From the **Edit** menu, select **Insert New Object**.

2. Select **Create From File** to merge an existing file into your document.

3. Click **Browse** and find the file to be inserted.

- Check **Display As Icon** to show the OLE object simply as an icon. Click **Change Icon** button to change the icon.

- Check **Link** option to link the selected file. The object in the file will be stored apart from the document, and all the changes made in the source file will be reflected in your document. If the **Link** option is unchecked, the object will be embedded and stored with the document.

4. Click **OK**.

The document with a linked OLE object.

Editing OLE Objects

To edit an OLE object:

1. Select the OLE object.

2. From the **Edit** menu, point to **[...] Object** and then click **Edit** or **Open**.

When you select **Edit**, the program associated with the OLE object will start in a window inside your document and will be finished after the edition. If you choose **Open**, a full instance of the program will start and you may leave this application running even after editing the OLE object.

📄 Double clicking the OLE object has the same effect as Edit command

Converting OLE Objects

You can convert OLE objects to another format:

1. Select the OLE object.

2. From the **Edit** menu, point to **[…] Object** and then click **Convert**.

3. Select the new format from the list.

4. Click **OK**.

You can also convert OLE objects to basic segments and bitmaps:

1. Select the OLE object.

2. From the Arrange menu, select Convert Linked to Native.

Changing Linking Properties of OLE Objects

1. From the **Edit** menu, select **Link**.

2. Change the following linking options:

Automatic / Manual	By default, linked objects are set for Automatic updating. This means that your software automatically updates the linked information every time you open the document or any time the linked file changes when the document is open. Select Manual to update the object in your document only when you choose to manually update it.
Update Now	When in Manual mode, click this button to updates the OLE object in your document to reflect the situation of

the original file.

Open Source	Click this button to open the linked file using the associated program.
Change Source	Click this button to change the linked file, replacing the current file with another one.
Break link	Click this button to permanently break the connection between a linked object and its source file.

Working with Job Info

Your program allows you to store information about the job with each file you create. You can add or change information about a job at any point in the design and production process. This information becomes part of the file and is saved when the file is saved.

Job Tab   *Customer Tab*   *Statistics Tab*

To view or edit the Job Info:

1.   From the **Edit** menu click **Job Info**.

2.   There are three tabs that you can view or edit the job info:

Job Tab	In this dialog box you can edit the information about this particular document.
Customer Tab	In this dialog box you can edit the information about the customer.
Statistics Tab	This dialog box contains stored information about the job, including the amount of time spent editing it, the number of times it was revised (the number of times it was saved), as well as other information. Clicking Reset button will restore the number of revisions and the total editing time on a file.

3.   Click **OK**.

Finding Files

The Find File feature allows you to search for specific files. You can search the file based on file name or any of the parameters of Job Information.

To search for one file:

1.   From the **File** menu, select **Find File**.

---

2. Click **Browse** and select the folder where the search will be performed. If you want to search all sub folders check the **Include subfolders** option.

3. Enter the search condition:

   - If you want to search a file by its name, enter the file name in **Named** field.

   - If you want to search a file using any of the job information, select the job info field from the list provided and enter the search text in the **contains** field. For example, to search for all jobs where the order was taken by John Doe, you would select **Order Taken by** and type **John Doe** into the **contains** field.

4. Click **Search** button.

5. A list with all files matching the search condition will be displayed.

6. Select the file in list and:

   - Click **Job Info** button to show the job information.

   - Click **Open** button or double click the file in the list to open the file.

   - Click **Cancel** button to end the search.
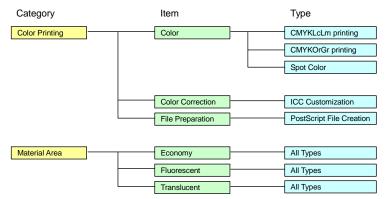
Job Estimation

Job Estimation is a tool for producing price estimates of your job. The Job Estimation stores accounting information for each job, calculates price automatically, and gives a price estimate. The information can always be changed or customized to reflect your costs and needs.

📄 This feature is intended to be a guideline and therefore all results should be thoroughly reviewed before basing any business or financial agreements upon them.
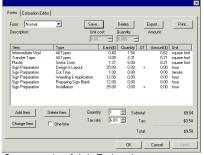
The estimation is calculated based on some elements of your design like the number of characters or the material area. These values are automatically gathered from your document. Other values like preparation time must be manually entered when doing the job estimation.
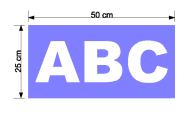
Those cost elements used in job estimation are grouped in **Category, Item** and **Type**:

Category	Item	Type
Color Printing	Color	CMYKLcLm printing
		CMYKOrGr printing
		Spot Color
	Color Correction	ICC Customization
	File Preparation	PostScript File Creation
Material Area	Economy	All Types
	Fluorescent	All Types
	Translucent	All Types

Using Job Estimation

1. From the **Edit** menu click **Job Estimation**.

2. Select the **Form** type.

3. Select the Item in the list and edit the **Unit Cost**, **Quantity** and **One Time** fields for selected item. Repeat this process for all items that need any correction.

4. Edit the **Quantity** and **Tax** rate fields.

5. After the estimation is completed, you can either print an invoice by clicking **Print** button or save the estimation values as a text file clicking **Export** button.

📄 The **Total** value will be automatically inserted in Job Info - Job Tab.

One sample of Job Estimation.

Customizing Forms

You can customize the existing forms to match your needs:

1. From the **Edit** menu click **Job Estimation**.

2. Select the **Form** type that will be changed.

3. Change the form by clicking the buttons described below:

Add Item	Adds a new item to the list. Click this button and select the Category, Item and Type in the dialog box that is displayed. If the item is one that incurs only a one-time cost for the entire run of finished pieces, such as design time, check **One time**.
Change Item	Select one item in the list and click this button. Then, select the Category, Item and Type. The new item will replace the selected item.
Delete Item	Select one item in the list and click this button. The item is deleted from the list
Delete	Deletes the Form type from the list.

4. After all changes are done, click **Save** to save as a new form.

5. Enter a name that will appear in the Form list.

6. Click **OK**.

Customizing the Item List

The Estimation Editor allows you to customize your prices to correspond to your normal charges. Once you make a change using the Estimation Editor, it is reflected every time you insert an item that uses the data you changed.

You can customize the items list to match your needs:

1. From the **Edit** menu click **Job Estimation**.

2. Select the **Estimation Editor** Tab.

3. Select the **Category** type that will be changed. The following types are available:

Built In	Items that are automatically computed based on the design information such as working time and number of colors.
Color Printing	Items used in color printing.
Material Area	Computes based on the size of the drawing objects.
Services	Single item charges and non-automatic items.
Substrate	Computes based on drawing size.
Text Size	Computes based on the number and size of each character.

4. You can create a new category by clicking the **New** button. Clicking **Delete** button will delete a category and all its types and items.

5. To create or delete an item or type inside the selected category, click the buttons described below:

New Item	Click this button and type the new item name to add a new item to the Item list.

Delete Item	Select an item in the list and click this button. The item is deleted from the list.
New Type	Click this button and type the new type name to add a new item to the Type list.
Delete Type	Select a type in the list and click this button. The type is deleted from the list.

6. To change one type, select the type and item from the list and change the following fields:

Cost	Allows you to enter a new default cost per unit for the selected type.
Markup	Percentage of the items cost to include as markup for profit margin and to cover the cost of wasted materials.
Minimum	Allows you to enter a new minimum charge for the selected type. To remove the minimum charge, enter zero (0.00).
One Time	Use this option when a particular item will be charged only one time, independently from the value set in Quantity field.
Unit	This is the unit of measure by which the row is calculated, such as inches, square foot or per hour, day, week, or month.

📄 You can print a list with all categories and their item and types clicking **Print** button.

7. Click **OK**.

Templates

Templates allow you to:

- Make multiple copies of your document using a pre-defined layout.

- Create documents such as invoices based on Job Information

Creating copies of a document. The copies are created using the following pattern:

(2) 4.0 x 5.0 inches

(2) 2.5 x 3.5 inches

(4) 2.0 x 2.5 inches
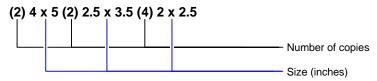
Invoice created using the template feature

📄 If necessary, the original document will automatically be rotated to fit into the space proved by the picture placeholders in the template.

Applying Templates

To apply a template to your document:

1. Open an existing document or create a new one.

2. From the **File** menu, point to **Templates** and then click **Apply Template**.

3. Choose the template from the list. The templates are named following the convention:

(2) 4 x 5 (2) 2.5 x 3.5 (4) 2 x 2.5

——————————————————————— Number of copies

——————————————————————— Size (inches)

4. Choose **Select**.

5. A new document will be created using the template and the original document.

📄 When a template is applied to a document, any dimensions or registration marks contained in the document are converted into outlines.

Setting the Default Template

To select the template that will be selected by default in the Select Template dialog:

1. From the **Edit** menu, select **Preferences**.

2. Select the **Tools** tab of the Preferences dialog.

3. Select **Apply Template** from the list of tools.

4. Select the template you want to make the default from the **Default Template** list.

5. Click **OK**.

Templates Toolbar

To display the Template toolbar, from the **File** menu, point to **Templates** and then click **Template Toolbar**.

The Templates toolbar will be used to create and modify existing templates. This toolbar contains buttons that represents the placeholders. Placeholders are fields that will be replaced by objects, images or information from the original document when a template is used.

The following placeholders are available:

The **Active Drawing** placeholder is replaced by the original document.

The **Used Colors** placeholder is replaced by a list with all colors used in the original document.

- Black   - Deep Red
- Purple   - Red
- Dark Brown   - Yellow
- Satin Gold   - Cocoa

The **Used Fonts** placeholder is replaced by a list with all fonts used in the original document.

Arial-Regular
Arial-Bold
Arial-Italic
Century-Regular
Courier New-Regular

The **Job Info** placeholder is replaced by a value from job info and other information from the original document.

Job Number: 12345
Price: 6493.16
Order Taken By: John Doe
Order Number: 12345
Order Date: 12/25/2001
Delivery Date: 12/27/2001

Job Info	shows information from Job info - Job Tab.
Customer Info	shows information from Job info - Customer Tab.
Other	shows other information from the original document, such as number of colors, fonts and characters used.

Creating New Templates

You can create your own custom templates:

1. Open a new document.

2. Select the placeholder from the **Template** toolbar.

3. Click and drag the cursor on design area.

4. Adjust the placeholder's attributes in DesignCentral - Template Tab.

5. You can add other objects other than placeholders. Every object available in your software like bitmap, text and shapes can be used in a template.

6. From the **File** menu, point to **Templates** and then click **Save as Template**.

The template has been created. Template objects can be masked, colored and have an effect applied to them.

Editing Existing Templates

You can modify an existing template:
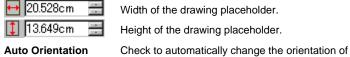
1. From the **File** menu, point to **Templates** and then click **Open Template**.

2. Select the template in the list.

3. Adjust the placeholder's attributes in DesignCentral - Template Tab.

4. From the **File** menu, point to **Templates** and then click **Save Template** or **Save as Template**.

The Save Template command will save the current template, Save as Template will save the template in a new file.
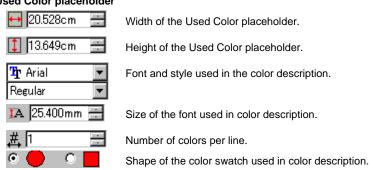
Changing Placeholders Attributes in DesignCentral

Each placeholder will have different fields in the DesignCentral - Template Tab.

For Drawing placeholder
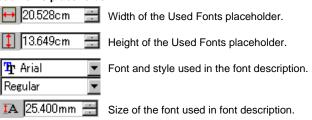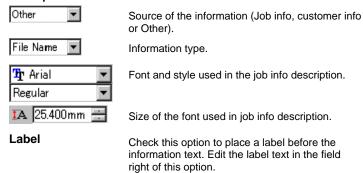
↔ 20.528cm	Width of the drawing placeholder.
↕ 13.649cm	Height of the drawing placeholder.
Auto Orientation	Check to automatically change the orientation of the drawing to match the original file.

For Used Color placeholder

↔ 20.528cm	Width of the Used Color placeholder.
↕ 13.649cm	Height of the Used Color placeholder.
T Arial / Regular	Font and style used in the color description.
IA 25.400mm	Size of the font used in color description.
# 1	Number of colors per line.
⊙ ● ○ ▮	Shape of the color swatch used in color description.

For Used Fonts placeholder

↔ 20.528cm	Width of the Used Fonts placeholder.
↕ 13.649cm	Height of the Used Fonts placeholder.
T Arial / Regular	Font and style used in the font description.
IA 25.400mm	Size of the font used in font description.

[# icon] `1`	Number of font descriptions per line.

For Job Info placeholder

`Other` ▼	Source of the information (Job info, customer info or Other).
`File Name` ▼	Information type.
Tr `Arial` ▼ `Regular` ▼	Font and style used in the job info description.
IA `25.400mm`	Size of the font used in job info description.
Label	Check this option to place a label before the information text. Edit the label text in the field right of this option.

4. Using DesignCentral

DesignCentral displays an object's properties. It displays tabs and options appropriate for the selected object. For example, when a rectangle is selected, DesignCentral displays the width, height, corner style, and other properties appropriate to a rectangle. When text is selected, it displays the font, font style, character height and width, and other settings.

Displaying DesignCentral

To view DesignCentral:

- From the **View** menu, select **DesignCentral**.

DesignCentral

DesignCentral Tab

DesignCentral consists of several windows, known as "Tabs". The number of Tabs and the content vary according to the objects that you have selected in your document.

You can select a Tab, by clicking on its indicator in DesignCentral, or double-clicking the object. Each double-click will move to the next available Tab.

DesignCentral - Document Tab

Use the Document tab to specify the size of the drawing area and the color of the substrate (the background color). A number of standard document sizes are included. You can specify a custom drawing area size by entering new horizontal and vertical values.

To show the Document tab, do one of the following:

- Open DesignCentral and then click an empty area in the document.

- From the **File** menu, select **Document Setup**.

DesignCentral - Margin Tab

Use the Margin tab to specify the margins around a drawing area.

These margins are used when objects are aligned / distributed and also are useful for laying out elements symmetrically. See "Aligning Objects" on page 73 for more details.

Click here to :
- Add a new document size
- Delete an existing document size
- Set a default document size
- Hide the design area borders

Click here to specify the color of the substrate

DesignCentral - Document Tab

DesignCentral - Margin Tab

DesignCentral - Size Tab

The Size Tab of DesignCentral allows you to change the size and position of selected objects. You can change objects by dragging the control points or by changing the numerical values in DesignCentral.

To change the size of an object:
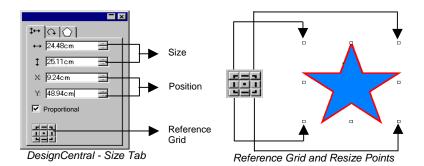
1.   Select the objects.

    After selecting an existing object, the Size, Rotate and Object Tabs are available.

2.   Change the size of an object by editing the values in the entry box at Size Tab or dragging the control points of the selected object.

📄   Checking **Proportional** ensures that the object will be scaled proportionally in both the width and height.

To change the position of an object:

1.   Select the objects.

2.   Change the position by editing the values in the entry box or dragging the object.

The X, Y coordinates displayed in DesignCentral are the position of the reference point, measured from the origin. See "Rulers and Grid" on page 11 about how to change the origin.
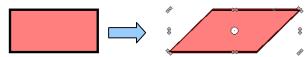
You can change the reference point by using the Reference Grid. Each button in the grid corresponds to a point on the selected object. If you want to position the center of an object, click the center point in the point selection grid.

| Size |
| Position |
| Reference Grid |

DesignCentral - Size Tab

Reference Grid and Resize Points

DesignCentral - Rotate Tab

The Rotate Tab of DesignCentral allows you to rotate, shear or mirror selected objects. You can change them either by dragging the object's control points or by changing the numerical values in DesignCentral.

📄 **Shear** is the process that distorts one object by an angle, using one point as a reference; this point's position is fixed.


A rectangle sheared to an angle of 45 degrees

To rotate an object:
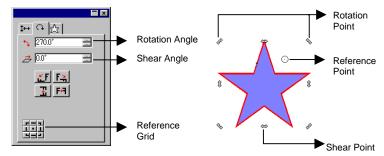
1. Select the objects.

   After selecting an existing object, the Size, Rotate and Object Tabs are available.

2. Select the point that will be fixed during the rotation:

   • Clicking one point on Reference Grid in DesignCentral - Rotate Tab.

   Or

   • Click and drag the Reference Point to the desired position. **CTRL** while dragging fixes the Reference Point to the settings on the Reference Grid.

3. Change the angle of rotation by editing the values in the entry box or dragging the Rotation points. Click the **Rotate +90 degrees** or **Rotate -90 degrees** button to rotate the object 90 degrees counterclockwise or clockwise.

DesignCentral - Rotate Tab

To shear an object:

1. Select the objects.

   After selecting an existing object, the **Size**, **Rotate** and **Object** tabs are available.

2. Select the point that will be fixed during the shearing:

- Clicking one point on Reference Grid in DesignCentral - Rotate Tab.

  Or

- Click and drag the Reference Point to the desired position. **CTRL** key while dragging fixes the Reference Point to the settings on the Reference Grid.

3. Change the shear angle by editing the values in the entry box or dragging the Shear points.

To mirror an object:

1. Select the objects.

   After selecting an existing object, the Size, Rotate and Object Tabs are available.

2. Click **Flip X Axis** or **Flip Y Axis** in DesignCentral - Rotate Tab to mirror the selected object horizontally or vertically.

Original Object   *Mirrored horizontally*   *Mirrored vertically*

DesignCentral - Object Tab

The Object Tab will vary according to the objects that you have selected.

In some cases, the Object Tab consists of two tabs. For instance, when you select text, you have a Character Tab and a Paragraph Tab.
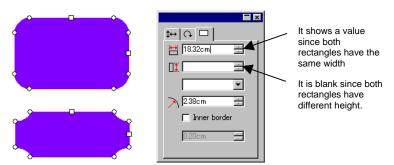
Object Tab when a Star is selected / created

Object Tab when a Text is selected / created

Object Tab when a Path is selected / created

When you are creating an object, only the Object Tab is visible. After selecting an existing object, the Size, Rotate and Object Tabs are available.

The Object Tab is not available when different types of objects (like text and rectangle) are selected. However, if you select objects with same type, their **common** properties are displayed in DesignCentral.

It shows a value since both rectangles have the same width

It is blank since both rectangles have different height.

Object Tab when both rectangles are selected

DesignCentral - Effects Tab

When you apply an effect over an object, DesignCentral displays the Effect Tab, with all properties of the effect.

DesignCentral - Effect Tab
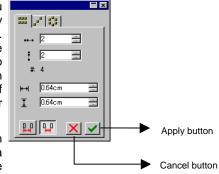
The Object Tab for the object where the effect was applied is not visible in DesignCentral, but you can still select it using the **Select Within** tool or double-clicking the object with **CTRL** key pressed. See "Selecting Objects Within an Effect" on page 56 for more details.

DesignCentral - Setup Tab

Many of the changes you make are automatically applied as you change them. You will notice that some commands, contain two buttons (**Apply** / **Cancel**) on bottom right side of DesignCentral to confirm or cancel the command.

DesignCentral will open automatically if there is a Setup Tab associated with the command.

Apply button

Cancel button

DesignCentral - Setup Tab copy command
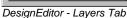
5. Using DesignEditor

DesignEditor is a powerful organizational tool to manage the various layers and objects in your drawing. You can choose to display some layers and hide others, delete or add layers, and do similar functions with individual objects.

Displaying DesignEditor

The DesignEditor consists of two screens: the **Layers Tab** and **Objects Tab**

DesignEditor - Layers Tab

DesignEditor - Objects Tab

To view the DesignEditor:

- From the **View** menu, select **DesignEditor**.

DesignEditor - Layers Tab

Layers are a convenient way to organize the elements of your design for easy access and editing. Think of layers as sheets of acetate stacked one on top of another. Where there is no image on a layer, you can see through to the layers below. Behind all of the layers is the Substrate and the Trash Layer.

The layer at the bottom of the tab is the bottom layer of your design, and the layer at the top of the tab is the topmost layer in the stack.

By default, each new drawing that you open has the following layers:

Substrate Layer	Represents the surface on which your design might be applied. You cannot delete, copy, or edit the substrate layer. However, you can move it to a different location in the stack, or hide it from view (so that its color is not visible).
Grid Layer	The Grid layer is placed immediately on top of the substrate layer. Use the grid to help you position objects in the drawing area. For more information about the Grids see "Rulers and Grid" on page 11.

Guide Layer	The Guide layer contains the drawing Guides. For more information about Guides see "Guide" on page 12.
Trash Layer	The Trash layer contains the objects that were deleted from your document. This layer allows you to recover objects that were accidentally deleted; see "Deleting Objects on page 77 for more details about how to recover deleted objects.
Layer 1, 2, 3...	These layers contain the actual objects that were created in your document. You can have as many layers as you like for each design.
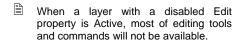
The layer that is highlighted in the Layers tab is called the **Active** layer. At any given time, one of the layers must be active.

📄 When a layer with a disabled Edit property is Active, most of editing tools and commands will not be available.

When you right click on any of the layers, a menu is displayed and the following commands are available:

New Layer	A new layer is created. The new layer will be added above the active layer.
Delete Layer	The active layer is deleted.
Duplicate Layer	A copy of the active layer is created. The new layer will be added above the active layer.
Rename	Changes the active layer's name.
Properties	Shows the properties for the active layer.

You can also click the buttons on the top of the DesignEditor - Layer Tab to perform some of the above commands.

New Layer   Delete Layer   Duplicate Layer   Empty Trash

Showing Layer Properties

Each layer has the following properties:

Visible	👁	Specifies if the layer is visible or not. Always disabled for Trash Layer.
Editable	✏	Specifies if the layer is editable or not. Not available for Trash, Grid and Substrate layers.
Printable	🖨	Specifies if the layer will be printed or not. Always disabled for Trash Layer.
Cuttable		Specifies if the layer is cuttable or not. Always disabled for Trash and Grid Layer

You can change the layer properties by doing one of the following:

- Clicking the icon on the DesignEditor - Layer Tab. When the property is disabled, it displays a "X" over the icon.
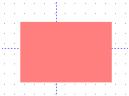
   Visible Property Enabled   *Visible Property Disabled*
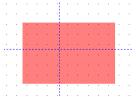
- Right-clicking the layer and selecting the **Properties** command from the menu. Edit the property in the **Layer Properties** dialog box that will be displayed.

Changing the Layer Order

The order of the layer in the stack determines how the objects are displayed in your design area.

Layer 1 above the Guide and Grid layers

Layer 1 below the Guide and Grid layers

You can re-arrange the order of the stack by simply clicking and dragging a layer to a new position. A horizontal dashed line displays to indicate where in the stack the layer will be placed.

Merging Layers

When you merge one layer with another, all elements of the layer that you merged are added to the target layer.

To merge layers:

1. Click and hold the mouse on the on the layer you want to merge.

2. While holding down the **CTRL** key, drag the layer to the layer you want to merge it with.

   A horizontal dashed line displays directly over the target layer to indicate that the layer will be merged.

3. Release the mouse button.

Changing the Layer Color

Each layer is associated with a color. For the **Guide** and **Grid** layers, this color is used to show its objects. For the **Layers 1, 2, 3…** this color is used to:

- If the option "Show Layer Color" in **Show Fill** preferences (see "Showing Object's Fill" on page 15 for more details) is selected, all objects are displayed using this color in wireframe mode.

- The border of selected objects is displayed in this color.

- If the **Show Preview** option is off (see "Showing Preview" on page 17), the preview for that layer is displayed in this color.

To change the color of a layer, do one of the following:

- Drag any color from the Color Swatch and drop it directly onto the color icon on the DesignEditor - Layer Tab dialog box.

- Open the **Layer Properties** dialog box and click the swatch, then select a color from the list.

DesignEditor - Objects Tab

Every time you draw a shape, create text, or add any element to your design, information about that element is stored in the Objects Tab of the DesignEditor.

- Each object is assigned a number to distinguish it from other objects of the same type (e.g.: Rectangle 1, 2, 3 ..).

- Objects are stacked in the order they are created, with new objects being placed on top of older objects.

- Effects, such as shadows, stripes, and outlines, always appear higher in the stack than the object to which they are applied.

The Objects Tab is an excellent way to view the structure of your document. You can see the elements in each layer of your document, as well as the various effects and other changes that you've applied to each element.

Selecting Objects Using the Object Tab

The DesignEditor - Objects Tab allows you to quickly locate and select specific objects. This is useful when your design is complex, and selecting individual objects in the conventional way (pointing and clicking) has become difficult.

To select an object, select the object's name in the DesignEditor - Objects Tab.

SHIFT or **CTRL** keys selects multiple objects.

📄 You can even select individual objects among compounded or grouped objects.

When you select an object in the design area, the corresponding item is automatically highlighted on the DesignEditor - Objects Tab.

Changing Objects Order

You can change the order of an object by clicking and dragging an object to a new location in the stack. You can change the stack order of objects within a particular layer, or you can move objects from one layer to another.

1. Click on the object that you would like to move / reorder in the Objects Tab.

2. Drag the object to the desired location.

    -   **SHIFT** key while you drag **replaces** the highlighted object with the one you're moving.

    -   **CTRL** key while dragging **duplicates** the object and places it in the new location.

    -   Right clicking while dragging displays a menu with the following options:

        o   Move and Insert

        o   Move and Replace

        o   Copy and Insert

        o   Copy and Replace

3. Release the mouse button when the object immediately under the object to be stacked is highlighted.

Renaming Objects
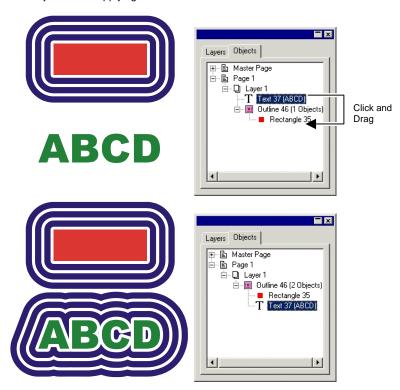
To rename an object in DesignEditor - Objects Tab:

1. Click the object in DesignEditor - Objects Tab

2. Click the same object again.

3. Type the new name.

Applying Effects

When you move an object underneath an effect, that effect is applied to the object. This can be useful when you have applied a number of effects to a particular object and want to apply those same effects to another object. To do this, simply move the object within the hierarchy of the effect, or group of effects, that you want to apply.

📄 When you apply effects in this way, they are applied to the objects underneath them as a group. It is not the same as individually selecting an object and re-applying the same effects.

6. Selecting Objects

There are several ways to select objects, from the most basic point-and-click method to sophisticated selection criteria. Selected objects display with a selection border and Control Points around them, to distinguish selection from other objects.

The color of the Selection Border can be specified by using the DesignEditor - Layer Tab. See "Changing the Layer Color" on page 51 for more details.

Selecting Objects Using the Select Tool

To select objects using the Select tool:
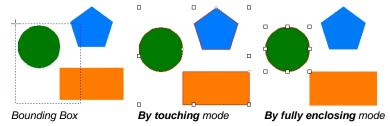
1. Choose **Select** tool.

2. Click the object that you want to select.

   To select multiple objects, hold down the **SHIFT** key, and then click on multiple items.

You can make a selection by using two modes. When you are in the **By touching** mode, any object that intersects the bounding box is selected. When you are in the **By fully enclosing** mode, the selection is restricted to those objects that are fully enclosed in the bounding box.

To select objects using the bounding box:

1. Choose **Select** tool.

2. Click and drag, creating a bounding box around those objects you want to select.

📄 Holidng the **CTRL** key while creating the bounding box temporarily toggles the selection mode to the other setting.

Bounding Box   ***By touching** mode*   ***By fully enclosing** mode*

Changing Default Selection Mode

The default setting in your program is **By touching**. To change the default setting, double-click the **Select** tool, or do the following:

1. From the **Edit** menu, select **Preferences** command.

2. Click **Tools** Tab.

3. Click **Select** tool on the list.

4. Change the selection mode.

5. Click **OK**.

Selecting Objects Within an Effect

To select an object within an effect (an object with an outline, for example):

1. Choose **Select Within** tool.

2. Click the object that you want to select.

   Or
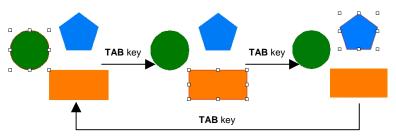
1. Choose **Select** tool.

2. **CTRL** key and double-click the object that you want to select.

Rectangle selected within an Outline effect

Selecting Objects Using the TAB Key

Pressing the **TAB** key selects the next object. The selection order follows the order that the objects were created.

Selecting Similar Objects

This feature selects all objects with similar shape to the currently selected object.

1. Select an object.

2. From the **Edit** menu, point to **Select** and then click **Select Similar Objects** command.

Selecting Objects With The Same Color

This feature selects all objects with a similar color to the currently selected object.

1. Select an object.

2. From the **Edit** menu, point to **Select** and then click **Select Similar Color** command.

Selecting Object Based on Attributes

You can specify objects to select based on a object's type, fill and effects. For example: you can select all blue rectangles or all text.

To select objects based on attributes:

1. From the **Edit** menu, point to **Select** and then click **Select by Attributes** command.

2. Select which attribute (**Object, Fill** or **Effect** Tab) will be used in the selection.

Object Tab   *Fill Tab*   *Effect Tab*

-   Select **Show all** to display all the possible type of objects, fills, or effects.

-   Select **All types** to select all of the elements listed on the displayed tab.

-   Choose **Selection only** to limit your selection to the group of currently selected objects. In this way, you can refine your selection to an area that you define. This option is unavailable, if you don't have any object selected.

3. Select the type of attribute will be used in the selection.

4. Click **OK**.

Selecting Objects Using DesignEditor

You can use the DesignEditor - Objects Tab to select one or more objects. See "Selecting Objects Using Object Tab" on page 52 for more details.

Selecting All Objects

To select all objects in a document:

- From the **Edit** menu, point to **Select** and then click **Select All** command.

Deselecting All Objects

To deselect all selected objects:

- From the **Edit** menu, point to **Select** and then select **Deselect All** command.
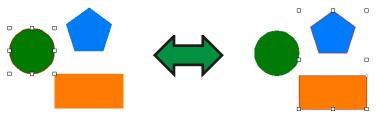
  Or

- Click an empty area.

Inverting Selection

To invert the selection:

- From the **Edit** menu, point to **Select** and then select **Invert Selection** command.

7. Arranging Objects

This chapter describes how to arrange, duplicate and manipulate objects in the design area.
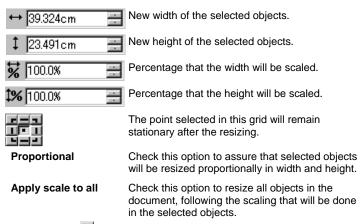
Resizing Objects

Objects may be resized by using the following methods:

Resizing Using DesignCentral

Use DesignCentral when you have to adjust an objects size to a precise numeric value.

1.   Select the objects.

2.   From the **Arrange** menu, select the **Resize** command.

3.   Adjust the values in DesignCentral:

↔ 39.324cm	New width of the selected objects.
↕ 23.491cm	New height of the selected objects.
% 100.0%	Percentage that the width will be scaled.
↕% 100.0%	Percentage that the height will be scaled.
	The point selected in this grid will remain stationary after the resizing.
Proportional	Check this option to assure that selected objects will be resized proportionally in width and height.
Apply scale to all	Check this option to resize all objects in the document, following the scaling that will be done in the selected objects.

4.   Click **Apply**. ✔

You can also resize using DesignCentral - Size tab, but some of the above options will not be available.

Resizing by Dragging Control Points

You can drag the **Scale** Control Points around an object or group of objects to resize.

1.   Select the objects.

2.   Position the cursor on a Scale Control Point.

Click and drag the
Control Point

3. Click and drag the **Scale** Control Point.

- **CTRL** key while dragging uses the center line of the objects as a stationary point.

- **SHIFT** key while dragging scales not proportionally.

Normal dragging

*Dragging with **SHIFT** key pressed*

*Dragging with **CTRL** key pressed*

Resizing to the Same Size

Selected objects may be formatted to have the same height and width.

1. Select the objects.

   If you select the objects by dragging a bounding box, the size of the first object is used as a reference. If you select the objects by clicking them with the **SHIFT** key pressed, the size of the first selected object is used as a reference.
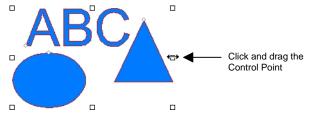
2. From the **Arrange** menu, point to **Sizing** and select either **Same Width** or **Same Height**.

Moving Objects

You can move objects using one of the following methods:

Moving Objects by Dragging

1. Select the objects.

2. Place the cursor over the object.

   When the **Show Fills** is disabled, placing the cursor inside the object does not change to move mode. You must place the cursor over the outline of the object.

3. Click and drag to move the object to a new position.

- **CTRL** key while dragging creates a copy of the original object.

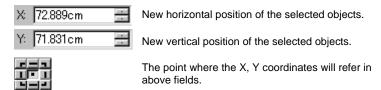- **SHIFT** key while dragging constrains the new position.

Moving Objects Using DesignCentral

Use DesignCentral when you have to move the objects to a precise position.

1. Select the objects.

    DesignCentral displays the **Size** Tab.

2. Adjust the **X, Y** values in DesignCentral.

X: 72.889cm	New horizontal position of the selected objects.
Y: 71.831cm	New vertical position of the selected objects.
	The point where the X, Y coordinates will refer in above fields.
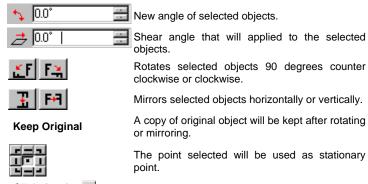
Rotating, Shearing and Mirroring Objects

You can rotate or mirror objects by using the following methods:

Rotating, Shearing and Mirroring Using DesignCentral

Use DesignCentral to rotate objects to a precise numeric value.

1. Select the objects.

2. From the **Arrange** menu, select **Rotate** command.

3. Adjust the values in DesignCentral.

0.0°	New angle of selected objects.
0.0°	Shear angle that will applied to the selected objects.
	Rotates selected objects 90 degrees counter clockwise or clockwise.
	Mirrors selected objects horizontally or vertically.
Keep Original	A copy of original object will be kept after rotating or mirroring.
	The point selected will be used as stationary point.

4. Click **Apply**. ✔

Rotating may also be done using DesignCentral, but some of the above options may not be available.

Rotating and Shearing Dragging Control Points

You can drag the **Rotate** and **Shear** control points around an object or a group of objects to rotate or shear them.

1. Select the objects.

---

2. Click **Rotate** Tab in DesignCentral.

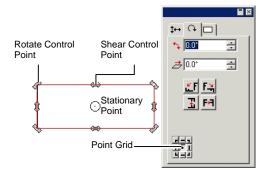3. Adjust the **stationary point** either by selecting one point in DesignCentral point grid, or clicking and dragging the stationary point. Holding the **CTRL** key while dragging the stationary point moves to a point of the point grid.

Rotate Control Point   Shear Control Point   Stationary Point   Point Grid
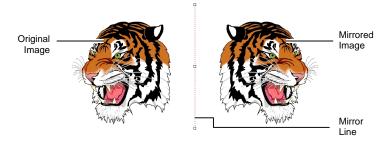
4. Position the cursor on a **Rotate** or **Shear** control point.

5. Click and drag the control point.

   - Hold the **Ctrl** key while dragging to create a copy of the original object.

   - Hold the **Shift** key while dragging to constrain the rotation or shear angle to increments of 45 degrees.

Creating Mirrored Objects

Use the Mirror command when you want to create mirrored objects that are separated by a specific distance.

1. Select the objects.

2. From the **Arrange** menu, select **Mirror** command.

   A mirrored image is displayed, along with a Mirror Line. If the mirror line is not visible, increase the distance in DesignCentral.

Original Image   Mirrored Image   Mirror Line

3. Adjust the **Distance** in DesignCentral. This value is the total distance separating the original and mirrored image. Check **Keep Original** to create a copy of the original image.

You can also click and drag the control point in the middle of the Mirror Line to adjust the distance. Click and drag a point located at Mirror Line's end to adjust the angle. **SHIFT** key constrains the angle while dragging.

4. Click **Apply**. ✓

Deskewing Objects

Sometimes a scanned image is slanted because the original image was not properly positioned on the scanner. To make the image horizontal or vertical, use the Deskew command.

The Deskew command rotates the objects, in order to make a baseline horizontal or vertical.

1. Select the objects.

2. From the **Arrange** menu, point to **Deskew** and select either **Horizontal** or **Vertical**.

3. Click and drag to create the baseline.
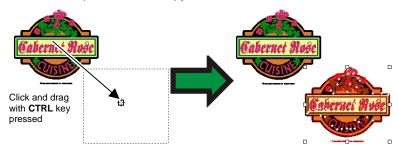

Creating the baseline

Deskewed image

Duplicating Objects

There are several ways to duplicate an object:

Duplicating Objects by Dragging

The easiest and fastest way to create one copy of the object, select the object and drag with **CTRL** key pressed. **SHIFT** key while dragging restrains the position of the copy.
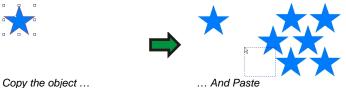

Click and drag with **CTRL** key pressed

Duplicating Objects Using Copy and Paste

This method is recommended when you want to make several copies in different places.

1. Select the objects.

2. From the **Edit** menu, select **Copy** command or press **CTRL** + C.

3. From the **Edit** menu, select **Paste** command or press **CTRL** + V.

4. Move the cursor to position the copy and click.

   Click **TAB** key changes the cursor position in the bounding box. **ESC** key exits the paste process. **ENTER** to place the copy.

Copy the object …   *… And Paste*
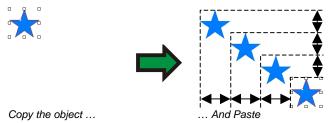
Sometimes you want to create copies with a specific distance from the original object. In this case, you must change the preferences first:

1. From the **Edit** menu, select **Preferences**.

2. Select **Tools** Tab.

3. Select **Paste** tool from the list on left side of dialog box.

4. Check **Auto-place on paste and import** option.

5. Set the distance where the copies will be posted from original object.

Once the preferences are set:

6. Select the objects.

7. From the **Edit** menu, select **Copy** command or press **CTRL** + C.

8. From the **Edit** menu, select **Paste** command or press **CTRL** + V.

Copy the object …   *… And Paste*

Duplicating Objects Using Paste Special

In Windows, you can use the Paste Special feature. Paste Special allows you to select the format of pasted data.

To use the Paste Special:

1. Copy the objects. You can copy and paste objects from other programs.

2. From the **Edit** menu, select **Paste Special**.

3. Select the format of pasted data.

4. Click **OK**.

Duplicating Objects Using Paste Over

The **Paste Over** command pastes an object on top of the selected objects. The pasted object will be positioned in the center of the selected objects.

Duplicating Objects Using the Duplicate Command

1. Select the objects.

2. From the **Edit** menu, select **Duplicate**.

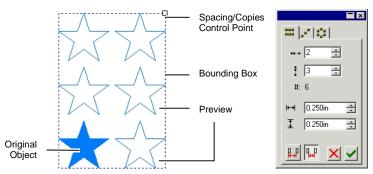## Duplicating Objects Using DesignEditor

To copy objects using DesignEditor, see "Changing Objects Order" on page 53.

Duplicating Objects Using the Step and Repeat Command
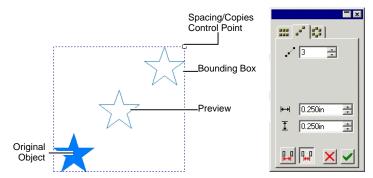
Use Step and Repeat command to create multiple copies of objects in a precise position and arrangement.

You have the following patterns to select from:
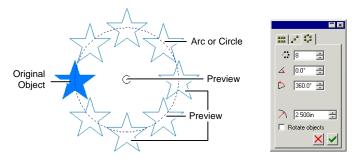
- **Block pattern**, with all copies aligned in a specified set of rows and columns.
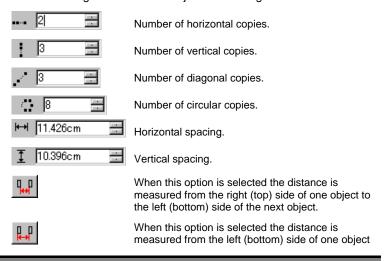
- **Diagonal pattern**, with all copies aligned in a diagonal line.
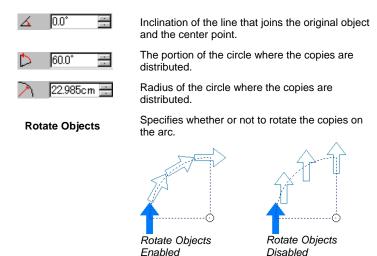
- **Circular pattern**, with all copies aligned over an arc.

1. Select the objects.

2. From the **Arrange** menu, select **Step and Repeat** command.

3. Select the proper Tab in DesignCentral.

4. The following values can be adjusted in DesignCentral:

••·• 2	Number of horizontal copies.
⋮ 3	Number of vertical copies.
⋰ 3	Number of diagonal copies.
⠶ 8	Number of circular copies.
↦ 11.426cm	Horizontal spacing.
↕ 10.396cm	Vertical spacing.
🔳	When this option is selected the distance is measured from the right (top) side of one object to the left (bottom) side of the next object.
🔳	When this option is selected the distance is measured from the left (bottom) side of one object

to the left (bottom) side of the next object.

⊿	0.0°	Inclination of the line that joins the original object and the center point.
▷	60.0°	The portion of the circle where the copies are distributed.
⤴	22.985cm	Radius of the circle where the copies are distributed.
Rotate Objects		Specifies whether or not to rotate the copies on the arc.

Rotate Objects Enabled   *Rotate Objects Disabled*

You can control the copies in **Block** and **Diagonal** pattern by dragging the Spacing / Copies control point at the upper left corner of the bounding box.
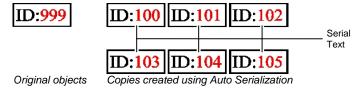
- Drag the point to adjust the number of copies, keeping the spacing unchanged

- **SHIFT** key while dragging adjusts the spacing, keeping the number of copies unchanged.

You can control the copies in **Circular** pattern by dragging the Center control point.

- Drag the point to adjust the Angle and the Radius.

- **SHIFT** key while dragging adjusts the Radius, keeping the Angle value unchanged.

5. Click **Apply**. ✔

Working with Auto Serialization

Serialization allows you to create multiple copies of objects. However, It is different from Step and Repeat, since each copy will have a **Serial Text**, which is a text following a sequential numbering.

Original objects   *Copies created using Auto Serialization*

To Auto Serialize:

1. Select the objects.

📄 At least one of the objects must be text.

2. From **Arrange** menu, select **Auto Serialize**.

   Every word from the selected text will be displayed in the **Text Selection** box, located on the right side of the dialog.

3. Select the text to be replaced. You can select multiple items.

4. Adjust the parameters:

Number of Copies	The number of copies to be created.
Copies in a row	The number of copies that will be placed in a row.
Horizontal spacing	Horizontal spacing between copies.
Vertical spacing	Vertical spacing between objects.

5. If you have a Tab delimited file, select it.

6. Click **Next**.

7. To manually edit the fields, select the field and then type the new text in **Edit Text** field.

8. To use sequential data, select one field and then click **Serialization**.

   Adjust the parameters:

Numeric	The serialized text will be a numeric value.
Character	The serialized text will be a regular text. The serialization will be performed starting from the rightmost character.
Start	Starting value. This value must be in accordance with above selection (Numeric or Character).
Increment	The increment in the serial text.

📄 To save the current configuration as a Data file, click **Export**.

9. Click **Finish**.

Grouping Objects

Grouping is the process of combining several objects into one single set of objects. Grouped objects are moved, resized and rotated as one object.
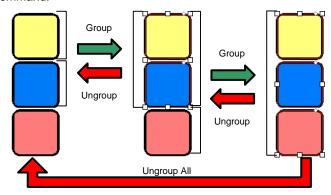
1. Select the objects.

2. From the **Arrange** menu, point to **Group** and then select **Group** command.

To release the last grouped objects.

1. Select the grouped objects.

2. From the **Arrange** menu, point to **Group** and then select **Ungroup** command

To release all grouped objects

1. Select the grouped objects.

2. From the **Arrange** menu, point to **Group** and then select **Ungroup All** command.
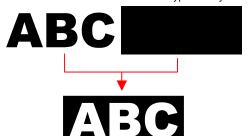
Compounding Objects

Compounding lets you view overlapping objects exactly as they will appear when cut. When you want to create a hole through an object, use the Compound feature.

