CAPELLA TECHNOLOGIES

FormPort Designer

User's Guide

version 6.0

Table of Contents

Preface: FormPort Designer©

This user's guide provides extensive explanations and procedures for utilizing every feature of the FormPort Designer software.

FormPort Designer User Manual Overview

This user manual is organized into the following sections:

Chapter 1: Introduction – Provides basic information on what FormPort Designer is and what it can do.

Chapter 2: User Interface – Describes every menu bar and icon of the FormPort Designer user interface.

Chapter 3: Tutorials - Basic – A few tutorials utilizing some of the basic features of FormPort Designer.

Chapter 4: Procedures and Additional Features – Quick reference for how to perform some of the most-common FormPort Designer functions and operations.

Chapter 5: Scripting Commands – Lists and describes all of the commands and syntax for FormPort Designer's scripting language.

Chapter 6: Troubleshooting – A list of common problems and their solutions.

The FormPort Designer User's Guide also includes an index to enable fast topic navigation, and a glossary to further explain the terms and concepts mention throughout this manual.

Chapter 1: Introduction

What is FormPort Designer?

FormPort Designer 6.0 is a software application intended to create, design and modify a wide-range of forms. The resulting forms are then intelligently merged with raw print data and ultimately printed on standard HP printers.

The FormPort system consists of the following two parts:

- FormPort Designer—a WYSIWYG graphical design tool that resides on a PC platform and allows users to create line-box drawings, pictures, signatures, graphics and text pieces to build a customized Form.
- FormPort Software—a runtime component that resides on a network server and is a utility that takes an input file, merges and maps it to the graphical form and outputs a “printable” file on a standard laser printer.

Features and Benefits

FormPort Designer offers the following features and benefits:

- Allows companies to print customized business documents on the newest LaserJet technology without a costly change to their legacy application.
- Graphical business documents can be created on blank laser paper instead of using costly pre-printed forms.
- It's highly customizable, and companies can easily upgrade the look of the business forms at any time with FormPort Designer.
- Provides a quick, programming-free method of replacing old impact printers and pre-printed forms with fast, high quality laser-printed forms.

Spool and CSV files

The type of raw data used by FormPort Designer forms can be either spool or CSV files. These file types are described in the following sections.

Spool file

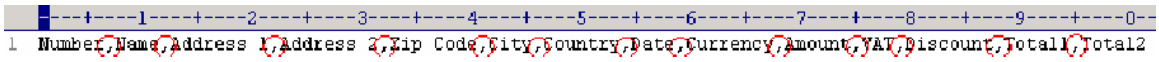
Since computers and printers operate at different speeds, raw printer instructions are temporarily stored as spool data. This frees the computer to perform other tasks instead of waiting for the printer to finish. When this printer data is saved to disk, it results in a spool file.

These spool files can be merged with and mapped to the forms created with FormPort Designer.

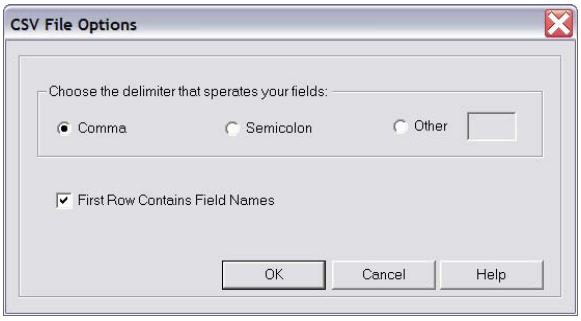
CSV file

CSV stands for *Comma Separated Values*. It's what results when the values of a spreadsheet are exported as a text file. Each line of the spreadsheet is converted to a line in the resulting text file, and the data in each spreadsheet cell is separated by a comma. This type of file can then be read by a wide-range of other spreadsheet and database applications.

The following illustration shows a sample of CSV file with a comma separator.