One way to create the sign on the left is to place white text over a black rectangle. That would use two colors of vinyl. You can achieve the same results using the compound command and use only one type of vinyl.

Compounded objects are treated as a single object.

Another example of using a compound:
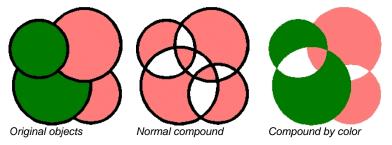
To compound objects:

1. Select the objects.

2. From the **Arrange** menu, point to **Compound** and then select **Compound** command.

   If objects with different colors are selected, the compound object will have the color of the topmost object.

To compound objects based on their color:

- From the **Arrange** menu, point to **Compound** and then select **Compound by Color** command.

📄 Objects compounded by color are converted to outlines.

| *Original objects* | *Normal compound* | *Compound by color* |

Multiple levels of compounds can be made.

To release the last compound:

1. Select the compounded object.

2. From the **Arrange** menu, point to **Compound** and then select **Uncompound** command.

Masking Objects

Masking is the process of clipping objects, vector or bitmap objects to a shape of a vector object. A mask can be described as a window that you look through to see the objects beneath it. Everything outside the mask will be hidden.

The topmost object is the mask. If you want to use more than one object as a mask, you must group them first.

📄 A bitmap object that has been masked cannot be traced. Before tracing the bitmap, it must be unmasked.

To create a mask:

1. Select the objects. The topmost object will be used as a mask

2. From the **Arrange** menu, point to **Mask** and then select **Mask** command.

The Mask (ABC) and the bitmap that will be masked   *The masked image*

Unmasking objects will return the objects to its original shape and size.

To unmask objects:
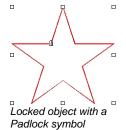
1. Select the masked object.

2. From the **Arrange** menu, point to **Mask** and then select **Unmask** command.

Locking Objects

You can lock some objects. Locked objects can be selected, but cannot be edited, moved or resized.

1. Select the objects.

2. From the **Arrange** menu, point to **Lock** and then select **Lock** command.

   A padlock displays on the object.

Locked object with a Padlock symbol

In some cases, the padlock is placed in a corner and when you select the object, the Control Point will overlap the Padlock.

In a path, you can change the padlock's position by changing the starting point of the path. See "Changing Starting Point" on page 157 about how to change the starting point.

To release the lock in a object:

1. Select the objects.

📄 The only way to select locked objects is to click each of them with the **Select** tool.

2. From the **Arrange** menu, point to **Lock** and then select **Unlock** command.
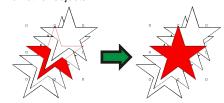
Changing Object Order

As you create objects or import files into your document, every object will have a position in the stacking order. The first object that you create will be in the bottom of the stack. This order will be reflected when the objects overlap.
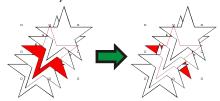
You can change the object's order in the stack:

1. Select the objects.

2. From the **Arrange** menu, point to **Order** and then select the new position in the stack.
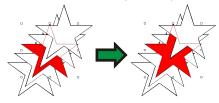
      To Front   Moves the selection to the top of the stack, in front of all other objects.
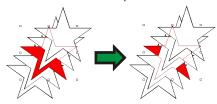
      To Back   Moves the selection to the bottom of the stack, behind all other objects.

      Forward One   Moves the selection one position up in the stack.

      Back One   Moves the selection one position down in the stack.

You can also change the order, dragging the object in DesignEditor - Object Tab, see "Changing Objects Order" on page 53 for more details.

Aligning Objects

Align allows you to align objects in relation to one of the objects, or to align objects to the design area.
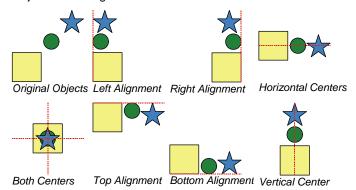
To align objects to another object:

1. Select the objects.

    If you select the objects by dragging a bounding box, the first object in the order stack is used as the **Stationary Object**. If you select the objects by clicking them with **SHIFT** key pressed, the first selected object is used as **Stationary Object**.
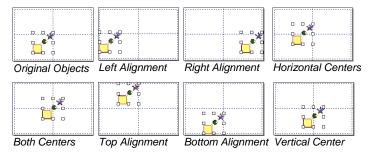
2. From the **Arrange** menu, point to **Align** and select how the alignment will be done.

    In the example below, the green square is used as the Stationary Object for the alignment.

Original Objects   *Left Alignment*   *Right Alignment*   *Horizontal Centers*

Both Centers   *Top Alignment*   *Bottom Alignment*   *Vertical Center*

To align objects to the design area:

1. Select the objects.

2. From the **Arrange** menu, point to **Align** and then select how the alignment will be done.

📄 If you have a margin set, the objects will be aligned to this margin.

Original Objects   *Left Alignment*   *Right Alignment*   *Horizontal Centers*

Both Centers   *Top Alignment*   *Bottom Alignment*   *Vertical Center*

Distributing Objects
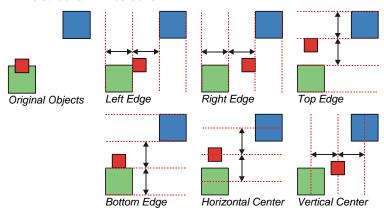
Your software allows you to adjust the spacing and position of the objects using the following methods:

- Distribute objects
- Distribute objects to design area
- Spacing
- Nesting

Distributing Objects

To distribute objects:

1. Select the objects.

2. From the **Arrange** menu, point to **Distribute** and select how the distribution will be done.

Original Objects *Left Edge* *Right Edge* *Top Edge*

Bottom Edge *Horizontal Center* *Vertical Center*
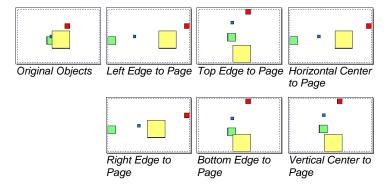
Distributing Objects to the Design Area

To distribute objects to the design area:

1. Select the objects.

2. From the **Arrange** menu, point to **Distribute** and then select how the distribution will be done.

In a **Left Edge to Page** distribution, the leftmost object is moved to a position that touches the left margin, the rightmost object is moved to the right margin and all objects between them are spread keeping the distance between *Left Edges* equal.

Original Objects	Left Edge to Page	Top Edge to Page	Horizontal Center to Page

Right Edge to Page	Bottom Edge to Page	Vertical Center to Page
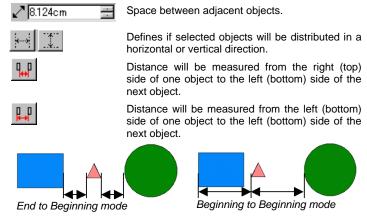
Spacing Objects

The **Spacing** command allows you to distribute objects separated by an exact value.

1.   Select the objects.

   If you select the objects by dragging a bounding box, the first object in the order stack is used as the **Stationary Object**. If you select the objects by clicking them with **SHIFT** key pressed, the first selected object is used as **Stationary Object**.

2.   From the **Arrange** menu, select **Spacing** command.

3.   Adjust the following values in DesignCentral:

8.124cm	Space between adjacent objects.
	Defines if selected objects will be distributed in a horizontal or vertical direction.
	Distance will be measured from the right (top) side of one object to the left (bottom) side of the next object.
	Distance will be measured from the left (bottom) side of one object to the left (bottom) side of the next object.

End to Beginning mode   *Beginning to Beginning mode*

4.   Click **Apply**. ✔

Nesting Objects

Nesting distributes objects over a specified area, optimizing the material.

1.   Select the objects.

2. From the **Arrange** menu, select **Nest**.

3. Adjust the values in DesignCentral:

All colors ▾	Select the color of the objects that will be nested. If you want to nest all objects, regardless of their color, select **All Colors.**
↕ 7.357cm	Height of the panel, where the selected objects will be distributed.
↔ 132.120cm	Width of the panel, where the selected objects will be distributed.
⇥⇤ 0.051cm	Distance between objects after the nesting.
Break text	When this option is checked, all text will be separated into individual characters and save more material.
Free rotate	When this option is checked, the objects will be rotated to increase the compression ratio and save more material.
Compress Ratio	Displays the compression achieved by nesting the objects.

📄 You can also click and drag the **Resize Panel** Control Point located on upper right corner of the panel area. When the panel size is too small to fit all objects, its border changes color from black to red.

Original objects in their original position

Dragging the Resize Panel Control Point

Resize Panel Control Point

Edit… Panel

Nested objects with Break text Off, Free rotate Off

Nested objects with Break text On, Free rotate Off

Nested objects with Break text On, Free rotate On
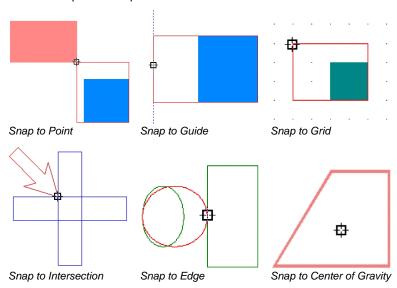
Snapping Objects

You can activate the snap feature and then create, edit and move shapes to precise locations.

There are six types of snapping:

- Snap to Point
- Snap to Guide
- Snap to Intersection

- Snap to Grid
- Snap to Edge
- Snap to Center of Gravity (Windows only)

To activate the snap, from the **View** menu, point to **Snap** and then select **Snap to […]**

Some examples of snap:

Snap to Point *Snap to Guide* *Snap to Grid*

Snap to Intersection *Snap to Edge* *Snap to Center of Gravity*

Deleting Objects

You can remove objects by deleting them from the document.

1. Select the objects.

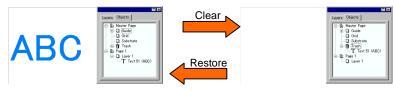2. Press the **BACKSPACE** or **DELETE** key, or from the **Edit** menu, select **Clear**.

The object will be deleted, but will not be entirely removed from your document. When you delete an object, the deleted object will be placed in a Trash Layer.

To completely remove objects from your document, without moving them to the Trash Layer:

1. Select the objects.

2. From the **Edit** menu, select **Cut**.

To restore objects from the Trash Layer:

1.   Select the objects in DesignEditor.

2.   From the **Edit** menu, point to **Trash Can** and then select **Recover**.

To remove all objects from the Trash Layer:

- From the **Edit** menu, point to the **Trash Can** and then select **Empty Trash**.
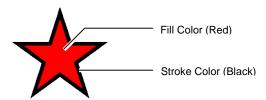
Clear Transform

After scaling, rotating or transforming any item geometrically you can return the item back to its original state by using the Clear Transform function.

1.   Select the objects.

2.   From the **Arrange** menu, click **Clear Transform**.

8. Working with Color

Your software provides you with an array of powerful tools for applying color. In this section, you'll learn how to apply color to an element in your design.

Each object in your design can have a **Fill color** and **Stroke color**.

Fill Color (Red)

Stroke Color (Black)

The Fill Color can be a **Solid Color**, **Pattern** or **Gradient**.

Solid   *Pattern*   *Gradient*

Available Color Models

Colors can be defined using the following models:

RGB   The color is expressed as a combination of red, green and blue values. This is the color model most commonly used for computer graphics.

CMYK   The color is expressed as a combination of cyan, magenta, yellow and black values. This is the color model most commonly used in color printing.

LAB   The CIE LAB model is a device-independent color model that expresses color using a luminance value and two chrominance values.

HSB   The color is expressed using values for hue, saturation and brightness.

Spot   The color is selected from a number of lists of standard ink or ribbon colors provided by established suppliers.

Duotone Duotone colors are made by overlaying two spot colors. The color that is printed first is called the *base* color, and the color that is printed on top of the base is called the *top* color.

Working with Swatch Tables

In Flexi, every line of ink, film or foil that a manufacturer makes is represented by a separate swatch table, which lists all of the colors available for that line.

The swatches in the swatch tables change appearance based on the color mode in use. Spot colors have a small dot on the right side of the swatch. Duotone colors have two dots on the right side of the swatch.

Process Color ▮ **Spot Color** ▮ **Duotone Color** ▮
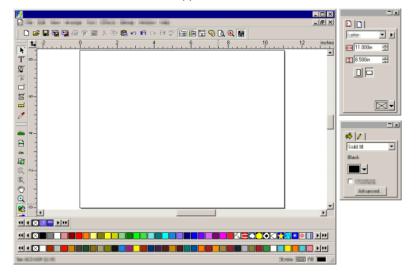
Opening a Swatch table

In order to use a color of foil in your design, you must first open the swatch table for that type of foil.

To open a swatch table:

1. Access the Open dialog using one of the following methods:

    *   From the **View** menu, select **Color** then **Open Table**.

    *   Right-click on the default swatch table (or any other open swatch table) and select **Open Table**.

2. Browse to the **Swatch/Library** subfolder of the software installation folder.

3. Select the manufacturer of the foil type (such as **Gerber Scientific Products**) and click **Open**.

4. Select the swatch library for the desired type of foil and click **Open**.

The selected swatch table will appear below the default swatch table.

Closing a Swatch table

To close a swatch table, right-click on the table and select **Close**.

Creating New Swatch tables

To create a new, empty swatch table, do one of the following:

- From the **View** menu, select **Color** then **New Table**.

- Right-click on the default swatch table (or any other open swatch table) and select **New Table**.

📄 If you create a new swatch table then try to exit the application without saving it, you will be prompted to save the table to a file.

Saving a Swatch table to a File

To save a swatch table to a file:

1. Open the Save As dialog using one of the following methods:

   - Right-click on the table and select **Save Table As**.

   - From the **View** menu, select **Color** then **Save Table As**. Select the table you want to save and click **OK**.

2. Select the folder you want to save the table in.

3. Enter a filename for the table and click **OK**.

Docked or Free-Floating Swatch tables

By default, swatch tables are docked just above the status bar in the lower part of the screen.

To make a swatch table free-floating, click and drag it out of its position.

To return a table to the docked position, drag it back down onto the status bar. You can also double-click on the title bar to dock a swatch table.

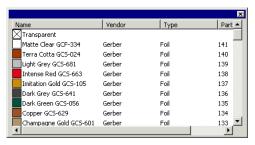📄 On the Macintosh, all swatch tables are free-floating and cannot be docked.

Changing the View of a Swatch table

Each swatch table has two different views that it can display:

- Palette view displays all of the colors in the table as color swatches.

- List view displays a list of all of the colors, along with their name, vendor, type and part number.

Name	Vendor	Type	Part ▲
☒ Transparent			
Matte Clear GCF-334	Gerber	Foil	141
Terra Cotta GCS-024	Gerber	Foil	140
Light Grey GCS-681	Gerber	Foil	139
Intense Red GCS-663	Gerber	Foil	138
Imitation Gold GCS-105	Gerber	Foil	137
Dark Grey GCS-641	Gerber	Foil	136
Dark Green GCS-056	Gerber	Foil	135
Copper GCS-629	Gerber	Foil	134
Champagne Gold GCS-601	Gerber	Foil	133 ▼

To switch between views, right-click on the swatch table and select **Palette view** or **List view**.

🖹   List view is only available when a swatch table is free-floating.
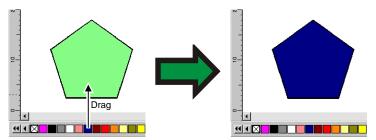
Hiding and Displaying Swatch Tables

To toggle the display of all swatch tables on and off, from the **View** menu, select **Swatch Table**. This will also force hidden swatch tables to be displayed.

Applying Colors From a Swatch table

To apply colors from a swatch table to a design element:

1. Select the objects.

2. Select the desired color in the swatch table. Hold down the **CTRL** key to apply the color to the object's stroke.

You can also apply colors by clicking and dragging directly from the swatch table.

When you click and drag the cursor into the object in the design area, the cursor changes, depending on its location.

Fill the object over which the cursor is positioned with the selected color.

Change the color of the stroke over which the cursor is positioned with the selected color.

Change the color of the substrate to the selected color.

Adding a New Color to a Swatch Table

New colors can be added to swatch tables using the Eyedropper tool, the Color Mixer or the Color Specs dialog.

- For details on using the Color Mixer, see "Applying Colors Using the Color Mixer" page 84.

- For details on using the Eyedropper tool, see "Applying Colors Using the Eyedropper" page 86.

- For details on using the Color Specs dialog, see "Defining Colors Using the Color Specs Dialog" page 87.

Copying a Color to Another Swatch Table

To copy a color from one swatch table to another, click on the color swatch and drag it into the other table.

Deleting Colors from a Swatch Table

To delete undesired colors from a swatch table, right-click on the color swatch you want to delete, and select **Delete** from the context menu.

📄 The "Transparent" color cannot be deleted.

You can also delete colors from the swatch table using the Color Specs dialog box. See "Deleting Colors Using Color Specs" on page 90 for more details.

Merging Similar Colors

You can merge colors that have different names but the same color values as other colors in the table.

- From the **View** menu, point to **Color** and then select **Merge Similar Colors** command.

Changing Color Order in a Swatch Table

There are several ways to change the color position in the swatch table:

- Click and drag the color over the swatch table

Drag

- Using the **Color Specs** dialog box. See "Changing The Order of Colors Using Color Specs" on page 90 for more details.

- Right-click the swatch table and point to **Sort** command. You can sort the swatch table by Name, RGB / HSV values, Vendor, Type or Part #.

Creating Swatches from the Colors in the Current Design

The Merge From Document command creates swatches for every color in the current document in the swatch table of your choosing. If your document has gradient fills, they will also be added to the swatch table.

To create swatches for all of the colors in the current design:

1. Open the swatch table that you want to save the colors in, or create a new swatch table.

2. From the **View** menu, select **Color** then **Merge from Document**.
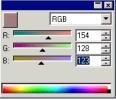

3. Select the table you want to store the color swatches in, then click **OK**.

📄 If you access Merge from Document by right-clicking on a swatch table, the swatches will be added to that table without any prompting.

Applying Colors Using the Color Mixer

The Color Mixer dialog box is used to specify and apply color to elements in your design.

To view the Color Mixer, from the **View** menu, select **Color Mixer**.

Color Mixer

When you select an object, the fill color is displayed in the swatch located in the upper left side of the Color Mixer. When multiple objects are selected, the Color Mixer displays the color of the first object.

Use the list in the upper right corner of the mixer to specify a color model (RGB, CMYK, LAB, HSV, Spot or Duotone).

Once you specify a color model to use, there are several ways to specify a color in the mixer:
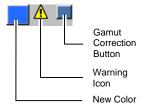
•   Enter the numerical values or click the up / down arrows on the right side of the numerical field.

•   Click and drag the channel sliders.

R:

- Click and drag the mouse over the color picker located at the bottom of the Color Mixer. When you locate the color you want, release the mouse button.
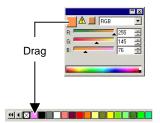
Using the Color Mixer, it's possible to specify colors that are beyond the boundaries of the selected color space. When you do this, a warning icon is displayed next to the color swatch, along with a small swatch that is actually a functional button. Clicking the gamut correction button adjusts the color so that it fits within the target gamut. After you click the button, the color is redefined, and both the icon and the gamut correction button disappear.

Gamut
Correction
Button

Warning
Icon

New Color

The warning icon only appears when you're viewing objects in RGB, HSV or LAB color space. The software checks to see if the color you specified can be reproduced in CMYK color space accurately, based on the currently active printer profile that you selected in the Color Settings dialog box (for more details see "Configuring the System for Color Printing" on page 219). If you do not correct the gamut, the color that you selected will not print accurately.

Adding Colors from the Color Mixer to a Swatch table

1. From the **View** menu, select **Color Mixer**.

2. Create the new color that will be added.

Drag

3. Click the color patch and drag to the swatch table. You can place the color at any location in the table.

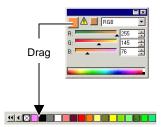### Creating Duotone Colors with the Color Mixer

4. From the **View** menu, select **Color Mixer**.

5. Select **Duotone** from the list of color modes.

6. Select the **Top** and **Base** colors.

    📄 You will only be able to select colors from the swatch tables that are currently open.

7. Select the percent coverage. This will apply to both top and base colors.

8. Drag the color from the upper left box in the Color Mixer down into a swatch table.

Drag

9. Save the swatch table.

Sampling Colors Using the Eyedropper

The eyedropper tool sets the fill options of the selected objects to match the color, pattern or gradient fill of whatever it clicks on.

If you click on a bitmap, the eyedropper will return a solid color that matches the pixel you clicked on.

To use the eyedropper:

1. Select the objects whose color you want to change.

2. Click **Eyedropper**.

3. Move the cursor over the object or bitmap with the color that you want the selected object to be and click.

Selecting a Solid Fill from a Gradient or Pattern

To select a solid color from a pattern or gradient, hold down the **SHIFT** key while you select the color. The fill color will be set to match the color at the point that was clicked on.
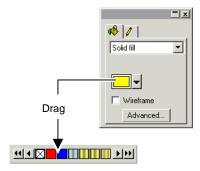
Setting Stroke Colors with the Eyedropper

To use the eyedropper to set the stroke color of an object instead of the fill, hold down the **CTRL** key. The stroke color will be set to match the fill color of the object that was clicked on.

If the object has a pattern or gradient fill, or if it is a bitmap, the stroke color will be set to the color at the point that was clicked on.

Adding a Fill Selected With the Eyedropper to a Swatch Table
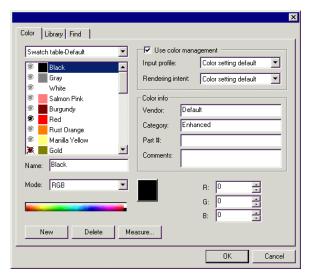
To add a solid fill, pattern or gradient selected with the eyedropper to a swatch table, click and drag the fill swatch out of the Fill/Stroke dialog into the swatch table.

Drag

Defining Colors Using the Color Specs Dialog

The Color Specs dialog is used to define all properties about colors. To view the Color Specs dialog, do one of the following:

- From the **View** menu, point to **Color** and then select **Color Specs** command.

- Double click on a solid color (process, spot or duotone) in any open swatch table.

- Right-click on a swatch table and select **Color Specs**.

Color Specs - Color Tab

In the Color Specs - Color Tab dialog box you can set all the properties from each color.

From the list on top of the dialog box, you can select the colors that will be displayed in the list. You can select any of the following:

[swatch table]   All colors defined in the selected swatch table.

Used colors   All colors used in your present document.

All colors   All colors from all open swatch tables plus the colors used in the document.

Each color in the list will have an icon on the left side. This icon indicates if a color is being used in the document.

    The color is being used in the document. Clicking this icon hides all objects in your document using this color.

    The color is being used in the document, but all objects using it are hidden. Clicking this icon will show all objects in your document that it is using this color.

    The color is not being used in the document.

For each color you can control the following properties:

Color Name   The color name defined in the swatch table.

Color Mode   The color mode can be RGB, CMYK, LAB, HSV, Spot or Duotone. Spot colors have a small dot on the right side of the swatch. Duotone colors have two dots on the right side of the swatch.

Process Color   **Spot Color**

Duotone Color

Color Values	The color values for selected color. The parameters vary according to the color mode selected.
Color Info	The Vendor, Type, Part# and Comments defined in the swatch table.
Use Color Management	If this option is selected, the settings from the color management system are used to print this color. You can set a different Input Color Profile and Rendering Intent for each color.

Creating New Colors Using Color Specs

1. Click **New**.

2. Select the table you want to add colors to from the list at the top of the dialog.

3. Change the color name and enter the values in **Color Info**.

4. For each color you want to add, do the following:

    a. Click **New**.

    b. Type a name for the color under **Name**.

    c. Select the color **Mode**.

        📄 If you are creating a spot color, select RGB color mode first, and enter the RGB values that will be used to display the spot color. Then change the color mode to Spot.

    d. Specify the color values by entering them in the fields to the right, or by clicking in the color bar underneath the list of colors.

5. When finished, click **OK**.

While adjusting the colors, the swatch will show the original color on the top, and the new color on the bottom.

New Color ———   ——— Original Color

Measuring a New Color

To determine the color values of a new color by measuring them with a measuring device such as a spectrometer, click the **Measure** button.

📄 The measurement device can be defined in the **Edit** menu, pointing to **Preferences** and then selecting **Meter Options** in the **Tool** Tab.
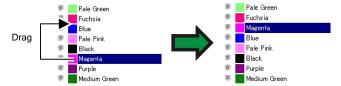
Deleting Colors Using Color Specs

1. Select the color that you want to delete from the list.

2. Click **Delete**.
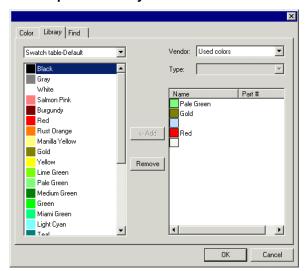
Editing Colors Using Color Specs

1. Select the color that you want to change from the list.

2. Edit the name, color mode, color values, etc.

3. Click **OK**.

Changing The Order of Colors Using Color Specs

To reorder the colors in the palette using the Color Specs, click on the color in the color list and drag it to its new location.

Color Specs - Library Tab

In the Color Specs - Library Tab dialog box you can remove colors from swatch tables and add colors from the Color Libraries into the swatch tables.
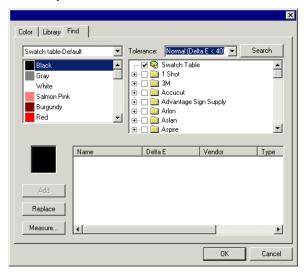
To add a color to a swatch table:

1. Select the swatch table you want to add the color into.

2. Select **Vendor** and **Type** from the list.

3. From the list on the right side, select the color that will be added to the swatch table and click **Add**.

   📄 You can select multiple colors using **SHIFT** and **CTRL** keys.

To remove a color from a swatch table:
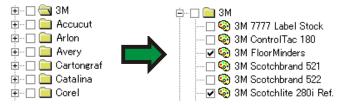
1. Select the swatch table you want to delete from.

2. Select the color from the list.

3. Click **Delete**.

Color Specs - Find Tab

In the Color Specs - Find Tab dialog box you can find a color in the color libraries that matches the color that you are using in your design.

1. Select the swatch table that contains the color.

2. Select the color that you want to search from the list on the left side of the screen.

   📄 You can also use your measuring device to measure one specific color. To measure a color, click the **Measure** button.

3. Select the **Vendors** and the **Types** from the list. Click at (☐), located on the left side of the name to select it. Clicking on (⊞) expands the list and show all the Types for the vendor.

📄 You can select multiple **Vendor** and **Type**.

4. Select the tolerance for the search from the list.

5. Click **Search**.

   📄 The closest matches for the selected color are displayed on the bottom of the screen. When you select a color from the list, While adjusting the colors, the swatch will show the color you are looking for on the top, and the color found in the Color Library on the bottom.

New Color

Original Color

6. Select the color from the list.

7. Do one of the following:

   • Click **Replace** to replace the selected color with the new color found in the Color Library.

   • Click **Add** to add the new color to the swatch table.

Setting the Default Fill/Stroke Color

When a new object is created, the default Stroke and Fill colors will be used. These colors are displayed in the lower right corner of the design area.

Stroke 🟥 Fill 🟦
Default Stroke and Fill
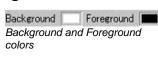
To change the default Fill/Stroke colors:

1. Click an empty area on the document.

2. Drag the desired color from a swatch table or the Color Mixer into the default Fill/Stroke color indicator at lower right corner of the design area.

Once the default Fill/Stroke colors are set, all new objects *in this document* will be created using these colors.

Setting the Background / Foreground Color
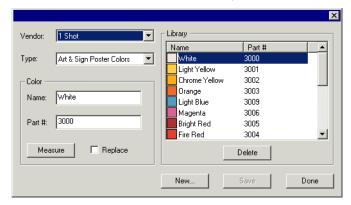
When you are editing bitmaps, the lower right corner of the design area will show the foreground and background colors.

Background ⬜ Foreground ⬛
Background and Foreground colors

You can change the background and foreground colors using the same methods used to change the default fill and stroke colors.

Modifying Existing Color Libraries

Color Libraries are files containing a collection of colors. Color collections can be based on a particular manufacturer, an industry standard or similar concept. Like Swatch tables, you can create a new custom Color Library or modify an existing one.


Creating New Color Libraries by Using Measurement Devices

1. From the **View** menu, point to **Color** and then select **Modify Color Library** command.

2. Click **New**.

3. Select the **Vendor** and **Type** from the list or enter a new name.

4. Click **OK**.

5. Enter the new color name and the part number.

6. Click **Measure** and measure the color using the device.

📄 The measurement device can be defined in the **Edit** menu, pointing to **Preferences** and then selecting **Meter Options** in the **Tool** Tab.

Changing Existing Color Libraries

1. From the **View** menu, point to **Color** and then select **Modify Color Library** command.

2. Select the **Vendor** and **Type** from the list.

3. Select the color that will be changed in the list.

4. Type the new Name / Part # for the color or click **Delete** to remove the color from the Color Library. You can also measure a new color using a measurement device and replace the selected color.

---

5. Click **Save** to save the changes. If this button is unavailable, click another color in the list.

Creating Test Swatches

The software has the ability to automatically create the following sets of test swatches:

Duotone   This set of swatches shows all of the duotone colors that can be created using the spot colors in the swatch tables you have open.

CMYK   This set of swatches shows all of the CMY color combinations currently available, plus the range of black values.
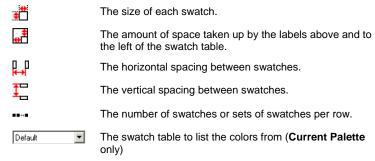
Current Palette   This set of swatches lists of all the colors in your current palette.

To create a swatch table:
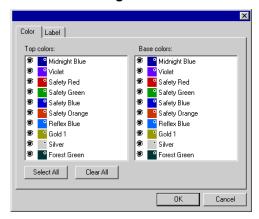
1. From the **View** menu, select **Create Swatch**, then either **Duotone**, **CMYK** or **Current Palette**.

2. Adjust the following settings in DesignCentral:

	The size of each swatch.
	The amount of space taken up by the labels above and to the left of the swatch table.
	The horizontal spacing between swatches.
	The vertical spacing between swatches.
	The number of swatches or sets of swatches per row.
Default	The swatch table to list the colors from (**Current Palette** only)

3. Click **Advanced** to set advanced settings.

4. Click **Apply**. ✔

The swatch table will appear in the lower left corner of the page.

Advanced Settings for Duotone Swatch Tables

On the **Color** tab, toggle the 🕸 icon to the left of the spot color listings to determine whether the color will show up in the swatch table. You can exclude colors from either the set of top colors, or the set of base colors.

 The color will appear in the swatch table.

 The color will not appear in the swatch table.

On the **Label** tab, select the font that will be used for the labels.

Advanced Settings for CMYK Swatch Tables

On the **cmyk** tab, enter the following settings:
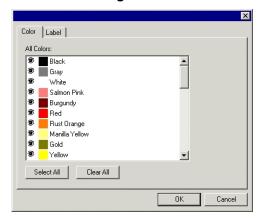
Step The change in ink values between one swatch and the next.

Start The lower boundary of the range of color values in the swatch table.

End The upper boundary of the range of color values in the swatch table.

On the **Label** tab, select the font that will be used for the labels.

Advanced Settings for Current Palette Swatch Tables

On the **Color** tab, toggle the 🐝 icon to the left of the spot color listings to determine whether the color will show up in the swatch table.
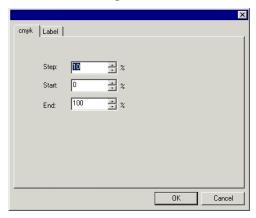
🐝	The color will appear in the swatch table.	🐝	The color will not appear in the swatch table.

On the **Label** tab, select the font that will be used for the labels.

9. Using Fill/Stroke Editor

Fill/Stroke Editor shows information about how an object is filled and its stroke.

Displaying Fill/Stroke Editor

The Fill/Stroke Editor consists of two screens: the **Fill Tab** and **Stroke Tab.**

To view the Fill/Stroke Editor, from the **View** menu, select **Fill/Stroke Editor**.

Fill/Stroke Editor – Fill Tab

Fill/Stroke Editor – Stroke Tab

Types of Fills

Vector objects can have the following types of fill:

No Fill   The object has no fill.

Solid Fill   The object is filled with one solid color.
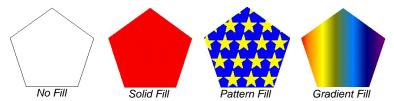
Pattern Fill   The object is filled with multiple copies of a pattern.

Gradient Fill   The object is filled with a gradient, which is a combination of two or more colors so that one color blends smoothly with the next one in increments.

For more information about how to set the object's fill, see "Working with Color" on page 79.

No Fill   *Solid Fill*   *Pattern Fill*   *Gradient Fill*

Applying No Fill to an Object

To apply the **No Fill** fill type to an object:

1. Select the object.

2. In the Fill/Stroke Editor, select **No Fill**, or click on the ⊠ swatch in the color palette.

Applying a Solid Fill to an Object

To apply a solid fill to an object:

1. Select the object.

2. In the Fill/Stroke Editor, select **Solid Fill**.

3. Select the color of the fill from the list.

4. If desired, check **Wireframe** to make the object show up as an outline drawn in the color of the fill. This setting will override the outline settings for the object.

Solid Fill with Wireframe enabled.

5. Click **Advanced** to edit the fill color using the Color Specs dialog. For more information about the Color Spec dialog, see "Defining Colors Using the Color Specs Dialog" on page 87.

You can also apply a solid fill by selecting the object and clicking on a solid colored swatch in the color palette.

Applying a Pattern Fill to an Object

To apply a pattern fill to an object:

1. Select the object.
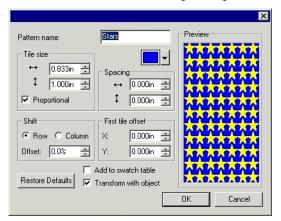
2. In the Fill/Stroke Editor, select **Pattern Fill**.

3. Select the pattern to be used from the list.
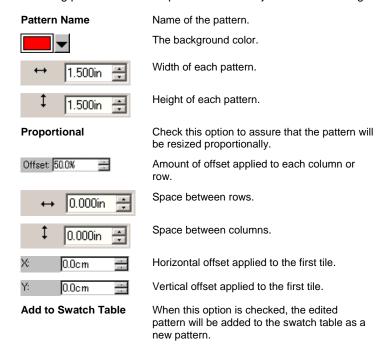
4. Select the background color from the ![blue color box with dropdown] list.

Using Pattern Fill Advanced Settings

When the **Advanced** button is clicked in Fill/Stroke Editor – Fill Tab for Pattern Fill, the Advanced Settings dialog will be displayed.

The following parameters of the pattern can be adjusted in this dialog.

Pattern Name	Name of the pattern.
![red color box with dropdown]	The background color.
↔ 1.500in	Width of each pattern.
↕ 1.500in	Height of each pattern.
Proportional	Check this option to assure that the pattern will be resized proportionally.
Offset: 50.0%	Amount of offset applied to each column or row.
↔ 0.000in	Space between rows.
↕ 0.000in	Space between columns.
X: 0.0cm	Horizontal offset applied to the first tile.
Y: 0.0cm	Vertical offset applied to the first tile.
Add to Swatch Table	When this option is checked, the edited pattern will be added to the swatch table as a new pattern.

Transform with Object	When this option is checked, each pattern tile will be proportionally resized when the object is resized.
Restore Defaults	Restores the default settings for selected pattern.

Click **OK** to save your changes.

Adding a Pattern Fill to a Swatch Table

To add a pattern fill you have created to a swatch table:

1. Select the object with the pattern fill.

2. Click on the **Advanced** button in the Fill/Stroke dialog.

3. Make any needed edits to the pattern fill.

4. Check **Add to swatch table**.

5. Type in a **Pattern name**.

6. Click **OK**.

Applying a Gradient Fill to an Object

To apply a gradient fill to an object:

1. Select the object.

2. In the Fill/Stroke Editor, select **Gradient Fill**.
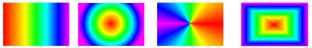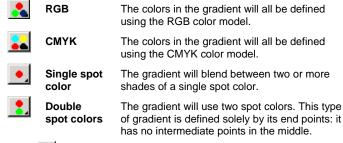

3. If desired, you can select one of the stock gradients from the list.

4. To make your own gradient, or edit one of the stock gradients:

   a. Select the type of gradient applied to the object from the list. The following types are available:

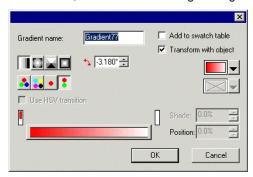   *Linear Gradient Radial Gradient Conical Gradient Square Gradient*

b. Select the gradient color mode from the ![icon] list. The following modes are available:

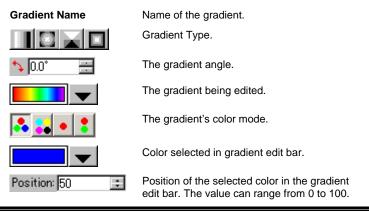|		
![icon]	**RGB**	The colors in the gradient will all be defined using the RGB color model.
![icon]	**CMYK**	The colors in the gradient will all be defined using the CMYK color model.
![icon]	**Single spot color**	The gradient will blend between two or more shades of a single spot color.
![icon]	**Double spot colors**	The gradient will use two spot colors. This type of gradient is defined solely by its end points: it has no intermediate points in the middle.

c. Click ![icon] to edit the gradient using the Edit Line. See "Editing Gradients Using the Edit Line" on page 103 for details.

d. Adjust the angle of the gradient in the ![icon] field.

Advanced Options for Gradient Fill

When the **Advanced** button is clicked in Fill/Stroke Editor – Fill Tab for Gradient Fill, the Advanced Settings dialog will be displayed.

The following parameters of the gradient can be adjusted in this dialog.

Gradient Name	Name of the gradient.
![icon]	Gradient Type.
![icon]	The gradient angle.
![icon]	The gradient being edited.
![icon]	The gradient's color mode.
![icon]	Color selected in gradient edit bar.
![icon] Position: 50	Position of the selected color in the gradient edit bar. The value can range from 0 to 100.

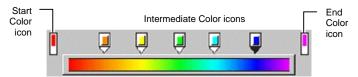|	
Add to Swatch Table	When this option is checked, the edited gradient will be added to the swatch table as a new gradient.
Transform with Object	When this option is checked, each gradient tile will be proportionally resized when the object is resized.
RGB / HSV	The color mode used to create the gradient

Adding a Gradient to a Swatch Table

To add a gradient you have created to a swatch table:

5. Select the object with the gradient.

6. Click on the **Advanced** button in the Fill/Stroke dialog.

7. Make any needed edits to the gradient.

8. Check **Add to swatch table**.

9. Type in a **Gradient name**.

10. Click **OK**.

Editing Gradients Using the Edit Bar

In the Fill/Stroke Editor – Fill Tab and Advanced Settings dialog, you can adjust the gradient using the Edit Bar.
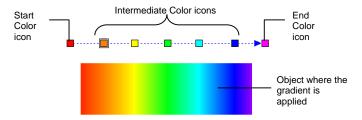

- Click any color icon in the Edit Bar to select it. In Advanced Settings dialog, you can change the color using the swatch on right side of the dialog.

- In the Fill/Stroke Editor – Fill Tab, you can change or create a new color in the gradient, dragging the new color from the swatch table to an existing color or in a blank space between colors.

- Click and drag the color icon to the left / right to change its position in the gradient. In Advanced Settings dialog, you can change the position using the position field on right side of the dialog.

  📄 The Start and End Color icons cannot be dragged.

- Click and drag the color icon above the gradient bar to delete it.

- **CTRL** and dragging the color icon creates a copy of the dragged color.

- Click a blank space between color icons to create a new color in the gradient.

Editing Gradients Using the Edit Line

When you click the **Edit Gradient** button in Fill/Stroke Editor – Fill Tab, a Gradient Editing Line will be displayed in the object where the gradient is applied.
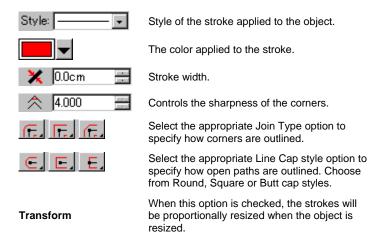
📄 The Gradient Editing Line can be placed outside the object.

- You can change or create a new color in the gradient, dragging the new color from the swatch table to an existing color or in a blank space between colors.

- Click and drag the intermediate color icon to the left / right to change its position in the gradient.

- Click and drag the start /end color icon to change the gradient size and the gradient angle.

- **CTRL** and dragging the color icon creates a copy of the dragged color.

Editing Stroke Properties of an Object

Fill/Stroke Editor – Stroke Tab displays the following vector object's stroke properties.

Style:	Style of the stroke applied to the object.
	The color applied to the stroke.
0.0cm	Stroke width.
4.000	Controls the sharpness of the corners.
	Select the appropriate Join Type option to specify how corners are outlined.
	Select the appropriate Line Cap style option to specify how open paths are outlined. Choose from Round, Square or Butt cap styles.
Transform	When this option is checked, the strokes will be proportionally resized when the object is resized.

Clear   Click this button to remove the stroke.

10. Working With Shapes

Shapes are closed objects such as the rectangles, starbursts and polygons. You can create a shape freehand or by specifying the size.
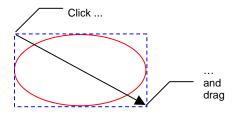
The following standard shapes are available in your software:

□	Rectangle tool	⇧	Arrow tool
⬭	Oval tool	▣	Advanced Border tool
⬠	Polygon tool	▦	Parametric Shape tool
☆	Starburst tool	◆	Registration Mark tool
⌒	Fan tool	⬡	Circle tool

Creating Shapes

All of the shapes may be drawn freehand:

1. Select the desired shape tool.

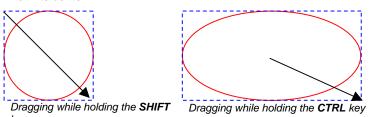2. Click and drag the cursor in the design area.

Click ...

… and drag

The rectangle and the arrow are only for illustrative purposes and are not actually displayed while you create a shape.

📄 For some shapes, holding the **SHIFT** and **CTRL** keys during dragging affects the shape creation. For more details see the description below about each shape.

3. Release the mouse button.

4. Adjust the shape's properties from DesignCentral.

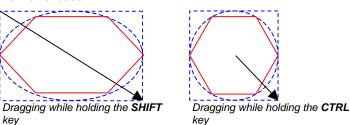5. If you want to add another shape with the same size, click again in the design area.

Holding SHIFT or CTRL While Creating Rectangles and Ovals

- Hold the **SHIFT** key down while dragging to constrain the rectangle or oval to a square or circle.

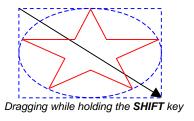- Hold the **CTRL** key down while dragging to draw a rectangle or oval from its center.

*Dragging while holding the **SHIFT** key*

*Dragging while holding the **CTRL** key*

Holding SHIFT or CTRL While Creating Polygons

- Hold the **SHIFT** key down to create an **irregular** polygon within a rectangle determined by the dragging position.

- Hold the **CTRL** key down to create a regular polygon with a horizontal base.

*Dragging while holding the **SHIFT** key*

*Dragging while holding the **CTRL** key*

Holding SHIFT or CTRL While Creating Starbursts

- Hold the **SHIFT** key down to create an **irregular** starburst within a rectangle determined by the dragging position.

- Hold the **CTRL** key down to constrain the starburst to a vertical position.

*Dragging while holding the **SHIFT** key*

Holding SHIFT or CTRL While Creating Fans and Arrows

- Hold the **SHIFT** key down to constrain the fan or arrow angle to certain values. The constrain angles can be set using the **Preferences**. See "Preferences - General Tab" on page 22 for more information.

- Hold the **CTRL** key down to create a fan or arrow from its center.

Holding CTRL While Creating Advanced Borders and Parametric Shapes

Hold the **CTRL** key down while dragging to draw a shape from its center.

Editing Shapes Using DesignCentral

You can edit a shape using DesignCentral. The parameters in DesignCentral can be adjusted before, during or after the shape is created.
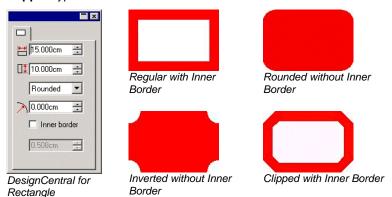
For more details about how to resize, rotate, or mirror a shape, see "Arranging Objects" on page 59.

For each shape you have different parameters that can be adjusted in DesignCentral.

Rectangle

For rectangles, you can adjust the Height, Width, Corner type (Regular, Rounded, Inverted or Clipped), Corner radius and Inner Border Width.

The Corner radius is only available when the **Rounded**, **Inverted** or **Clipped** type is selected.

DesignCentral for Rectangle

Regular with Inner Border

Rounded without Inner Border

Inverted without Inner Border

Clipped with Inner Border

Circles

For Circles, you have the following modes, and for each of them you have different parameters that you can adjust:

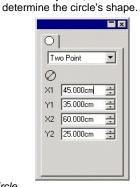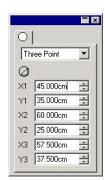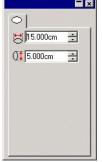|	
Center Radius	You can adjust the X, Y coordinates of the center and the radius that determine the circle's shape.
Two Point	You can adjust X, Y coordinates of the two points that determine the circle's shape.
Three Point	You can adjust X, Y coordinates of the three points that determine the circle's shape.

DesignCentral for Circle

Ovals

For Ovals, you can adjust the Height and Width.

Polygons

For Polygons, you can adjust the Height, Width and the number of sides.
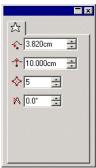
Starburst

For Starbursts, you can adjust the Inner and Outer radius, the number of spikes and spike twist angle.

DesignCentral for Ovals   *DesignCentral for Polygons*   *DesignCentral for Starbursts*

Fan

For Fan shape, you can adjust the Outer radius, Thickness, Rotation angle and the Sweep angle.
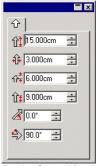
Arrow

For Arrows, you can adjust the Arrow Length, Angle, Tail Length and Width, Cap Length and Wing angle.

Registration Marks

For Registration Marks, you can adjust the Size, and the registration mark type (Diamond or Round).
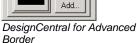
DesignCentral for Fan *DesignCentral for Arrow* *DesignCentral for Registration Mark*
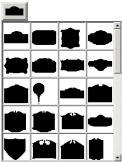
Advanced Borders

For Advanced Borders, you can adjust the Border Type, Height or Width, and Inner Border Width.

Click the button on left hand side of the **Add** button to show a list with all available border types. Click the **Proportional** check box to keep the border width and height ratio constant.

DesignCentral for Advanced Border *Border Types*

You can create your own borders and then add them to the border list:

1. Create the border and save the file.

2. Select **Advanced Border** tool.

3. Click **Add** button on DesignCentral.

4. Select the file saved in step (1) and click **Open**.

    The border is added to the list. To delete a border from the list, delete the file from "Border" folder.
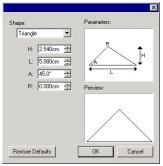

Border List with a new custom border

Parametric Shapes

You can adjust the Height or Width, and several parameters for parametric shapes.

Click the **Edit** button to show a dialog box where you can edit all parameters.

DesignCentral for Parametric Shape
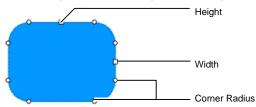
Parameter editing dialog box

Editing Shapes Using Control Points

You can create visually complex objects by using Control Points and Bezier handles.

Rectangle

For rectangles, you can drag the following control points.
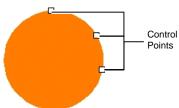
Hold the **SHIFT** key while dragging the Height or Width control points to resize proportionally.
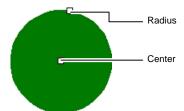
Circle

Depending on which method you are using, you can drag the following control points while creating a circle:

- Center and the Radius

- First and second points

- First, second and third points
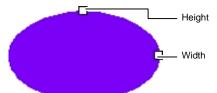
Creating a circle using the 3 point method

Creating a circle using Center and Radius method

Oval
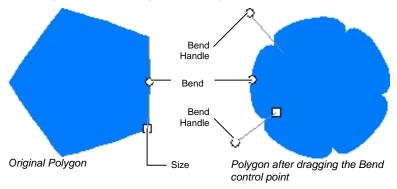
For ovals, you can drag the following control points.

Height

Width

Holding down the **SHIFT** key while dragging the Height or Width control points will make the resizing proportional.

Polygon
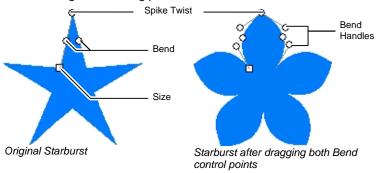
For polygons, you can drag the following control points and handles:

Bend
Handle

Bend

Bend
Handle

Original Polygon

Size

Polygon after dragging the Bend control point

- Hold the **CTRL** key while dragging the Size control point to keep the polygon's position.

- Hold the **CTRL** key while dragging the Bend control point to restore the polygon to its original shape.

- Hold the **SHIFT** key while dragging the Bend handle to move the opposite handle in the same direction.

- Hold the **CTRL** key while dragging the Bend handle to keep the opposite handle stationary.

Starburst
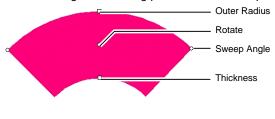
You can drag the following points on a Starburst:

Spike Twist

Bend

Size

Bend Handles

Original Starburst

Starburst after dragging both Bend control points

The Size and the Bend control points behave the same way as explained for the polygon in previous item.

Fan

You can drag the following points on a Fan shape:

Outer Radius

Rotate

Sweep Angle

Thickness
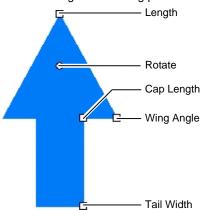
Center

Hold the **SHIFT** key while dragging the Sweep Angle or Rotate control points to constrain the angle.

Arrow
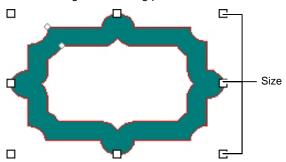
You can drag the following points on an Arrow shape:

- Length
- Rotate
- Cap Length
- Wing Angle
- Tail Width

Hold the **SHIFT** key while dragging the Rotate control point to constrain the angle.
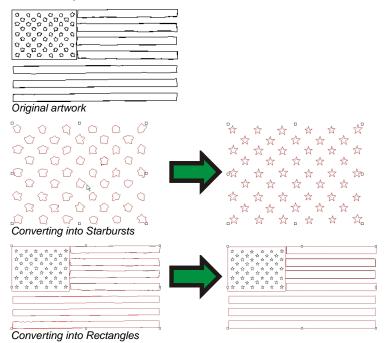
Advanced Border

You can drag the following points on an Advanced Border:

- Size

Converting Objects to Shapes

The Convert To Shape command is used to convert objects to shapes. You can quickly convert the traced artwork to the desired shape, then edit the shape.

Original artwork

Converting into Starbursts

Converting into Rectangles
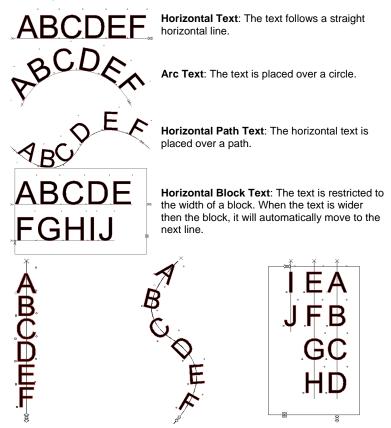
To convert an object into a shape:

1. Select the objects.

2. From the **Arrange** menu, point to **Convert to Shape** and then select the new shape.

11.Working with Text

The software allows you to create text and change its appearance. The following defines each text type and displays and example:

ABCDEF

Horizontal Text: The text follows a straight horizontal line.

Arc Text: The text is placed over a circle.

Horizontal Path Text: The horizontal text is placed over a path.

ABCDE FGHIJ

Horizontal Block Text: The text is restricted to the width of a block. When the text is wider then the block, it will automatically move to the next line.

Vertical Text: The text follows a straight vertical line.

Vertical Path Text: The vertical text is placed over a path.

Vertical Block Text: The vertical text is the height of a block. When the text is higher then the block, it will automatically move to the next line.

Creating New Text

You create text by using the tools located on the **Text** toolbar.

Creating Horizontal/Vertical Text

1. Select Horizontal Text or Vertical Text tool. T IT

2. Click anywhere in the design area.

3. Type the text.

Lorem ipsum dolor
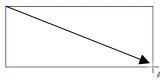
4. If desired, hit **ENTER** to move to the next line.

Lorem ipsum dolor
sit amet, consectetur

5. Hit **ESC** or select a different tool to finish entering text.
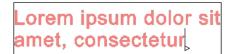
Creating Horizontal/Vertical Block Text

1. Select Horizontal Text or Vertical Text tool. T IT

2. Click and drag to create a block where the text will be confined.

3. Type the text. The text will automatically wrap when it reaches the opposite end of the text block. The text block will expand to accommodate additional lines of text.

Lorem ipsum dolor sit
amet, consectetur

4. If desired, hit **ENTER** to move to the next line.

5. Hit **ESC** or select a different tool to finish entering text.

Creating Horizontal/Vertical Path Text

1. Select Horizontal Path Text or Vertical Path Text tool. ⅍ ⅍

2. Click on any existing path or shape in your design.

3. Type the text.

Lorem ipsum dolor
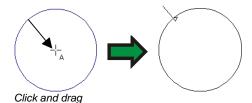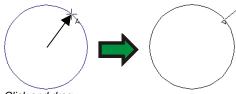
4. Hit **ESC** or select a different tool to finish entering text.

Creating Arc Text
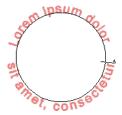
1. Select **Arc Text** tool. 🔲

2. Click and drag to define the radius and center of the circle the text will be positioned around. The cursor will be placed at the point on the circumference that you clicked on when creating the circle.

Click and drag

- Hold down the **CTRL** key while dragging to draw the circle from the center point. The cursor will be placed at the point on the circumference that you clicked on when creating the circle.

Click and drag

- Holding down the **SHIFT** key while dragging restricts the **Starting Angle** to increments determined in Preferences (see "Preferences - General Tab" on page 22 for more details).

3. Type the text.

4. If desired, hit **ENTER** to move to the next line.

Lorem ipsum dolor sit amet, consectetur
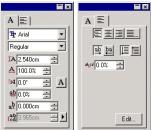
5. Hit **ESC** or select a different tool to finish entering text.

Changing Text Attributes Using DesignCentral

While or after creating text, you can adjust the text properties in DesignCentral.
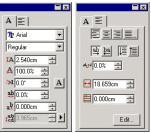
In DesignCentral you can have two or more Tabs for each type of text.
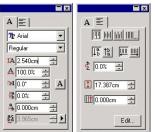
DesignCentral for Horizontal Text
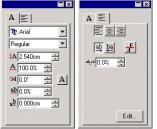
DesignCentral for Vertical Text
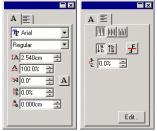
DesignCentral for Horizontal Block Text
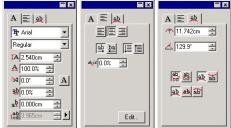
DesignCentral for Vertical Block Text

DesignCentral for Horizontal Path Text

DesignCentral for Vertical Path Text
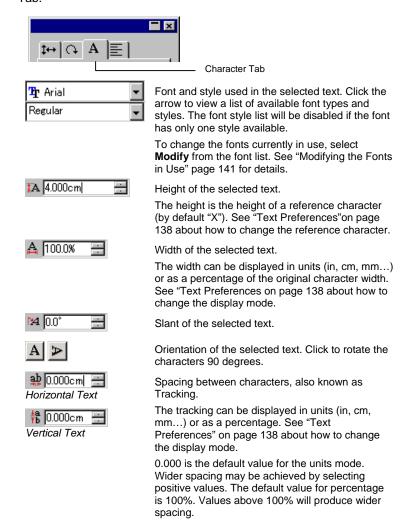
DesignCentral for Arc Text

Editing Attributes in DesignCentral

Some attributes in DesignCentral are common for all types of text, others are specific for one type.

The following attributes are available on the DesignCentral - Character Tab.

Character Tab

	Font and style used in the selected text. Click the arrow to view a list of available font types and styles. The font style list will be disabled if the font has only one style available. To change the fonts currently in use, select **Modify** from the font list. See "Modifying the Fonts in Use" page 141 for details.
	Height of the selected text. The height is the height of a reference character (by default "X"). See "Text Preferences" on page 138 about how to change the reference character.
	Width of the selected text. The width can be displayed in units (in, cm, mm…) or as a percentage of the original character width. See "Text Preferences on page 138 about how to change the display mode.
	Slant of the selected text.
	Orientation of the selected text. Click to rotate the characters 90 degrees.
 Horizontal Text *Vertical Text*	Spacing between characters, also known as Tracking. The tracking can be displayed in units (in, cm, mm…) or as a percentage. See "Text Preferences" on page 138 about how to change the display mode. 0.000 is the default value for the units mode. Wider spacing may be achieved by selecting positive values. The default value for percentage is 100%. Values above 100% will produce wider spacing.

`ab 12.000cm` (with spinner)	Amount of spacing between lines of text
Horizontal Text	Click the button on the right side of this field to select between **Automatic** and **Specify**. When **Specify** is selected, the Line Spacing field is enabled, and you can specify the amount of space between lines.
`a 6.000cm` (with spinner)	
Vertical Text	This field is not available for Horizontal and Vertical Path Text.

The following attributes are available in DesignCentral - Paragraph Tab:

`‡↔ ↺ A ≡`

Paragraph Tab

≡ ≣ ≡ (three buttons)	Click these buttons to justify the selected horizontal text to the left, center or right.
≡…	Click these buttons to fully justify the text by changing the character and word spacing, Word spacing only, Character width or Character size. You can also specify the paragraph width and if this setting will be applied to the last line of each paragraph.
Horizontal Text	
‖‖…	
Vertical Text	
‖‖ ‖‖ ‖‖ (three buttons)	Click these buttons to justify the selected vertical text to the top, center or bottom.
ab→ ←ba	Click these buttons to arrange the horizontal text from left to right, as in standard writing, or from right to left.
↓a b ↑b a	Click these buttons to arrange the vertical text from top to bottom or from bottom to top.
≣↓ ≣↑	Click these buttons to select the order the lines of selected horizontal text in the paragraph top to bottom or bottom to top.
‖‖↓ ‖‖↓	Click these buttons to select the order the lines of selected vertical text in the paragraph right to left or left to right.
`abcd 0.0%` (with spinner)	Amount of spacing between words in the text.
Horizontal Text	The word spacing can be displayed in units (in, cm, mm…) or as a percentage. See "Text Preferences" on page 138 about how to change the display mode
`0.0%` (with spinner)	
Vertical Text	
`Edit…`	Click this button to display a dialog box where you can retype the selected text. The same dialog box will be displayed if the text is selected and you double click the text tool

The following attributes are available for horizontal and vertical block text only.

`↔ 31.356cm` (with spinner)	This field allows you to specify the width of the block

where the horizontal text will be restricted.

| | 38.496cm | | This field allows you to specify the height of the block where the vertical text will be restricted. |

Horizontal Text

| | 0.000cm | | This field allows you to specify the indent for the first line of the block text. |

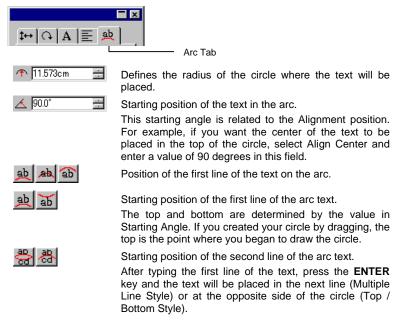| | 0.000cm | |

Vertical Text

The following attribute is available for horizontal and vertical path text only.

Click this button to move the text to the opposite side of the path.

The following attributes are available on the DesignCentral - Arc Tab and are available for Arc text only:

Arc Tab

| 11.573cm | Defines the radius of the circle where the text will be placed. |

| 90.0° | Starting position of the text in the arc. |

This starting angle is related to the Alignment position. For example, if you want the center of the text to be placed in the top of the circle, select Align Center and enter a value of 90 degrees in this field.

Position of the first line of the text on the arc.

Starting position of the first line of the arc text.

The top and bottom are determined by the value in Starting Angle. If you created your circle by dragging, the top is the point where you began to draw the circle.

Starting position of the second line of the arc text.

After typing the first line of the text, press the **ENTER** key and the text will be placed in the next line (Multiple Line Style) or at the opposite side of the circle (Top / Bottom Style).

Changing Text Attributes Using Control Points

Most of the set DesignCentral properties may also be set manually. You can click and drag directly the Control Points on the text.
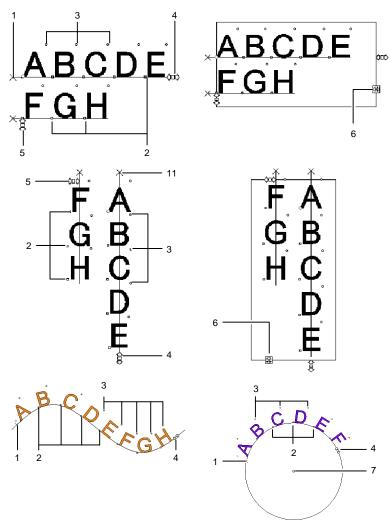
When you select text, and then display the Character or Paragraph tab of DesignCentral, the text displays with a number of Control Points around it. Each of these Control Points has a special meaning, and changes the text when moved.

You can use the arrow keys on your keyboard to make incremental

adjustments.

The following Control Points can be dragged in a text:

(1) Line Spacing

Click this point to select one line of text. When a line is selected you may change attributes such as color or font.

Drag this point to adjust the spacing between lines. All lines below the selected line are also repositioned. Typing **CTRL+up arrow** and **CTRL+down arrow** while the text cursor is displayed in the text also adjusts line spacing.

For text and block text, **CTRL** key while dragging moves only the

selected line. For path and arc text, it will restore the text to its initial position.

For arc text, **SHIFT** key while dragging adjusts the vertical offset of the select line. For all other types of text, **SHIFT** key while dragging moves the selected line left or right.

(2) Move Character

Click this point to select one individual character. After selecting one character, you can change its attributes.

Drag this point to adjust the spacing between the selected character and the previous one. All characters to the right of the selected character are also repositioned.

CTRL key while dragging, moves only the selected character and leaves the remaining text in place. **SHIFT** key while dragging moves the selected character up or down.

(3) Rotate Character

Drag this point, located in the upper right corner of each character, to rotate an individual character.

SHIFT key while dragging rotates the character in increments. See "Preferences - General Tab" on page 22 about how to set the increment angle. **CTRL** key while dragging restores the character to its default position.

(4) Tracking

Drag this point to adjust the tracking of the selected text. The tracking is adjusted equally for all characters and between all words.

CTRL key while dragging, changes tracking between words.

(5) Line Spacing

Drag this point to produce equal spacing between lines.

(6) Block Size

Drag this point to restrict the text box width. This option is only available for Block text.
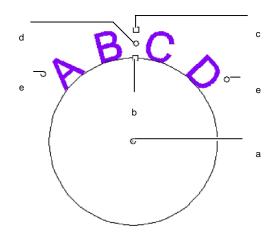
(7) Center

Drag this point to adjust the position of the circle. **SHIFT** key while dragging limits the circle's position to specific positions.

When the Arc Tab is selected, you will see an extra set of control points that can be dragged:

(a) Center

Drag this point to adjust the position of the center of the circle and also to change its radius.

(b) Inner Radius

Drag this point to change the radius of the circle while keeping the center and **top** positions unchanged. This causes a distortion of the text.

CTRL key while dragging will not distort the text.

(c) Outer Radius

Drag this point to change the radius of the circle while keeping the center and **bottom** positions unchanged. This causes a distortion of the text.

CTRL key while dragging will not distort the text.

(d) Rotate

Drag this point to change the position of the arc text on the circle.

SHIFT key while dragging constrains the position. See "Preferences - General Tab" on page 22 about how to set the constrain angles.

(e) Sweep Angle

Drag this point to change the sweep angle of the arc text on the circle. It changes each character width and the spacing between them.

SHIFT key while dragging constrains the sweep angle. See "Preferences - General Tab" on page 22 about how to set the constrain angle.

CTRL key while dragging, both sides of the text moves at equal rate from the center point.

Editing Text

In an existing text, you can enter a new text or replace existing words

1. Select any of the text tools.

2. Click on the text you want to edit.

3. To insert characters into the text, place the cursor in the desired location and begin typing.
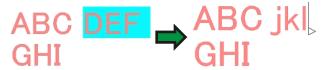
ABC DEF GHI ➡ ABdefC DEF GHI

Use the arrow keys on your keyboard to move the cursor within the text.

The **HOME** key returns the cursor to the beginning of the current line.

The **END** key moves the cursor to the end of a line.

4. To replace part of the text, select the text you want to replace and type or paste in the text you want to replace it with.

ABC DEF GHI ➡ ABC jkl GHI

- **SHIFT** and left arrow / right arrow keys selects a group of characters.

- **SHIFT** and up arrow / down arrow keys selects the character from the beginning of a line to the insertion point, or from the insertion point to the end of the line.

- Click and drag to select a group of characters.

- Double clicking selects one word.

Selecting Text

You can select text as whole text, one line at a time or a group of characters.

Selecting the Whole Text

- Select the text with **Select** tool.

Selecting One or More Characters

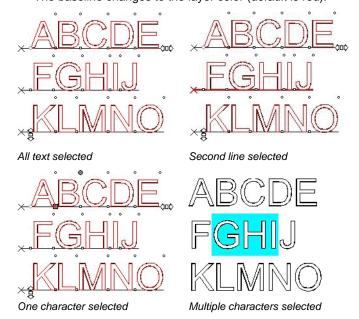- Click and drag the text with **Text** tool to select a group of characters.

Selecting One Character

1. Select the text.

2. Select the **Character** or **Paragraph** Tab in DesignCentral.

3. Click the **Move Character** control point.

Selecting One Line

1. Select the text.

2. Select the **Character** or **Paragraph** Tab in DesignCentral.

3. Click the **Line Spacing** control point.

    The baseline changes to the layer color (default is red).

All text selected

Second line selected

One character selected

Multiple characters selected

Changing Text Attributes

All fonts in your system are available for selection. In addition, special fonts installed into your software folder are available. These fonts include URW, Casfonts and FSfonts.

To change the font in existing text:

1. Select the text.

2. From the **Text** menu, point to **Font** and then select the desired font type from the menu. If the desired font is not visible in the menu, click **More** at the top of the menu.

To change the font and other attributes using DesignCentral:

1. Select the text.

2. Click the **Character** Tab in DesignCentral.

3. Change the attribute.

    While you scroll the font list, you will see a preview using the font that is highlighted.

    Before the font name, an icon indicates the font type:

T̲T	TrueType Fonts	F̅	Casfonts
a	Adobe Type 1 Fonts	URW	URW Fonts
F̅F	FSfonts		

Changing Default Text Settings

All new text created uses the default font setting. To change the default font setting:

1. Make sure no text is selected.

2. Select the **Text** tool.

3. Choose the default settings from **Text** menu or in DesignCentral.

Finding and Replacing

Your software includes a standard dialog box for locating and replacing text.

To find and replace text:

1. From the **Text** menu, select **Find/Replace**.

2. Enter the text that you want to find in the field.

    - Click **Format** button to specify a format to search. The **Find Format Setting** dialog box allows you to locate text by font, style, or size.

    - To find a set of characters that may be part of a longer word, turn off **Match whole word only**.

    - To search within a specific part of the text, select the text and choose **Selection only** option.

    - To distinguish between uppercase and lowercase characters, select the **Match case** check box.

3. If necessary, enter the replacement text. You can specify the format of the replacement text by clicking the **Format** button.

4. Once the text is found you can:

    - Click **Find Next** to locate the next occurrence of the text.

    - Click **Replace** to replace the text.

- Click **Replace All** to replaces all occurrences of the specified text.

Spell Checking

Your software provides a spell checking tool in several languages to check your work.

1. From the **Text** menu, select **Check Spelling**.

- From the **Language** list, select the language.

- To spell check within a specific part of the text, select the text and then choose **Selection only** option.

- Choose the **Case Sensitive** option to distinguish between upper and lower case.

2. Select the misspelled word from the **Misspelled words** list, and then:

- Select the correct word from the **Suggested corrections** list or enter the correct word in the **Change to** field and then click **Change** or **Change All**.

- Click **Ignore** or **Ignore All** to ignore the misspelled word.

- Click **Add** to add the misspelled word to the custom dictionary. Click **Edit List** to edit your custom dictionary.

3. Click **Done** to end spell checking.

Changing Case

To alter the case of text:

1. Select the text.

2. From the **Text** menu, point to **Case** and then select the desired capitalization from the menu. The following options are available:

UPPER CASE	All text is changed to capital letters.
lower case	All text is changed to lower case letters.
Sentence case	The first character of each sentence is changed to capital and the rest lower case.
Title Case	The first character of each word is changed to capital and the rest lower case.
tOGGLE cASE	Changes the lower case letters to capitals and vice versa.

Changing Kerning

Kerning is the space between characters of text. Kerning varies from font to font, and each font contains specific kerning information.

Using Automatic Kerning

Your software contains several kerning setting options.

1. Select the text.

2. From the **Text** menu, point to **Kerning** and then select the desired kerning setting.

Overlap   *Touch*   *Narrow*

Medium   *Wide*   *Default*

Using Manual Kerning

Sometimes you only need to adjust the kerning between a single set of characters.

To change the kerning of all text:

1. Select the text.

2. Change the value of the **Tracking** field on the DesignCentral - Character Tab.

To change the kerning between two characters:

1. Click the **Text** tool between two characters.

2. Adjust the kerning by changing the value of the **Tracking** field on DesignCentral - Character Tab.

   CTRL and right arrow / left arrow keys narrows or widens the kerning.

Defining Kerning

Instead of setting the kerning each time you create a design, you can change the default kerning for a pair of characters for one font. By setting up a table of kerning pairs for your frequently used fonts, you can ensure that they will look right every time you use them.

📄 The kerning specified here is used only by this program and will not affect or be used by other applications.

To define kerning for a specific set of characters:

1. Select the text.

2. From the **Text** menu, select **Define Kerning**.

3. Select where the kerning will be stored.

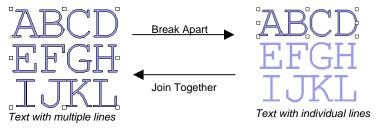|	
Selection only	Kerning is used only for selected text.
In document	Kerning is used for all text that is using this font and pair of characters for this file.

| As default | Kerning is used in all files. |

In Define Kerning dialog box, you can type a new pair of characters.

4. Drag the character in **Define Kerning** dialog box or enter a value in **Kerning** field.

📄 The kerning is defined in Em units. An Em space is equal to the width of "M" in the selected font.

5. Click **OK.**

Breaking and Joining Text

You can break text with multiple lines in individual lines of text, and also join several lines of text.

Text with multiple lines   *Text with individual lines*

To break text:

1. Select the text.

2. From the **Text** menu, select **Break Apart**.

📄 When a single line is selected, the text is separated into individual characters.
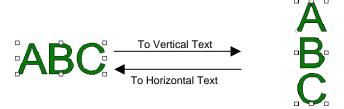
To join several lines:

1. Select the text blocks you would like to join.

2. From the **Text** menu, select **Join Together**.

Changing Text Orientation

Changes vertical text to horizontal and vice-versa:

1. Select the text.

2. From the **Text** menu, point to **Text Orientation** and then select **Horizontal** or **Vertical** from the menu.

To Vertical Text

To Horizontal Text

Adjusting Text Block Size

To specify the text height and width:

1. Select the text.

2. From the **Text** menu, select **Text Spacing**.

3. Enter the desired text **Width** and **Height.**

    *   When **Adjust word spacing only** is checked, only the spaces between words are increased or decreased. If there are no spaces in the text, the width will remain unchanged.

    *   When **Proportional** is checked, changing a value automatically changes the other one, keeping the size proportional.

📄 Text must have more than one line in order to change the text height.

Working With Braille Text

You can convert normal text into Braille Grade 1 or Braille Grade 2. Grade 1 is in full spelling and consists of the letters of the alphabet, punctuation, numbers, and a number of composition signs that are special to Braille. Duxbury Systems conversion is used for Grade 2 support that gives the highest quality Braille available. Braille can be spell checked, and even converted back to normal text to be edited. There is an option to omit the caps indicator and keep Braille in all lowercase that makes for more concise Braille. Dot Size can be specified to make Braille Photo-Polymer compatible.
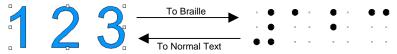
Converting Text to Braille

1. Select the text.

2. From the **Text** menu, point to **Braille** then select **Grade 1** or **Grade 2** from the menu.

📄 Once converted to Braille, the text can not be resized. Arc and Path text can not be converted to Braille.

Converting Braille to Text

1. Select the **Braille** text.

2. From the **Text** menu, point to **Braille** then select **Braille to Text**.

Braille Tab in DesignCentral

When Braille text is selected, DesignCentral displays the Braille Tab with the following attributes and commands:

Grade 1 / Grade 2	Changes the Braille coding.
Lowercase Only	Check to remove caps indicators.
Show Empty Dots	Check to show all the empty dots in your text when it is selected. Empty dots are not output.
CA Standard	Check to force the Braille coding to comply with the California Braille standard.
⊖	The diameter of each dot.
Edit	Click this button to edit the original text.
Convert to Text	Click this button to convert Braille text back to normal text.

Working With Barcodes

You can convert normal text into Barcodes using Code 39 or Extended Code 39.

Code 39 is an alphanumeric bar code. It can encode numbers 0-9, the uppercase alphabet A-Z, Space, and the some symbols (- . * $ / % +). If you need lowercase letters, there is also an Extended Code 39 that encodes the 128 character ASCII character set by pairing existing Code 39 characters.
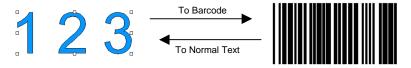
Converting Text to Barcode

1. Select the text.

2. From the **Text** menu, point to **Barcode** and then select **Barcode39** or **Barcode39 Extended** from the menu.

📄 Once converted to Barcode, the text can not be resized or edited. Arc and Path text can not be converted to Barcode.
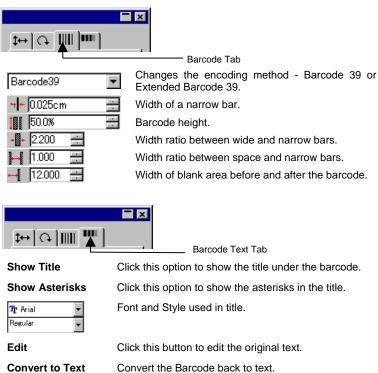
Converting Barcode to Text

1. Select the **Barcode**.

2. From the **Text** menu, point to **Barcode** and then select **Barcode to Text**.

To Barcode

To Normal Text

Barcode Tab in DesignCentral

When a Barcode is selected, DesignCentral displays the **Barcode** Tab and the **Barcode Text** Tab with the following attributes and commands:
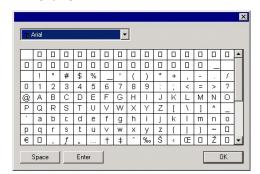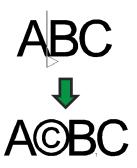
Barcode Tab

Barcode39	Changes the encoding method - Barcode 39 or Extended Barcode 39.
0.025cm	Width of a narrow bar.
50.0%	Barcode height.
2.200	Width ratio between wide and narrow bars.
1.000	Width ratio between space and narrow bars.
12.000	Width of blank area before and after the barcode.

Barcode Text Tab

Show Title	Click this option to show the title under the barcode.
Show Asterisks	Click this option to show the asterisks in the title.
Arial / Regular	Font and Style used in title.
Edit	Click this button to edit the original text.
Convert to Text	Convert the Barcode back to text.

Working With Special Characters

Sometimes you may need to insert a special symbol into your text.

Using Existing Fonts

If you have a font that contains a special character, you can use the following method to insert a special character:

1. Click the text with **Text** tool, placing the cursor where the special character will be inserted.

2. From the **Text** menu, select **Insert Symbols**.

3. Select the font and click the special character that will be inserted

    Click **Enter** to change lines and **Space** to enter a space.

4. Click **OK**.
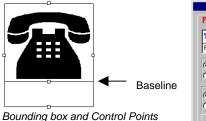
Creating New Characters

You can convert paths and shapes into a new special character:

1. Select the path.

2. From the **Text** menu, select **Define Character**.

3. Select the font type and style where the new character will be added in **DesignCentral**.

4. Select the new character or character code in **Character**.

5. To size and position the character properly, specify a reference character in **Reference Character**.

    The baseline and the box of the new character will be placed relative to the bounding box in the same ratio as the reference character. When the reference character is not specified, the baseline is on the bottom of the object bounding box, and the character is scaled to fit the ascent.

    You can also click and drag the control points around the character to adjust the new character's position and size.

Bounding box and Control Points

In this example, the new character will be defined as "C" in Arial Regular font

6. Click **Apply**. ✔

In the example below, the character "C" in Arial font is replaced with a telephone symbol. Every time you type "C" using the Arial font, a telephone symbol will be used.

Using standard Arial font

The same text after the new character has been created

📄 The special character specified here is used only by this program and will not affect or be used by other applications. Also the existing text in your document will not be affected.

To delete a custom character:

1. Select the text.

2. From the **Text** menu, select **Define Character**.

3. Select the font type and style where the character was added.

4. Select the character or character code in **Character**.

5. Click **Delete**.

Working With Text Styles

You can copy text attributes and apply them to other text within your document. You may also store text styles within a list. The text style contains the following attributes:

• Font	• Kerning	• Word Spacing	• Line Orientation
• Style	• Size	• Tracking	• Line Spacing
• Direction	• Width	• Vertical Offset	
• Character Orientation	• Slant	• Justification	

Copying and Pasting Text Styles

1. Select the text with the desired attributes.

2. From the **Text** menu, point to **Text Style** and then select **Copy Style**.

3. Select the text where the style will be applied.

4. From the Text menu, point to **Text Style** and then select **Paste Style.**

Storing Styles in the Style List

1. Select the text.

2. From the **Text** menu, point to **Text Style** and then select **Store Style**.

3. Type the style name.

4. Click **OK**.

Applying Styles from the Style List

1. Select the text.

2. From the **Text** menu, point to **Text Style** and then select **Apply Style**.

3. Select the style from the list.

4. Click **OK**.

Text Preferences

To change the text preferences:

1. From the **Edit** menu, select **Preferences**.

2. Select **Tools** Tab.

3. Select **Text** tool from the list on left side of dialog box.

In **Text Preferences**, the following options are available:

Font Size	Select which option will be used to determine the font size used to fit a specified text height:	
	Use font height	The software sets the font size that so that the height of the bounding box of the font matches the specified height.

Based on height of __	The software sets the font size so that the height of the letter you specify, measured from the top of the letter to its baseline, exactly matches the specified height. By default, sizes are based on the height of the letter "X". The benefit of using a reference letter is knowing the exact size of one particular letter.

      📄 Using a reference letter does not make all characters the same size as that letter.

In the example below text was selected and the same size was set in DesignCentral.

[A]   [B]   [C]

Text Height in Design Central

[A] The height of letter "X" was set as a reference in **Based on height of.** The height of letter "X" is exactly the size specified in DesignCentral because it is used as a reference. All other letters, like the "a" in the above example, will be proportionally resized.

[B] The height of letter "a" was set as a reference in **Based on height of.** The height of letter "a" is exactly the size specified in DesignCentral and all other letters, like the "X" is proportionally resized.

[C] Setting **Use font height** in Font size in Preferences. The height of the font's original bounding box has the size specified in DesignCentral.

Width/tracking/ word spacing	You can choose to show this value in DesignCentral in actual size or as a percentage.
Smooth edges of screen fonts	If you want your text to appear with smoother edges on the screen, check this option.

While the **Smooth edges of screen fonts** option does make the characters appear smoother, it creates a discrepancy between the displayed size and the actual size of the characters.

Some characters show a red border when selected. This red border is the actual line that will be outputted.

Use Chinese language kits	Check to make Flexi accept Chinese characters input from the Chinese language kit while running a Roman language version of Windows.

      📄 This option is not present on the Macintosh.

Working with Fonts

Installing Fonts

In your software you can use TrueType, Adobe Type 1, FSfont, Casfonts and URW fonts.

Installing TrueType Fonts

To install TrueType fonts, copy the font files into the operating system's **Fonts** directory. Consult your operating system documentation for details.

Installing Adobe Type 1 Fonts

Adobe Type 1 fonts are supported under all Macintosh operating systems. Consult your operating system documentation for details.

Under Windows 2000, XP and later operating systems, Adobe Type 1 support is built into the operating system. Consult your operating system documentation for details.

Under previous versions of Windows, you must install Adobe Type Manager® in order to use Adobe Type 1 fonts. Consult the Adobe documentation for details.

Installing FSfonts

To install FSfonts:

1. Copy the font files to **FSFonts** folder.

2. From the **Edit** menu, select **Preferences**.

3. Select **Font** Tab.

4. Enter the path or click **Browse** to select the folder where the fonts are stored.

5. If the fonts are protected, click **Add** and type the password.

6. Click **OK.**

7. Restart the software.

Installing URW and Casfonts

To install URW and Casfonts:

1. Copy the font files to **URWFonts** or **Casfonts** folder.

2. Restart the software.

Casmate Engraving Fonts

Casmate engraving fonts install in the same manner as other Casmate fonts, with the following additional conditions:

- If the filename of the font starts in **ENG_**, **E_** or **E** (E followed by a space), the font is automatically loaded as an open path font.

- Fonts whose filenames begin with some other characters must be listed in a text file named **casfopen.lst** in the **Casfonts** folder. Once the filename is listed in the **casfopen.lst** file, the software will automatically load the font as an open path font.

  The format of the **casfopen.lst** file is as follows:

  o The first line consists of the section header **[CAS Fonts]**.

  o All other lines are font entries. Each font entry is on its own line. A font entry consists of the name of the font, exactly as it appears in Inspire or CASmate, followed by an equal sign (**=**). Font entries are case-sensitive.

  The following is an example of a **casfopen.lst** file:

```
[CAS Fonts]
Eng_Tulip4l=
Eng_Glacis4l=
Eng_Palm=
Eng_Almond=
Eng_Script=

E Iris=
E Iris LZR=
E Normal Block 1 Line=
E Roman Double Line=
E Cursive 1 Line=

E DOUBLE LINE CONNECTING SCRIPT=
E 4 LINE HELVETICA=
E HELVETICA REGULAR 1983=
```

Modifying the Fonts in Use

The software allows you to determine which of the fonts on your system will be loaded when the software starts up.

To modify the selection of fonts the software will load, from the **Text** menu, select **Font** then **Modify**.

📄 A piece of sample text in the selected font is displayed at the bottom of the dialog.

To unload a font select it in the **Selected Fonts** list and click **Remove**.

To load a font select it in the **Removed Fonts** list and click **Add**.

To unload all fonts, click **Remove All**.

To add all fonts, click **Add All**.

To apply the selected font to the current text object, click **Apply**. The dialog will close and the font will be applied.

12.Working with Paths

A path consists of one or more straight or curved segments and can be **Open** or **Closed**. When you have more than one segment in one path, the segments are separated by a **Control Point**. The position of the Control Point determines the shape of the adjacent segments.

On curved segments, each anchor point displays **Direction Lines**, ending in **Direction Handles**. Their angle and the size determine the shape of the curve.

A Control Point located between two segments can be:
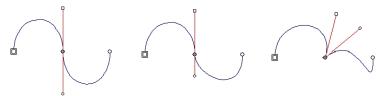
Symmetric	The direction handles point in opposite directions along the same line and they have the same size.
Smooth	The direction handles point in opposite directions along the same line but are not the same size.
Cusp	The direction handles are not in the same line.
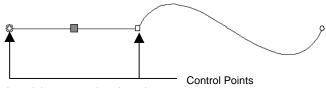
Symmetric Control Points   *Smooth Control Points*   *Cusp Control Points*
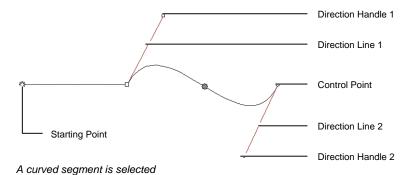
A *double circle or square* indicates the **Starting Point** of the path. In an open path, the starting point can be at either end of the path. In a closed path, the starting point can be anywhere on the path.

Control Points

A straight segment is selected

Direction Handle 1

Direction Line 1

Control Point

Direction Line 2

Direction Handle 2

Starting Point

A curved segment is selected
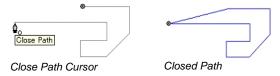
Creating Paths

You can create paths using the **Bezier Path** tool or the **Freehand Path** tool.

📄 To continue drawing an existing open path, select the **Bezier Path** or **Freehand Path** tool and click the cursor over either end of the path.

Drawing Straight Segments Using the Bezier Path Tool

1. Select the **Bezier Path** tool. 🖋

2. Click where the segment will begin in the drawing area.

3. Click where the segment will end.

   📄 Hold the **SHIFT** key to constrain the line angle.

4. Repeat step 3 to create additional straight lines.

   - Press the **BACKSPACE** key to delete the last segment.

   - Press the **ESC** key or click the **New Path** button in DesignCentral to create a new path.

   - To close the path, place the cursor close to the starting point and click when the cursor shows a small circle underneath or press the **Close Path** button in DesignCentral.

   Close Path Cursor   *Closed Path*

   - Press the **DELETE** key to delete the entire path.

Drawing Curved Segments Using the Bezier Path Tool

1. Select the **Bezier Path** tool.
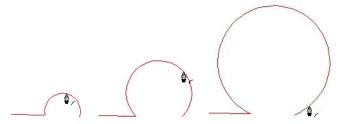
2. Click where the segment will begin in the drawing area.

3. Click and drag where the segment will end in the drawing area.

   By default the new Control Point is **Symmetric**. Hold the **SHIFT** key while dragging to make the new point **Smooth**, or **ALT** to make it a **Cusp**.

4. After releasing the mouse button, you can still adjust the Direction Lines, by dragging the Direction Handles. Hold the **SHIFT** key to change one Direction Line length and angle, while keeping the other Direction Line *length* unchanged. Hold the **ALT** key to change one Direction Line length and angle, while keeping the other Direction Line *length and angle* unchanged.
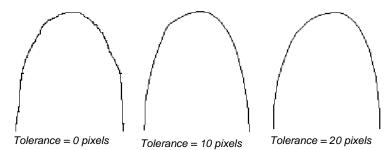
5. Repeat step 3 to create more segments.

   - Press the **BACKSPACE** key to delete the last segment.

   - Press the **ESC** key or click the **New Path** button in DesignCentral to create a new path.

   - To close the path, place the cursor close to the starting point and click when the cursor shows a small circle underneath or press the **Close Path** button in DesignCentral.

   - Press the **DELETE** key to delete the entire path.

Drawing Arcs Using the Bezier Path Tool

1. Select the **Bezier Path** tool.

2. Click where the arc will begin in the drawing area.

3. Hold the **CTRL** key and click to mark the endpoint of the arc, then drag to describe the curvature of the arc. The curvature will increase or decrease so that the arc always intersects the cursor.

4. After releasing the mouse button, you can still adjust the Direction Lines, by dragging the Direction Handles. Hold the **SHIFT** key to change one Direction Line length and angle, while keeping the other Direction Line *length* unchanged. Hold the **CTRL** key to

change one Direction Line length and angle, while keeping the other Direction Line *length and angle* unchanged.

5. Repeat step 4 to create additional segments.

- Press the **BACKSPACE** key to delete the last segment.

- Press the **ESC** key or click the **New Path** button in DesignCentral to create a new path.

- To close the path, place the cursor close to the starting point and click when the cursor shows a small circle underneath or press the **Close Path** button in DesignCentral.

- Press the **DELETE** key to delete the entire path.

Drawing Segments Using the Freehand Drawing Tool

1. Select **Freehand Drawing** tool.

2. Adjust the **Tolerance** in DesignCentral. The higher the tolerance value, the smoother the path becomes.

Tolerance = 0 pixels   *Tolerance = 10 pixels*   *Tolerance = 20 pixels*

3. Click and drag to create the path. Hold the **SHIFT** key to create a straight line.

4. While still creating the path, if you press **CTRL** key and drag back and erase the path that you just created.

Drawing a Freehand Path   *Erasing a Path*

5. To close the path, place the cursor close to the starting point and click.

Converting Objects into Paths

Converts objects such as shapes and text into paths.

1. Select the objects.

2. From the **Arrange** menu, select **Convert to Outlines**.

If the objects have a stroke around it, the resulting path will keep the stroke.

   📄   When text is converted to paths, the resulting paths will be compounded. To edit those paths, you have to uncompound them first.

Converting Stroke to Paths
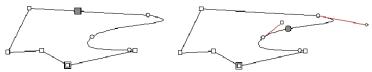
From the **Arrange** menu, select **Convert Stroke to Outlines**.