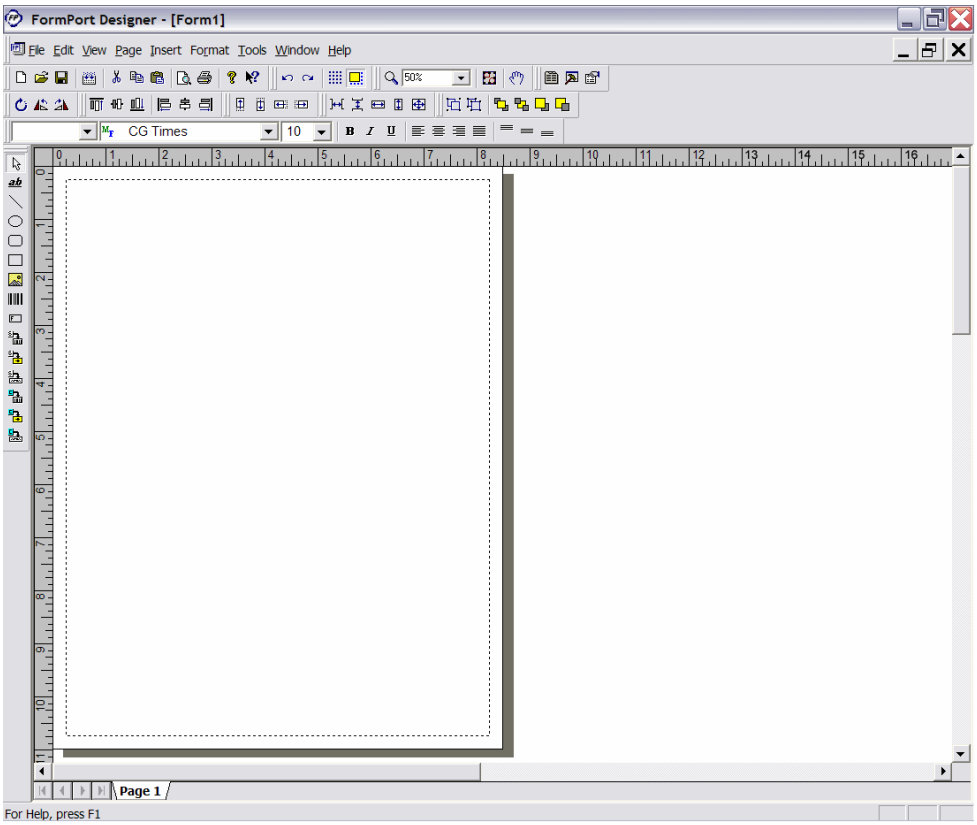
Contrary to the name, cell data in a CSV file might be separated by characters other than commas. In some instance, semicolons are used, or any number of other characters. When importing CSV files into FormPort Designer, you must indicated the manner in which data in the file is separated, as shown in the following dialog box:



Chapter 2: User Interface

Overview

Creating and customizing the look of your forms can be accomplished through FormPort Designer's graphical WYSIWYG interface. The tools, concepts and functionality of the FormPort Designer interface should be very familiar to people who have used traditional object-oriented drawing programs such as Visio, CorelDRAW! and Adobe Illustrator.



In addition to the standard Windows drop-down menus, some of the more common functions also have graphical icons and keyboard shortcuts—all of which will be discussed throughout this chapter.

A complete list of all icons and shortcut keys can be found in *Appendix A: Keyboard Shortcuts*.

File Menu

The File menu contains the following commands:

New

This command instructs FormPort Designer to create a new, empty document. New can be initiated through the File menu, or the following icon or keyboard shortcut:

 ***OR*** 

Open…

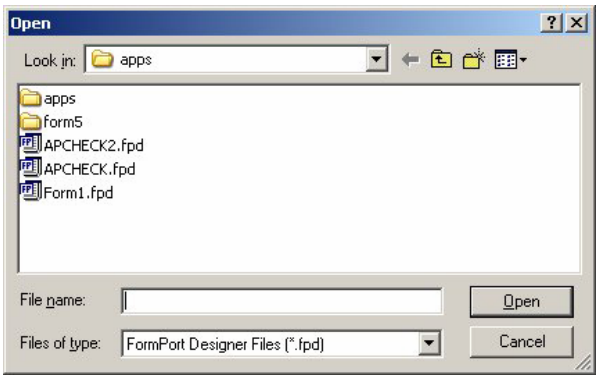
This command opens a document that has previously been saved. Open can be initiated through the File menu, or the following icon or keyboard shortcut:

 ***OR*** 

Once selected, a File Open Dialog window appears and displays a list of files in the current directory. If you wish to load another file from elsewhere, indicate the correct path.