Selecting Points and Segments

Selecting Segments

1. Choose the **Select Point** tool.

2. Click a control point or a segment.

    When a straight segment is selected, a filled square is displayed. When a curved segment is selected, the Direction Handles and Lines for the segment is displayed along with a filled circle.

Straight segment selected   *Curved segment selected*
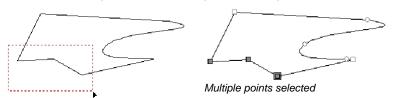
    When a control point is selected, it displays a square, when the previous segment is a straight segment and a circle when the previous segment is curved.

    Press the **TAB** key to move to the next point.

3. Hold the **SHIFT** key and click other segments to select multiple segments or points.

Selecting Control Points by Enclosing

1. Choose **Select Point** tool.
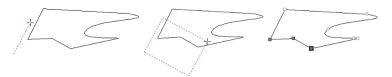
2. Click and drag to create a rectangular bounding box.

Multiple points selected

Another way to select multiple control points is by using an inclined bounding box. This method is useful when the points to be selected are placed in a way that a rectangular bounding box can not select them.

To select points using an inclined bounding box:

1. Choose **Select Point** tool.

2. Hold the **CTRL** key and click and drag to define one edge of the bounding box.

3. Release the **CTRL** key and drag the cursor in a perpendicular direction to define the adjacent edge of the bounding box.
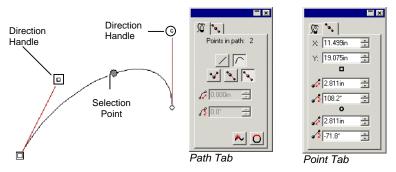
4. Release the mouse button.

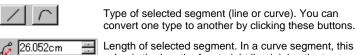# Using DesignCentral to Edit Points and Segments

When a segment or point is selected, DesignCentral displays two tabs: The **Path** Tab and the **Point** Tab. The information on each tab differs if a point or a segment is selected.

DesignCentral When a Segment is Selected
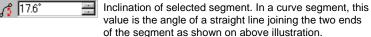
When a segment is selected, the following information is available in DesignCentral

Path Tab   *Point Tab*

Attributes in Path Tab
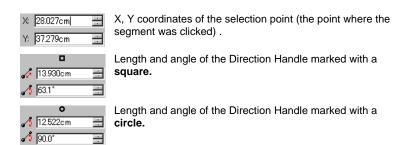
	Type of selected segment (line or curve). You can convert one type to another by clicking these buttons.
	Length of selected segment. In a curve segment, this value is the length of a straight line joining the two ends of the segment as shown on above illustration.
	Inclination of selected segment. In a curve segment, this value is the angle of a straight line joining the two ends of the segment as shown on above illustration.

Attributes in Point Tab

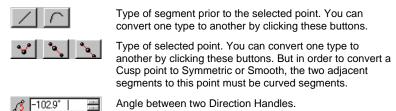|	
X: 28.027cm Y: 37.279cm	X, Y coordinates of the selection point (the point where the segment was clicked) .
☐ 13.930cm 63.1°	Length and angle of the Direction Handle marked with a **square.**
○ 12.522cm 90.0°	Length and angle of the Direction Handle marked with a **circle.**
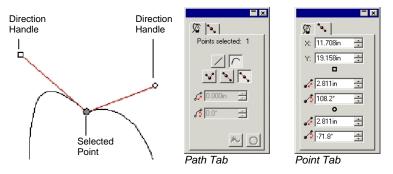
DesignCentral When a Control Point is Selected
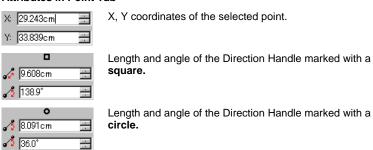
When a Control Point is selected, DesignCentral shows all information about the selected point. Depending on the type of the point, some of the information below may not available.

Path Tab   *Point Tab*

Attributes in Path Tab

╱ ⌒	Type of segment prior to the selected point. You can convert one type to another by clicking these buttons.
	Type of selected point. You can convert one type to another by clicking these buttons. But in order to convert a Cusp point to Symmetric or Smooth, the two adjacent segments to this point must be curved segments.
-102.9°	Angle between two Direction Handles.

Attributes in Point Tab

X: 29.243cm Y: 33.839cm	X, Y coordinates of the selected point.
☐ 9.608cm 138.9°	Length and angle of the Direction Handle marked with a **square.**
○ 8.091cm 36.0°	Length and angle of the Direction Handle marked with a **circle.**

Path Direction

Every path has an direction associated with it. This direction is used when cutting. To see the path's direction, see "Showing Path Direction" on page 16.

To change the direction of a path:

1. Select the path.

2. From **Arrange** menu, point to **Path Direction** and then select the new direction.

Automatic	The direction of inside paths (holes) in an object are clockwise and the outside paths are counterclockwise.
Reverse	Inverts the current direction.
Clockwise	All paths have the same clockwise direction.
Counter Clockwise	All paths have the same counter clockwise direction.

Editing Paths

The Path Edit toolbar contains tools that allow you to edit paths.
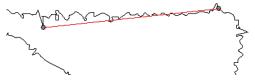
Straightening Lines

This Straighten Point tool is used to straighten a section of a path. In some cases, when you trace an image, extra points are added to the traced path. Use this tool to eliminate these points.

1. Select the **Straighten Points** tool.

2. Place the cursor over the path.

3. Click the point where the straight line will begins.

4. Click the point where the straight line will end.

5. Drag the start and end points to adjust the position of the straight line.

6. Click **Apply** or double click anywhere inside the design area.
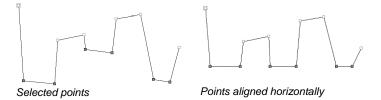
Aligning Points and Segments Horizontally or Vertically

Use the Align Horizontal or Align Vertical tools when you want to align several points along a horizontal or vertical line.
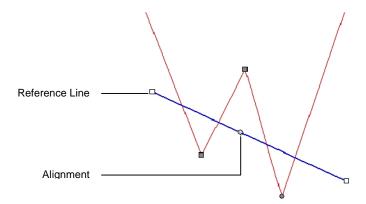
1. Select the points.

2. Select the **Align Horizontal** or **Align Vertical** tool.

   The points and segments are aligned.

Selected points   *Points aligned horizontally*

Aligning Points and Segments to an Angle

The Align Points tool aligns selected points along an alignment reference line.

1. Select the points.

2. Select **Align Points** tool.

   The alignment reference line appears.

Reference Line

Alignment

3. Click and drag the either end of reference line to change the angle of the alignment reference line. Click and drag the Alignment Center to change its position.

   You can also adjust the alignment reference line using the numeric fields in DesignCentral.

Move Direction	When **Closest** is selected, the point moves to the alignment reference line using the shortest path. When **Horizontal** is selected, the point moves horizontally to the reference line and when **Vertical** is selected, the points moves vertically.
Alignment Center Location	X and Y Coordinates of the Alignment Center, the circle located in the alignment reference line.
Alignment Angle	Angle of alignment reference line.
Move Entire Path	This option is only enabled if the selected points are in different paths. When this option is enabled, the entire path moves to the reference line.
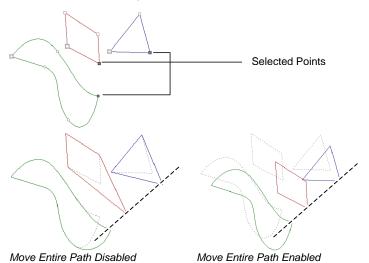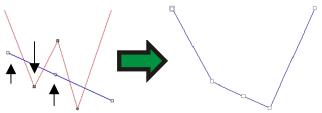
Selected Points

Move Entire Path Disabled   *Move Entire Path Enabled*

4.   Click **Apply** ✔ or double click anywhere inside the design area.

Aligning points using vertical move direction

Spacing Points

You can space points evenly horizontally or vertically.

1.   Select the points.

2.   From the **Arrange** menu, select **Spacing**.

3. In DesignCentral, enter the distance between points and the direction that they will be spaced.

4. Click **Apply**. ✔

Points spaced horizontally

Repeating Paths

You can create several copies of an open path, creating a closed path.

1. Select the points with the **Select Point** Tool.

2. From the **Arrange** menu, select **Step and Repeat**.

3. Click **Apply**. ✔

Original path   *After Step and Repeat*

Acquiring and Applying Length and Angle

Use this tool to copy on segment angle and length and apply it to another segment.

1. Select **Apply Length and Angle** tool.

2. Enter the angle and length values in DesignCentral or press **CTRL** key and click over the segment from where the angle and length will be copied.

Apply Length	Check this field to apply the length.
Apply Angle	Check this field to apply the angle.
Segment Length	The length that will be applied to the segment. Click the button on right side to select a set of predefined factors.
Segment Angle	The angle that will be applied to the segment. Click the button on the right side to select a set of predefined angles or apply the opposite angle.
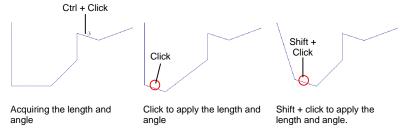
3. Click the cursor over the segment where the angle and length will be applied.

   Press the **SHIFT** key to change the point that is used as a reference.

Ctrl + Click

Click

Shift +
Click

Acquiring the length and
angle

Click to apply the length and
angle

Shift + click to apply the
length and angle.

Rounding Corners
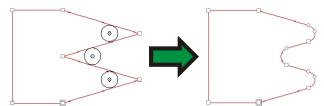
The Round Corner tool converts corners into rounded corners.

To round one corner of a path:

1.   Select the **Round Corner** tool.

2.   When the cursor is over a sharp corner, click to select.

3.   Click and drag the center of the circle to adjust the corner or enter
      the **Diameter** value in DesignCentral.

4.   Click **Apply** ✓ or double click anywhere inside the design area.

To round multiple corners in a path:

1.   Use the **Select** tool to select a path and all its sharp corners, or the
      Select Point tool to select specific corners in a path.

2.   Select the **Round Corner** tool.

3.   Click and drag the center of a circle to adjust the corners or enter
      the **Diameter** value in DesignCentral.

4.   Click **Apply** ✓ or double click anywhere inside the design area.
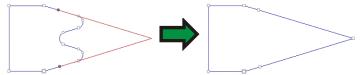
Sharpening Corners

The Sharpen Corner tool converts a round corner into a sharp corner.

1.   Select the **Sharp Corner** tool.

2.   Click the point where the sharp corner will begin.

3.   Click the point where the sharp corner will end.

4. Drag the start and end points over the path to adjust the position of the corner. **TAB** key joins the start and end points using a straight line.

5. Click **Apply** ✔ or double click anywhere inside the design area.

Converting Segment into a Curve

The Optimize by Curve tool creates a curved segment between two points on a path.

1. Select the **Optimize by Curve** tool.

2. Click the point where the curve will begin.

3. Click the point where the curve will end.

4. Drag the start and end points over the path and the Direction Handles to adjust the shape of the curved segment. Hold the **SHIFT** key while dragging the direction handles to constrain the dragging to the original direction of the handles. Hold the **TAB** key to change which side of the path will be kept.

5. Click **Apply** ✔ or double click anywhere inside the design area.

Converting Segment to Smooth Arc

The Optimize by Smooth Arc tool creates an arc segment between two points in a path.

1. Select the **Optimize by Smooth Arc** tool.

2. Click the point where the arc will begin.

3. Click the point where the arc will end.

4. Drag the start and end points over the path and the center of the arc to adjust the shape of the arc. You can also enter the Diameter value in DesignCentral.

    Click the **TAB** key to change the arc position.

*Press **TAB** to select the direction of the arc*   *Optimized path*
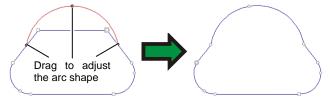
5. Click **Apply** ✔ or double click anywhere inside the design area.

Converting Segment to 3-Point Arc

The Optimize 3-Point Arc tool creates a semicircle between two points on a path.

1. Select **Optimize by 3-Point Arc** tool.

2. Click the point where the arc will begin.

3. Click the point where the arc will end.

4. Drag the start, end and the third control point in the arc to adjust the shape of the arc. Press the **TAB** key to change the arc position.

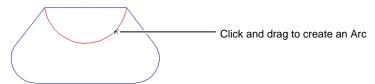5. Click **Apply** or double click anywhere inside the design area.

Drag to adjust the arc shape

Converting Segment to Arc

The Make Arc tool converts one segment of the path into a semicircle.

1. Select the **Make Arc** tool.

2. Click and drag one segment of the path.

   Hold the **SHIFT** key while dragging to constrain the arc into a half circle.

3. Release the mouse button.

Click and drag to create an Arc

Eliminating Extra Points
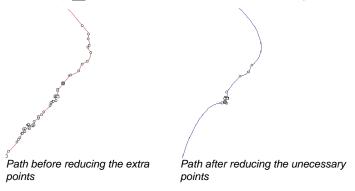
Many paths that have been auto-traced have a number of extra points that should be removed.

1. Use **Select** tool to select a path and all its points, or the **Select Point** tool to select specific points in a path.

2. Select the **Reduce Points** tool.

3. Adjust the **Tolerance** value in DesignCentral. Lower values of tolerance will follow the original path more closely; higher values will eliminate more points.

4.   Click **Apply** ☑ or double click anywhere inside the design area.

Path before reducing the extra points

Path after reducing the unecessary points

Removing One Point

You can remove one specific point from the path using the Remove Point tool.

1.   Select the **Remove Point** tool. ⟋

2.   Click over the points to be removed.

📄   You can also remove points by selecting them with **Select Point** tool and pressing **DELETE** key.

Adding One Point

You can add one specific point from the path using the Add Point tool.

1.   Select the **Add Point** tool. ⟋

2.   Click over the path to add new points.

Removing Self-Intersections

You can break a path that crosses forming a loop:

1.   Select the path.

2.   From the **Arrange** menu, point to **Path Direction** and then select **Automatic**.

📄   This command converts every closed path to compounded outlines.

Changing Starting Point

Every path has a starting point. When this path is cut, the plotter will start cutting from the starting point. In an open path, the starting point must be at one end of the path.

To change the starting point:
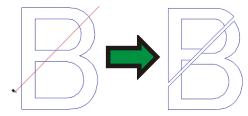
1. Use the **Select** tool to select a path or the **Select Point** tool to select one point or segment.

2. Select the **Change Start Point** tool. ⬚⁺

3. Click and drag the starting point into its new position.

📄 **SHIFT** key while dragging moves the starting point to an existing point.

4. Click **Apply** ✔ or double click anywhere inside the design area.

Separating to Closed Paths

The Cleaver tool separates closed paths, creating new **closed** paths. Open paths will be separated into open paths.
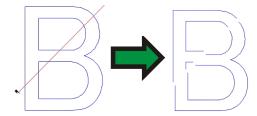
1. Select the **Cleaver Point** tool. 🖋

2. Click and drag the cursor to create a cut line.

📄 **SHIFT** key while dragging constrains the angle of the cut line

Separating to Open Paths

The Scissor tool will separate paths; always creating **open** paths, regardless of the original path was an open or closed path.
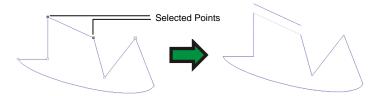
1. Select the **Scissors** tool. ✂

2. Click and drag the cursor to create a cut line or just click to split a path in one specific point.

📄 **SHIFT** key while dragging constrains the angle of the cut line.

Breaking Paths
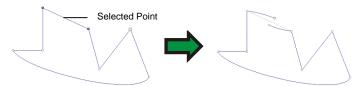
Use this tool to separate paths at existing points.

1. Select the points.

2. Select the **Break Path** tool.

Selected Points

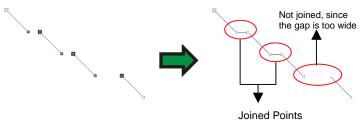You can also use the Break Path tool to cut one specific point in your path

1. Select the **Break Path** tool.

2. Click the cursor over the path.

Selected Point

Joining Paths

Use this tool to join two points separated by a gap.

1. Select the points.

2. Select the **Join Path** tool.

3. Adjust the **Tolerance** value in DesignCentral. Points that are separated beyond this distance are not joined.

4. Click **Apply** or double click anywhere inside the design area.

Not joined, since the gap is too wide

Joined Points

Merging Paths with the Join Paths Tool

The Join Paths tool can also be used to merge two paths into one:

1. Using the **Select Point** tool, select the nearest end points of each of the paths.

2. Select the **Join Paths** tool.

Selected Points
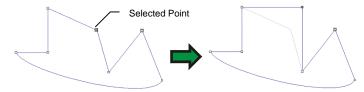
Converting Corners to Right Angle

Use this tool to make right angles.

To make one sharp corner a right angle corner.

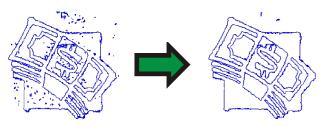1. Select the corner or segments.

📄 If you select a segment, all sharp corners in the path will be converted to right angle corners.

2. Select the **Make Right Angle** tool.

Selected Point

Removing Tiny Objects

This tool allows you to remove small objects. This tool is especially good to use after autotracing a bitmap.

1. Select the **Remove Tiny Objects** tool.

2. Adjust the **Threshold** value in DesignCentral. Paths with size below this value are deleted.

3. Click **Apply** ✔ or double click anywhere inside the design area.
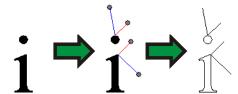
Creating Entry and Exit Cuts

Many cutting tools require a certain amount of time and travel to reach their full power. If the tool is cutting the design while it is not yet at full power, you can wind up with parts of the design that did not get cut properly. Another related problem is that some cutting tools damage the surface of the medium at their points of entry and exit.

The solution to this is to include entry and exit cuts in the design. These are short cuts that lead into the actual cut design at a tangential angle, so that the cutting tool can enter the medium and get up to full power while doing the entry cut. It can then move into the design and cut it at full power. When finished, the cutting tool moves away from the design into the exit cut before powering down or withdrawing.

Entry and exit cuts may only be used on objects that are composed of outlines. All other objects must be converted to outlines before applying entry and exit cuts.

After the entry and exit cuts are applied, the objects will become open contours.

To add entry and exit cuts to a design:

1. Select the objects you want to add entry and exit cuts to.

2. Convert the objects to outlines, if necessary.

3. Select the **Add Entry/Exit point** tool.

4. Set the following options in DesignCentral:

Entry	Set the following values for the entry cut:	
	■ The type of cut:	
	None	No cut will be made.
	Line	The cut will be a straight line.
	Arc	The cut will be an arc.
	∠	If the cut is a line, the angle between the cut and the existing outline at the point the cut touches the outline.

If the cut is an arc, the degree of arc that the arc will move through.

↔ If the cut is a line, the length of the line.

If the cut is an arc, the radius of the arc.

Exit Set the values for the exit cut (see entry cut, above).

This setting applies automatic path direction to the open contours created by this function. The direction of inside paths (holes) in an object will be clockwise and the outside paths will be counterclockwise.

5. Click **Apply**.

13.Working with Bitmaps

A bitmap represents an image as a mosaic of colored dots called *pixels*. The pixels are arranged in a fixed number of rows and columns. Bitmaps are also known as *raster images*, and the method used to create them is called *rasterization*.

When a bitmap is edited, the color values of its pixels are changed to form the new image.

The following color modes are supported:

Black and White	Each pixel is either black or white, with no shades of gray.
Grayscale	Pixels are colored in 256 shades of gray ranging from solid black to solid white.
RGB	The color values for each pixel are expressed as a combination of red, green and blue values. Up to 16.7 million different colors can be reproduced under this color model.
CMYK	The color values for each pixel are expressed as a combination of cyan, magenta, yellow and black values. This is the color mode most commonly used in color printing.
Indexed	The color of each pixel is indicated by a reference to a separate swatch table containing 256 colors.

If a bitmap is magnified or printed at too low a resolution, the individual pixels become visible. This gives the image a jagged, *pixilated* appearance (see above).

Resolution is the number of pixels displayed per unit of printed length in an image, usually measured in pixels per inch (PPI) or dots per inch (DPI).
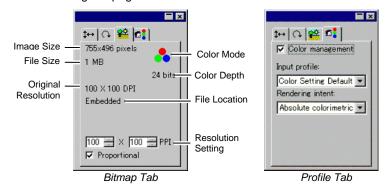
Using DesignCentral

When a bitmap is selected, DesignCentral shows the Bitmap and Profile Tabs.

Bitmap Tab

The Bitmap Tab will show some attributes of selected bitmaps. On this tab you can change the resolution of the bitmap. Changing the resolution will automatically change the bitmap's size. Uncheck the **Proportional** option to set different resolutions for horizontal and vertical direction.

Profile Tab

On this screen you can specify the **Input profile** and the **Rendering intent** that will be used as a settings to print this particular bitmap. You can have independent settings for each bitmap. For more information about Input profile and Rendering intent, see "Configuring the System for Color Printing" on page 219.

Image Size	Color Mode
File Size	Color Depth
Original Resolution	File Location
	Resolution Setting

Bitmap Tab   *Profile Tab*

Embedded ICC Profiles

If the selected bitmap contains an embedded ICC profile, it will be listed on the Profile tab of DesignCentral.

To use the embedded ICC profile as the input profile, select **Use Embedded ICC Profile** from the **Input profile** list.

Embedded profiles are currently supported for TIFF and JPEG file formats.

Creating Bitmaps

There are several ways to include a bitmap into a document.

Importing Bitmaps

You can open or import a bitmap files into your document.

1. From the **File** menu, select **Open** or **Import**.

2. Select the bitmap file from the list and click **Open** or **Import**.

    When importing a bitmap you can create a link between the original bitmap file and your document. This link is an electronic connection between the files and every time that the document is open, the linked bitmaps will be imported. To create a link, check the Link option in the import dialog box.

Exporting Bitmaps

Any bitmap from your document can be exported into a file.

1. If you want to export only one bitmap from your document, select it.

2. From the **File** menu, select **Export**.

3. Select the file format from the list and type the file name

4. If you are exporting only a selected object, be sure to check the **Selection only** option. Checking **Suppress Option** will export the bitmap using the default settings for the bitmap file format.

5. Click **Export**.

Scanning Bitmaps

Scanning allows you to convert a printed image into an electronic image.

To scan an image, you must have a scanner and a computer with your scanner's TWAIN_32 driver installed. TWAIN_32 is a cross-platform interface for acquiring images captured by scanners and digital cameras.

The manufacturer of the scanner device must provide a proper driver for your device. Instructions for setting up your scanner are included in your scanner's user manual.

1. Make certain your scanner is on and connected to your computer.

2. Place your image on the scanner.

3. If you have more than one scanner, from the **File** menu, point to **Acquire Image** and then select **TWAIN Select** and select your scanner from the list.

4. From the **File** menu, point to **Acquire Image** and then select **TWAIN Acquire**.

5. Follow the scanner's directions.

6. After your image is scanned, a bounding box showing the scanned image displays.

7. Move the bounding box to the desired location and click to place the image.

   Click **TAB** key changes the cursor position in the bounding box. **ESC** key exits the scanning process. **ENTER** to place the scanned image.

On a Macintosh, you can use plug-ins to scan.

1. From the **File** menu, point to **Acquire Image** and then choose **Select Plug-in Folder** and select the folder where the scanner plug-in is installed.

2. On a Macintosh, from the **File** menu, point to **Acquire Image** and then select the plug-in from the list.

Creating New Bitmaps

You can create an empty white bitmap on your document and draw on it with the bitmap drawing tools.

1. From the **Bitmap** menu, select **Create Bitmap**.

2. Edit the **Width, Height** and the **Resolution** of the bitmap.

3. Select the **Color mode** in the list.

4. Click **OK**.

Converting Objects into Bitmaps

You can convert vector objects and text into bitmaps, and then use bitmap filters to apply effects. The process of converting vector objects into a bitmap is called *Rasterization*.

1. Select the objects.

2. From the **Bitmap** menu, select **Rasterize**.

   You can edit the following attributes:

Keep Original	Checking this option will preserve the original objects, a new rasterized image will be placed on top of original objects.
Create mask	When this option is checked, the shape of the new bitmap will be the same as the original objects.
Transparent	When this option is checked, the background color of the bitmap will be set to be transparent.
Resolution	The resolution of the new bitmap.
Color Mode	The color mode of the new bitmap.

3. Click **OK**.

Changing Bitmap Properties

Once the bitmap is placed in the design area, you can edit some of its

properties like resolution and color mode.

Changing Bitmap Resolution

DesignCentral - Bitmap tab allows you to change the resolution of a bitmap.
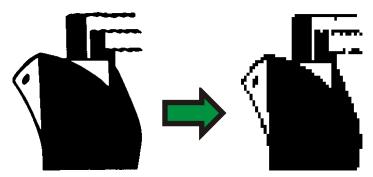
To change the resolution of a bitmap:

1. Select the bitmap.

2. Select the Bitmap tab in DesignCentral.

3. Select the new resolution from the **PPI** fields at the bottom of the tab.

    📄 Check **Proportional** to keep the horizontal and vertical resolution the same.

Changing the resolution does not change the number of pixels in the bitmap; it merely changes how many pixels fit into an inch. As the resolution of a bitmap is increased, the area covered by the bitmap will decrease, because more pixels will fit into each square inch. Decreasing the resolution will cause the bitmap to cover a larger area.

Resampling A Bitmap

Resampling changes the resolution of an image without changing the area it covers. It does this by increasing or decreasing the number of pixels used to represent the image. At the same time, the software changes the resolution to compensate for the change in pixel count, so that the bitmap remains the same size.

Black and white bitmap resampled to lower resolution.

📄 Resampling an image will degrade it to some extent. Resampling to a lower resolution makes the image blocky and jagged. Resampling to a higher resolution may blur the image. If you resample an image and are not pleased with the results, use the **Undo** feature to return it to its previous state, rather than resampling it again.

To resample a bitmap:

1. Select the bitmap.

2. From the **Bitmap** menu, select **Resample**.

3. Adjust the values in **Resample** dialog box.

Width and Height	New size (in pixels) of the bitmap. The actual size (in inches or cm) of the bitmap will not be changed, only the resolution of the bitmap will be adjusted.
Proportional	The bitmap is resized proportionally.
Nearest Neighbor	This option is the fastest, but least precise, interpolation method.
Bilinear	Select this option for a quality interpolation method.

Changing Bitmap Color Mode
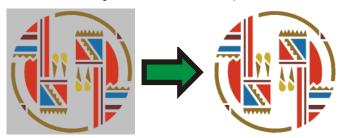
To change the color mode used by a bitmap:

1. Select the bitmap.

2. From the **Bitmap** menu, point to **Color Mode** and then select the new color mode.

Making a Bitmap Transparent
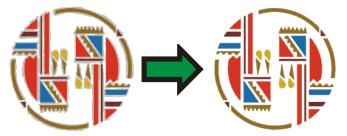
It is possible to set one of the colors in a bitmap to be transparent. This allows part of the bitmap image to appear to be "floating" in the design without the rectangular outline of the bitmap.

To make a bitmap transparent:

1. Select the bitmap.

2. From the **Bitmap** menu, select **Make Transparent**.

3. Move the wand over the bitmap and click on the color that you want to make transparent.

4. To select all instances of the color that appear in the bitmap, click **Select Similar**.

5. Click **Apply**.

📄   If you are getting unwanted outlines around your bitmap elements, increase the Tolerance setting in DesignCentral.

Removing Transparency

To remove the transparency from a bitmap and make it opaque again:

1.   Select the bitmap.

2.   Select the **Bitmap** tab of DesignCentral.

3.   Click **Make Opaque**.

📄   The **Make Opaque** button is only visible when a transparent bitmap is selected.

Using the Bitmap Toolbar

All bitmap editing tools are located in the **Bitmap Edit** toolbar.

Bitmap Edit toolbar

To display this toolbar, from the **Bitmap** menu, select **Bitmap Edit Toolbar**. Select the menu command a second time to hide the toolbar.

📄   Some tools will not be available for some color modes.

Defining Marquees

Marquees select part of the image and allow only that part to be edited. The marquee can have any shape and its border is marked by a flashing dotted line.

Bitmap with a marquee

Selecting the Entire Bitmap

To define the entire bitmap as a marquee:

1. Select the bitmap.

2. From the **Bitmap** menu, select **Marquee Select All**.

Using the Marquee Tool

The Marquee tool selects rectangular portions of the bitmap.

1. Select the **Marquee** tool.

2. Click and drag the cursor over the bitmap.

3. After creating one marquee you can add or subtract areas:

    a. Hold the **SHIFT** key while dragging to add additional sections of the bitmap to the selection marquee.

    b. Hold the **CTRL** key while dragging to subtract sections of the bitmap from the selection marquee.

4. Once drawn, click inside the marquee and drag it to move the marquee to the desired position.

Original bitmap with a marquee

*Dragging pressing **SHIFT** key*

Final marquee

Original bitmap with a marquee

*Dragging pressing **CTRL** key*

Final marquee

Using the Lasso Tool

The Lasso tool allows you to select a marquee by tracing its outline on

the bitmap.

1. Select the **Lasso** tool.

2. Click and drag the cursor over the bitmap to create a closed shape.

   You can add or subtract areas from an existing marquee by pressing **SHIFT** and **CTRL** key.

3. Click inside the marquee and drag it to move the marquee to the desired position.

Using the Magic Wand Tool

The Magic Wand tool lets you select an area of a bitmap based on the color. You can specify the color range, or tolerance, for the magic wand tool's selection.

1. Select the **Magic Wand** tool.

2. Adjust the **Tolerance** in DesignCentral. If DesignCentral is not visible, double click the **Magic Wand** tool button.

   Enter a low value to select colors very similar to the pixel you click or a higher value to select a broader range of colors.

3. Click the cursor over the bitmap.

4. **SHIFT** and **CTRL** keys add or subtract areas from existing marquees.

Marquee created with Magic Wand tool

Clearing Marquee

1. Select the bitmap with a marquee.

2. From the **Bitmap** menu, select **Clear Marquee**.

Inverting Marquee

1. Select the bitmap with a marquee.

2. From the **Bitmap** menu, select **Invert Selection**.

Converting Objects to Marquees
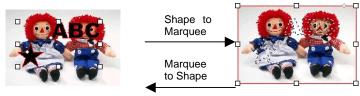
You can convert vector objects into marquees.

1. Place the vector object over the bitmap.
2. Select the bitmap and the vector object.
3. From the **Bitmap** menu, select **Convert Shape to Marquee**.

Converting Marquees to Objects

You can convert marquees into vector objects.

1. Select the bitmap.
2. From the **Bitmap** menu, select **Convert Marquee to Shape**.

Shape to Marquee

Marquee to Shape

Editing Bitmaps

Using the Move Tool

The **Move** tool copies selected portions of bitmaps, marked by marquees.

1. Select the bitmap and create a marquee.
2. Select the **Move** tool.
3. Click and drag inside the marquee and drag to a new position.

The image selected by the marquee is moved to a new position, leaving an area filled with the background color. See "Background / Foreground Color on page 92 about how to set the background color.

Hold the **CTRL** key while dragging the marquee to move a copy of the image enclosed by the marquee while leaving the original in its place.

Original bitmap with a marquee

After dragging the marquee with Move tool

After dragging the marquee with Move tool and CTRL

Using the Eraser Tool

The **Eraser** tool is used to remove unwanted parts of a bitmap, to
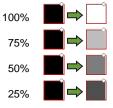
restore an edited bitmap to its original image or fill an area with the background color.

The Eraser tool has the following options in DesignCentral:

In the **Brush Tab**, you can select the shape and the size of the brush. For more details, see "Changing the Brush" on page 178.

In the **Eraser Options Tab**, you can adjust:

Eraser Tab

Opacity	The percentage of the image that will be removed by each pass of the eraser.	

Erase to original	If checked, the eraser will remove only the changes to the bitmap, returning it to its original state.	

To erase a bitmap:

1. Select the bitmap.

2. Select the **Eraser** tool.

3. Click and drag inside the marquee.

▤ Use the **Undo** feature to remove bitmap editing errors.
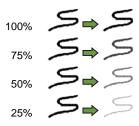
Using the Paintbrush Tool

The **Paintbrush** tool paints brush strokes on a bitmap.

The following options are available in DesignCentral:

In the **Brush Tab**, you can select the shape and the size of the brush. For more details, see "Changing the Brush" on page 178.

In the **Paintbrush Options Tab**, the **Opacity** determines the percentage of each stroke that will be added to the bitmap image. Lower numbers will create transparent strokes.

Paintbrush tab

To draw a stroke using the **Paintbrush** tool:

1. Select the bitmap.

2. Select the **Paintbrush** tool.

3. Select the foreground color you want to paint in.

4. Click and drag.
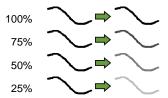
Using the Pencil Tool

The **Pencil** tool will create freehand lines on a bitmap using the foreground color.

Following options are available in DesignCentral.

In the **Brush Tab**, you can select the shape and the size of the pencil point. For more details, see "Changing the Brush" on page 178.

In the **Pencil Options Tab**, the **Opacity** determines the percentage of each stroke that will be added to the bitmap image. Lower numbers will create transparent strokes.

100%

75%

50%

25%

Paintbrush tab

To draw a line using the **Pencil** tool:

1. Select the bitmap.

2. Select the **Pencil** tool.

3. Select the foreground color you want to draw in.

4. Click and drag inside the marquee.

Using the Crop Tool

The **Crop** tool allows you to select part of a bitmap and delete the rest of it.

To crop a bitmap:

1. Select the bitmap.

2. Select the **Crop** tool.

3. Click and drag the cursor over the bitmap to create a rectangular marquee. (Holding the **SHIFT** key while dragging creates a square marquee).

📄 The marquee selection for the **Crop** tool must be a simple rectangle or square. You cannot use the **CTRL** or **SHIFT** keys to create a more complex marquee with the **Crop** tool.

4. Adjust the width and height values of the marquee in DesignCentral. You can also adjust the cropping size by dragging the marquee's borders and corners.

5. Click and drag a point inside the marquee to move it to a new position.

6. Click **Apply** ✅ or double click inside the marquee to crop the bitmap to the selected size.

Original image with a cropping marquee

Cropped Image

DesignCentral for Crop

Using the Fill Tool

The **Fill** tool fills areas of a bitmap with the foreground color.

To use the Fill tool:
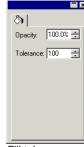
1. Select the **Fill** tool. 🖌

2. Adjust the values in DesignCentral.
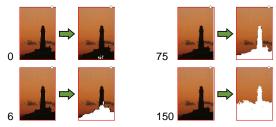
|	
Opacity	The percent to which the fill will overwrite the bitmap. At 100%, the fill will be completely opaque. At lower numbers, the fill area will get less color, but will retain more detail.
Tolerance	The fill expands until it encounters the edge of the bitmap, or a change in color. **Tolerance** determines how big a change in color the fill will tolerate before stopping. Tolerance ranges from **0** to **255**. Enter a low value to fill colors very similar to the pixel you click or a higher value to fill a broader range of colors.

Fill tab

0

75

6

150
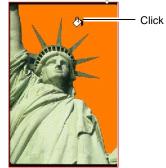
3. Click the cursor on the bitmap.

Click

Original Image

Bitmap after Fill

Using the Stamp Tool

The **Stamp** tool copies portions of a bitmap to another area on the same bitmap.

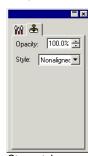The **Stamp** tool has the following options in DesignCentral:

- In the **Brush Tab**, you can select the shape and the size of the brush. For more details, see "Changing the Brush" on page 178.
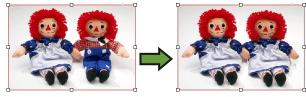
- In the **Stamp Options Tab**, you can adjust:

Opacity	The percent to which the output of the tool will overwrite the existing bitmap. At 100% the output will be opaque; at lower numbers it will be more transparent.
Style	If **Aligned** is selected, the origin and destination points always move together, whether the tool is drawing or not. This is best for copying a large area over to another area of the bitmap.
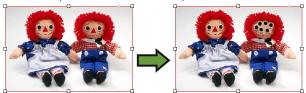
Stamp tab

If **Nonaligned** is selected, the origin and destination points are only synced while the tool is drawing. When the tool is not drawing, the destination point can be moved without moving the origin point. This setting is better for copying a smaller part of the bitmap to a number of different places.

To use the **Stamp** tool:

1. Select the bitmap you want to edit.

2. Select the **Stamp** tool.

3. Adjust the parameters in DesignCentral.

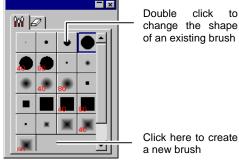4. Click the **Stamp** tool over the location from which you want to copy (the *origin*).

---

5. Move the cursor over the area of the bitmap that you want to overwrite and then click and drag.

To change the stamp origin, hold down the **CTRL** key and click on the new point you want to copy from.

Changing the Brush

In the **Brush Tab**, you can select the shape and the size of the brush.

Some brushes display a small number in the lower left corner. This number is the size of the brush in pixels.

Double click to change the shape of an existing brush

Click here to create a new brush

Brush Tab

You can add a new brush or change the shape and size of an existing brush. Click the blank area in the Brush Tab to create a new brush or double click an existing brush button to change its properties.

You can enter or change the following brush properties.

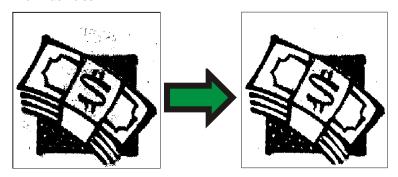|	
Size	Width and Height of the brush.
Hardness	Adjusts how the brush will dissolve with the original image.
Rotate	Angle of rotation.
Style	The brush can have either a rectangular or ellipse shape.

Using Filters

Your software allows you to filter bitmaps. The following filters are available:

- Reduce Noise
- Blur

- Sharpen
- Level

- Color Balance
- Brightness / Contrast

📄 Not all filters are available for all color modes.

While applying a filter, a on-screen preview will be displayed. You can resize or move the preview area. Also, the area where the filter will be applied can be limited using a marquee.

Reduce Noise Filter

Use this filter to clean up scanned images with small imperfections, known as noise.

To reduce the noise in a bitmap:

1. Select the bitmap.

2. From the **Bitmap** menu, point to **Filters** and then select **Reduce Noise.**

3. Adjust the filter settings in DesignCentral.

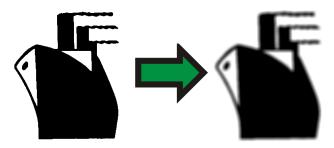   **Radius**   The size of the noise that will be cleared.

    Preview   When this option is checked, you will see a preview while adjusting the Radius parameter.

4. Click **Apply**. ✅

Blur Filter

This filter creates a softening effect by averaging the pixels next to the edges.

To apply the filter:

1. Select the bitmap.

2. From the **Bitmap** menu, point to **Filters** and then select **Blur**.

3. Adjust the filter settings in DesignCentral.

Amount and Radius	Higher values in these fields will produce more blurred images.
Preview	When this option is checked, you will see a preview while adjusting the parameters.

4. Click **Apply**. ✔

Sharpen Filter

This filter focuses blurry images by increasing the contrast of adjacent pixels.

1. Select the bitmap.

2. From the **Bitmap** menu, point to **Filters** and then select **Sharpen**.

3. Adjust the filter settings in DesignCentral.

Amount and Radius	Higher values in these fields will produce more sharp images.
Preview	When this option is checked, you will see a preview while adjusting the parameters.

4. Click **Apply**. ✔

Level Filter

This filter shows a histogram that graphically represents the colors present in the image. Peaks indicate color density. By moving the sliders inwards, it is possible to redefine the black and white points in the bitmap.

1. Select the bitmap.

Working with Bitmaps

2. From the **Bitmap** menu, point to **Filters** and then select **Levels**.

3. Adjust the filter settings in DesignCentral.

   - Select **RGB** on the list to adjust all RGB channels at once. If you want to adjust one specific color channel, select **Red**, **Green** or **Blue**.

   - Click and drag the sliders under the histogram, or enter the values in the numeric fields.

   - Click the **Auto** button and the software will automatically define the black and white point in each channel and then redistribute the intermediate pixel values proportionately.

   - Click the **Reset** button to restore the sliders to their original position.

   - When the **Preview** option is checked, you will see a preview while adjusting the parameters.

4. Click **Apply**. ✅

Color Balance Filter

DesignCentral shows slider bars (Cyan-Red, Magenta-Green and Yellow-Blue) for adding or subtracting color from the image. Example, if you drag the Cyan / Red slider to the Cyan side, the amount of Cyan in your image is increased and the amount of Red is decreased.

1. Select the bitmap.

2. From the **Bitmap** menu, point to **Filters** and then select **Color Balance**.

3. Adjust the filter settings in DesignCentral by:

   - Choose **Shadows**, **Midtones**, or **Highlights** in the list to select the tonal range on which you want to focus the changes.

   - Click and drag the sliders, or enter the values in the numeric fields.

   - When the **Preview** option is checked, you will see a preview while adjusting the parameters.

4. Click **Apply**. ✅

Brightness / Contrast Filter

Using this filter, you can adjust the Brightness, Contrast and Saturation of your image.

1. Select the bitmap.

2. From the **Bitmap** menu, point to **Filters** and then select **Brightness / Contrast**.

3. Adjust the filter settings in DesignCentral by:

- Click and drag the sliders, or enter the values in the numeric fields.

- When the **Preview** option is checked, you will see a preview while adjusting the parameters.

4. Click **Apply**. ✔

Adobe Filters

If you have Adobe filters installed, you can use its filter plug-ins in your software.

Setup the folder where the plug-ins are installed:

1. From the **Edit** menu, select **Preferences**.

2. Go to **File Path** Tab and enter the folder location in **Adobe Plug-ins.**

    Click **Browse** to find the folder. For more information about the Adobe plug-in folder location, see your Adobe Photoshop user manual.

3. Click **OK**.

Once the plug-in folder is properly defined in your computer, you can use the filters:

1. Select the bitmap.

2. From the **Bitmap** menu, point to **Adobe Filters** and then select the filter.

3. Follow the instructions of each filter.

    For more information about Adobe filters, see your Adobe user manual.

Tracing Bitmaps

Tracing allows you to convert bitmap images into vector objects, this allows them to be cut or edited using path editing tools. The tracing area can be limited by a marquee.

A bitmap that has been masked cannot be traced unless it is unmasked first.

📄 After tracing the bitmap, if you want to hide the bitmap to see just the traced paths, click **Preview Bitmap** tool on **View** toolbar or Select **Preview Bitmap** from **View** menu

Using AutoTrace

AutoTrace traces each shape in the bitmap. DesignCentral has the following options:

Noise Reduction Adjusts the amount of noise that is removed during the tracing process. When **None** is selected, noise will not be removed. The **Most** setting removes the maximum amount of noise.

Original Image	Traced with noise reducion set to **Less**	Traced with noise reducion set to **Most**

Corners Adjusts how strong the corners are traced. When **None** is selected, corners are not recovered. The **Most** setting recovers the maximum amount of corners.

Resolution You can trace using the **Full** resolution on an image or **1/2**, **1/4** and **1/8** of its original resolution. When the resolution is lowered, the tracing process is quicker and produces fewer points, but the trace quality will not be as actuate at the reduced resolutions. The **Optimal** setting picks the resolution based on image size to optimize the traces.

Tolerance Controls how closely the tracing follows the bitmap being traced. You can enter values from 0 to 100%. In a high resolution image, lower values will cause the tracing to follow the bitmap more closely, resulting in jagged edges on the curves. Higher values will produce smoother and more even curves, but some details may be lost.

Corner Style Adjusts how recovered corners are drawn. **Sharp** recovers the maximum amount of sharp corners.

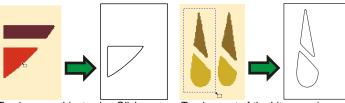**Color** The color of the resulting vector objects.

Reverse Image Traces white areas.

To Autotrace a bitmap:

1. Select the **Autotrace** tool.

2. Adjust the tracing parameters in DesignCentral.

3. You can trace the whole bitmap or parts of it.

    *   Click and drag the cursor to create a rectangular bounding box. Surround the objects that you want to trace in the bitmap. Hold down the **SHIFT** key to create a square bounding box.

- Click the bitmap to trace one object.
- Click with the **CTRL** key pressed to trace all of the bitmap.

The objects created by the autotracing will be all wireframes. To fill those objects, you have to select and compound them.

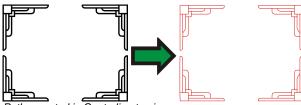*Tracing one object using Click*   *Tracing part of the bitmap using Click and Drag*

📄 For best results, scan the image to be traced in grayscale (256 gray) at 300-600 DPI. Tracing images scanned at high resolution will create extra points when traced and the paths will not be smooth.