Open Dialog

To load a document, select it from the list or enter the name of the files in the File Name field and then click on the Open button.



To cancel this operation, simply click on the Cancel button.

Close

This command closes the active document.

If the current document is new, or has changed since it was first opened, you'll receive a prompt asking if you'd like to save the document before closing.

NOTE: Closing a document without saving will result in all changes made since it was opened or created to be lost.

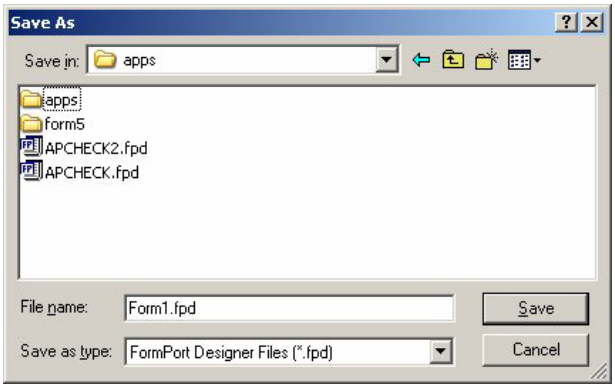
Save

Saves the active document. Use this command to save the latest changes of the active document onto the hard disk.

Selecting this command will open up the Save As... dialog, and ask for a document file name if one has not been entered before. Save can be initiated through the File menu, or the following icon or keyboard shortcut:

Save As Dialog

If the document hasn't been saved yet, this dialog will automatically open and prompt for a filename and path to save the file. Click on the Save button to accept the name and path you've chosen.



To cancel this operation, simply click on the Cancel button in this dialog.

Save As...

Saves the active document with a new name. Use this command to save the active document with a new name on the hard disk. Selecting this command will open the Save As... dialog.

Compile Document...

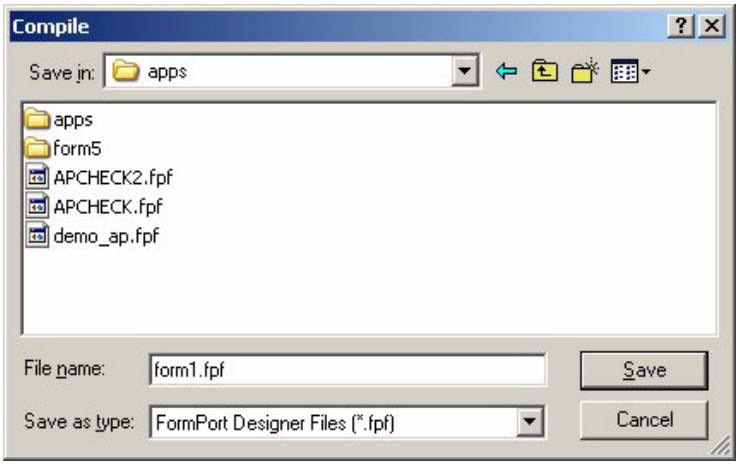
After a form has been created, this command compiles the document and saves it in the *.fpf file format. Selecting this option will open the Compile dialog. If a name for the compile file hasn't been previously entered, you must now provide one.

The Compile command can also be initiated by clicking on  located on the Standard toolbar. Any changes to the document are saved at this point. If the document has not yet been saved, the Save As… dialog appears and requests one.

Compile Dialog

This dialog opens automatically the first time you compile a document. The compile name must be entered in the File Name field, and then selecting Save will place the compiled file at the desired location.

NOTE: Your document must be saved before it can be compiled. If it hasn't been saved, FormPort Designer will prompt you before compiling.



To halt the compile operation, simply click on the Cancel button.

Compile Document As...

This command compiles the active document to a *.fpf file—but with a new name.

Selecting this command will automatically save the last unsaved changes of the active document, and will cause the Save As... Dialog to open (if the document have not been saved before).

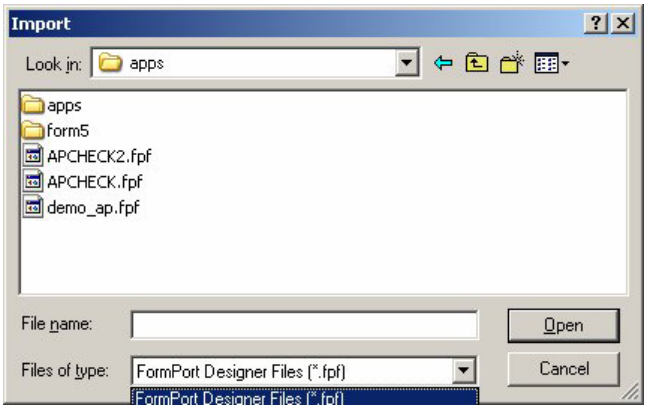
Import Document...

Imports a compiled document into the program. Use this command if you wish to insert a previously-compiled *.mff or *.fpf file into the active document.

Selecting this command will open up the Import dialog and ask for the name and path of the file you wish to import.

Import Dialog

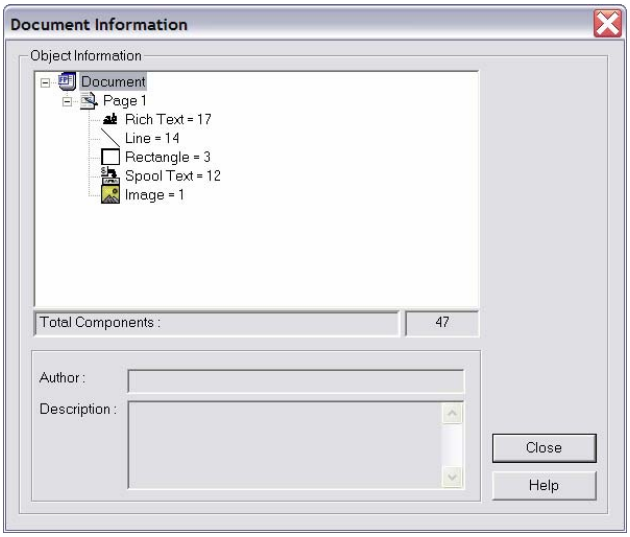
This dialog opens when the Import Document... command is selected from the File menu. Choose the desired *.mff or *.fpf file (indicating another path, if necessary) and click on Open to load the file into the active document.



Click on Cancel if you wish to halt this operation.

Document Information...

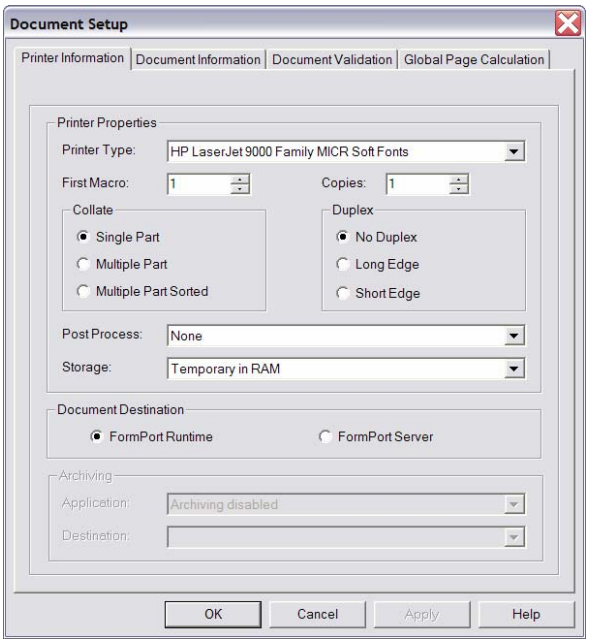
Choosing this command displays a screen that lists all pages in the active document as well as the components contained therein.