Using Centerline Tracing

The Centerline tool traces a single line down the middle of each part of a bitmap, and includes an option to outline any areas that are wider than a specified width. This tool is useful for producing neon patterns, routing and engraving paths.

Only black and white bitmaps can be traced using Centerline trace.

Paths created in Centerline tracing

DesignCentral has an **Autotrace** Tab with all the options described for the **Autotrace** tool and a **Centerline** Tab with the following options:

Steps	Minimum size to be outlined.
Close Paths	Creates a separate closed shape in each fully enclosed area.
Outline large objects	When this option is checked, larger objects will be traced with an outline, instead of a centerline.
Color	The color of the resulting vector objects.

To centerline trace a bitmap

1. Select Centerline Trace tool. Z
2. Adjust the tracing parameters in DesignCentral.

3. You can trace the whole bitmap or parts of it:

- Click and drag the cursor to create a rectangular bounding box. Surround the objects that you want to trace on the bitmap. Hold down the **SHIFT** key to create a square bounding box.

- Click the bitmap to trace just one object.

- Click with the **CTRL** key pressed to trace all of the bitmap.

Using PictureCut Tracing

The PictureCut tool applies a striping effect to a bitmap. The process slices the image with a series of horizontal or vertical stripes of varying widths. The stripes will be joined into several groups, each with their own tab, in order to aid the weeding process.

Original Image

Vertical stripes created using PictureCut

Horizontal stripes created using PictureCut

DesignCentral has a **PictureCut** Tab with the following options:

Enhance Image	Applies an image enhancement filter, before tracing the image.
Brightness	Changes how dark the finished image outputs.
Number of Stripes	Number of stripes that will be created.
Resolution	You can trace using the **Full** resolution on an image or **1/2**, **1/4** and **1/8** of its original resolution. When the resolution is lowered, the tracing process is quicker and produces fewer points, but the trace quality will not be as actuate at the reduced resolutions. The **Optimal** setting picks the resolution based on image size to optimize the traces.
Cut Direction	Defines if the stripes are horizontal or vertical.
Reverse Image	Reverses the dark and light portions.
Color	The color of the resulting vector objects.

To create stripes using PictureCut

---

1. Select **PictureCut** tool. ▤

2. Adjust the tracing parameters in DesignCentral.

3. You can trace the bitmap or parts of it

   - Click and drag the cursor to create a rectangular bounding box. Surround the area that you want to trace on the bitmap. **SHIFT** key creates a square bounding box.

   - Click with the **CTRL** key pressed to trace all bitmap

4. To finish using the **PictureCut** tool, select another tool.

Using Color Tracing

The *Color Tracing* converts a color bitmap into colored paths. The color trace process involves two steps. The first is *Posterizing*, which reduces the number of colors. Then the posterized image is traced into objects with different colors.

Original bitmap *Paths created in color tracing*

DesignCentral has an **Autotrace** Tab with all the option described in Autotrace tool and a **Color Trace** Tab with following options:

Posterize Bitmap	When this option is checked, the posterized bitmap will be kept.
Edge Filter	Determines how aggressively the application removes noise from the bitmap when posterizing. **None** does not remove noise and the **Most** setting will remove the maximum amount of noise.
Number of Posterized Colors	Controls the number of colors the program will use to posterize the bitmap. If there are several shades of a given color in the bitmap, specifying one or more colors than the actual number needed ensures that the correct colors are retained.
Merge into Active	Merges the selected color into the active color.
Undo	Undoes the last merge operation.
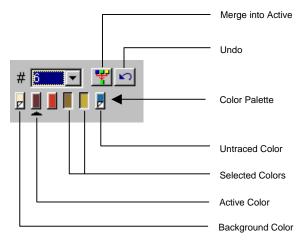
To posterize and color trace a bitmap:

Working with Bitmaps

1. Select **Color Trace** tool.

2. Adjust the tracing parameters in DesignCentral.

3. Select the number of colors to trace.

4. You can trace the whole bitmap or parts of it by:

   - Click and drag the cursor to create a rectangular bounding box. Surround the objects that you want to trace on the bitmap. Hold down the **SHIFT** key to create a square bounding box.

   - Click the bitmap to trace just one object.

   - Click with the **CTRL** key pressed to trace all of the bitmap.

5. Edit the color palette and the posterized image as described in the next item.

6. Click **Accept**.

While color tracing an image, you can specify the number of colors that will be in the **Number of Posterized Colors** list.

If a **Background color** was found, it will be placed on the far left side of the color palette. The background color will not be traced, as indicated by the folded corner.

Traced parts of the bitmap with an **Untraced color** will not be displayed in the preview and will not be traced. You can skip any color in the palette untraced, **SHIFT** clicking it.

The color with a triangle underneath is the **Active color**. The active color is used when merging colors. To make one color active, click the space underneath the color.

You can **Select colors** by clicking them. To deselect the color, click

again. You can select multiple colors. Selecting an invisible color will make it visible.

When you have two or more colors that you want to trace with the same color, you can merge them.

1.   Make the destination color **Active.**

2.   Select the colors that will be merged.

3.   Click **Merge into Active** button.

You can undo the operation by clicking the **Undo** button. Only the last merge can be undone.

You can also merge two colors together by clicking and dragging the source color over the destination color button.

Merge

Posterized Bitmap   *Posterized bitmap after merging colors*

To change the order of the colors in the palette, click and drag the color to a new position.

You can edit a posterized color in the color palette. To do so, click the color with the **CTRL** key pressed.

After posterizing the image:

1.   Click the area in the posterized image with the source color.

     The cursor will change into a paint bucket cursor

2.   Drag into the object where the color will be applied.

     When the mouse button is released, the color will be applied.

Click the object with the source color   *Drag where the color will be applied*   *Release the button and the color will be applied.*

14. Working with Effects

Your software contains a number of tools that you can use to add special effects to the elements in your document.

Common Features

There are a number of basic functions that you can use on all effects.

Separating Effects

To separate an effect from the original object, from the **Effect** menu, select **Separate […]**. After the command name, the effect name will be displayed.

Original Object with Effect   *Text and Effect separated*

Clearing Effects

To remove an effect, from the **Effect** menu, select **Clear […]**. After the command name, the effect name will be displayed.

Using Combine Effects

Combine effects are applied to overlapping objects, separating or merging the portions that are overlapping. Combine effects can only be applied on vector objects, they are not available for bitmaps.

Weld Effect

Welds selected objects into single objects, removing overlapping. Use this tool to eliminate extra lines in overlapping objects that will be cut.

1. Select the objects.

2. From the **Effect** menu, point to **Combine** and then select **Weld** command.

Original Objects   *Objects after Weld effect*

Your software also has an **Auto Weld** feature; this feature will automatically weld all overlapping objects with same color, before outputting your job to a cutter. For more information, see "Cut / Plot

Dialog - Advanced Tab" on page 238.

By default, the objects with different colors will be weld using the topmost color, to weld objects based on their colors, see "Combine Effect Options" on page 192.

Cut Out Effect

Removes the selected overlapping areas from the bottom most object.

📄 This effect will be always applied to the topmost objects. If you want to apply the effect to other objects underneath, group the top objects first.

1. Select the objects.

2. From the **Effect** menu, point to **Combine** and then select **Cut Out** command.

Original Objects   *Objects after Cut Out effect*

Common Effect

Deletes all of the selected objects except for the overlapping area.

📄 This effect will be always applied to the topmost objects. If you want to apply the effect to other objects underneath, group the top objects first.

1. Select the objects.

2. From the **Effect** menu, point to **Combine** and then select **Common** command.

Original Objects   *Objects after Common effect*

Exclude Common Effect

Deletes the overlapping area.

📄 This effect will be always applied to the topmost objects. If you want to apply the effect to other objects underneath, group the top objects first.

1. Select the objects.

2. From the **Effect** menu, point to **Combine** and then select **Exclude Common** command.

Original Objects

Objects after Exclude Common effect
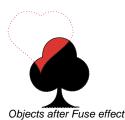
Fuse Effect

Removes all of the object on the top layer, except for the overlapping area. The object on the lower layer remains intact, and the fused portion retains its original color.

📄 This effect will be always applied to the topmost objects. If you want to apply the effect to other objects underneath, group the top objects first.

1. Select the objects.

2. From the **Effect** menu, point to **Combine** and then select **Fuse** command.

Original Objects

Objects after Fuse effect

Separate Overlap Effect

Creates new objects from overlapped areas of selected objects.

1. Select the objects.

2. From the **Effect** menu, point to **Combine** and then select **Separate Overlap** command.

Original Objects

Objects after Separate Overlap effect

Combine Effect Options

You can control the combine effect by changing the combine options.
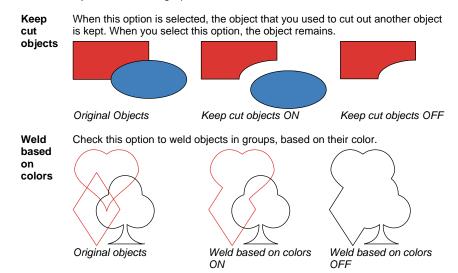
To change the combine options:

From the **Effect** menu, point to **Combine** and then select **Combine Options** command.

Or

1. From the **Edit** menu, select **Preferences**.

2. Select **Tools** Tab.

3. Select **Combine Options** from the list on left side of the dialog box.

You can adjust the following options:

Keep cut objects   When this option is selected, the object that you used to cut out another object is kept. When you select this option, the object remains.

Original Objects   *Keep cut objects ON*   *Keep cut objects OFF*

Weld based on colors   Check this option to weld objects in groups, based on their color.

Original objects   *Weld based on colors ON*   *Weld based on colors OFF*

Using the Outline Effect

Your software allows you to place inlines, outlines, or contour lines around any object.

Outline   A closed path created around the outer edges of the selected object and inside holes such as the inside of closed letters (a, o, etc).

Contour   An outline without holes.

Inline   A closed path created around the inner edge of the selected object.

Outline   *Contour*   *Inline*
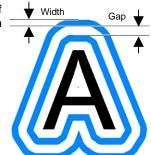
📄   The term "outline" in this chapter refers to Inlines, Outlines, and Contours.

In an outline, you can adjust the number of lines, their width and the spacing between them.

Outlines Effect

1.   Select the objects that the effects will be applied to.

2.   From the **Effect** menu, select **Outline**.

3.   Adjust the values in DesignCentral or drag the control points.

4.   Click **Apply**. ✔

Adjusting Outlines Using DesignCentral

When outlines are applied to objects, the following attributes can be adjusted in DesignCentral.

Contour ▼	Select the effect type between Contour, Outline and Inline.
0.100cm	Width of the outline.
0.101cm	Distance between outlines.
# 5	Number of outlines.
🟡 ⬜	This option allows you to choose between using the same color for each outline generated or to create a "gradient" of colors for each outline created.
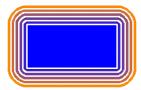
Outlines with same color   *Gradient Outlines*

 Allows you to select to create a backing behind the original object. This option is only available when the distance between outlines is zero.

 The outline color.

 Select the appropriate Joint Type option to specify how corners are outlined.

Round Joint Type   *Bevel Joint Type*   *Miter Joint Type*

 Controls the sharpness of the corners

 Select the appropriate Line Cap style option to specify how open paths are outlined. Choose from Round, Square or Butt cap styles.

Round Cap Style   *Square Cap Style*   *Butt Cap Style*
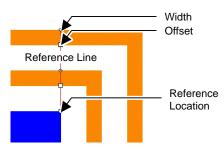
Keep Original   If checked, the original object will remain along with the outline. If cleared, the original object will be deleted.

Adjusting Outlines Using Control Points

When you apply an outline, a reference line is displayed with control points. You can adjust some of the attributes by dragging the control points.

- Click and drag the **Width** point to change the Outline width.

- Click and drag the **Offset** point to change the gap between outlines.

- Click and drag the **Reference Location** point to change the position of the Reference line over the object where the outline is applied.
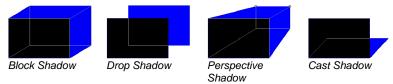
Using the Shadow Effect

Your software allows you to place a shadow around any object.

The following types of shadows are available:

Block Shadow   *Drop Shadow*   *Perspective Shadow*   *Cast Shadow*
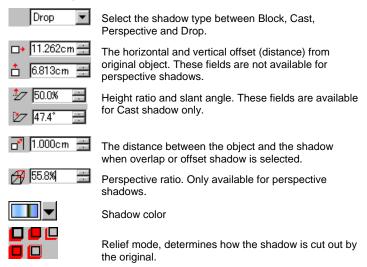
Applying Shadows to Objects

To apply a shadow effect to one or more objects:

1. Select the objects.

2. From the **Effect** menu, select **Shadow**.

3. Adjust the values in DesignCentral or drag the control points.

4. Click **Apply**. ✔

Adjusting Shadows Using DesignCentral

When shadows are applied to objects, the following attributes can be adjusted in DesignCentral.

Drop	Select the shadow type between Block, Cast, Perspective and Drop.
11.262cm / 6.813cm	The horizontal and vertical offset (distance) from original object. These fields are not available for perspective shadows.
50.0% / 47.4°	Height ratio and slant angle. These fields are available for Cast shadow only.
1.000cm	The distance between the object and the shadow when overlap or offset shadow is selected.
55.8%	Perspective ratio. Only available for perspective shadows.
	Shadow color
	Relief mode, determines how the shadow is cut out by the original.

The following relief modes are available for each shadow:

Block and Perspective shadows

None backing   *With backing*   *Offset*   *Surround*   *Offset Surround*

Drop shadows

None backing   *With backing*   *Overlap*   *Offset relief*   *Offset Surround*

Cast shadows

None backing   *With backing*   *Overlap*   *Offset relief*

📄 You can see the difference when backing is applied if you separate the shadow from its original object

No backing   *With backing*

Adjusting Shadows Using Control Points

Click and drag the shadow to adjust the **height ratio** and **slant angle** (cast shadow), **horizontal** and **vertical offset** (other shadows) or **perspective ratio** (perspective shadow).

Using the Stripes Effect

Use the Stripe effects to apply stripes to any vector objects. There are three types of stripes that can be applied.
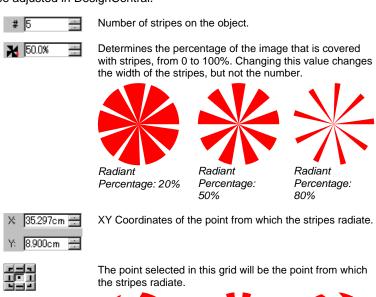
Radiant Stripes   *Circular Stripes*   *Gradient Stripes*

Applying Stripes to Objects

1. Select the objects.

2. From the **Effect** menu, select **Stripe**.

3. Adjust the values in DesignCentral.
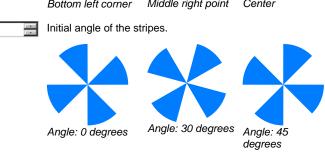
Adjusting Radiant Stripes Using DesignCentral

When radiant stripes are applied to objects, the following attributes can be adjusted in DesignCentral.

Number of stripes on the object.

Determines the percentage of the image that is covered with stripes, from 0 to 100%. Changing this value changes the width of the stripes, but not the number.

Radiant Percentage: 20%　*Radiant Percentage: 50%*　*Radiant Percentage: 80%*

XY Coordinates of the point from which the stripes radiate.

The point selected in this grid will be the point from which the stripes radiate.

Bottom left corner　*Middle right point*　*Center*

Initial angle of the stripes.

Angle: 0 degrees　*Angle: 30 degrees*　*Angle: 45 degrees*

### Adjusting Radiant Stripes Using Control Points
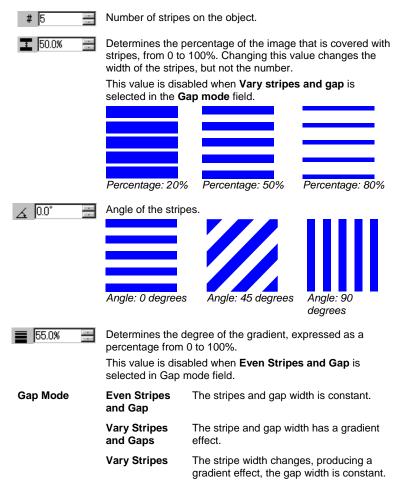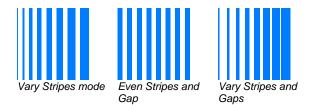
You can also adjust some of the above fields by dragging the control points.

- Click and drag the right (bottom) edge of each stripe to change the stripe angle. **SHIFT** key constrains the angle.

- Click and drag the left (top) edge of each stripe to change the stripe gap. **SHIFT** key constrains the angle.

- Click and drag the center point to change where the stripe starts.

Adjusting Gradient Stripes Using DesignCentral
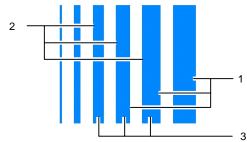
When gradient stripes are applied to objects, the following attributes can be adjusted in DesignCentral.

# 5	Number of stripes on the object.
50.0%	Determines the percentage of the image that is covered with stripes, from 0 to 100%. Changing this value changes the width of the stripes, but not the number.
	This value is disabled when **Vary stripes and gap** is selected in the **Gap mode** field.

Percentage: 20%   *Percentage: 50%*   *Percentage: 80%*

0.0°	Angle of the stripes.

Angle: 0 degrees   *Angle: 45 degrees*   *Angle: 90 degrees*

55.0%	Determines the degree of the gradient, expressed as a percentage from 0 to 100%.
	This value is disabled when **Even Stripes and Gap** is selected in Gap mode field.

Gap Mode	**Even Stripes and Gap**	The stripes and gap width is constant.
	Vary Stripes and Gaps	The stripe and gap width has a gradient effect.
	Vary Stripes	The stripe width changes, producing a gradient effect, the gap width is constant.

Vary Stripes mode   *Even Stripes and Gap*   *Vary Stripes and Gaps*

Adjusting Gradiant Stripes Using Control Points

You can also adjust some of the above fields dragging the control points.

- When **Even Stripes and Gap** mode is selected, click and drag point **1** or **2** to change the stripe gap.

- When **Vary Stripes and Gaps** mode is selected, click and drag point **1** or **2** to change the stripe gradient.

- When **Vary Stripes** mode is selected, click and drag point **1** to change the stripe gap. Click and drag point **2** to change the stripe gradient.

- Click and drag point **3** to change the stripe angle. Hold down the **SHIFT** key to constrain the angle.

Adjusting Circular Stripes Using DesignCentral

When circular stripes are applied to objects, the following attributes can be adjusted in DesignCentral.

# 5	Number of stripes on the object.
50.0%	Determines the percentage of the image that is covered with stripes, from 0 to 100%. Changing this value changes the width of the stripes, but not the number.

Percentage: 20%   *Percentage: 50%*   *Percentage: 80%*

↗ 0.0%	Determines the distance from the center to the first gap.
↗ 100.0%	The distance from the center of the rings to the outermost ring is specified in this entry box. If the object extends beyond the last ring, the remainder of the object is solid.
≡ 55.0%	Determines the degree of the gradient, expressed as a percentage from 0 to 100%.
(grid icon)	The point selected in this grid will be the center of the circular stripes.
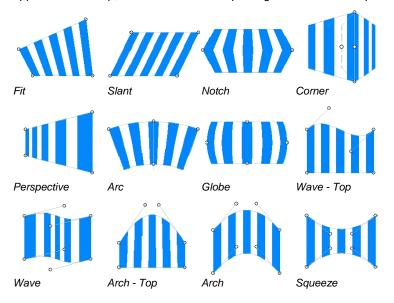
Adjusting Circular Stripes Using Control Points
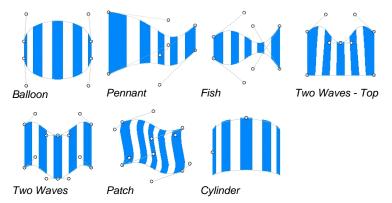
You can also adjust some of the above fields dragging the control points.

• Click and drag the inside edge of each stripe to change the stripe gradient.

• Click and drag the outside edge of each stripe to change the stripe gap.

• Click and drag the center point to change where the stripe starts.

Using The Distort Effect

Your software allows you to distort vector objects. The following distortions are available in your software. When a distortion effect is applied to a bitmap, it will mask the bitmap using the distortion shape.

Fit   *Slant*   *Notch*   *Corner*

Perspective   *Arc*   *Globe*   *Wave - Top*

Wave   *Arch - Top*   *Arch*   *Squeeze*

Balloon   Pennant   Fish   Two Waves - Top

Two Waves   Patch   Cylinder

For example, you can use the distortions to fit your design in a bitmap, to see how the final sign will look.

Vector object   *Bitmap object*   *Distorted vector object over the bitmap*
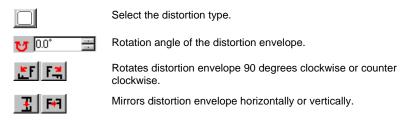
Applying Distortions to Objects

1. Select the objects.
2. From the **Effect** menu, select **Distortion**.
3. Adjust the values in DesignCentral or drag the control points.
4. Click **Apply**. ✅

Adjusting Distortions Using DesignCentral
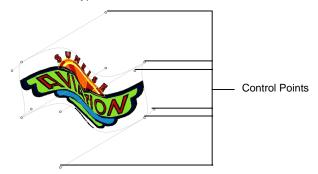
When distortions are applied to objects, the following attributes can be adjusted in DesignCentral.

	Select the distortion type.
	Rotation angle of the distortion envelope.
	Rotates distortion envelope 90 degrees clockwise or counter clockwise.
	Mirrors distortion envelope horizontally or vertically.

Adjusting Distortions Using Control Points

For each distortion, you have a number of control points that can be dragged to adjust the distortion to your requirements. The number of points and the effect when the points are dragged will vary according to

the distortion type.

Control Points

In some symmetric distortions like Wave-Top and Patch, **CTRL** key moves the handles independently from the other handle.

Using the Blending Effect

Your software allows you to blend two objects. The shape and color of one object will gradually change to another object. Both objects must be vector objects.

Blending a circle into a starburst   *Blending "AC" into "DE"*

1.   Select two objects.

2.   From the **Effect** menu, select **Blend**.

3.   Adjust the number of steps in DesignCentral.

4.   Click **Apply**. ✔

Using the Lens Effect

Use the Lens effects to control transparency and appearance of an object's color.

The lens effects are applied to the topmost object and can only be applied on vector objects, except for the tranparent lens, which can be applied to bitmaps. The lens effects are only for color printing.

Transparent Effect

With this effect, the object where the effect was applied will have a transparency that allows you to see the objects underneath.

1. Select the objects.

2. From the **Effect** menu, point to **Lens** and then select **Transparent** command.

The following options can be adjusted in DesignCentral:

Opacity	Degree of opacity applied to object. This value can range from 0 to 100 %.
Hide Stroke	Check this option to apply the transparency to the object's stroke.

Invert Effect

The colors of all vector and bitmap objects under the object where the effect is applied will be inverted.

1. Select the objects.

2. From the **Effect** menu, point to **Lens** and then select **Invert** command.

The following options can be adjusted in DesignCentral:

Hide Stroke	Check this option to apply the effect to the object's stroke

Brighten Effect

The colors of all vector and bitmap objects under the object where the effect is applied will be brightened.

1. Select the objects.

2. From the **Effect** menu, point to **Lens** and then select **Brighten** command.

The following options can be adjusted in DesignCentral:

Brightness	Degree of brightness applied to object. This value can range from 0 to 100 %.
Hide Stroke	Check this option to apply the effect to the object's stroke.

Wireframe Effect

The vector objects under the object where the effect is applied are displayed without any fills.

1. Select the objects.

2. From the **Effect** menu, point to **Lens** and then select **Wireframe** command.

The following options can be adjusted in DesignCentral:

Hide Stroke	Check this option to apply the effect to the object's stroke.

Magnify Effect

The objects under the object where the effect is applied are magnified.

1. Select the objects.

2. From the **Effect** menu, point to **Lens** and then select **Magnify** command.

The following options can be adjusted in DesignCentral:

Zoom Scale	Degree of magnification applied to object. Values above 100% will magnify the objects; values below 100% will reduce the objects.
Hide Stroke	Check this option to apply the effect to the object's stroke.

Using the Underbase Effect

The underbase feature is used to create a "primer" coat of base color that the actual image will be printed on top of. When printing a light image onto a dark medium, for instance, it is useful to print a white underbase underneath the image to prevent the dark color from showing through.

Two types of underbases can be created.

A *solid underbase* is generally used with vector objects and text. It consists of a solid coat of a single spot color, typically white, that follows the contour of the objects above. The ink is always at 100% coverage. A solid underbase can be the same size as the objects above, or it can be choked down to fit inside the margins of the objects, or bled out to extend outside the margins.

A *variable underbase* is used with bitmaps and gradients. The density of the underbase varies to match that of the image above. This allows the color of the medium to show through behind a transparent area of a picture, for instance. A variable underbase is always exactly the same size as the image above.

An underbase can only be output on a thermal transfer device, or by using the Print as Separations feature.

Creating a Solid Underbase

To create a solid underbase for one or more objects:

1. Select the objects.

2. From the **Effect** menu, select **Underbase**, then **Solid Underbase**.

3. In DesignCentral, select either choke ⌗ or bleed ⌗.

4. Set the size of the choke or bleed in the ⌗ field.

5. Check **With Holes** to make holes in the underbase underneath holes in the selected objects above.

6. Select the color of the underbase from the list.

7. Click **Apply**. ✔

After creating the underbase, the underbase and the objects are joined together into a compound object.

Creating a Variable Underbase

To create a variable underbase for one or more objects:

1. Select the objects.

2. From the **Effect** menu, select **Underbase**, then **Variable Underbase**.

3. Select the **Resolution** that the underbase will be applied at. This should match the resolution supported by your output device.

4. Select the color of the underbase from the list.

5. Click **Apply**. ✔

After creating the underbase, the underbase and the objects are joined together into a compound object.

Removing an Underbase

To remove an underbase:

1. Select the compound object containing the object and its underbase.

2. From the **Effect** menu, select **Clear Underbase**.

The underbase is removed and the objects are normal objects again.

Separating an Underbase From the Objects It Was Based On

To separate an underbase from the objects it was based on:

1. Select the compound object containing the object and its underbase.

2. From the **Effect** menu, select **Separate Underbase**.

The underbase becomes a separate object, and the objects it was based on become normal objects again.

Making a Vector Object into an Underbase

To make a vector object into an underbase:

1. Select the object.

2. From the **Arrange** menu, select **Underbase**, then **Make Underbase**.

3. Select the color of the underbase from the list and click **OK**.

Releasing an Underbase Back to a Vector Object

To change an underbase made from a vector object back into a vector object:

1. Select the object.

2. From the **Arrange** menu, select **Underbase**, then **Release Underbase**.

Using the Finisher Effect

The Finisher effect defines a coating that will cover an area of the design and protect it from scratches and UV. The finish can be applied as a rectangle covering an entire area of the design, or as a shape that follows the outlines of the design.

A finish area can only be output on a thermal transfer device, or by using the Print as Separations feature.

Creating a Rectangular Finish

To create a rectangular finish for one or more objects:

1. Select the objects.

2. From the **Effect** menu, select **Finisher**, then **Rectangle Finisher**.

3. Select the spot color for the finish from the list in Design Central.

After a finish area is created, it and the objects it was created for become a single compound object.

Creating a Shape Finish

To create a finish that follows the outlines of one or more objects:

1. Select the objects.

2. From the **Effect** menu, select **Finisher**, then **Shape Finisher**.

3. Select the spot color for the finish from the list in Design Central.

After a finish area is created, it and the objects it was created for

become a single compound object.

Removing a Finish
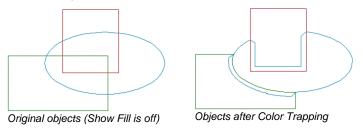
To remove a finish area:

1. Select the compound object containing the object and its finish area.

2. From the **Effect** menu, select **Clear Rectangle Finisher** or **Clear Shape Finisher**.

The finish area is removed and the objects are normal objects again.

Using Color Trapping

The Color Trapping effect removes most of the overlapping material between objects. The effect leaves enough overlapping material to ensure that no gaps will exist between the objects, even if the registration is slightly off.

Original objects (Show Fill is off)   *Objects after Color Trapping*
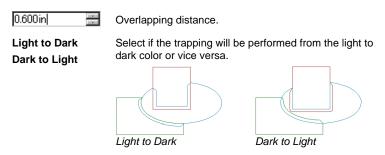
Applying Color Trapping to Objects

1. Select the objects.

2. From the **Effect** menu, select **Color Trapping**.

3. Adjust the values in DesignCentral.

4. Click **Apply**. ✔

Adjusting Color Trapping Using DesignCentral

When Color trapping is applied to overlapping objects, the following attributes can be adjusted in DesignCentral.

0.600 in	Overlapping distance.
Light to Dark **Dark to Light**	Select if the trapping will be performed from the light to dark color or vice versa.

Light to Dark   *Dark to Light*

Include Strokes	When this option is checked, the color trapping will be applied to the object strokes.
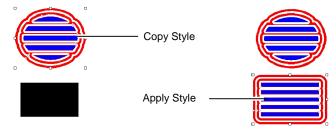
Using Styles

Styles allow you to capture and apply the fill, stroke and the effects from one object to another. Styles can be stored for future use.

Copying and Applying Styles

1. Select the object with the desired fill or effect.

2. From the **Edit** menu, point to **Graphic Styles** and then select **Copy Style**.

3. Select the object where the fill or effect will be applied.

4. From the **Edit** menu, point to **Graphic Styles** and then select **Paste Style**.

   The fill, stroke and the effects from the first object is applied to the second object.

Storing Style in Style List

You can select which properties from the original object will be stored in a style. For example if you have a green object with a shadow, you can choose to save only the shadow as a style, the shadow and the green fill or just the green fill.

To store the properties from an object as a style:

1. Select the object.

2. From the **Edit** menu, point to **Graphic Styles** and then select **Store Style**.

3. Enter the new style name and select the properties that will be stored in this style.

4. Click **Save**.

Applying Style in Style List

To apply one style from the style list:

1. Select the object.

2. From the **Edit** menu, point to **Graphic Styles** and then select **Paste Style**.

3. Select the style from the style list.

4. Click **Apply**. ✅

Editing Style from Style List

Edit styles allows you to edit a stored style by renaming, copying or deleting.
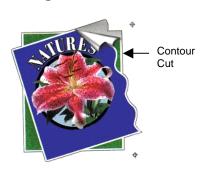
To rename or copy a style:

1. From the **Edit** menu, point to **Graphic Style** and then select **Edit Style**.

2. Select the style from the list then click **Copy** or **Rename**.

3. Enter the new style name.

4. Click **OK**.

To delete a style:

1. From the **Edit** menu, point to **Graphic Style** and then select **Edit Style**.

2. Select the style from the list then click **Delete**.

3. Click **OK**.

Using Contour Cut

Contour cut is a feature that creates a cutting line around objects, either vector or bitmaps.

This allows you to output an image in a printer and then cut its contours using a cutting plotter. If you have a hybrid device (printer with cutting capabilities), you can print and cut using the same machine.

Creating a Contour Cut Around an Object

To create a contour cut:

1. Select the objects.

2. From the **Effect** menu, select **Contour Cut**.

---

3. Adjust the values in DesignCentral or drag the Control Point on Contour Cut line.

4. Click **Apply**. ✔

Adjusting Contour Cut Using DesignCentral

The following attributes from Contour Cut can be adjusted in DesignCentral.

Contour ▼	Select the type between Contour, Rectangle and Ellipse.

Contour mode   *Rectangle mode*   *Ellipse mode*

1.000cm	Offset distance from object to cutting line. The value can be negative, allowing you to make a contour cut line inside the design, in order to prevent misalignments in printing and cutting process. This field is only available for Contour mode.
↔ 44.738cm	Width of the contour shape (Ellipse or Rectangle).
↕ 28.087cm	Height of the contour shape (Ellipse or Rectangle).
Proportional	Check this value to assure that the cutting line will be resized proportionally when you change its height or width. This option is not available for Contour mode.
With Holes	When this option is checked, all holes in the selected objects will have an inner contour cut line. This option is not available for Ellipse or Rectangle mode.

Contour with Holes   *Contour Without Holes*
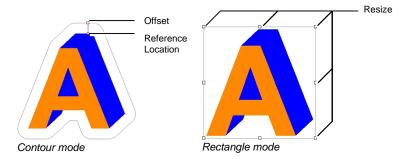
	Joint Type, specify how the corners are contoured.

Adjusting Contour Cut Using Control Points

When you apply an outline, a reference line is displayed with control points. You can adjust some of the above fields dragging the control points.

Offset

Reference
Location

Resize

Contour mode

Rectangle mode

Transforming an Object into a Cutting Line

If you need a cutting line with a special shape, you can create a vector object and transform it into a cutting line.

A fan shape converted into a cutting line

To convert a vector object into a cutting line:

1. Select the objects.

2. From the **Arrange** menu, point to **Contour Cut** and then select **Make Contour Cut**.

The object's outline color will change to a light gray, indicating that it has been converted to a cutting line. Even after being converted to a cutting line, the object will have its original attributes.

To convert the cutting line back to a vector object:

1. Select the cutting line.

2. From the **Arrange** menu, point to **Contour Cut** and then select **Release Contour Cut**.

15.Working with Measurements and Labels

The software allows you to measure, label and dimension objects. By using the measuring tools, you can indicate the horizontal, vertical, or diagonal dimensions of the design or label an object.

The lines and labels can be output to a printer or cutter. For more details, see "RIP and Print Dialog - Advanced Tab" on page 251 or "Cut / Plot Dialog - Advanced Tab" on page 238.
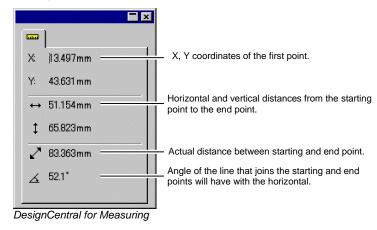
Measuring Distances

Use the Measure tool when you need to know the distance between two points in your design.

To measure the distance between two points:

1.   Select **Measure** tool.

2.   Click and drag the cursor.

📄   Just click to show a position of one point in your design.
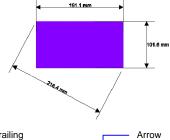
Once you release the mouse button, Design Central displays the following information:

X: 13.497mm	X, Y coordinates of the first point.
Y: 43.631 mm	
↔ 51.154mm	Horizontal and vertical distances from the starting point to the end point.
↕ 65.823mm	
↗ 83.363mm	Actual distance between starting and end point.
∠ 52.1°	Angle of the line that joins the starting and end points will have with the horizontal.

DesignCentral for Measuring
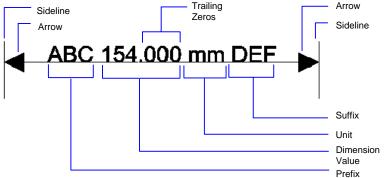
Creating Dimensioning Lines

The Dimension tool allows you to create dimensioning lines between two points in your design. The dimension lines can be horizontal, vertical or diagonal.
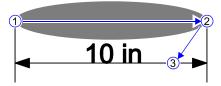
When you are creating a dimension label, the Snap to Point feature is automatically enabled.

To create a dimension line:

1. Select the **Dimension** tool.

2. Click the point where the dimension line will start.

3. Either click the point where the dimension line will end, or drag from the start point to the ending point. As you move the cursor, a line displays the direction you are moving.

4. Click a third time to set the distance between the dimension line and the starting and ending points.

When you are creating a diagonal dimension line:

- Hold **SHIFT** to constrain the line angle to increments of 45 degrees.

- Hold **CTRL** to constrain the dimension lines to be perpendicular to the object.

Working with Measurements and Labels

Changing the Text Position of a Dimension Line

The dimension text can appear either inside the dimension line, or to either side, depending on whether the third click was made below the dimension line or to one side.

4 in ←————→ | ←**4 in**→ | ←————→ **4 in**
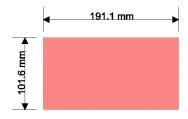
To change the position of the dimension text, double-click the dimension line, and select the circle next to the dimension text. You can then drag the text around.

Automatically Dimensioning Objects

The Automatic Dimension tool allows you to automatically create horizontal and vertical dimension lines around an object. These dimensions lines are not linked to the object and will not be automatically updated if the object changes size.

191.1 mm

101.6 mm
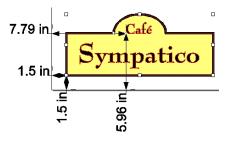
To automatically create a horizontal and vertical dimension line in an object:

1. Select the objects.

2. Select the **Automatic Dimension** tool.

Dimensioning to Page

The Dimension to Page tool allows you to automatically create horizontal and vertical dimension lines that measure the position of the object to the lower left corner of the design area. These dimensions lines are linked to the object and will be updated if the objects change position.

7.79 in

1.5 in

1.5 in

5.96 in

Café

Sympatico

📄 Text objects are measured from the baseline of the text.

Working with Measurements and Labels   Page 215
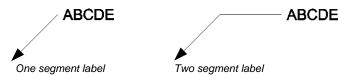
To create dimension to page lines:

1. Select the objects.

2. Select the **Dimension to Page** tool.

Creating Labels

Use the label tools to draw an arrow with a text attached to it.

There are two types of label:

    One segment label   *Two segment label*

To create a label:

1. Select the **label** tool.

2. Click the point where the label line will start.
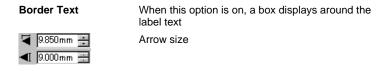
    As you move the cursor, a line shows the direction in which you are moving.

3. If you are creating a two segment label, click to define the point where the first segment ends and the second segment begins.

4. Click the point where the label will end.

5. Edit the label text in DesignCentral and press the **ENTER** key.

After creating the label you can adjust the following attributes in DesignCentral:
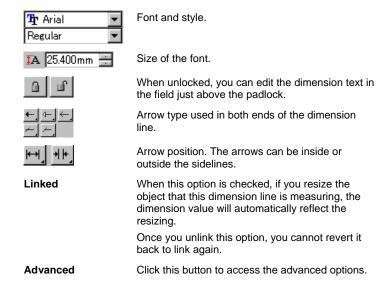
	Font and style used.
	Size of the font used.
	Arrow type used in the label line.
Advanced	Click this button to access the advanced options.

You can adjust the following options using the Advanced Options dialog box.

Border Text	When this option is on, a box displays around the label text
	Arrow size

Editing Dimension Lines
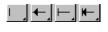
After creating the dimension line you can adjust the following attributes in DesignCentral:

Arial / Regular	Font and style.
25.400mm	Size of the font.
	When unlocked, you can edit the dimension text in the field just above the padlock.
	Arrow type used in both ends of the dimension line.
	Arrow position. The arrows can be inside or outside the sidelines.
Linked	When this option is checked, if you resize the object that this dimension line is measuring, the dimension value will automatically reflect the resizing. Once you unlink this option, you cannot revert it back to link again.
Advanced	Click this button to access the advanced options.

You can adjust the following options using the Advanced Options dialog box.

Prefix	This text will be placed before the dimension value.
Suffix	This text will be placed after the dimension value.
Scale	Scale used to show the dimension value. A scale of 50% will display half of the actual value in dimension value.
Unit	Unit used to show the dimension value.
Precision	Number of decimal places in dimension value.
Trailing Zeros	When this option is off, no decimals will be displayed.
Supress unit	When this option is on, no unit will be displayed after the dimension value.
Border text	When this option is on, a box will appear around the dimension text.
	The dimension text can be above, over or under the dimension line.
	It fixes the position of the dimension on the line.
	When a diagonal dimension is created, the dimension text can aligned with diagonal line or be

always is horizontal position.

Using this buttons, you can show only the sideline, no sideline, no arrow or show all

Arrow size.

16. Configuring the System for Color Printing
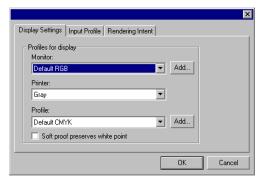
You should configure your system before printing. Color Settings dialog provides the default settings that are applied to files that are imported into your software and to emulate the output color on the monitor.

To open the Color Settings dialog box and to configure your software for color printing, from the **Edit** menu, select **Color Settings**.

Setting the Input Profiles

Most files are calibrated for specific output devices. Files in RGB format are usually color corrected for display on a certain monitor, and CMYK files are color corrected for output to a certain printer. Input profiles are used to convert these files to a neutral color space, so that your software can later color correct for your output device using the output profiles.

The **Input Profile** tab in the Color Settings dialog allows you to set the input profiles that are used when importing files. The input profiles should match the output devices (either a monitor or a printer) used in the creation of the files.

In this dialog box, select the following settings:

RGB   Select the RGB profile that matches the source of images.

CMYK   Select the CMYK profile that matches the source of images.
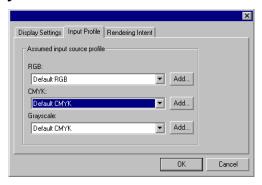
Grayscale   Select the profile that matches the source of grayscale images.

You can add additional profiles by clicking the **Add** button.

Setting the Display Profiles

You can emulate the output color on your computer monitor, in a process called Soft Proofing.

In order for this emulation to be as accurate as possible, you have to set the appropriated profiles in the Display Settings tab of Color Settings dialog.

Monitor Select the profile that matches your computer monitor.
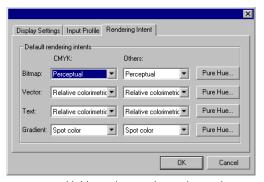
Printer Select the printer that will be used to print your design. Check **Soft proof preserves white point** option to emulate the white point of the paper.

Selecting Rendering Intents

Rendering intent specifies how a color space from the input file gets mapped to the color space of the output device.

Rendering intents can be specified for four different types of objects that make up jobs:

Bitmap The rendering intent to use with bitmap images (raster images) contained in your job file.

Vector The rendering intent to use with vector objects such as circles, polygons, lines, arcs and Bezier curves contained in vector-based files like PostScript, DXF or Adobe Illustrator.

Text The rendering intent to use with text objects contained in PostScript and other vector-based files.

Gradient The rendering intent to use with vector-based gradient objects contained in PostScript and other vector-based files. Gradients created in bitmap files will be rendered using the **Bitmap** rendering intent.

Different rendering intents can be specified for CMYK objects versus all other objects (RGB, grayscale, LAB, etc.).

📄 The options set here are only used as a default setting for your output. You can specify different rendering intents for each bitmap or color in your design. Please see "Profile Tab" on page 164 and "Color Specs - Color Tab" on page 88 for more details.

Choose from one of the following rendering intents:

Perceptual	This intent is best for photographic images. Colors outside of the output device's gamut are either clipped or compressed to fit the output device's color space.
Saturation	This intent is best for graphic images, such as vector art, where vivid colors are more important than true color matching. Colors outside of the output device's gamut are mapped to colors at the extent of the gamut's saturation. Colors that fall within the gamut of the output device are shifted closer to the gamut's saturation extent.
Relative Colorimetric	This intent is best for images, such as logos, where the output needs to match the original image. Colors that fall outside of the output device's gamut are clipped. This method may reduce the total number of colors available. The white point of Relative Colorimetric is always zero
Absolute Colorimetric	This intent is similar to Relative Colorimetric, but has a different white point value. Absolute Colorimetric represents colors relative to a fixed white point value of D50. For example, the white of paper A will be simulated when printing on paper B. This intent is best for color proofing.
Spot Color	This intent was created to supplement the Saturation intent. Spot Color maps colors similarly to the Saturation rendering intent, but Spot Color rendering intent produces the greatest saturation possible, and should not be used with photographic images.
No color correction	The object will be printed without any color correction.

Using Pure Hue Settings

The Pure Hue buttons allow you to specify that certain color channels should not be mixed in with other colors when the job is rendered. These settings can be different for each of the 4 types of object.

For instance, if a job contains yellow text, you could check the Pure Hue setting on the yellow color channel for text, so that no other colors appear in the yellow text.

To adjust the Pure Hue settings for a type of object:

1. Click the **Pure Hue** button next to the object's rendering intent.

2. Check the boxes for each color channel that you want to preserve unmixed.

　📄　Click **All On** to check all color channels, or **All Off** to clear all channels.

3. Click **OK**.

17.Printing to a Desktop Printer

Before the final output, you may want to print a sample to your desktop printer for proofing.

To print your document in a desktop printer:

1. Make sure all the objects and colors you want to print are visible in your document.

2. From the **File** menu, select **Print**.

3. Select your desktop printer and set the appropriated options.

   📄 Check **Selection** to print only the selected objects.

4. Click **OK** (Windows), or **Print** (Macintosh).

Previewing the Design

The Print Preview feature allows you to visualize the output before printing to the desktop printer. The preview should reflect any changes that you made in the Printer Properties (paper size, orientation) and Print Options.

Previewing the Design on a Windows Computer

To show a Print Preview:

1. From the **File** menu, select **Print**.

2. Select your desktop printer.

3. Click **Preview**.

Print Preview (One Page)

Print Preview (Two Pages)

In the Preview dialog box, you have the following buttons:

Print	Closes the preview window and returns to the Print dialog.
Next / Prev Page	Allows you to navigate through the pages.

One Page / Two Page	Displays 1 or 2 pages of preview per screen.
Zoom In / Zoom Out	Allows you to zoom the print preview.
Close	Closes the preview window and returns to your design application.
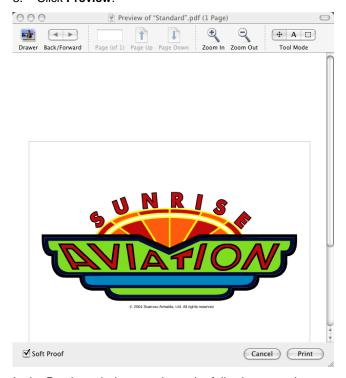
Previewing the Design on a Macintosh Computer
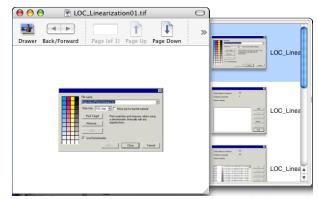
To preview the design on a Macintosh:

1. From the **File** menu, select **Print**.

2. Select your desktop printer.

3. Click **Preview**.

In the Preview window, you have the following controls:

Drawer   This button opens the Drawer sub-window:

If a PDF is being previewed, the bookmarks appear in the drawer.

If multiple images are being previewed, thumbnails of the images appear in the drawer.

Back/ Forward	This control works like the back and forward buttons of a web browser: **Back** takes you back through the previous documents and images that were viewed, and **Forward** moves you forwards again towards the last document opened in the Preview dialog.
Page	The Page box lists the current page number for a multipage job. Enter a new page number to preview that page.
Page Up/ Page Down	Switches to the previous or next page in a multipage job.
Zoom In/ Zoom Out	Enlarges or shrinks the previewed job.
Tool Mode	Sets the cursor arrow to work in one of three modes:

Scroll Tool ✛   Use the cursor to move the previewed job around in the preview window.

Text Tool **A**   Use the cursor to select text from a PDF.

Select Tool ⬚   Use the cursor to select a rectangular portion of an image.

To close the Preview window, from the **Preview** menu, select **Quit Preview**.
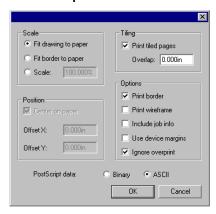
Print Options

The Print Option dialog box allows you to control several advanced options about desktop printing, such as Scale, Position and Tiling.

Displaying Flexi Print Options
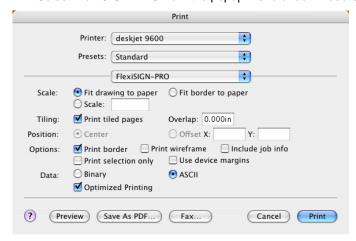
To display the Print Options dialog box under Windows:

1. From the **File** menu, select **Print**.

2. Select your desktop printer.

3. Click **Options**.

To display the print options on the Macintosh:

1. From the **File** menu, select **Print**.

2. Select **FlexiSIGN-PRO** from the popup menu under **Presets**.

Adjusting the Output Size

Scale allows you to adjust the output size to either fit the paper or fit the desired size.

Fit drawing to paper	Resizes the output to fit the entire design into the paper.
Fit border to paper	Resizes the output to fit the entire drawing area into the paper.
Scale	Enter the scale in percentage to resize the output. You can use the Tiling option to print images that are bigger than the paper size that your printer can handle.

> 📄 If you want to print a scale of 1 inch = 1 feet, enter the value "1:12" in this field.

Original Design 16 x 7 inches

Output on a letter size paper with **Fit drawing to paper** *option checked.*

Output on a letter size paper with **Fit border to paper** *option checked.*

Output on a letter size paper with **Scale** *set to 25%.*

Tiling the Output

Using the Tiling option you can select to tile the output and set the overlap between the tiles.

Print tiled pages	When this option is checked, the output will be tiled.
Overlap	Sets the overlap between the tiles.

Original Design

Tiled output

Setting the Output Position

The Position option allows you to center the image or to set the position.

Center on paper	The output is centered on the page.
Offset X / Y	Sets the offset from the edge of the paper.

Other Printing Options

Print border	The border of the design area is printed.

Print wireframe	The vector objects are printed without fill.
Include job info	The Job Info is printed with the design. This option is only available if **Fit drawing to paper** is selected in Scale option. To customize the layout of the print, see "Using Templates" on page 38.
Print selection only	Only the selected portions of the design will be output.
Use device margins	The margin information from the printer driver is used.
Ignore overprint	Any overprinting that was set up in the design stage will be ignored. This can be useful if you want to save the time and output media needed to do overprinting. ▤ If you check **Ignore Overprint**, your output will automatically be changed so that it will not use features that depend on overprinting. For instance, output that had been set up to use color trapping will now output untrapped.
PostScript data	When **Binary** is selected, the data is compressed using a binary encoding and then sent to the printer.
Optimized Printing	If this box is checked (default), the software sends job information to the printer in the most efficient method possible, in order to minimize print time. It is possible that some printers will have problems with data that is organized in this fashion, however. If the Optimized Printing box is cleared, data is sent using a less efficient method that works for more printers, but is slower.

18. Cutting your Design

Before you can cut any design, make sure you have established a connection from your design software to the Production Manager and created a setup for your output device as instructed in the section "Setting up Production Manager" on page 263.
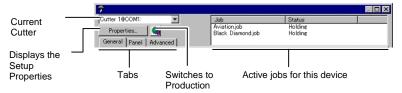
Follow the steps below to send the document to your cutting device:

1. From the **File** menu, select **Cut / Plot**.

📄 If you have any object selected, only these selected objects are cut. To cut all objects in the document, click the **Selection Only** button.

2. Adjust the settings available in the dialog box as necessary and click **Send**.

Setting the Cut/Plot Dialog
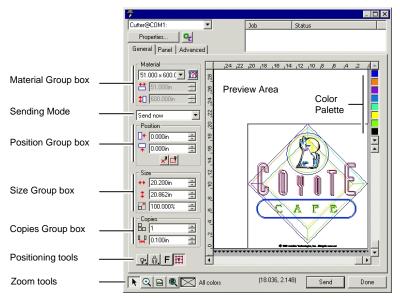
The Cut/Plot dialog box gives you complete control over how the job is produced. This dialog box consists of three Tabs - **General, Panel and Advanced** Tabs.

The area on top of this dialog is common for all Tabs:

Current Cutter

Displays the Setup Properties

Tabs

Switches to Production

Active jobs for this device

Cut / Plot Dialog - General Tab

The General tab allows you to specify the size of media, size of the job and the location of your output on the media.

Material Group box

Sending Mode

Position Group box

Size Group box

Copies Group box

Positioning tools

Zoom tools

📄 You can resize the Cut/Plot dialog, by clicking and dragging the lower right corner.

Sending Mode

The Send List allows you to select what to do with the job once it arrives in the Production Manager queue.

Send now   The job is automatically processed and sent to the output device.

Hold in list   The job stays in the Production Manager queue until it is manually sent to the output device from the Production Manager window.

Save to file   The job is processed and saved as a native file.

📄 The **Send Now** mode is not available if the output device is inactive or the Production Manager is on another computer on the network and the option **Allow remote Send Now/Interactive** is not enabled in the Production Manager Preferences. See "Changing the Preferences" on page 268 for more details.

Color Palette

Select the color to display in the preview area. Only the color displayed will be processed. You will not be able to select individual colors if the option **Send all colors** in the Advanced tab is checked.

Click and drag the colors to change the output order.
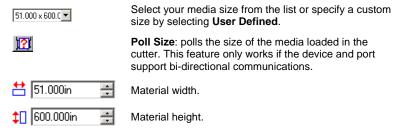
Setting the Visibility of Colors

Right-clicking on a color in the color palette allows you to toggle the **Visible** setting on and off for that color. A color that is set to invisible will not be output.

📄 If you want to output all colors except one, check **Send All Colors** on the **Advanced** tab and then turn off the **Visible** setting on the color you do not want to output.

Material Settings
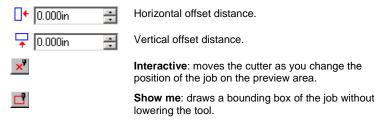
The Material group box allows you to specify the size of the media used in your output device and entering the Media Width and Height. The media size is used to panel your job if it is larger than the media.

51.000 x 600.0 ▼	Select your media size from the list or specify a custom size by selecting **User Defined**.
🅿	**Poll Size**: polls the size of the media loaded in the cutter. This feature only works if the device and port support bi-directional communications.
↔ 51.000in	Material width.
↕ 600.000in	Material height.

Position Settings

The Position group box allows you to specify where on the media the job is output.

□← 0.000in	Horizontal offset distance.
⬇ 0.000in	Vertical offset distance.
×▪	**Interactive**: moves the cutter as you change the position of the job on the preview area.
⬛	**Show me**: draws a bounding box of the job without lowering the tool.

You can also positioning the job by clicking and dragging:
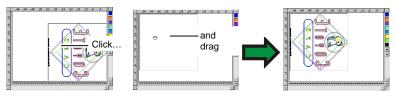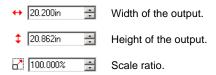
1. Choose **Select** tool from the toolbar of Cut/Plot dialog. 🡅

2. Click and drag the preview to a new position.

Size Settings

The Size group box allows you to change the size of your output.

↔ `20.200in` ⥯	Width of the output.
↕ `20.862in` ⥯	Height of the output.
⬚ `100.000%` ⥯	Scale ratio.

Copies Settings

The Copies group box allows you to set the number of copies and the spacing between them.

▢ `1` ⥯	The number of copies.
⬚ `0.100in` ⥯	The amount of space between the copies.

Copy Spacing

The copies are automatically positioned to optimize the media usage.

Positioning Tools

The Positioning tools allow you to rotate, mirror, or position the job.

	The job is placed at specified distances from the right edge and the leading edge of the media.	
	The job is centered on the leading edge of the media.	
	The job is centered in the length and width of themedia.	

| | The job is placed at specified distances from the left edge and the leading edge of the media. |

Rotate the job in 90-degree increments.

Mirror the job vertically.

Viewing Tools

The viewing tools allow you to manipulate the job on the preview area.

| | Changes the position of the job on the media by clicking and dragging the job preview. |

| | Zooms in or out. Hold the **CTRL** key to Zoom out. |

| | Return the preview area to the default view. |

| | Zoom to fit all objects into the preview area. |

| | Display the current color selected in the preview area. If all colors are selected, the box will be crossed out. |

| | Click this button to toggle the preview to display the selected objects only or the entire design. |

Blue

Cut / Plot Dialog - Panel Tab

Jobs that are bigger than the media size should be tiled before output.

Panel Group Box

Tile Group Box

Overlap Group Box

Panel tools

Zoom tools

The panel can be divided in several columns and rows. Each section or cell is called a *Tile.*

The Panel tab provides several tools to tile the job.

Panel Toolbar

The tool bar provides tools to change the Panel mode and to automatically tile.
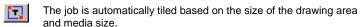
 Locks the columns so that the tiles on a same column can be adjusted as a group.

 Locks the rows, so that the tiles on a same row will can be adjusted as a group.

 Locks both columns and rows, so that the entire columns or rows can be adjusted as a group.

 The job is automatically tiled based on the job size and the media size.

 The job is automatically tiled based on the size of the drawing area and media size.

Moving the Panel

The panel defines the area of design that will be processed for output. Elements of the design that are outside the bounds of the panel will not be cut.

Resizing the Panel

You can resize the panel by dragging the panel border or using the Panel Size group to numerically enter the panel size.

Changing the panel size with the mouse:

1. Move the cursor on top of the small red squares along the panel border.

2. Click and drag to resize the panel.

Entering the panel size numerically:

54.666cm	The width of the panel.
56.458cm	The height of the panel.
0.254cm	Margin around the panel.

Tiling the Job Using the Preview Area

You can add new tiles to the panel:

1. Move the mouse cursor on top of the panel border.

2. Click and drag towards the center of the panel to add a new panel.

Click and drag the panel border to add a new tile

To resize existing tiles:

1. Move the mouse cursor on top of the tile border.

2. Click and drag to resize the tile.

Click and drag the tile border to resize the tile

Tiling the Job Using the Tile Group Box

The Tile group allows you to specify the tiles numerically.

To specifying the size of each tile numerically:

1. Select the tile you want to resize in the preview area.

2. Enter the new size.

54.666cm	The width of the selected tile.
56.458cm	The height of the selected tile.

To tile the job evenly, check the tiling option you want to perform and enter the desired number or the size of rows and columns.

☑ 3	Divides the job into a specified number of evenly sized columns.
☑ 3	Divides the job into a specified number of evenly sized rows.

Even Columns   *Even Rows*

☑ 9.000in	Divides the job into a specified size of columns, starting from the left side.
☑ 9.000in	Divides the job into a specified size of rows, starting from the bottom.

Specifying column width　　*Specifying row height*

Specifying Overlap Between Tiles

You can specify the amount of overlap between rows and columns. By overlapping, you can eliminate any gaps between the tiles when assembling the final output. Overlap is measured as the total amount two rows or columns overlap.

Horizontal　　　Vertical
Overlap　　　　Overlap

☐ ⊞　Check to create an overlap on the vertical edges of tiles.

☑ ⊞　Check to create an overlap on the horizontal edges of tiles.

0.200in ⬍　The width of the overlap.

Cutting your Design　　　　　　　　　　　Page 237

To specify a tile that will not be output, double-click or right-click the tile. The tile will be disabled.

Cutting your Design

Cut / Plot Dialog - Advanced Tab

The Advanced tab of Cut / Plot allows you to set several options specific to cutting jobs.

The following options can be adjusted in this dialog box:

Advance after plot	Advances the media and resets the origin.
Cut page crossings	Cuts the borderline of a page when the output is tiled into several pages.
Pause between colors	Selects whether the Production Manager should pause after each color is processed, allowing you to change the pen or the media. This option can only be selected when Send all colors is checked.
Pause between pages	Selects whether the Production Manager should pause after each page is processed, allowing you to load the media after each page.
Apply copy spacing between pages	Separates pages, tiles, and panels using the amount of space specified for spacing out copies in the **Copies** group on the **General** tab.
Passes	Defines the number of times that the blade will cut the same path. Set this option if you are using thick or hard media that can't be cut in a single pass.

Automatic Registration Marks	Adds small rectangles to the corners of each layer to aid in positioning each piece.
	🖹 The automatic registration marks are simply placed at the corners of each layer. If the layers are different sizes, the automatic registration marks will not line up with each other. If you want to use the automatic registration marks to align different colored objects to each other, either the panel size must be identical for all layers, or you must use **Send All Colors** with the single panel option enabled.
Send all colors	See "Sending Each Color as a Different Job" at page 241.
Weed border	Cuts a border with the specified **Panel margin** around all objects in the selected color.

A   B   C

Easy weed margin	Cuts a weeding border with the specified **Weeding margin** around each object in your design.

A B C

Horizontal weedlines	Adds weedlines between lines of text (or objects).

Lorem ipsum
dolor sit amet

Vertical weedlines	Adds weedlines between characters (or objects).

Lorem ipsum
dolor sit amet

Auto-weld	Removes intersections of overlapping objects of the same color.
Auto-trap	Specifies the amount of overlap between objects of different colors.
Optimize cutting order	When this option is not selected, the objects are cut or plot in the order they were created. When selected, the software processes the objects within the specified section of length before moving to the next section.
Convert stroke to outlines	Selects whether the strokes will be cut separately as an object.
Plot dimensions and labels	Selects whether the labels and dimensions created with measure tool will be cut or plot.
Total size	Displays the total size of the job.
Fill plot	Allow you to define the angle and pen width for fill plot.

Cutter Driver Options	Launches the Cutter Driver Options dialog. See "Cutter Driver Options" at page 297.

Sending Each Color as a Different Job

Check **Send All Colors** option to process each color separately. When this option is checked you can select how each color will be processed:

Single Panel, Single Job	The job is sent as a single file and processed using the same panel size for all colors.
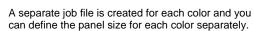
Single Panel, Separate Jobs	A separate job file is created for each color but they are still processed using the same panel size for all colors.

Separate Panels, Separate Jobs	A separate job file is created for each color and you can define the panel size for each color separately.

19.Printing your Design

Before you can print any design, make sure you have established a connection from your design software to the Production Manager and created a setup for your output device as instructed in the section "Setting up the Production Manager and Configuring Output Devices".

Follow the steps below to send the document to your cutting device:

1. From the **File** menu, select **RIP and Print**.

2. Adjust the settings available in the dialog box as necessary and click **Send**.

Setting the RIP and Print Dialog
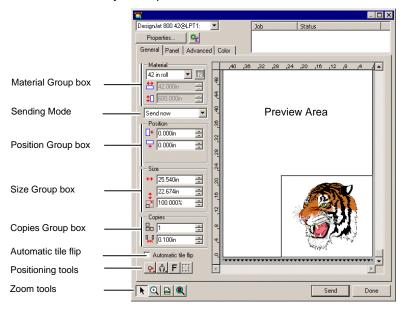
The RIP and Print dialog box gives you complete control over how the job is produced. This dialog box consists of four Tabs - **General, Panel, Advanced and Color** Tabs.

The area on top of this dialog is common for all Tabs:

RIP and Print Dialog - General Tab

The General tab allows you to specify the size of media, size of the job and the location of your output on the media.

Material Group box

Sending Mode

Position Group box

Size Group box

Copies Group box

Automatic tile flip

Positioning tools

Zoom tools

Preview Area

📄   You can resize the RIP and Print dialog, by clicking and dragging the lower right corner.

Sending Mode

The Send List allows you to select what to do with the job once it arrives in the Production Manager queue.

Send now   The job is automatically processed and sent to the output device.
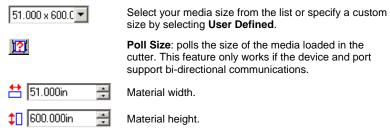
Hold in list   The job stays in the Production Manager queue until it is manually sent from Production Manager.

Save to file   The job is processed and saved as native file (prt files).

📄   The **Send Now** mode is not available if the output device is inactive or the Production Manager is on another computer on the network and the option **Allow remote Send Now/Interactive** is not enabled in the Production Manager Preferences. See "Changing the Preferences" on page 268 for more details.

Material Settings

The Material group box allows you to specify the size of media used in your output device by entering the Media Width and Height. The media size is used to panel your job if it is larger than the media.

`51.000 x 600.0 ▼`	Select your media size from the list or specify a custom size by selecting **User Defined**.
`?`	**Poll Size**: polls the size of the media loaded in the cutter. This feature only works if the device and port support bi-directional communications.
`↔ 51.000in ▲▼`	Material width.
`↕ 600.000in ▲▼`	Material height.

Position Settings

The Position group box allows you to specify where on the media the job is output.

`□← 0.000in ▲▼`	Horizontal offset distance.
`↓ 0.000in ▲▼`	Vertical offset distance.

You can also positioning the job by clicking and dragging:

1. Choose **Select** tool from the tool bar of RIP and Print dialog. �,

2. Click and drag the preview to a new position.
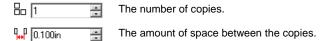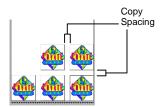
Size Settings

The Size group box allows you to change the size of your output.

`↔ 20.200in ▲▼`	Width of the output.
`↕ 20.862in ▲▼`	Height of the output.
`◰ 100.000% ▲▼`	Scale ratio.

Copies Settings

The Copies group box allows you to set the number of copies and the spacing between them.

`⊟ 1 ▲▼`	The number of copies.
`↔ 0.100in ▲▼`	The amount of space between the copies.

Copy Spacing
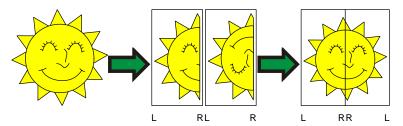
The copies are automatically positioned to optimize the media usage.

Automatic Tile Flip

If **Automatic tile flip** is checked, every other tile that is printed will be rotated 180° so that adjacent vertical edges are always printed with the same side of the print head. This helps them match up cleanly.

L   RL   R   L   RR   L

Positioning Tools

The Positioning tools allow you to rotate, mirror, or position the job.

	The job is placed at specified distances from the right edge and the leading edge of the media.	
	The job is centered on the leading edge of the media.	
	The job is centered in the length and width of themedia.	
	The job is placed at specified distances from the left edge and the leading edge of the media.	

Rotate the job in 90-degree increments.

Mirror the job vertically.

Viewing Tools

The viewing tools allow you to manipulate the job on the preview area.

Changes the position of the job on the media by clicking and dragging the job preview.

Zooms in or out. Hold the **CTRL** key to Zoom out.

Return the preview area to the default view.
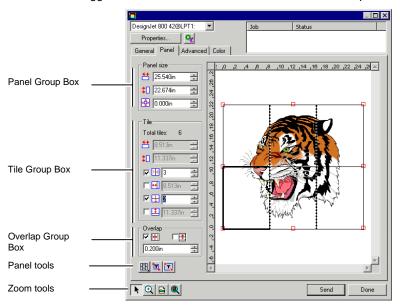
Zoom to fit all objects into the preview area.

Click this button to toggle the preview to display the selected objects only or the entire design.

RIP and Print Dialog - Panel Tab
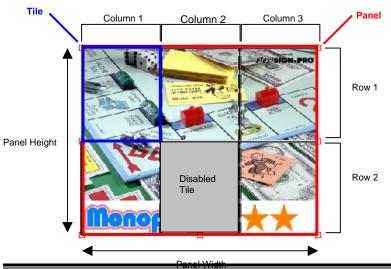
Jobs that are bigger than the media size should be tiled before output.

Panel Group Box

Tile Group Box

Overlap Group Box

Panel tools

Zoom tools

The panel can be divided in several columns and rows. Each section or cell is called a *Tile*.

To specify a tile that will not be output:

- Double click or right click the tile. The tile will be disabled.

The Panel tab provides several tools to tile the job.

Panel Toolbar
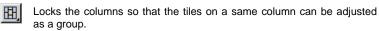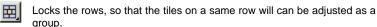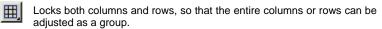
The tool bar provides tools to change the Panel mode and automatically tile.

 Locks the columns so that the tiles on a same column can be adjusted as a group.

 Locks the rows, so that the tiles on a same row will can be adjusted as a group.

 Locks both columns and rows, so that the entire columns or rows can be adjusted as a group.

 The job is automatically tiled based on the job size and the media size.

 The job is automatically tiled based on the size of the drawing area and media size.

Resizing the Panel

The panel defines the area of design that will be processed for output. Elements of the design that are outside the bounds of the panel will not be printed.

You can resize the panel by dragging the panel border or using the Panel Size group to numerically enter the panel size.

Changing the panel size with the mouse:

1. Move the cursor on top of the small red squares along the panel border.

2. Click and drag to resize the panel.

Entering the panel size numerically:

 54.666cm The width of the panel.

 56.458cm The height of the panel.

 0.254cm Margin around the panel.

Tiling the Job Using the Preview Area

You can add new tiles to the panel:

1. Move the mouse cursor on top of the panel border.

2. Click and drag towards the center of the panel to add a new panel.

Click and drag the panel border to add a new tile

To resize existing tiles:

1. Move the mouse cursor on top of the tile border.

2. Click and drag to resize the tile.

Click and drag the tile border to resize the tile

Tiling the Job Using the Tile Group Box

The Tile group allows you to specify the tiles numerically.

To specifying the size of each tile numerically:

1. Select the tile you want to resize in the preview area.

2. Enter the new size.

54.666cm   The width of the selected tile.

56.458cm   The height of the selected tile.

To tile the job evenly, check the tiling option you want to perform and enter the desired number or the size of rows and columns.

3   Divides the job into a specified number of evenly sized columns.

3   Divides the job into a specified number of evenly sized rows.

Even Columns   *Even Rows*

☑ ⟷ 9.000in ⇅	Divides the job into a specified size of columns, starting from the left side.
☑ ⬍ 9.000in ⇅	Divides the job into a specified size of rows, starting from the bottom.

Specifying column width   *Specifying row height*

Specifying Overlap Between Tiles

You can specify the amount of overlap between rows and columns. By overlapping, you can eliminate any gaps between the tiles when assembling the final output. Overlap is measured as the total amount two rows or columns overlap.

Horizontal   Vertical
Overlap   Overlap

☐ ⊞	Check to create an overlap on the vertical edges of tiles.
☑ ⊞	Check to create an overlap on the horizontal edges of tiles.
0.200in ⇅	The width of the overlap.

RIP and Print Dialog - Advanced Tab

The Advanced tab of RIP and Print, allows you to set several options specific to color printing jobs. The Advanced tab has two layouts depending on which printer you are using.

Advanced Tab with automatic profile selection

Advanced Tab (standard)

Setting the Print Quality

The Output Settings group and the Driver Options define all the settings related to the quality of the output.

Color correction	If this setting is not checked, incoming jobs are assumed to already have color correction.
Color settings	Clicking this button will launch the Color Settings dialog. See "Configuring the System for Color Printing" on page 219 for more details.
Ignore Overprint	Check to ignore any overprinting that was set up in the design stage. This can be useful if you want to save the time and output media needed to do overprinting.
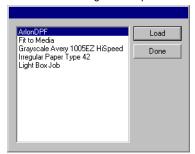
> If you check **Ignore Overprint**, your output will automatically be changed so that it will not use features that depend on overprinting. For instance, output that had been set up to use color trapping will now output untrapped.

Presets	Click to load settings from a preset.

Select the preset and click **Load** to load the settings relevant to the Advanced tab from the preset. Only the settings relevant to the Advanced tab (media, color mode, dither type, etc.) will be loaded from the preset.

When finished, click **Done**.

📄 Loading settings from a preset only affects the Advanced tab; it does not set the job to automatically use that preset in Production Manager.

Media	Select the media type your job will be printed on.
Print mode	Select the desired quality of your printout.
Color mode	If your output device supports multiple color modes, then you can select one of the supported color modes here.
Resolution	Choose an appropriate DPI for your job. A higher DPI produces higher quality output but increases the processing time.
Dither type	Selects the dither type, or the pattern in which the individual dots that make an image are applied to the media. See "Color Management Tab" on page 305.
Screen	Clicking the **Screen** button will launch a dialog box when the **Angled Screen** dither type is selected. You can adjust frequency, angle and shape for each output channel (CMYK). See "Setting Dither Options for Angled Screens" page 321 for details.
Smooth blends	Select **Normal**, **Enhanced** or **Super**. The higher settings cause the software to render gradients using more elaborate algorithms that produce smoother dithering.
Output profile	Output profiles are created for the combination of ink, media, resolution and dither type of your output device. When selecting a profile, be sure to select the profile that matches these criteria. Select **Add** to add ICC output profiles from another source.
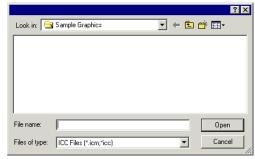
Select the ICC profile and click **Open**.

Properties   Clicking the **Properties** button will launch the Profile Properties dialog, which contains information pertaining to the ICC output profile that has been chosen under Output profile and also UCR/GCR settings.

See "Editing ICC Profile Properties" page 324 for details.

Color Management System   This setting determines the color management system that will be used to output the job.

If you are using ICC profiles from PPS 3 that contain light or medium inks (ex: **CMYKLcLm**) you can use either color management system. If you use Microsoft ICM, the light and medium channels will not be read from the ICC, and will be computed based on formulas.

If you are using ICC profiles from PPS 3 that contain orange and green inks, you need to use the Scanvec Amiable CMS.

Automatic	The software will choose one which color management system to use.
Microsoft ICM 2.0	The software will use the Microsoft Image Color Management 2.0 API.
Scanvec Amiable CMS	The software will use the Scanvec Amiable Color Management System.

Linearization   Click to launch the Linearization dialog.

Density adjustment		Selecting a density file applies the ink density adjustments created in Color Profiler. If you do not wish to apply a density adjustment, set this field to **None**.
Ink Limits		Set the ink limit for each color of ink to the maximum percent coverage that the device can output without causing bleeding or drying issues, then click **OK**.
Print substrate color		Selects if the color of the drawing area will be printed with the design.
Print dimensions and labels		Selects if the labels and dimensions added with dimension/label tools will be printed with the design.
Print as separations		Allows the job to be printed as a separation using black ink. You can select to print one color channel or all color channels as a separate job.
Color Keys		Prints separations in color.
Print spot colors		Allows you to map the spot color used in the design to specific ink in the printer. See "Printing with Spot Colors" on page 256 for more details.
Print marks		Check to print the selected type of mark:
	Crop Marks	Adds crop marks to the output to aid in trimming the printout.
	Overlap Marks	Adds overlap marks to the output to aid in aligning overlapping tiles.
	Color	Select the ink color that will be used to print the print marks.
Print Color Bands		Prints a thin strip of each ink color along the selected edges of the print to show that all print heads are firing.
Driver Options		Clicking this button launches the Driver Options dialog. See "Print Options Tab" on page 309 for details.
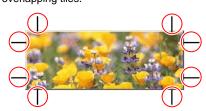
📄 On the Macintosh, the Driver Options dialog is a separate tab in the RIP and Print Dialog. There is no Driver Options button on the Macintosh.
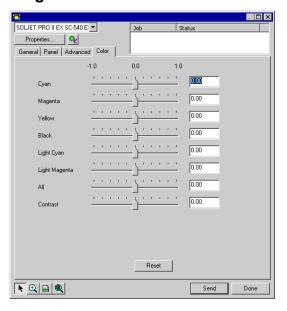
RIP and Print Dialog – Driver Tab

The Driver tab is only present on the Macintosh. Its contents are identical to the Driver Options dialog under Windows, or the Print Options tab in the Job Properties dialog of Production Manager. See "Print Options Tab" page 309 for details.

RIP and Print Dialog - Color Tab

The Color tab allows you to adjust the color.

A slider represents each color channel of your output device. Increase or decrease the density of ink for any given channel by adjusting the sliders. You can also enter the values numerically in the edit boxes.

All   Allows you to quickly adjust all color channels as a group.

Contrast   Adjusts the contrast of the image.

Reset   Clicking this button will restore the settings to their original state.
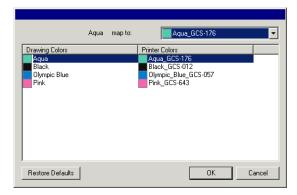
Printing with Spot Colors

Some printers support spot color inks. Spot colors are used to reproduce colors that are difficult to produce using standard inks. If your printer supports spot colors, you can use the following steps to print them.

1. Use the spot color swatch tables for your printer to create your design.

📄 The software already comes with spot color libraries specific for printers that support spot color printing. If a certain color is not listed in the color library you should create the color and define it as a spot color.

2. From the **File** menu, select **RIP and Print**.

3. Select the Advanced Tab.

4. In the **Miscellaneous** settings group, check **Print spot colors**.

5. Click the **Spot color mapping** button.

a. Select the drawing color you want to change the mapping and select the **Printer color** from the **map to** list. Select **Print as process color** if you want to print that color using process colors (CMYK). Select **Skip** to disable the color.

b. Click **OK**.

6. Set the appropriate options in the RIP and Print dialog and then click **Send** to print the job.

📄 The printer or the Production Manager will prompt whenever you have to change the spot color ink in the printer.

Contour Cutting

Contour cutting allows you to print and then cut a contour line around your design. The output of a design with contour cut involves several steps as follow:

1. Create your design in your software and add a contour cut line. See "Using Contour Cut" on page 209 for more details.

2. From the **File** menu, select **RIP and Print**.

3. Select the **Advanced** tab in the **RIP and Print** dialog.

4. Click **Contour**.

5. Set the contour cut options.
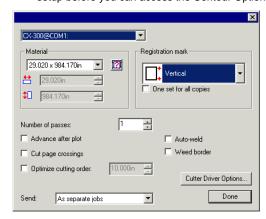
6. Print your design.

7. Cut the contour cut.

Setting Contour Cut Options
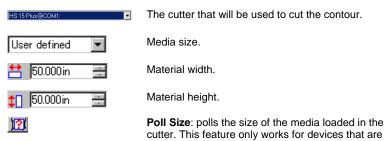
When a print job containing one or more contour cuts is opened in the RIP and Print dialog, you can set the cutting options for the contour cuts in the Contour Options dialog.

To access the Contour Options dialog, click on the **Contour** button on the **Advanced** tab of the RIP and Print dialog.

📄 If you have not yet set up your vinyl cutter, you will be prompted to add a setup before you can access the Contour Options dialog.

The following options can be selected:

	The cutter that will be used to cut the contour.
	Media size.
	Material width.
	Material height.
	Poll Size: polls the size of the media loaded in the cutter. This feature only works for devices that are capable of two-way communication, such as serial or USB devices.

Registration mark		Select the type of registration mark to help you align the printed media in the cutter for contour cutting. Some cutters are equipped with sensors that detect the registration marks automatically.
		The **Print Marks Color** setting in the **Advanced** tab of the RIP and Print dialog determines the color of the registration marks.
		📄 For best result with a Gerber cutter, use the Gerber Edge Center registration mark.

	4 Points Horizontal	Places registration marks along the upper and lower horizontal edges of the job.
	Vertical	Places registration marks on the right side of the image. The arrow in the registration mark indicates the media feed direction for cutting.
	Horizontal	Places registration marks on the bottom of the image. The arrow in the registration mark indicates the media feed direction for cutting.
	Gerber Edge	Special registration mark for Gerber Edge.
	Gerber Edge Center	The Gerber Edge registration mark, located along the center of the lower horizontal edge.
	Gerber Type 3	An outline is traced around the outside of the image.
	OPOS	Gerber Odyssey positioning marks.

One set for all copies	If checked, only one set of registration marks will be printed for the entire job.
Advance after plot	Check to lift the knife and advance the media after output, then reset the origin.
Cut page crossings	Cuts the borderline of a page when the output is tiled into several pages.
Optimize cutting order	When this option is not selected, the objects are cut or plot in the order they were created. When selected, the software processes the objects within the specified section of length before moving to the next section.
Auto-weld	Removes intersections of overlapping objects of the same color.

Weed border	Cuts a border around all objects in the selected color.	
Send	Specify how the job will be sent to the output device:	
	As hybrid job	Sends both printing and cutting data as a single job. This option is available for hybrid printer/cutter devices.
	As separate jobs	Sends printing and cutting data as separate jobs. This option is available if you use different devices for cutting and printing. This is also known as virtual hybrid output.
	Print job only	Sends only the printing job.
	Contour job only	Sends only the cutting job
Cutter Driver Options	Click to edit the cutter driver options. See "Setting Cutter Driver Options" page 323 for details.	

When finished, click **Done** to return to the **Advanced** tab of the RIP and Print dialog.

Cutting the Contour on a Hybrid Device

If you are using a hybrid device, the contour will be cut automatically after printing.

Cutting the Contour As a Separate Job

If you send the print and cut data as separate jobs, the software will output the print job first. The cut job will be put in the queue of the selected cutting device, and it status will be set to **Holding**. You can then load the output medium from the printer into the cutting device and send the cut job to the device.

In order for the contour to line up properly on the print job, you must align the cut job to the printed output using either automatic alignment or manual alignment.

Cutting the Contour on a Cutter with Automatic Alignment

1. RIP and print the job.

2. Remove the output medium from the printer and load it into the cutter.

3. Output the cut job in the Hold Queue as you would a normal print job.

Please detect the registration marks from the device. Click OK to continue.

OK

4. Align the cutting head over the first automatic registration mark (lower right if not marked) using the controls on the front panel of the cutter.

5. Click **OK** to cut the contour.

Cutting the Contour on a Manually Aligned Cutter

1. RIP and print the job.

2. Remove the output medium from the printer and load it into the cutter. Make sure the output medium is straight, and align the registration marks to the origin for the cutter.

3. Output the cut job in the Hold Queue as you would a normal print job.

○ Interactive alignment (Manual)   OK

○ Digitize Alignment (Bomb Sight)   Cancel

4. Select the method to be used to position the cut head over the registration marks and click **OK**.

Interactive alignment	You will position the cut head over the registration marks using software controls.
Digitize alignment	You will position the cut head over the registration marks using the controls on the face of the cutter.
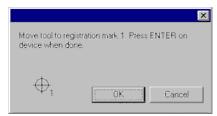
      📄 This option is only available when a bi-directional communications protocol such as serial or USB is used.

a. To indicate the position of the registration marks using **Interactive alignment**:

Press the arrows to move to the first point or enter the position of the first point and click OK.

inch

X: 0.000inch

Y: 0.000inch   ⊕₁   OK   Cancel

i. Use the arrow buttons to position the head of the cutting device over registration mark 1 and click **OK**.

ii. Repeat for all additional registration marks.

b. To indicate the position of the registration marks using **Digital alignment**:

Move tool to registration mark 1. Press ENTER on device when done.

i. Use the front panel controls on the cutter to position the head of the cutting device over registration mark 1. Press **Enter** on the cutting device, then click **OK**.

ii. Repeat for all additional registration marks.

Please put knife back in cutter and click OK to start cutting.

5. Make sure the knife is loaded into the cutter, then click **OK** to cut the contour portion of the design.

20.Setting up Production Manager

Production Manager configures output devices such as cutters and printers, controls the output of files, and connects to the output device.

Production Manager automatically launches when you execute the output command from your software. You can also preview jobs in Production Manager and change your jobs properties before sending to your output device.

Understanding Setups

A Setup consists of an output device and its associated properties. Setup information includes the type of output device, the media being used, the size of the media, and any settings specific to the output device.

Creating Your First Setup

Before you can output your design, your software must establish a connection with the Production Manager and an output device must be configured. Follow the steps below to create a setup for your output device:

1. From your software, select **RIP and Print** or **Cut/Plot** from the **File** menu.

2. Select "On this computer (Local)" and then click **OK**.

3. Select the type of device, manufacturer and the model of your output device, and then click **Next**.

4. Select the appropriated port and click **Finish**.

Adding New Setups

You can add more setups directly from the Production Manager. See "Adding New Setups" on page 269 for more details.

Configuring a Setup

Once you have created a setup, you can change its properties.

Most of the settings available in Setup Properties are also available in the RIP and Print or Cut/Plot dialog. The settings from the Setup Properties are applied to files that are added directly to Production Manager using the Add Job command.

To display the Setup Properties:

1. From your software, select **RIP and Print** or **Cut/Plot** from the **File** menu.

2. Select the output device in the RIP and Print or Cut/Plot dialog from the list.

3. Click Properties.

   Or

1. Select the output device from the left pane of Production Manager.

2. From the **Setup** menu, select **Setup Properties**.

   Or

Double-click on the output device listed in the left pane of Production Manager.
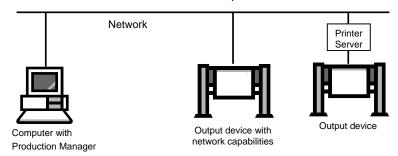
Setup Properties contains several tabs where you can specify the media settings, printing options, cutting options, etc. See "Editing Setup Properties" on page 272 for more details.

Setting up Production Manager on a Network

The output device does not need to be connected directly to the computer where Production Manager is installed.

Connecting Production Manager to Networked Output Devices
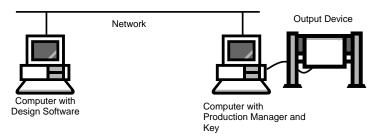
If your output device supports a network connection, or you have a Network Print Server, you can connect the output device to the Production Manager through a network. Please follow the instructions below to use a network to connect the output device.

Network

Printer Server

Computer with
Production Manager

Output device with
network capabilities

Output device

1. The computer must have TCP/IP protocol properly installed and working.

2. The output device or the Print Server must support: TCP/IP, FTP or LPR and have a valid IP address assigned to it.

3. When adding setups in Production Manager, set the port to TCP/IP, FTP or LPR depending on the protocol supported by the device and enter the IP address assigned to the output device.

Using the Design Software and Production Manager on a Network

Production Manager can be installed on a different computer as long as that computer has a hardware security key attached. The computer that has Production Manager and the computer that has the design software must be networked and TCP/IP must be installed and working properly.

The following steps will guide you to connect your design software to a Production Manager installed on a different computer:

1. Attach the hardware key on the production station and install the Production Manager.

2. Install the design software on the design station.

3. Launch the Production Manager on your production station, create the setups for the output devices and leave it running.

4. Launch the design software on your design station. The design software can run without the key as long as the network is properly configured and the key is attached to the production station.

5. Select **RIP and Print** or **Cut/Plot** from the **File** menu.

6. Select "On another computer (Network)" and click **OK**.

7. Select the Production Manager on the network and click **OK**.
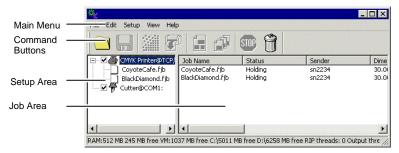
21.Using Production Manager

See "Setting up Production Manager" on page 263 if you are launching the Production Manager for the first time or configuring the output devices.

The Production Manager Window

When you launch Production Manager, the main window is displayed. To launch Production Manager, do one of the following:

- From your design software, select **RIP and Print** or **Cut/Plot** from the **File** menu. The Production Manager is launched and the **RIP and Print** or **Cut/Plot** dialog box appears.

  📄 The Production Manager may be hidden behind the design software. To bring it to foreground, click on the Production Manager icon in the RIP and Print or Cut/Plot dialog.

- Double-click the Production Manager icon in the desktop.

Setup Area   This area displays the setups (output devices) currently configured are displayed. Click the (**+**) or the (**-**) symbols to expand or collapse the list of jobs associated with the setup.
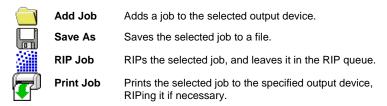
Job Area   This area displays the jobs associated with the selected setup.

Command Buttons

The command buttons allow quick access to most common tasks in Production Manager. See "Working with Jobs" on page 271 for more details on each command.

	Add Job	Adds a job to the selected output device.
	Save As	Saves the selected job to a file.
	RIP Job	RIPs the selected job, and leaves it in the RIP queue.
	Print Job	Prints the selected job to the specified output device, RIPing it if necessary.

	Nest	Nests the selected print jobs together so as to use the minimum amount of the output media.
	Unnest	Unnests the selected set of nested jobs.
	Abort	Stops selected file from RIPing or printing.
	Delete	Deletes the selected job or jobs.
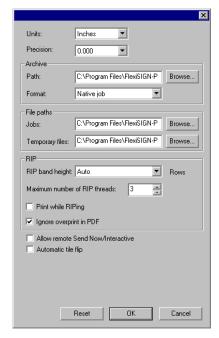
Changing Preferences

To set the application preferences for Production Manager, from the **Edit** menu, select **Preferences**.

The following settings are available:

Units	The units of measurement displayed.
Precision	The degree of precision to use with measurements.
Archive Path	The folder where archived jobs are saved.
Archive Format	The format that archived jobs will be stored in.

	Original job	Archives the image in its original file format. When you add the archived file back into the software, it will need to be RIPed again before printing.

	Native job	Archives the print data in the output device's native language. No preview information will be available. When you add the archived file back into the software, it will not need to be RIPed again before printing.
File Paths		Sets the folders which will be used for the following:
	Jobs	The folder that job files are stored in.
	Temporary files	The folder for temporary files that are created during the processing of jobs.

> 📄 RIPing files requires a significant amount of storage space. If the drive on which the temp directory has only a small amount of storage space, you may want to consider relocating the temp directory to a drive with more available storage space.

RIP Band Height	Sets the band size that is processed during RIPing. Smaller values allow large files to RIP but will take longer to process.
Maximum number of RIP threads	Sets the number of jobs that can be RIPed at one time. One RIP thread is required for each file being RIPed, and one RIP thread is required to generate a preview for each file.
Print while RIPing	If this option is selected, the software will RIP and print the job simultaneously. RIPing and printing simultaneously may affect overall performance.
Ignore overprint in PDF	If this option is selected, the software will ignore any overprint settings that may exist in PDF files it outputs.
Allow remote Send Now/ Interactive	If this option is selected, the software will allow Send Now and Interactive operation from a remote design station.
Automatic tile flip	If **Automatic tile flip** is checked, every other tile that is printed will be rotated 180° so that adjacent vertical edges are always printed with the same side of the print head. This helps them match up cleanly.
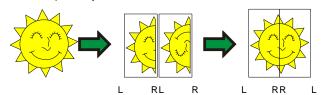
L   R L   R   L   R R   L

Working with Setups

Setups provide the link between the software and your output devices. Each setup contains the following information:

- The type of output device being used.
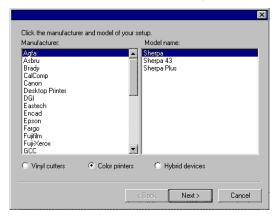
- The method used to communicate with the device.

- Details of how incoming print jobs will be processed.

- The default job properties that will be applied to a new job.

Production Manager allows for multiple setups to be in use at the same time. It is possible to have more than one setup for each output device. This is useful because it allows you to configure each setup for a different purpose. You can have one setup for printing proofs, and another for final output, for instance. You can also have different setups for different output media.

Adding New Setups

To add new setups:

1. From the **Setup** menu, select **Change Setup** or **Add Setup**.

2. Select the type of device being set up.

3. Select the **Manufacturer** and **Model Name** of the output device from the list.

4. Click **Next**.

5. Edit the **Setup name** of the device.

6. Click **Next**.

7. Select the **Port** the output device uses for communication. If necessary, edit the communications settings for the chosen port. See "Editing Setup Properties" page 272 for details on the communications settings.

    📄 If **TCP/IP** is available for the network output device, use **TCP/IP**. If not, you should choose **LPR** or **FTP**.

8. Click **Finish**.

Setting Up Desktop Printers as Output Devices

To set up a conventional printer as an output device:

1. Add the printer to the computer as a standard Windows printer.

2. When creating the setup in the software, select **Desktop Printer** under **Manufacturer**, then select the print queue for the desktop printer under **Model name** and click **Next**.

    📄 The **Port** list will be disabled.

3. Click **Finish**.

Selecting a Setup

To select a setup, highlight its icon in the setup area. Only one device can be selected at any time.

Activating Setups

An *active setup* is a setup that is ready to output jobs.

To make a setup active, do one of the following:

*   Check the box next to its icon in the setup area.

*   Select the setup icon, then from the **Setup** menu, select the **Make Active**.

*   Right-click on the setup icon and select **Make Active** from the context menu.

Deleting Setups

To delete a setup, do one of the following:

*   Select the setup icon in the setup area and click on the **Delete** button in the toolbar.

*   Select the setup icon in the setup area, then from the **Edit** menu, select **Delete**.

*   Select the setup icon in the setup area and press the **Delete** key on your keyboard.

*   Right-click on the setup icon in the setup area and select **Delete** from the context menu.

Deleting a setup will also delete all jobs associated with the setup.

Editing Setup Properties
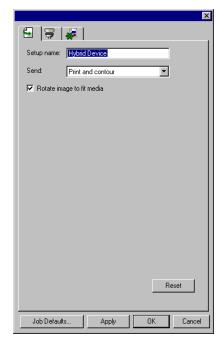
To edit the setup properties associated with a particular output device, do one of the following:

- Right-click the setup icon in the Setup Pane and select **Properties**.

- Select the setup icon in the Setup Pane, then from the **Setup** menu, select **Setup Properties**.

- Double-click the setup icon in the Setup Pane.

Job Workflow Tab

The Job Workflow tab displays information about the output device, media size.

Setup name	Name of the setup.
Send	This control only appears for hybrid devices.
	For jobs that contain both a printed image and a contour cut, this control selects what will be output:

Print and Contour	Prints the job then cuts the contour
Print Only	Only prints the job.
Contour Only	Only cuts the contour.

Rotate image to fit media	If checked, the image will automatically be rotated to better fit the dimensions of the output medium if needed.
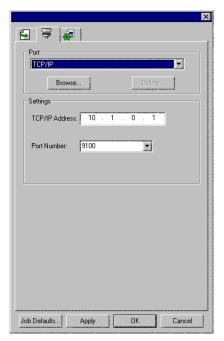
Communication Tab

The **Settings** section of this tab changes depending on the port used to connect to the output device.

Ports are listed in order of popularity for each device. Only the ports that are usable by the output device are listed.

The standard port for the device is selected by default. Some of the port settings may still need to be entered or edited, however.

Port	Select the port to which the output device is connected. The port list is limited to the ports that are actually present on your computer and usable with your output device.

	LPT	Parallel port is the most common method to connect printers to the computer. The following settings are available:

		Transmission buffer	The size of the transmission buffer in bytes
		Check port state before sending	If checked, the software will send a data packet to the printer to test if the printer is connected before beginning to print the job.
		Use standard LPT driver	Whenever possible, the software uses a custom LPT driver to increase the performance of the LPT port.
			If checked, the software will use the standard Windows LPT driver instead. Performance will be diminished, but reliability may be enhanced.
			The following settings are enabled when the custom driver is in use:

	Mode	Use **ECP** (Enhanced Capabilities Mode) for the fastest possible transmission speed. **EPP** (Enhanced Parallel Port) is not as fast, but may be more compatible.
	ECP uses DMA	Using DMA with ECP can increase the maximum bit rate from 2 mbps to 4 mbps.
	Yield if device is busy	If checked, the software will release the extra system resources used by the custom driver while the printer is busy. This may aid overall performance.

TCP/IP Use this port if your output device supports network connection.

	TCP/IP address	The TCP/IP address of the output device (required).
	Port Number	The port number used for printing to the output device. Select from the list or enter a custom number.

USB USB drivers are provided with output devices that support them. Please make sure the proper drivers are installed when using these ports.

USBPIA Use this port if you are connecting to the parallel port of a device using a USB to Parallel adapter.

USBSerial Use this port if you are connecting to the parallel port of a device using a USB to Serial adapter. Please make sure the proper drivers are installed when using this port.

FireWire FireWire drivers are provided with output devices that support them. Please make sure the proper drivers are installed when using these ports.

LPR Some network devices do not work with TCP/IP and only with LPR protocol.

	Host name or IP address	The host name or IP address assigned to the output device (required).
	Printer/ queue name	Depending on the output device, this can either be the printer name, such as **PR1**, or it can be the path to a UNIX print queue. See **FTP** listing above for common printer names.

FTP Output devices that connect directly to a network may support FTP protocol. This allows the RIPed output file to be sent to the output device via FTP.

	Host name or IP address	The host name or IP address assigned to the output device (required).
	Printer/ queue name	Depending on the output device, this can either be the printer name, such as **pr1**, or it can be the path to a UNIX print queue. Common printer names include:

	HP JetDirect EX	raw
	HP JetDirect EX Plus 3	raw1, raw2, raw3
	HP JetDirect 600N	Port1
	Intel Netport Express 10/100	LPT1_PASSTHRU
	Intel Netport Express Pro	LPT1_PASSTHRU, LPT2_PASSTHRU, COM1_PASSTHRU
	Axis	pr1, pr2, pr3
	Linksys	P1, P2, P3
	Hawking	lp1, lp2, lp3

FILE	The **File** port allows you to save the output data as a file. The following settings are available:	
	Prompt for file path for each file	If checked, you will be prompted to provide a filename for the output file when each job is saved to a file.
	Use custom extension	If checked, enter the file extension you want to use for the output file in the space provided.
	Default Location	The default folder in which output files will be placed. Click **Browse** to select a folder.

SCSI	Use this port if your output device supports SCSI connection.
Folder	Outputs to a file in the specified folder using a naming convention specific to the output device.
COM	Serial communications port. This port is only supported by cutters.
	In addition to the standard serial port controls for bits per second, data bits, parity, stop bits and hardware/software flow control, there are checkboxes which enable/disable the following wires:

	DTR	Data Terminal Ready

DSR	Data Set Ready
RTS	Request To Send
CTS	Clear To Send
DCD	Data Carrier Detect

Automatic Nesting Tab

The Automatic Nesting tab allows you to set the automatic nesting options for the software.

See "Nesting Jobs" page 279 for details.

Working with Jobs

Jobs can be added, deleted or have their properties changed while they are in the Production Manager queue.

Adding New Jobs

Jobs can be sent to the software in a number of different ways.

Adding Jobs from a File

To add a file as a new job:

1. Select the setup you want to use to print the file.

2. From the **File** menu, select **Add Job**.

3. Select the file to be added and click **Open**.

See Appendix A for the list of supported file types.

Dragging a File into Production Manager

To specify the setup to be used, drag the file onto the appropriate setup icon in the setup area. The job will be assigned a status of **Holding**.

Selecting Jobs

To select a job, click on its listing.

Multiple jobs can be selected using the standard Windows **CTRL** and **SHIFT** methods:

• Hold the **CTRL** key to select multiple individual jobs.

• Hold the **SHIFT** key to select a range of jobs by clicking on the first and last jobs in the range.

To select all the jobs, from the **Edit** menu select **Select All**.

Saving Jobs

Jobs can be saved as a native file or original format.

To save a job:

1. Select the job file you want to save in the Production Manager window.

2. From the **File** menu, select **Save as** or click on the **Save as** command button.

3. Enter the file name and select the file format (Native or Original) and click **Save**.

Deleting Jobs

To delete a job, do one of the following:

- Press the **Delete** or **Backspace** key on your keyboard.

- Select the job and from the **Edit** menu, select **Delete**.

- Select the job, then click on the **Delete** button in the toolbar.

- Right-click the job, then select **Delete** from the context menu.

Setting Job Properties

The Job Properties dialog allows you to edit a large number of settings that control how a job will be output.

See "Setting Job Properties in Production Manager" page 297 for details.

Processing Jobs

Once the server receives a job, it can be RIPed and printed.

Moving jobs to a Different Output Device

To move a job to a different output device setup, do one of the following:

- Select the job and select **Move** from the **File** menu, then select the new setup and click **OK**.

- Click and drag the job onto the icon for the new output device's setup in the Setup Pane.

RIPing Jobs

To RIP a job, do one of the following:

- Select the job and from the **File** menu, select **RIP**.

- Drag the job into the RIP Queue with the mouse. Once a job is moved into the RIP Queue, it will automatically be RIPed if it has not been RIPed previously.

- Right-click the job and select **RIP** from the context menu.

Jobs in the RIP Queue will process in the order of the Job Priority setting in their Job Properties. When multiple jobs with the same priority are waiting in the queue, the job that was received first will process first.

Printing Jobs

To print a job, do one of the following:

- Select the job and from the **File** menu, select **Print**.

- Right-click the job and select **Print** from the context menu.

- Drag the job into the Print Queue with the mouse. Once a job is moved into the Print Queue it will be automatically be RIPed if it has not been RIPed already. It will then automatically be printed on the appropriate device.

Jobs in the Print Queue will process in the order of the Job Priority setting in their Job Properties. When multiple jobs with the same priority are waiting in the queue, the job that was received first will process first.

Aborting the Processing of a Job

To abort the processing of a job while it is being RIPed or printed, do one of the following:

- Select the job and from the **File** menu, select **Abort**.

- Select the job, then click on the **Abort** button in the toolbar.

- Right-click the job, then select **Abort** from the context menu.

- Drag the job back into the Hold Queue with the mouse.

If a job is aborted while being RIPed, its status is set to Aborted. It will need to be RIPed again before it can be printed.

If a job is aborted while being printed, its print status freezes at 0%.

Outputting Test Jobs

The software allows you to output print and/or contour cut test jobs to appropriate output devices.

Outputting a Test Print Job

To print a test job:

1. Select the setup you want to send the test job to.

2. From the **Setup** menu, select **Test Print**.
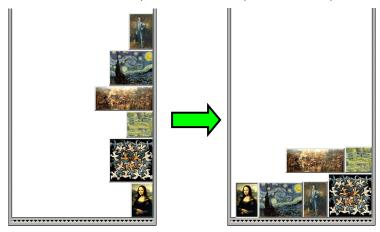
Outputting a Test Cut Job

To output a test cut job:

1. Select the setup you want to send the test job to.

2. From the **Setup** menu, select **Test Cut**.

Nesting Jobs

Production Manager has the ability to nest jobs together in order to minimize the amount of material needed to output the jobs. Nesting reorganizes the jobs on the output medium so that they line up across the media width and are packed into as compact an area as possible.

Jobs must be in the same queue in order to be nested together, and must share the same output device and resolution.

Nesting Jobs Manually

To nest jobs:

1.   Select the jobs.

2.   From the **File** menu, select **Nest Jobs**.

📄   If a single job is selected, its pages will be nested.

Un-Nesting Jobs

To separate a set of nested jobs into its component jobs:

1.   Select the set of nested jobs.

2.   From the **File** menu, select **Unnest Jobs**.

Using Automatic Nesting

Production Manager can be set to automatically nest jobs as they are added to the Hold Queue.

To set up automatic nesting, from the **Setup** menu select **Setup Properties**, then select the **Automatic Nesting** tab.

Automatic job nesting	Automatically nests jobs using one or more of the criteria specified below. This allows you to work more efficiently by grouping their jobs for output. You can add several jobs into the queue and nest them into one job.	
	Number of jobs	Select this option to automatically nest jobs once the specified number of jobs has accumulated in the queue.
	Number of minutes	Select this option to automatically nest jobs once the specified number of minutes has passed.
	Percent coverage	Select this option to automatically nest jobs once the specified percentage of the media has been covered.
	Daily at	Select this option to automatically nest jobs once a day at the specified time.
Automatic rotate image when nesting	If checked, the images may automatically be rotated when nested so that less of the output medium will be used up.	

📄 Set **Number of jobs** to **1** to automatically nest pages, tiles and separations.
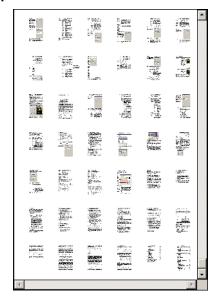
Nesting Pages, Tiles and Separations

The software is able to nest the pages of a multi-page job so that they line up across the width of the output medium and take up less material.

To nest the pages of a multi-page job:

1. On the **Layout** tab of the Job Properties dialog for the job, check **Page Nesting**.

2. Select the job.

3. From the **File** menu, select **Nest**.

Rearranging Nested Jobs

The software allows you to rearrange a set of nested jobs using the Job Properties dialog. You can move, rotate and mirror the jobs.

To rearrange a set of nested jobs, select the set of jobs and from the **File** menu, select **Job Properties**. In the Job Properties dialog, select the **Layout** tab.

A red border appears around the edges of the selected image.

Moving Images
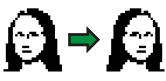
To move a nested image, click and drag the image in the preview pane of the Job Properties dialog.

Rotating Images
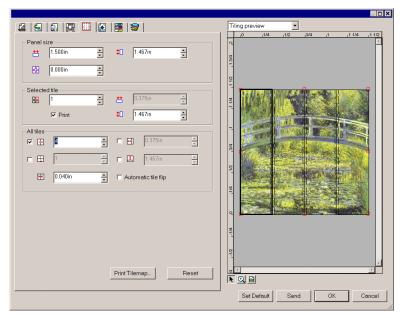
To rotate an image 90°, select the image and click on the **Rotate Image** button. Clicking the button a second time will toggle the image back to its original orientation.

Mirroring Images

To flip an image along its vertical axis, select the image and click on the **Mirror Image** button.

Tiling and Cropping Jobs

The tiling feature of the software allows you to split a print job up into a number of smaller tiles that are then output separately.

📄 If a job is larger than the output medium, it is automatically tiled into pieces small enough to output.

All tiling is done from the **Tile** tab of the Job Properties dialog. To access the tiling features:

1. Select the job.

2. From the **File** menu, select **Job Properties**.

3. Select the **Tile** tab.

The following settings are available:

Panel Size The panel is the part of the job that will be split up into tiles and output by the software. If the panel is reduced in size so that it does not cover the entire job, only the parts covered by the panel will be output.

Shows the width and height of the panel. To adjust, enter a number or use the arrows.

The size of the margin. The margin is the part of the panel that extends outside of the boundaries of the job.

Using Production Manager

Selected Tile	Selects which tile's width and height are displayed in the fields below.

⊞⊡ Selects a tile to be edited. The selected tile is highlighted in the preview pane.

↔↕⬚ Shows the width and height of the selected tile. To adjust, enter a number or use the arrows.

Print If checked, the selected tile will be output with the rest of the job. If cleared, the tile is marked with a mesh overlay in the preview pane, and will not be output.

All Tiles	These settings apply to all tiles and help you quickly set up automatic tiles, of equal size.

▯▯ Selecting this option divides the job vertically into the number of columns specified. Each column will be of equal width.

▤ Selecting this option divides the job into the number of rows specified. All rows will be of equal height.
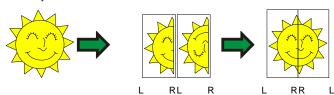
↔ ↕ If you know that you want tiles of a certain size, enter the values for the width and height of the tiles here. All tiles will be changed to the specified size.

↔ Sets the amount of overlap between tiles. Enter a negative number to create an offset between tiles.

Automatic tile flip	If **Automatic tile flip** is checked, every other tile that is printed will be rotated 180° so that adjacent vertical edges are always printed with the same side of the print head. This helps them match up cleanly.

L   R L   R   L   R R   L

Print Tilemap	Outputs a tile map to aid in assembly of the finished job. See "Printing a Tile Map" page 286 for details.
Reset	The reset button will restore the original values and settings.

Dividing a Job Into Tiles

The job starts as a single large tile that covers the entire job. This tile is selected by default.
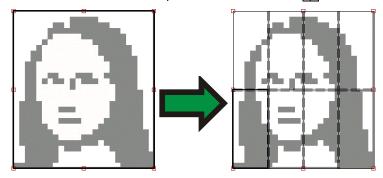
To divide the job into multiple tiles, reduce the width and/or height of the first tile using the ↔ and ↕ fields in the **Selected Tile** section. New tiles will automatically be created to cover the exposed areas of the job.

For instance, to divide a 30x25 job into two vertical tiles, set the ↔ field to 15, reducing the size of the first tile to 15x25. A second 15x25 tile will automatically be created.

Dividing a Job into Uniform Rows and Columns of Tiles

To divide the job into a specified number of uniform rows and columns of tiles:
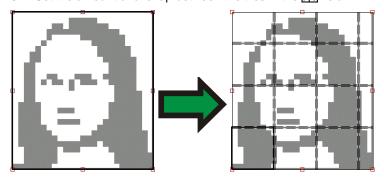
1. Check 🔲 or 🔲 to tile the job vertically or horizontally.

2. Enter the number of columns of tiles in the 🔲 field.

3. Enter the number of rows of tiles in the 🔲 field.

4. Set the amount of overlap between the tiles in the 🔲 field.

Dividing a Job into Uniform Tiles of a Specified Size

To divide the job into uniform tiles of a specified size:

1. Check 🔲 and 🔲 to set all tiles in the job to be of the specified size.

2. Set the 🔲 and 🔲 fields to the width and height desired for the tiles.

3. Set the amount of overlap between the tiles in the 🔲 field.

📄 If the specified tiles do not cover the job evenly, the tiles at the top and right edges will be made small enough to fit in the gap.

Selecting a Tile

To select a tile, either click on the tile in the preview pane, or select the tile using the ⊞ field in the **Selected Tile** section of the Tile tab.
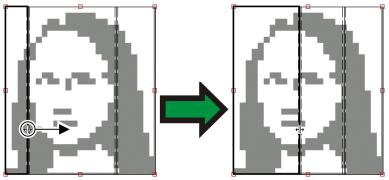
Editing Tiles

To edit the size of the selected tile, change the values in the ⟷ and ↕ fields.
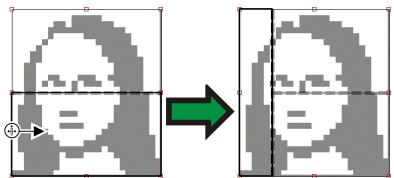
You can also resize tiles by dragging their edges in the Preview Pane.

Click and drag to resize

📄 If any of the **All Tiles** checkboxes are checked, the ⟷ and ↕ fields may be disabled. In this case, the fields have been overridden in order to keep all tiles uniform. The tiles will not be editable using the Preview Pane either.

If you drag the edges of the panel over so that part of the job is exposed, a new tile will be created to cover the exposed area of the job. The exception to this is if you resize the panel using the cropping handles (see "Cropping a Job" page 287 for details).
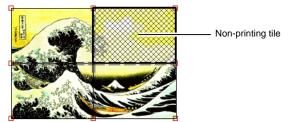
Click and drag the edge of the panel to add another tile.

Preventing a Tile From Being Output

To prevent a tile from being output with the rest of the job:

• Double-click on the tile in the preview pane.

• Right-click on the tile in the preview pane.

• Select the tile in the **Selected Tile** section of the Tile tab and clear the **Print** checkbox.

Non-printing tiles are marked with a hash pattern.

Non-printing tile
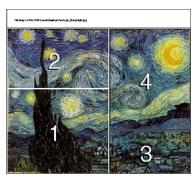
To make a non-printing tile printable again:

• Double-click or right-click the tile again to toggle it back on.

• Select the tile in the **Selected Tile** section of the Tile tab and check the **Print** checkbox.

One tile in each job must always remain printable. If you try to set all tiles to non-printing, one of the tiles will become printable again.

Printing a Tile Map

The software can print out a map showing how the job will be broken up into tiles. Each tile has the tile number printed within its outline.

To print a tile map:

1. Click the **Print Tile Map** button on the **Tile** tab.

2. Select the printer you want to use to print the tile map.

📄 If you would like to send the tile map to a desktop or network printer, first create a setup for that printer, then select that setup here.

3. Click **OK**.

Cropping a Job

To crop out part of a job so that it will not be output:

1. Open the Job Properties dialog for the job.

2. Select the Tiling Preview view of the job.

3. Drag the red cropping handles so that the unwanted parts of the job are cropped out.

Cropped-out areas of the job will not be output.

Cropping Handles

Dragging cropping handle

Cropped-Out Area

You can also crop a job by reducing the panel size using the ⟷, ↕ and ⊡ fields in the **Panel Size** section of the **Tile** tab.

Removing All Tiling and Cropping

To remove all tiling and cropping and make the job one piece again, click on the **Reset** button.

📄 If the job is bigger than the media, it will still be tiled to fit the media.

Using the Color Profiler

For instructions on using the Color Profiler module, consult the Color Profiler PDF in the **Readme** folder on your Installation CD.

Using Custom Color Mapping
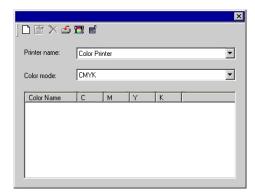
Custom Color Mapping allows you to map spot colors to exact output values for your specific output device. Mapped colors will always print out using the output values set in the Custom Color Mapping module, overriding any other color management settings.

📄 If you have mapped a custom color but don't want to use that particular color mapping for a particular job, you have two choices: turn off all custom color mapping, or delete the color mapping for that particular color.

Custom color mapping obeys the following rules:

- Each custom color mapping applies to a single color mode on a single output device. If you want to map the same custom color to multiple color modes, you must make multiple custom color mappings, one for each color mode.

- Custom color mapping is only applied to jobs in a vector format such as EPS or PostScript. It does not affect bitmaps or JPEGs.

- Custom color mapping is only applied to jobs that are added directly to Production Manager. Jobs that are sent from Flexi will not have color mapping applied to them.

- Custom color mapping only affects jobs that were added after the color mapping was added. Jobs that were already queued are not affected.
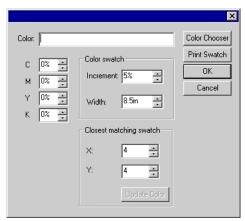
To access the Custom Color Mapping module, open the **Setup** menu and select **Custom Color Mapping**.

Adding a Custom Color Mapping

To map a custom color:

1. Select the output device from the **Printer Name** list.

2. Select the color mode you want to map the custom color to from the Color Mode list.

3. Click on the Add button in the Custom Color Mapping toolbar.

4. Type a name for the color in the **Color** field.

5. Select the percentage values for each of the process colors in the color mode selected.

6. If desired, click on the **Print Swatch** button to print a set of swatches for the color to help you fine-tune your choice (see below for details).

7. When finished, click on the **OK** button.

Printing Color Swatches

The Print swatch button prints out sets of color swatches, which allow

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you to fine-tune your process color values. Enter the X and Y value from the printout for the closest matching swatch. Update color will update the process colors based on the swatch chosen.

Modifying a Custom Color Mapping

To modify a custom color mapping:

1. Select the output device from the **Printer Name** list.

2. Select the color mode associated with the color mapping from the Color Mode list.

3. Click on the Modify button in the Custom Color Mapping toolbar.

4. Adjust the color mapping as desired.

5. When finished, click on the **OK** button.

Importing the Custom Colors from a Print Job

The software can import all of the custom colors specified in a PostScript or Encapsulated PostScript file.

To import the custom color definitions from a file:

1. Click on the Import button in the Custom Mapping toolbar.

2. Select the file to import from and click on the **OK** button.

Printing Custom Colors

To print out a table of all the custom colors that have been specified for the selected color mode, click on the **Print Custom Colors** button in the Custom Mapping toolbar.

Deleting a Custom Color Mapping

To delete a custom color:

1. Select the custom color from the list.

2. Press the **Delete** key or click on the Delete button in the toolbar.
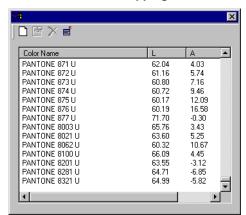
Using Global Color Mapping

The Global Color Mapping module allows you to map the colors in your job using LAB color space, a device-independent color space.

Global color mapping obeys the following rules:

- Global color mapping will only be applied to jobs that are added directly to Production Manager. Jobs sent from Flexi will not have color mapping applied to them.

- Global color mapping only affects jobs that were added after the color mapping was added. Jobs that were already queued are not affected.

To access the Global Color Mapping module, open the **Setup** menu and select **Global Color Mapping**.

Color mappings are provided for all Pantone colors.

Adding a Global Color Mapping

To add a global color mapping:

1. Click on the Add button in the Global Color Mapping toolbar.

2. Type a name for the color in the **Color** field.

3. Enter the LAB values for the color selected.

4. If desired, click on the **Measure** button to measure a sample of a color with a colorimeter.

5. When finished, click on the **OK** button.

Modifying a Global Color Mapping

To modify a global color mapping:

1. Click on the Modify button in the Global Color Mapping toolbar.

2. Adjust the color mapping as desired.

3. When finished, click on the **OK** button.

Deleting a Global Color Mapping

To delete a global color mapping:

1. Select the global color from the list.

2. Press the **Delete** key or click on the Delete button in the toolbar.

Importing and Exporting Color Profiles
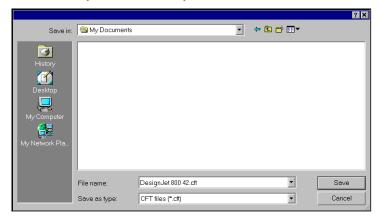
The software allows you to export all of the ICC profile information for a given setup as a **.CFT** file. These **.CFT** files can then be imported back into the software, or given to other users to import into their software.

📄 **.CFT** files can also be created using the **Export profile** button in the Job Properties or Default Job Properties dialogs. However, these **.CFT** files contain only the subset of the ICC data that is relevant to the selected settings in the dialog.

Exporting Color Profiles

To export a color profile for a setup:

1. Select the output device setup.

2. From the **Setup** menu, select **Export Color Profiles**.
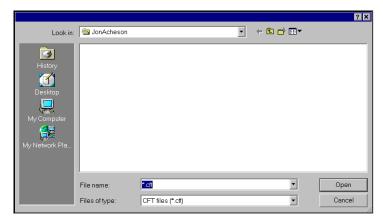
3. Enter the name and the location that will be used to save the document.

   📄 By default, the **.CFT** file will be given a name listing the output device setup it was created for.

4. Click **Save**.

Importing Color Profiles

To import a color profile for a setup:

1. From the **Setup** menu, select **Import Color Profiles**.

2. Select the folder and the **.CFT** file that will be imported.

3. Click **Open**.
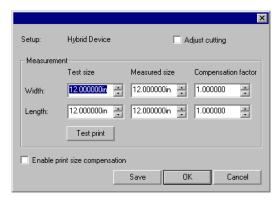
4. Click **OK**.

📄 The data from the imported ICC profile will automatically overwrite any existing data for the setup.

Using Output Size Compensation

Output Size Compensation allows you to measure slight variations in output size and compensate for them.

To use Output Size Compensation with a given setup:

1. Select the output device setup.

2. From the **Setup** menu, select **Output Size Compensation**.

3. If you are using a hybrid device, and you want to apply output size compensation to the device's cut output instead of its printed output, check **Adjust cutting**.

4. Enter the **Width** and **Length** of the test print you want to output under **Test size**. For best results, the print should be as large as possible while still fitting onto the output medium.

    📄 The test print consists of two sides of a rectangle (i.e. an "L"). This allows most of the media to be reused.

5. Click **Test Print**.

6. Measure the actual size of the test print and enter the **Width** and **Length** of the test print under **Measured size**.

    📄 The software automatically calculates the compensation factors that will scale the output size to compensate for the difference between the test size and the measured size.

7. Check **Enable print size compensation** (or **Enable cut size compensation**) to automatically scale all future output from this setup using the compensation factors derived from your measurements.

8. Click **OK**.

You must set up Output Size Compensation separately for each output device setup. Output size compensation does not affect the size of the job as it appears in the Job Properties dialog.

Using RIP Logs

Each time a job is RIPed, an entry for that job is added to the RIP Log for that output device. The RIP Log entry lists the relevant details about the job: where it came from, its basic characteristics, what job properties were set, and the RIP time.

Viewing RIP Logs

To view the rip log for a given output device:

1. Select the setup icon for the output device.

2. From the **View** menu, select **View RIP Log**.

The RIP Log is formatted as an HTML file, and displays in the default browser for the operating system.

Clearing RIP Logs

To clear out the rip log for a given output device:

1. Select the setup icon for the output device.

2. From the **View** menu, select **Clear RIP Log**.
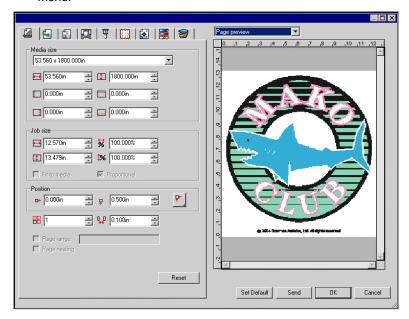
22. Setting Job Properties in Production Manager

The Job Properties dialog allows you to edit a large number of settings that control how a job will be output.

Accessing the Job Properties Dialog

To access the Job Properties dialog, select the job and do one of the following:

- Double-click on the job.

- From the **File** menu, select **Job Properties**.

- Right-click on the job and select **Job Properties** from the context menu.

The left side of the dialog contains the tabs on which the job properties can be set. The right side contains a preview pane that displays the job as it will appear on the output medium.

Setting the Preview Pane View

Select one of the three available views from the list at the top of the preview pane:

Page preview

Displays each page of the job scaled to fill the preview area.

If there is more than one page in the job, a list of the page numbers will appear above the preview, allowing you to select the page to display.

Selected automatically when the **Workflow**, **Color Management**, **Printer Options**, **Cut**, or **Color Adjustment** tab is selected.

Layout preview

Displays the job as it will appear on the output medium. The preview is scaled so that the output medium fills the preview area.

Selected automatically when the **Layout**, **Labels**, or **Separations** tab is selected.

Tiling Preview

Displays the job with the outlines of the tiles that it will be broken up into superimposed over the image.

Selected automatically when the **Tiling** tab is selected.

Working with Job Property Presets

Job property *presets* allow you to save all of the job property settings for a common type of job and reapply them in a single step. The only settings that are not saved are those that pertain to job size (width, height, scale width & height), page range and tiling.

Presets are created and applied using the **Presets** list on the Color Management tab of the Job Properties dialog.

You can save up to 30 different presets.

Read-Only Presets

It is possible to create presets that cannot be edited by the user. This prevents the presets from being accidentally changed. These presets are called *read-only presets*.

Read-only presets appear with square brackets around their name like this:

```
[Read-Only Preset]
```

To make a preset read-only, export it to a file using the **Export as Read-Only** option, then import the preset back into the application.

While Read-only presets cannot be edited, they can be deleted, except for the **[Use Default Job Properties]** preset.

Creating Presets

To save the current job properties as a new preset:

1. From the **Preset** list, select **Save as**.

2. Check the settings that you want to be included in the preset.

3. Click **OK**.

4. Enter a name for the new preset.

5. Click **OK**.

Updating Presets

To update the currently selected preset with the currently selected job properties, from the **Preset** list, select **Save**.

📄 The **Defaults** preset can only be changed by editing the default job properties for the setup. See "Setting Default Job Properties" page 298 for details.

Applying a Preset

To apply the job properties saved in a preset to the current job, select the preset from the **Preset** list at the top of the Job Properties dialog.

Renaming a Preset

To rename a preset:
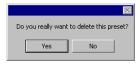
1. Select the preset you want to rename from the **Preset** list.

2. Select the **Rename** command from the **Preset** list.

3. Type in the new name and press **OK**.

The **Job Defaults** preset cannot be renamed.

Deleting a Preset

To delete a preset:

1. Select the preset you want to delete from the **Preset** list.

2. Select the **Delete** command from the **Preset** list.

3. Click **Yes**.

📄 The **[Use Default Job Properties]** preset cannot be deleted.

Importing and Exporting Presets

Presets can be exported to XML files so that they can be exchanged with other users/installations, or backed up in case of a hard disk failure. The preset files contain the standard job property settings (everything except job size, page range and tiling), plus the data from the ICC and linearization profiles currently in use.

Exporting Presets

To export the current settings to a preset file:

1. Create the presets you want to save.

2. Close the Job Properties dialog.

3. From the **File** menu, select **Export Preset**.

4. Select the **Printer Model**.

5. Select the presets you want to export.

6. Check **Export as Read Only** if desired.

   📄 If this box is checked, the presets will be exported as read-only. When you import the presets back into the application, the presets will be overwritten by the read-only versions.

7. Click **Export**.

Importing Presets

To import settings that were previously saved to a preset file:

1. From the **File** menu, select **Import Preset**.

2. Select the preset file and click **Open**.

📄 If the preset file contains settings that would overwrite existing settings, you will be prompted to confirm overwriting the existing settings.

Setting Default Job Properties

To make the current job properties the default settings for all new jobs that are added to this setup, click **Set Default**. You will be asked to confirm the change in the default settings.

Setting Job Properties

Different tabs within the Job Properties dialog let you set layout options, tiling/paneling options, color calibration options, color adjustment

---
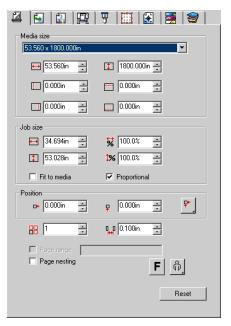
options and labels.

The exact number of tabs and the settings on those tabs will vary depending on the type of job and output device selected, as well as the version of the software in use.

Layout Tab
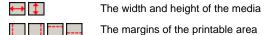
The Layout tab controls how the job will be positioned on the output medium, what size it will be, and the layout of the output.

Media Size	The size of the media loaded into your output device. Select from one of the preset sizes, or specify unique dimensions below.	
	The width and height of the media	
	The margins of the printable area	
	When a set of unique dimensions is specified, it is automatically added to the list of preset sizes.	
Job Size	Choosing one of these options allows you change the output size and orientation of the page.	
	The job's width and height.	
	The job's width and height as a percentage of the original.	
	Fit to Media	Scales the job proportionally so that it is as large as possible while still fitting within the printable area of the output medium.
	Proportional	When this option is selected, the height and width of the job are increased or decreased together to keep the original proportions intact.
Position	These settings change the position of the job on the media.	
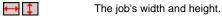
	The distance between the job and the right and bottom margins of the printable area.
	Places the job at the specified distances from the lower and right edges of the printable area of the output medium.
	Centers the job along the width of the printable area.
	Centers the job in the middle of the printable area. Only available for sheet material.
	The number of copies to be output.
	The amount of space that will exist between the various tiles, copies, and/or nested jobs that will be output as part of the job.

Page Range If checked, you can specify the range of pages that will be output for a multi-page job. Format is *x-y*. Also accepts "," to put in multiple ranges.

Ex:	**5**	Prints page 5.
	2-5	Prints pages 2, 3, 4 and 5.
	3, 5-10	Prints pages 3, 5, 6, 7, 8, 9 and 10.

Page Nesting If checked, the pages, tiles and color separations of the job will automatically be nested.

Flips the selected image on the vertical axis, so that your image will be mirrored when printed.

Rotates image on the media in 90-degree increments. Click the button until you achieve the desired orientation.

Workflow Tab

The Workflow tab displays settings related to the time and order that the job will be processed in.

Job name: CutContourMonaLisa.eps
Path: D:\Pictures\Classics\

Setup: Hybrid Device

After output: Delete

Send: Print and contour

Priority: Medium

☐ Print after: 12:00:00 AM

Comments:

After Output	Sets what to do with the job after output:	
	Delete	Removes jobs from the queue after output.
	Hold	Places jobs in the Hold Queue after output or at the bottom of the queue.
	Archive	Saves the job after output.
Send	Sets what part of a combination print and contour job will be output. This control will only appear for hybrid devices.	
	Print and contour	The job will be printed, and then the contour will be cut.
	Print only	Only the printed part of the job will be output.
	Contour only	Only the contour will be cut.
Comments	Use this space to enter comments about the job.	
Preset	Select a preset set of job properties, or save the current job properties as a preset. See "Working with Job Property Presets" page 298 for details.	
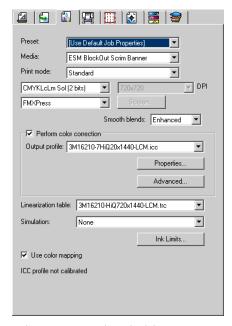
Color Management Tab

The Color Management tab displays the settings related to the printing device. The layout of this tab may differ depending on the output device.

Preset:	[Use Default Job Properties]
Media:	ESM BlockOut Scrim Banner
Print mode:	Standard
	CMYKLcLm Sol (2 bits) 720x720 DPI
	FMXPress Screen...
	Smooth blends: Enhanced
	☑ Perform color correction
	Output profile: 3M16210-7HiQ20x1440-LCM.icc
	Properties...
	Advanced...
	Linearization table: 3M16210-HiQ720x1440-LCM.trc
	Simulation: None
	Ink Limits...
	☑ Use color mapping
	ICC profile not calibrated

Preset   Select a job properties preset to apply to the job.

Media   Select the media type the output will be printed on.

Print mode   Select the print quality for the output. This setting will vary for each type of printer.

Color Mode   Select the color mode that matches the inks set in the printer.

CMYK   The image will be printed using a combination of cyan, magenta, yellow and black inks.

CMY   The image will be printed using cyan, magenta and yellow inks. All black will be CMY process black.

Grayscale   The image will be printed using black ink only, producing a black and white image with shades of gray.

CMYKLcLm   CMYK plus Light Cyan and Light Magenta inks. This color mode provides smoother gradations between lighter shades of colors.

CMYKOrGr		CMYK plus Orange and Green inks. This color mode provides truer orange and green colors than CMYK alone can produce.
CMYKLcLmOrGr		CMYK plus Light Cyan, Light Magenta, Orange and Green inks.
CMYKLcLmMcMm		CMYK plus Light Cyan, Light Magenta, Medium Cyan and Medium Magenta inks.
CMYKMcMmOrGr		CMYK plus Medium Cyan, Medium Magenta, Orange and Green inks.
_____+Pig		Pigment-based ink.
_____+Dye		Dye-based ink.
_____+2Bit		Indicates degrees of variable dot size.
_____+8Bit		
_____+ variable-dot		

DPI   Select the output resolution. A higher DPI value improves the resolution of the job, but slows down the output.

Dither type   Select the dithering for the output.

Dither Type is the pattern in which the individual dots that make an image are applied to the media. Each dither type has advantages in terms of quality and RIP speed. The default dither type is usually the best setting for your machine.

The software offers several dithering options to optimize your output. Usually, quality and speed are in tradeoff, with KF Diffusion offering the highest quality and the LX Diffusion or FMXPress offering the fastest processing times.

The available patterns (in descending order of quality) are:

KF Diffusion	This is an enhanced version of the error diffusion method. While it takes longer to RIP (5-6 times more than FMXPress), it provides the highest detail and contrast for most inkjet printers.
Error Diffusion	This method produces high-quality images. The enhanced image quality requires intensive processing (3-4 times more than FMXPress), and the time it takes to RIP a file using this method is the second longest of the available options.
Random Diffusion	A balance between image quality and RIP time. It takes 2-3 times longer than FMXPress.

	FMXPress	The default diffusion method. It's the fastest in terms of RIP time and is suitable for most prints.
	LX Diffusion	A faster option as far as RIP times are concerned. It's a good choice for large prints that will be viewed from a considerable distance.
	Angled Screen	Designed for use with thermal printers to produce vibrant, saturated colors. This is also used to produce screen print positives.
		Click **Screen** to set advanced options. See "Setting Dither Options for Angled Screens" page 321 for details.
Smooth blends		Select **Normal**, **Enhanced** or **Super**. The higher settings cause the software to render gradients using more elaborate algorithms that produce smoother dithering.
Perform color correction		Checking this option activates the color correction settings. If this setting is not checked, incoming jobs are assumed to have already color corrected in the design application.
		If color correction is off, the software will use a generic CMYK profile, instead of a profile generated from actual color measurements of output from the device. Orange and green inks will not be used.
Output profile		Once the image is in a neutral color space, the output profile is used to convert the image into the color space of the output device.
		Select the ICC profile that matches the combination of ink, media, resolution, and dither type of your output device.
		To add an ICC output profile from another source, select **Add** from the list of available profiles.
Properties		Clicking the **Properties** button will launch the Profile Properties dialog, which contains information pertaining to the ICC output profile that has been chosen under Output profile and also UCR/GCR settings.
		See "Editing ICC Profile Properties" page 324 for details.
Advanced		Click to set advanced color correction properties. See "Setting Advanced Color Correction Properties" page 320.
Color Management System		This setting determines the color management system that will be used to output the job.
		If you are using ICC profiles from PPS 3 that contain light or medium inks (ex: **CMYKLcLm**) you can use either color management system. If you use Microsoft ICM, the light and medium channels will not be read from the ICC, and will be computed based on formulas.
		If you are using ICC profiles from PPS 3 that contain orange and green inks, you need to use the Scanvec Amiable CMS.
		📄 The Microsoft ICM is not available on the Macintosh.

	Automatic	The software will choose one which color management system to use.
	Microsoft ICM 2.0	The software will use the Microsoft Image Color Management 2.0 API.
	Scanvec Amiable CMS	The software will use the Scanvec Amiable Color Management System.

Linearization Table   Select the linearization table to use.

Simulation   Two-printer simulation allows you to simulate the output of one printer on another printer. You can simulate the output of an expensive printer on a less expensive printer, for instance, or simulate a large format job on a small format printer.

Select a printer to simulate the output of. Select **None** to disable printer simulation.

In order to appear in the list, a printer must meet the following conditions:

- It must have an output device setup in Production Manager.
- It must have color correction turned on in the default job properties.
- An ICC profile must be present and selected.

Printer simulation does not support the spot color rendering intent. If you try and output an object that has been assigned the spot color rendering intent while using printer simulation, an error message will be displayed.

Ink Limits   Click to set the ink limits for the output device.

Set the ink limit for each color of ink to the maximum percent coverage that the device can output without causing bleeding or drying issues, then click **OK**.

Click **Ink Split** to determine when a light or medium colored ink will be used instead of the normal ink. This feature is only present for output devices that use light or medium colored inks. See "Setting Ink Split Options" page 318 for details.

Use Color Mapping   Check to print spot colors based on settings in global and custom color mapping.
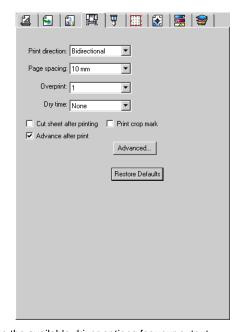
Printer Options Tab

The Print Options tab displays settings related to the selected output device.

The options displayed may vary depending on your output device.

Option	Description
Enable driver options	Allows you to use the available driver options for your output device. When driver options are enabled, you can set special options from within the driver options dialog. When driver options are disabled, the printer's own settings will be used.
Overprint	Number of times you would like the printer to print over the same area. This setting increases the number of ink layers placed on the media.
Page Spacing	The amount of space between each separate job.
Dry Time	This is the amount of time the printer waits after it has completed printing, allowing the ink to dry.
Print Direction	Direction the print heads move when printing. In Bi-directional mode the print cartridges print from left to right, then from right to left. In unidirectional mode, the cartridges print from right to left only. Bi-directional mode prints faster, but unidirectional mode usually produces a better quality print.
Media feed calibration	If checked, the printer will use the value provided to compensate for variations in feed rates during the output process. This provides more accurate output.
Cut sheet after printing	Cuts the media after the print is complete. If a drying time has been set, the media will be cut after the dry time is finished.
Advance after print	If checked, the media will feed past the heads and remain there at the end of the job.
Restore Defaults	Click to return all settings on the tab to their default values.
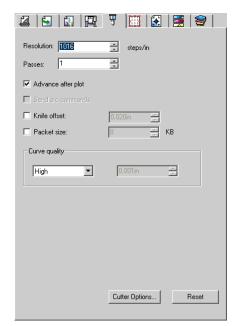
Cut Tab

The Cut tab is only visible for jobs being output on a hybrid device or cutter. It allows you to specify settings related to cutting.

Resolution	Set the resolution of your cutting device. The default value is already set for optimal results. You should not change this value unless you are experiencing problems with your output (output size not matching the size it was designed).
Passes	Specify how many times the blade will move over each line.
Advance after plot	Check to advance the media after output and reset the origin.
Send arc commands	Activates the device's internal curve handling.
Knife offset	Check to enter custom values for knife offset.
	📄 You should only change this value if you are using a pen plotter as a cutting device.
Packet size	Check to specify the packet size sent to the device.
	📄 This setting applies to a limited number of cutters and should not be changed unless your cutter requires it.
Curve quality	Determines the precision of the curves by setting the maximum space allowed between the curve and the line. Higher quality requires more lines, resulting in increased plot file size and cutting time.
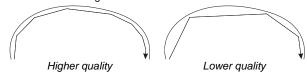
Higher quality   *Lower quality*

The default is already set for optimal results.

Cutter Options   Displays the Cutter Driver Options dialog.

Reset   Restores the default settings.

Tile Tab
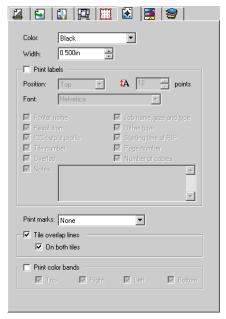
The tiling feature of the software allows you to split a print job up into a number of smaller tiles that are then output separately. This can be used to produce a larger job than a device is capable of outputting in one piece.

For details on tiling jobs, see "Tiling Jobs" page 281.

Labels and Marks Tab

You may choose to print crop marks, and information about the job along with any notes that you enter.

Color	Select the ink that will be used to print labels and marks.
Width	Sets the width of the labels.
Print Labels	This option must be checked to have access to label printing options.

	Position	Select where to print labels relative to the job.
	Font and Size	Allows you to select a font and font size.
	Printer Name	Prints your printer name on printout.
	Resolution	Prints the resolutions settings on printout.

ICC output Profile	Prints the ICC output profile used on the printout.	
Tile Number	Prints the tile row and column number.	
Overlap	Prints the overlap distance between tiles.	
Job name, size and type	Prints the job name size and type on the printout.	
Dither type	Print the selected dither type on the printout.	
Starting time of RIP	Prints the time that the RIP process started on printout.	
Page number	Prints the page number for a multiple page file.	
Number of Copies	Prints the number of copies made on printout.	
Notes	Allows you to print a text note on printout.	

Print Marks   Allows you to select type of crop marks to be used on printout.

     📄   Only the crop mark supported by the output device will appear in the list.

None	No print marks.	
Vertical Mark	Alignment marks will be printed along the right-hand vertical edge of the job, so that the job can be aligned in a cutter for virtual hybrid output.	
Horizontal Mark	Alignment marks will be printed along the lower horizontal edge of the job, so that the job can be aligned in a cutter for virtual hybrid output.	
Vertical Corner Mark	Alignment marks will be printed outside the corners on the right-hand vertical edge of the job, so that the job can be aligned in a cutter for virtual hybrid output.	
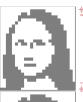
Horizontal Corner Mark	Alignment marks will be printed outside the corners on the lower horizontal edge of the job, so that the job can be aligned in a cutter for virtual hybrid output.	
Gerber Edge	Registration mark for virtual hybrid jobs using Gerber cutters.	
Gerber Edge Center	Registration mark for virtual hybrid jobs using Gerber cutters.	
Fargo Impressa	Registration mark for hybrid jobs using Fargo Impressa cutters.	
Mimaki Mark	Registration mark for virtual hybrid jobs using Mimaki EX cutters.	
OPOS Mark	Registration mark for virtual hybrid jobs using Summagraphics cutters.	
Crop Marks	Crop marks will be printed at the corners of the job to allow the job.	

Standard Marks	Standard marks intended for aligning color separations. Automatically turned on whenever color separations are output.	
Swatch	Color swatches for each color of ink will be printed around the job.	
Overlap Marks	Overlap marks will be printed, indicating how the tiles of a tiled job should overlap.	
Tonal Scale	Color swatches containing blended CMY colors and a gray scale will be printed around the job.	
Margin	Marks will be printed at the corners of the job indicating its outside margins.	
Border	A border will be printed around the outside edge of the job.	

Tile overlap lines	Check to print lines on tiles indicating where the edge of each overlap is. These can then be used to align the tiles. If **On both tiles** is checked, the overlap lines will appear on both tiles. If not, the overlap line will only appear on the second tile.

Print color bands   Check to print color bands at the positions selected.
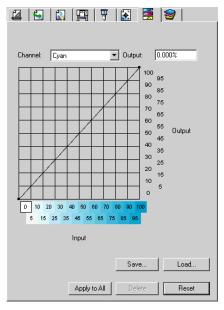
Color Adjustment Tab

The Color Adjustment tab provides some basic tools to manually adjust the output color.

Each color channel is listed separately as a linearization curve that determines what percentage of coverage will be used (output) for a specified percentage in the original image (input).

Preview   Check to see the changes in your color settings reflected in the preview pane.
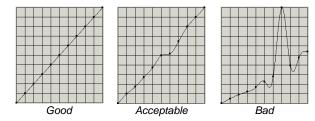
Channel   Select the color channel that you want to edit.

Output   The value for the point that is currently selected on the linearization curve.

- Click on the curve to select a different point to edit. You can also select a point by clicking on the input axis label.

- To change the value at given point on the curve, edit the value in the **Output** field, or click and drag the point up or down.

  📄 The curve should not contain any points that fall below a previous value. If such a point is measured, edit the curve so that the point is above the previous point on the curve.

Good   *Acceptable*   *Bad*

Save	Click to save the current settings for all color channels to an XML file.
Load	Click to load new settings for all color channels from a previously saved XML file.
Apply to All	Click to apply the values for the current color channel to all color channels.
Delete	Click to delete the selected point from the linearization curve.
Reset	Click to restore the values and settings for all color settings to their original states.
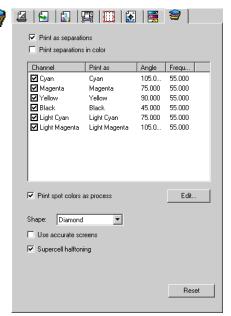
Separations Tab

The Separations tab contains a number of options related to printing color separations.

Print as separations	Check to print each color plane separately.

📄 To print separations for certain colors only, clear the checkboxes for the colors you do not want to print.

Setting Job Properties in Production Manager

Print separations in color	Check to make each process color separation print in the appropriate color of ink. If this option is not selected, all process color separations will print in black.
	📄 Separations for spot colors will always print in black.
Print spot colors as process	Check to convert spot colors to their best process color approximations and include them in the process color separations.
	If this box is not checked, and your device supports spot colors, each spot color will be printed as an individual separation.
Use Accurate Screens	If checked, a special algorithm is used that produces highly accurate halftones, but is computationally expensive.
Supercell halftoning	If checked, supercell Halftoning will be used. Supercell halftoning produces halftones that have four times the shades of gray at the same resolution compared to standard algorithms. This comes at the cost of higher memory use and longer RIP time.

If you have selected the Angled Screen dither type, you can edit the dithering options for each color from the Separations tab. See "Setting Dither Options for Angled Screens" page 321 for details.

Adding New Media Types to a Device

The software allows you to add new media types to the list of media types for a given make and model of output device. The new media type will only appear for that make and model of device, not for all devices.

To add a new media type:

1. Select a setup for the device you want to create a new media type for.

2. From the **Setup** menu, select **Default Job Properties**.

3. Select the **Color Management** tab. 🎨

4. From the **Media Type** list, select **Add Media**.

5. Enter a **Name** for the new media type. The name can be up to 32 characters long, and may not contain any wild card characters (**#**, ***** or **?**).

6. If desired, click **Driver Options** to set the default driver options that will be used with this media type.

7. Click **OK**.

Removing Media Types
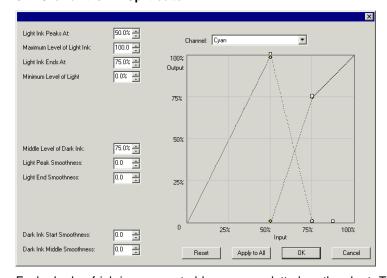
To remove a media type that has been added for a certain output device, select it in the Default Job Properties dialog and click **Remove**. The default media types defined by the software cannot be removed.

Setting Ink Split Options

The Ink Split Curve dialog allows you to set the points at which light or medium colored inks will be used instead of normal "dark" inks. This provides a greater number of light-colored shades, and reduces banding in light-colored areas. Ink split is only used when a color mode that includes light such as **CMYKLcLm** is selected.

To access the Ink Split Curve dialog:

1. Open either the job properties or default job properties dialogs:

   - From the **File** menu, select **Job Properties**.

   - From the **Setup** menu, select **Default Job Properties**.

2. Select the **Color Management** tab.

3. Click on the **Ink Limits** button.

3. Click on the **Ink Split** button.

Each shade of ink is represented by a curve plotted on the chart. The chart illustrates the amount of each shade of ink that will be output in order to provide a certain amount of coverage. The range of coverage that can be specified in the image (0% to 100%) is plotted on the X-axis, and the corresponding coverage of each shade of ink is plotted on the Y-axis.
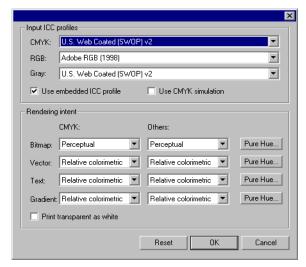
The available settings are:

Channel	Select the color channel you want to edit ink split settings for. Only the color channels that have multiple shades of ink on the current printer are listed.
Light Ink Peaks At	The point on the X-axis at which the light ink curve peaks.
Maximum Level of Light Ink	The amount of light ink coverage at the peak of the light ink curve.
Light Ink Ends At	The point on the X-axis where the right side of the light ink curve hits its minimum value.
Minimum Level of Light Ink	The minimum amount of light ink coverage for the right end of the light ink curve.
	📄 The light ink curve always starts at the origin.
Middle Level of Dark Ink	The amount of dark ink coverage at the point where the right side of the light ink curve hits its minimum value.
Light Peak Smoothness	The amount of curve present at the peak of the light ink curve. Select **0** for a sharp peak.
Light End Smoothness	The amount of curve present at the point where the right side of the light ink curve hits its minimum value. Select **0** for a straight line.
Dark Ink Start Smoothness	The amount of curve present at the start of the dark ink curve. Select **0** for a straight line.
Dark Ink Middle Smoothness	The amount of curve present in the middle of the dark ink curve. Select **0** for a straight line.
Reset	Click to restore the ink split settings for the current channel to their previous states.
Apply to All	Click to apply the current ink split settings to all color channels.

Setting Advanced Color Correction Properties

To edit the advanced color correction properties for a job:

1.   Open the job properties for that job.

2.   Select the **Color Management** tab.

3.   Click on the **Advanced** button.

Setting ICC Input Profiles

Select the ICC input profile to use to convert the image into a neutral color space. There are three types of ICC input profiles that can be specified.

CMYK   The CMYK input profile applies to all elements of a job that are in CMYK color mode. If your image is in CMYK color mode, then your file was previously separated for output to a specific output device. Whenever is possible, use the profile used for separation in your design application as the CMYK input profile. Try using similar profiles for common ink sets (such as CMYK SWOP or High End SWOP) if you don't have the matching profile.

RGB   The RGB ICC input profile applies to all elements of a job that are in RGB color mode. An RGB input profile can be for either a monitor or a scanner. If you scanned your image without color correcting it, it is recommended to use the scanner profile as a RGB input profile. If you have done any on-screen color correction, you should select your monitor profile as a RGB input profile.

Gray   The Gray ICC input profile applies to all elements of a job that are in grayscale color mode. This may refer to either a grayscale scanner or a grayscale monitor.

Check **Use embedded ICC profile** to force the RIP to use the input ICC

profile embedded in the file.

If **Use CMYK Simulation** is checked, RGB images will be imported using the RGB input profile, then converted to CMYK and reimported using the CMYK input profile.

Adding ICC Profiles from Other Sources

To add an ICC input profile from another source, choose **Add** from the combo box.

Setting Rendering Intents

Rendering intent specifies how a color space from the input file gets mapped to the color space of the output device.
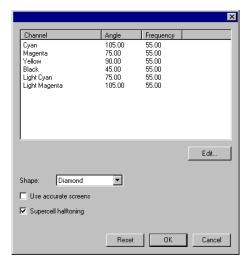
For details on setting rendering intents, see "Selecting Rendering Intents" page 220.

Print Transparent as White

If this box is checked, transparent areas of the design or areas in which there are no objects will be printed in white, instead of being left blank.
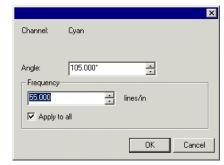
Setting Dither Options for Angled Screens

The Angled Screens dialog displays the dither options that are available for angled screens. To access the dialog, select **Angled screen** as your dithering option in the Printer tab of the Job Properties dialog, and click on the **Screen** button.

The following options are available:

Screen Angle and Frequency	To set the screen angle and frequency for a color channel, select the channel in the list and click **Edit**.
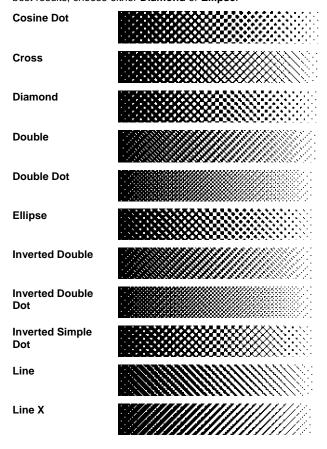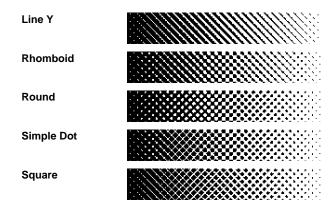
Enter the angle and frequency desired, then click **OK**.

Check **Apply to All** to apply the new frequency to all color channels.

Shape

The shape of the dots that make up the halftone screen. For best results, choose either **Diamond** or **Ellipse**.

Cosine Dot	
Cross	
Diamond	
Double	
Double Dot	
Ellipse	
Inverted Double	
Inverted Double Dot	
Inverted Simple Dot	
Line	
Line X	

Line Y	
Rhomboid	
Round	
Simple Dot	
Square	

Use Accurate Screens If checked, a special algorithm is used that produces highly accurate halftones, but is computationally expensive.

Supercell Halftoning If checked, supercell halftoning will be used.

Supercell halftoning produces halftones that have four times the shades of gray at the same resolution compared to standard algorithms. This creates smoother images when printing angled screens. However, the amount of processing needed to generate halftones is increased.

Setting Cutter Driver Options

The Cutter Driver Options allow you to control the parameters of operation of your output device such as cut speed, pressure and execute common tasks (roll forward, roll backward, go to origin) from your computer.

Before Job Tab   *After Job Tab*   *Macro Tab*

📖 The settings available in the Cutter Driver Options vary according to your output device.

Each command has a checkbox to enable or disable it. When enabled, you can change the value, and the command will be sent to the output device overriding the settings in the output device. When the option is unchecked, the settings from the output device are used.

Save   Saves the changes you made as a new command.

Delete	Deletes the selected command from the list (you can only delete commands that were added using the save command).
Reset	Reverts all settings to its default settings (any custom commands added by the user will be deleted).
Before Job	Defines commands that will be sent before the job is processed.
Cut Fast / Medium / Slow / None	Defines a series of settings for fast, medium and slow cutting speeds. Select None if you want to use all settings from the output device.
Pressure / Force	Defines the pressure of the knife.
Speed	Defines the traveling speed of the head.
Tool	Defines the tool when several tools are available or switch between cut and plot.
After Job	Defines commands that will be sent after the job is processed.
Cut Media / Auto Cut	Specify if the media will be cut after cutting or plotting.
Macro	Allows you to execute common tasks that you are usually required to do from the cutter's control panel.
Initialize	Initializes the output device.
Roll Forward /Backward	Advances or rolls back the media.
Go to origin	Moves the head to the origin.

Make sure nobody is around the output device when sending the macros, since the cutter may move and injure the operator.

Editing ICC Profile Properties
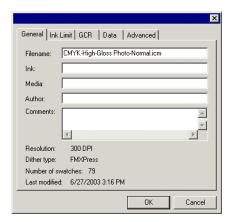
To edit an ICC profile:

1. Click the **Create ICC Profile** button in the main color profiler window.

2. Select the correct **ICC Profile Name**.

3. Click **Edit**.

4. Edit the settings on the various tabs.

5. Click **OK**.

The settings on the tabs are as follows:

General Tab

The General tab contains general information about the ICC profile and its creation.

Filename	The filename for the linearization curve file.
Ink	The type of inks used.
Media	The media used.
Author	The author of the ICC Profile.
Comments	Any additional comments.
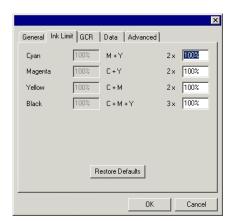
Ink Limit Tab

The **Ink Limit** tab displays the multi-ink limits that have been set for the ICC profile.

If desired, edit the values in the fields.

Click **Restore Defaults** to return the settings to their default values.
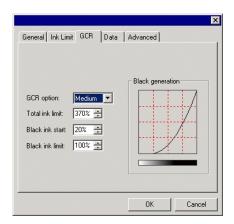
GCR Tab

The **GCR** tab displays the Gray Component Replacement options.

In theory, cyan, magenta and yellow mixed together should produce black. In practice, mixing CMY together produces a muddy dark gray. In addition, CMY black tends to oversaturate the print medium, because it requires coverage from all three inks.

The solution is to use the CMYK color model, which adds a true black that replaces CMY. The CMYK model reduces oversaturation, produces better blacks, and requires less ink.

The GCR settings determine when and to what extent CMY will be replaced by black (K). The higher the GCR is set, the more CMY black is replaced with K black.

GCR Option	The available settings are:
	No black All blacks will be CMY black.
	Minimum CMY black will be replaced with true black **Light** according to the curve shown on the right. Most settings do 100% replacement of CMY with black **Medium** at high coverage levels, but progressively less at **Heavy** lower levels of coverage. The **Maximum** setting **Maximum** replaces CMY with black whenever possible.
	Pictures generated with higher GCR will tend to show more contrast and detail, but slightly less color.
Total Ink Limit	This is a sum of the ink limit values for C, M, Y and K. Each color can have an ink limit of up to 100%; the total ink limit is a maximum of 300%. Increasing total ink limit may improve contrast of the print.
Black Ink Start	This determines at which percentage of gray the black (K) channel begins to replace CMY.
	📄 Set **Black Ink Start** to a minimum of 20% to avoid black dots in skin tones.
Black Ink Limit	This determines the maximum percentage of gray that the black (K) channel will replace CMY
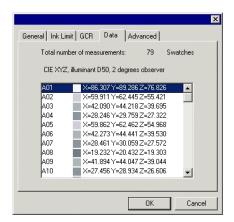
Data Tab
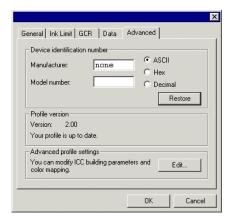
The **Data** tab displays the data measured for the ICC profile.

📄 You can only change the data by taking a new set of measurements.

Advanced Tab

The **Advanced** tab contains the following settings:

Device Identification Number	The device identification number of the printer or hybrid device. This data is stored in the ICC file using standard ICC tags.

	Manufacturer	The manufacturer.
	Model number	The model number.
	ASCII/Hex/Decimal	Select the format of the Manufacturer and Model Number. The information already in those fields will automatically be converted.

Profile Version	The ICC profile version.
Advanced Profile Settings	If desired, click **Edit** to edit the advanced settings for the ICC profile. See "Editing Advanced Settings" for details.
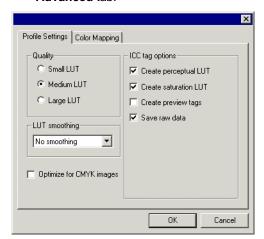
Editing Advanced Settings

To edit the advanced settings for an ICC profile:

1. Open the Advanced Settings dialog in one of the following ways:

    - Click on the **Advanced** button during ICC profile creation.

    - Edit the ICC profile and click on the **Edit** button on the **Advanced** tab.

2. Edit the settings on the **Profile Settings** tab:

Quality	Specify whether you want a **Small**, **Medium** or **Large** LUT (Look Up Table). Small LUT Profiles have a small file size, but are coarsely sampled. Large LUT Profiles have larger file sizes, but have fine sampling.
LUT Smoothing	Choose whether you want no smoothing, mild, moderate, heavy or maximum smoothing. This option will remove noise from the LUT. Use smoothing if the print shows sudden transitions, or banding.
Optimize for CMYK Images	Check to use CIE76 instead of CIE94 when calculating color differences. This will produce better colors when printing to a CMYK-only device.
Create Perceptual LUT	This creates a different LUT specifically for the perceptual rendering intent (used for photographic images). If 'create perceptual LUT' is not checked, then relative colorimetric rendering intent will be used to create the LUT, and the profile will be smaller in size.
Create Saturation LUT	This creates a different LUT specifically for the saturation rendering intent (used for business graphics). If 'create saturation LUT' is not checked, then relative colorimetric rendering intent will be used to create the LUT, and the profile will be smaller in size.

Appendix A - ASCII Code

Code	Char	Code	Char	Code	Char	Code	Char	Code	Char	Code	Char	Code	Char
32		64	@	96	`	128	€	160		192	À	224	à
33	!	65	A	97	a	129		161	¡	193	Á	225	á
34	"	66	B	98	b	130	‚	162	¢	194	Â	226	â
35	#	67	C	99	c	131	ƒ	163	£	195	Ã	227	ã
36	$	68	D	100	d	132	„	164	¤	196	Ä	228	ä
37	%	69	E	101	e	133	…	165	¥	197	Å	229	å
38	&	70	F	102	f	134	†	166	¦	198	Æ	230	æ
39	'	71	G	103	g	135	‡	167	§	199	Ç	231	ç
40	(	72	H	104	h	136	ˆ	168	¨	200	È	232	è
41	)	73	I	105	i	137	‰	169	©	201	É	233	é
42	*	74	J	106	j	138	Š	170	ª	202	Ê	234	ê
43	+	75	K	107	k	139	‹	171	«	203	Ë	235	ë
44	,	76	L	108	l	140	Œ	172	¬	204	Ì	236	ì
45	-	77	M	109	m	141		173		205	Í	237	í
46	.	78	N	110	n	142	Ž	174	®	206	Î	238	î
47	/	79	O	111	o	143		175	¯	207	Ï	239	ï
48	0	80	P	112	p	144		176	°	208	Ð	240	ð
49	1	81	Q	113	q	145	'	177	±	209	Ñ	241	ñ
50	2	82	R	114	r	146	'	178	²	210	Ò	242	ò
51	3	83	S	115	s	147	"	179	³	211	Ó	243	ó
52	4	84	T	116	t	148	"	180	´	212	Ô	244	ô
53	5	85	U	117	u	149	•	181	µ	213	Õ	245	õ
54	6	86	V	118	v	150	–	182	¶	214	Ö	246	ö
55	7	87	W	119	w	151	—	183	·	215	×	247	÷
56	8	88	X	120	x	152	˜	184	¸	216	Ø	248	ø
57	9	89	Y	121	y	153	™	185	¹	217	Ù	249	ù
58	:	90	Z	122	z	154	š	186	º	218	Ú	250	ú
59	;	91	[	123	{	155	›	187	»	219	Û	251	û
60	<	92	\	124	|	156	œ	188	¼	220	Ü	252	ü
61	=	93	]	125	}	157		189	½	221	Ý	253	ý
62	>	94	^	126	~	158	ž	190	¾	222	Þ	254	þ
63	?	95	_	127		159	Ÿ	191	¿	223	ß	255	ÿ

Appendix B - Installation

The following DLL - Dynamic Linked Libraries are installed in Windows folder

- ctl3d32.exe
- hhupd.exe
- mfc42.dll
- mfc42u.dll
- msflxgrd.ocx

- msinet.ocx
- msvbvm50.dll
- msvcirt.dll
- msvcp60.dll
- msvcrt.dll

- owl250f.dll
- stdole2.tlb
- vb5.olb
- vb5.dll
- sentinel.vxd

📄 sentinel.vxd is not installed in Windows NT, 2000 and XP systems

The following folders are created under the folder where the program was installed.

Archive	Used as default folder by Production Manager, when you add a job.
Borders	Contains the advanced border shapes (see page 109)
Casfonts	Contains font files in Casfont format.
	📄 On the Macintosh, this folder is called **CASMate Fonts**.
Color	Contains color printer drivers.
Custom Characters	Contains the characters defined by user (see page 136).
Density	Contains density adjustment files. There are subfolders for each printer manufacturer and printer model.
Dictionaries	Contains dictionary files used by spell checker (see page 130).
Filters	Contains file import filters.
Forms	Contains the forms used in Job estimation
FSFonts	Contains font files in FSfont format.
	📄 On the Macintosh, this folder is called **Flexi Fonts**.
Help	Contains Help (manual and read me) files.
ICCProfile	Contains ICC Calibration files. There are subfolders for each printer manufacturer and printer model.
Jobs	Used by Production Manager to store Job files. There are subfolders for each printer manufacturer and printer model.
OutputDrivers	Contains the CSM and DLL drivers for printers and plotters.
Plugins	Contains DLL modules used by your software.
Printers	(Not used)

Profiles	Contains the workspaces files used to define the user interface. See page 20.
Program	Contains the main modules of your program.
Samples	Contains the sample files in several formats as FS, TIFF, JPEG, EPS, etc.
Shapes	Contains the definition files for parametric shapes. See page 110.
Styles	Contains the text styles defined by user. See page 138.
Swatch	Contains the swatch tables and color libraries.
Temp	Contains temporary files created during processing.
Templates	Contains templates.
URWFonts	Contains font files in URW format.

Appendix C - Supported File Formats

File Formats Supported in Design Application

File Format	Extension	Import	Export
Adobe Illustrator	ai, EPS	11 (CS)	6.0
Adobe PhotoShop	psd	6.0	4.0
AutoCAD Drawing	dwg	2000	------------
CASmate	scv	6.52	6.52
Clip Art	ca	4 / 5	4 / 5
CorelDRAW Drawing	cdr	8.0 (B)	------------
CorelDRAW Exchange Metafile	cmx	6.0	------------
Desktop Color Separation (DCS)	dcs	2.0	------------
Digital Microprocessor Plotter Language (DMPL)	plt	(A)	------------
Drawing Exchange file	dxf	(A)	(A)
EnRoute	enr	2.3	------------
FlexiSIGN 5.x	fs, pd, fd, fc, fe	5.9	4 / 5
FlexiSIGN 6.x	fs	6.0	6 / 7
Flexi 7	Fs	7.0	7.0
Gerber Artwork Definition	gad	------------	1.0
Gerber Clip Art	gca	(A)	------------
Gerber Graphic Advantage	plt	6.20	------------
Gerber Omega	plt	2.0	------------
Hewlett Packard Graphics Language (HPGL)	hpg, hgl, plt	(A) (B)	(A) (B)
Hewlett Packard Graphics Language II (HPGL/2)	hpg, hgl, plt	(A) (B)	(A) (B)
Ikarus	ik	(A)	------------
Inspire	sci	1.6 (B)	-----------
Joint Photograph Experts Group (JPEG)	jpg	(A)	(A)
Kodak Flashpix	fpx	1.0 (B)	------------

File Format	Extension	Import	Export
Kodak PhotoCD	pcd	(A) (B)	------------
Macintosh Quickdraw PICT	pct	(A) (B)	------------
Microsoft Widows Metafile	wmf	(A) (B)	------------
Portable Network Graphics (PNG)	png	(A) (B)	(A) (B)
Portable Document Format (PDF)	pdf	1.3	------------
PostScript	ps, EPS, 2ps, fjb, prn	2.0	3.0
Targa	tga	2.0	2.0
Text	txt	(A)	------------
Tag Image File Format (TIFF)	tif	6.0	6.0
Windows bitmap	Bmp	(A)	(A)
Zsoft PC Paintbrush	pcx	5.0 (B)	------------

(A): Version number does not exist or not available.

(B): Not supported on Macintosh.

File Formats Supported in Production Manager

File Format	Extension	Import	Export
AutoCAD Drawing	dwg	2000 (B)	------------
Drawing Exchange file	dxf	(A) (B)	------------
Gerber Clip Art	gca	(A)	------------
Gerber Graphic Advantage	plt	6.20	------------
Gerber Omega	plt	2.0	------------
Hewlett Packard Graphics Language (HPGL)	hpg, hgl, plt	(A) (B)	------------
Joint Photograph Experts Group (JPEG)	jpg	(A)	------------
Tag Image File Format (TIFF)	tif	6.0	------------
Portable Document Format (PDF)	pdf	1.3	------------
PostScript	ps, EPS, 2ps, fjb, prn	3.0	------------
Windows bitmap	bmp	(A)	------------
Native Files	prt, plt	(A)	(A)
Plot / Cut Job Files	job	(A)	(A)
Print Job Files	fjb	7.0	------------
Kodak PhotoCD	pcd	(A) (B)	------------

(A): Version number does not exist or not available.

(B): Not supported on Macintosh.

AutoCAD DXF Import

When DXF files are imported, the following dialog will appear:

Set **Units** to the desired units (imperial or metric).

Check **Skip frozen layer** to ignore all layers that are marked as frozen (hidden and non-editable) in the DXF file.

When finished, click **OK**.

Gerber File Format Supported Features

The following features of the Gerber file formats are supported:

Preview
Supported. Preview is shown in the Open and Import dialogs.

Paths
Supported.

Groups
All objects are automatically grouped after import.

Bitmap
Supported. If the original bitmap is missing, you will be prompted to locate the file.

Text
Text is usually imported as outlines, but in some cases they will be detected as text and you will be prompted for font substitution if there are any missing fonts.
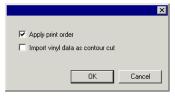
Foil Color
Supported. Spot, Spectratone (Duotone), RGB and CMYK are all supported.

Vinyl Color
Supported, but if the job contains both both vinyl and foil colors then the following message will appear:

Check **Import vinyl data as contour cut** and click **OK** to import vinyl color objects as contour cut paths. If the **Import vinyl data as contour cut** box is cleared, vinyl objects will be imported as standard vector objects.

Gradients
Supported. Linear and radial gradient are supported for both spot and process.

Job print order
Supported. Choose "Apply print order" during import to use the job print order.

Overlap/Overprint
Supported. Both import as overprint, but heat setting can be changed in driver options.

Primer
Supported.

Substrate color
Supported. In order to see the substrate color use Open. It is skipped when using Import.

Stroke Color
Supported. If the fill and stroke have different primer/overprint or if the stroke is behind the fill then they will be imported as two objects, one with fill only, the other with stroke only.

Appendix D - Features List

	FlexiSIGN-PRO	FlexiEXPERT	FlexiSIGN	FlexiLETTER	FlexiDESIGNER
Getting Started					
Navigator View	x				x
Repeat	x	x	x		x
Working with Files					
Job Info	x	x	x	x	x
Job Estimation	x	x			x
Templates	x	x			x
Using DesignEditor					
DesignEditor	x	x	x		x
Selecting Objects					
Select Similar Objects / Color	x	x			x
Select by Attribute	x	x			x
Arranging Objects					
Same Width / Same Height	x				x
Auto Serialize	x	x			x
Mask / Unmask	x	x			x
Distribute	x	x			x
Clear Transform	x				x
Working with Color					
Eyedropper	x	x	x		x
Modify Color Libraries	x				x
Measure Color	x				x
Create Duotone Swatch	x				x
Create CMYK Swatch	x				x
Create Current Palette Swatch	x	x	x	x	x
Using Fill/Stroke Editor					
Patterns	x	x			x
Gradients	x	x	x		x
Working with Shapes					
Circle	x	x	x		x
Fan	x	x			x
Arrow	x	x			x
Parametric Shape	x	x			x
Convert to Shape	x	x			x
Working with Text					
Text Block Size	x	x			x
Braille	Optional	Optional	Optional	Optional	Optional
Barcode	x				x
Insert Symbol	x	x			x
Define Character	x	x	x		x
Text Styles	x	x	x		x
URW Font Support	Optional	Optional	Optional	Optional	Optional
Working with Bitmaps					
Scanning	x	x	x		x
Creating New Bitmaps	x	x	x		x

	FlexiSIGN-PRO	FlexiEXPERT	FlexiSIGN	FlexiLETTER	FlexiDESIGNER
Rasterize	x	x	x		x
Resample	x				x
Colormode	x	x	x		x
Filters	x				x
Marquee	x	x	x		x
Lasso	x				x
Magic Wand	x	x			x
Move	x	x	x		x
Eraser	x	x	x		x
Paintbrush	x				x
Pencil	x	x	BW		x
Fill	x	x	BW		x
Crop	x				x
Stamp	x				x
Autotrace	x	x	x		x
ColorTrace	x	x			x
Centerline Trace	x	x	x		x
PictureCut	x	x	x		x
Working with Effects					
Fuse	x	x	x		x
Separate Overlap	x	x			x
Stripe	x	x	x		x
Blend	x	x			x
Lens	x				x
Underbase	x				x
Finisher	x				x
Color Trapping	x	x	x		x
Graphic Styles	x	x	x		x
Contour	x	x	x	x	x
Working with Measurements and Labels					
Dimensions / Labels	x	x	x		x
Automatic Dimension	x	x	x		x
Dimension to Page	x	x	x		x
Configuring the System for Color Printing					
Color Settings	x				x
Soft Proof	x				x
RIP and Print	x				
Cutting your Design					
Cut/Plot	x	x	x	x	
Using Production Manager					
Nesting	x	x	x	x	
Output Size Compensation	x				
Print while RIPing	x	x			
CASmate Tracing Features					
Bezier Tracing	x	x	x	x	x
Enhanced Curves Tracing	x	x	x	x	x
Enhanced Corners Tracing	x	x	x	x	x
Centerline Vectorization	x	x	x	x	x
Color Vectorization	x	x	x	x	

📄 This chart lists only the major features that differentiate the versions of the software. Not every feature present in the software is listed.

Appendix E - CASmate Tracing Features

    📄   The following tracing features are not available on the Macintosh.

Using Bezier Tracing

Bezier Tracing traces the outline of the image and converts it to Bezier curves. Bezier curves are very convenient for graphic editing, and typically contain fewer points than lines/arcs.

To trace a bitmap using Bezier tracing:

1. Select the bitmap.

2. From the **Bitmap** menu, point to **Vectorize** and then select **Bezier**.

Using Enhanced Curves Tracing

This option traces the outline of the image and converts them to Lines and Arcs. This option is the preferred method when scanning small business cards or poor quality artwork.

To trace a bitmap using Enhanced Curves tracing:

1. Select the bitmap.

2. From the **Bitmap** menu, point to **Vectorize** and then select **Enhanced Curves**.

Using Enhanced Corners Tracing

This vectorization option is great for larger, camera-ready artwork. It will produce fewer points and sharper corners than the Enhanced Curves option.

To trace a bitmap using Enhanced Corners tracing:

1. Select the bitmap.

2. From the **Bitmap** menu, point to **Vectorize** and then select **Enhanced Corners**.

3. Adjust the tracing parameters. You can adjust by dragging the sliders or entering a numeric value.

      Tolerance   Controls how close the traced paths stays to the original scanned image. Smaller values will provide an accurate result that is very close to the scanned image, but larger values will create smoother lines and fewer control points.

Noise Suppression	Used to filter out some of the small garbage that is created during the scanning process. If the image contains a lot of "garbage," try using the Reduce Noise bitmap filter prior to vectorizing.
Corner Detection	Sets the threshold for detecting what is and what isn't a corner, and how sharply the corners will be defined.
Reset	Resets the tracing parameters to their default value.

4. Click **OK**.

Using Centerline Vectorization

This vectorization method is used for black and white or grayscale images, which contain mostly lines rather than filled shapes. It detects the center of the lines and creates a single line vector graphic. Centerline vectorization is typically used in routing and engraving where you may want a single line path for the machine.

1. Select the bitmap.

2. From the **Bitmap** menu, point to **Vectorize** and then select **Centerline**.

3. Adjust the tracing parameters.

Pure Centerline	The program will find the center of each line and create a single line contour.
Outline Thick Areas	The program will centerline contours that are smaller than the **Line Width** value and outline areas that are larger than this value.
Shortest segment length	This option is the minimum distance between junctions. The larger the parameter value is, the more perfect the junctions will be. However, if you are working with an image that may have a lot of close lines, you will want to keep the value small.
Shortest centerline section	This option only applies when using **Outline Thick Areas**. It controls the centerline leftovers at the ends of the outlines.
Joining Paths	When creating a centerline you can select how you want the contours created. The results of the centerline will look the same no matter which option is selected.

None   This option will create open contours that are made up of small segments.

Loops   This option will create as many closed contours as possible. These contours can be filled later if necessary.

Long Paths		This option will generate the longest possible contours. This is the most popular option because it minimizes the amount of up/down movements that a router or engraver will have to make.
Automatic		This option will let your software determine what should be centerlined and what should be outlined. The **Outline Thick Areas** option defaults to the Automatic setting,
Manual		When this option is selected, the **Line Width** value can be entered.
Line Width		This field tells the program to centerline anything smaller than this value and outline anything larger.
Enhancement		When using **Outline Thick Areas** you can tell the program what vectorization method to use on the outlines. See "Tracing Bitmaps" on page 182 about Bezier, Corners or Curves tracings.
Options		This button is only available when **Corners** is selected in Enhancement field. See "Using Enhanced Corners Tracing" on page 339 about the tracing properties of Corner Enhancement tracing.
Reset		Resets the tracing parameters to their default value.

4. Click **OK**.

Using Color Vectorization

Color vectorization is used to convert color raster images into vector graphics. Before vectorization, the image must be posterized in order to reduce the number of colors.

The Color Vectorization process is divided into 3 steps: Posterization, Merging colors and Vectorization.

Posterize

Posterization is the process of reducing the number of colors to a manageable level so the image can be vectorized.

To posterized an image:

1. Choose the posterization method you want.

2. Choose the number of colors.

3. Click **Posterize**.

   The bitmap is posterized the image, and display the resulting colors in the color list in the dialog box.

   Your software provides three methods of posterization:

Fast Posterization	This method works on each of the three color channels (Red, Green, Blue) separately. It divides the color range within each channel into equal bands, then fits each pixel in the image to the color band closest to it.
	In this method you specify how many colors you want in the posterized results. Your software offers you a choice from a list of numbers: 8, 27, etc. If, for example, you want to divide each color channel into two bands, the total number of possible colors in all three channels will be 8 (2x2x2). In the same way, 3 bands per channel will create 27 colors (3x3x3), etc.
	The Fast method is, indeed, the fastest posterization method. This method is useful for posterizing logos with very distinct colors. It is not recommended for photos because the colors in the posterized image are quite different than those in the original image.
Smart Posterization	In this method the program finds the most dominant colors in the image. Any pixel is converted to one of these dominant colors, the one closest to it in color. In this method you specify how many colors you want in the posterized result. This method is slower, but the results are much better than the Fast method.
	This method is recommended both for scanned logos and for photos. The limitation of this method is that if you have a picture
	with many background colors, such as many shades of blue in the sky, the program may prefer those to objects in the foreground.
Manual Posterization	In this method you not only decide how many colors you want, but you actually pick these colors in the image. When you choose the **Manual** method, the cursor changes to a pipette tool. Click the colors in the image you want in the final results. Any color you click on is added to the color list in the dialog box. If you picked a color by mistake, you can select this color in the dialog and press the **DELETE** key to remove it from the list.

Merge Colors

After you posterize the image, you may want to get rid of some colors. For example, an area in the image which looked Orange may become a mixture (or pattern) of yellow and red after posterization. In this case you can merge these two colors in order to get one solid color for the whole area.

To merge colors:

1. From the list of colors in the dialog, select the colors you want to merge together.

   Use **SHIFT** and **CTRL** keys to select multiple colors. The color you want to be the result of the Merge must be selected last. The result of the merge will be displayed in the lower right corner of the dialog.

2. Click **Merge**.

All pixels in the image, which have the selected color will be converted to the desired color.

Vectorize

Once you are satisfied with the colors in the posterized image, click the **Vectorize** button to vectorize the image into multiple color vector objects.

Appendix F – Keyboard Shortcuts

Alignment		Other	
Align Both Centers	**CTRL+5**	Cancel Edit	**ESC**
Align Both Centers to Page	**CTRL+SHIFT+5**	Close	**CTRL+F4**
		Close	**CTRL+W**
Align Bottom	**CTRL+2**	Exit	**ALT+F4**
Align Bottom to Page	**CTRL+SHIFT+2**	Help Topics	**F1**
		New	**CTRL+N**
Align Horizontal Centers	**CTRL+3**	Open	**CTRL+O**
		Quit	**Command+Q**
Align Horizontal Centers to Page	**CTRL+SHIFT+3**	Save	**CTRL+S**
		Save As	**CTRL+SHIFT+S**
Align Left	**CTRL+4**	**Palettes**	
Align Left to Page	**CTRL+SHIFT+4**	Color Mixer	**M**
Align Right	**CTRL+6**	DesignCentral	**CTRL+I**
Align Right to Page	**CTRL+SHIFT+6**	DesignEditor	**E**
Align Text Baselines	**CTRL+0**	Fill/Stroke Editor	**I**
Align Top	**CTRL+8**	**Path Editing**	
Align Top to Page	**CTRL+SHIFT+8**	Select Point Tool	**N**
Align Vertical Centers	**CTRL+7**	Bezier Path Tool	**P**
		Add Point	**+**
Align Vertical Centers to Page	**CTRL+SHIFT+7**	Remove Point	**-**
		Selecting	
Arranging		Select Tool	**A**
Back One	**CTRL+PAGE DOWN**	Clear	**BACKSPACE**
		Clear	**DELETE**
Compound	**CTRL+M**	Copy	**CTRL+C**
Convert to Outlines	**CTRL+SHIFT+O**	Copy	**F3**
Convert to Outlines	**V**	Copy	**CTRL+INSERT**
Forward One	**CTRL+PAGE UP**	Cut	**F2**
		Cut	**CTRL+X**
Group	**CTRL+G**	Delete Now	**SHIFT+BACK**
Redraw	**CTRL+E**	Delete Now	**SHIFT+DELETE**
Redraw	**F5**	Deselect	**CTRL+SHIFT+A**
Repeat	**CTRL+D**	Invert Selection	**CTRL+SHIFT+I**
Resize	**CTRL+K**	Paste	**SHIFT+INSERT**
Reverse Path Direction	**CTRL+SHIFT+D**	Paste	**CTRL+V**
		Paste	**F4**
Rotate	**CTRL+R**	Redo	**CTRL+Y**
Spacing	**J**	Redo Multiple	**CTRL+SHIFT+Y**
To Back	**SHIFT+NEXT**	Select All	**CTRL+A**
To Front	**SHIFT+PRIOR**	Select by Attributes	**D**
UnCompound	**CTRL+J**	Undo	**F1**
Ungroup	**CTRL+U**	Undo	**CTRL+Z**
		Undo Multiple	**CTRL+SHIFT+Z**

Text		Pan View	**SPACE**
Text Tool	**T**	Show Fills	**CTRL+F**
Find and Replace	**F3**	View Filter	**F**
Justify Center	**CTRL+SHIFT+C**	Zoom	**Z**
Justify Full	**CTRL+SHIFT+F**	Zoom In	**CTRL+=**
Justify Left	**CTRL+SHIFT+L**	Zoom Out	**CTRL+-**
Justify Right	**CTRL+SHIFT+R**	**MIscellaneous**	
Spell Check	**F7**	Cut/Plot	**CTRL+L**
Shapes		Document Setup	**CTRL+B**
Circle Tool	**C**	Print	**CTRL+P**
Oval Tool	**O**	Print Setup (Page	**CTRL+SHIFT+P**
Polygon Tool	**G**	Setup on Macintosh)	
Rectangle Tool	**R**	RIP and Print	**CTRL+H**
Starburst Tool	**S**	Toolbars	**CTRL+T**
View		Measure Tool	**U**
Next Window	**CTRL+TAB**	Paint Brush Tool	**B**

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