This screen is for information purposes only, and cannot be altered directly. Click on the Close button when finished.

Document Setup...

Choosing this command displays the active document setup screen, as shown in the figure below:



This property sheet contains the following tabs: Printer Information, Document Information, Document Validation and Global Page Calculation. Information in this section is used during form creation and printing.

Print Preview

Selecting this command or icon displays an approximation of how your form will look once it's printed. Since the output of different models of printers can vary, you need to define a Printer Type in the Printer Information Property Page (located in Document Setup).

Also, documents must be saved and compiled before they can be previewed. If neither of these has been done recently, and there are unsaved changes, a dialog box will appear and prompt you to do both.

NOTE: This feature can be disabled through the Tools→Options menu.

Print...

This command sends the active document to the printer, utilizing the settings specified through Page→Page Setup.

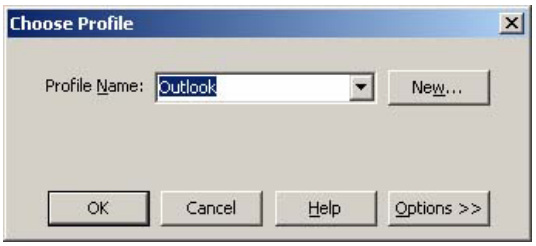
Print can be initiated through the File menu, or the following icon and keyboard shortcut:

 *OR* 

Send Mail

Sends the active document through electronic mail as an attachment.

Selecting this command will open up the Choose Profile dialog, asking to select the correct profile for sending your mail.



Exit

Closes the FormPort Designer application. If there are any unsaved changes in any of the open documents, a Save As… dialog will appear and prompt you to save.

To save, enter a file name and click on the Save button. Otherwise, choose Cancel and the application will close without saving any open documents.

Edit Menu

From the Edit menu, you can perform common Windows functions such as editing text objects, importing library files and defining object properties. Every feature of the Edit menu is described in the following section.

Undo

Use this command to go back in time and undo the last action you performed. Continuing to select this command will keep undoing previous actions. By default, FormPort Designer has 15 undo levels, but can have as many as 50. However, increasing the number of undo levels could impact system performance, and should be used with caution. Undo levels can be adjusted by selecting Tools→Options.

The Undo command can be initiated through the Edit menu, or the following icon and keyboard shortcut:

 ***OR*** 

Redo

In the event you've chosen Undo too many times, Redo allows you to step forward through all the undone steps.

Redo can be initiated through the Edit menu, or the following icon and keyboard shortcut:

 ***OR*** 

Cut

Places a copy of the selected item into memory and then deletes the original. Performing this action will replace previously-cut or copied data that's currently stored in memory.

Cut can be initiated through the Edit menu, or the following icon and keyboard shortcut:

 ***OR*** 

Copy

Puts a copy of the selected object into memory. This differs from the Cut command because the original object remains intact. Copying an object will replace previously-cut or copied data stored in memory.

Copy can be initiated through the Edit menu, or the following icon and keyboard shortcut:

 ***OR*** 

Paste

This command places a copy of the item stored in the clipboard (placed there by using either the Cut or Copy command) into the current page. If there is no object stored in memory, this command will be grayed-out.

Paste can be initiated through the Edit menu, or the following icon and keyboard shortcut:

 ***OR*** 

Delete

Deletes the current selection. Use this command to delete the selected objects from the active page. Once deleted, an object can only be restored by choosing Undo.

Deletions can be implemented through the Edit menu of by pressing the Delete key.

Edit Text

This command places text objects into edit mode. When adding a Rich Text object, for instance, you would enter this mode to define the text and apply basic formatting such as font type, size, attributes and color.

NOTE: You must select a text object in order for this command to be available.

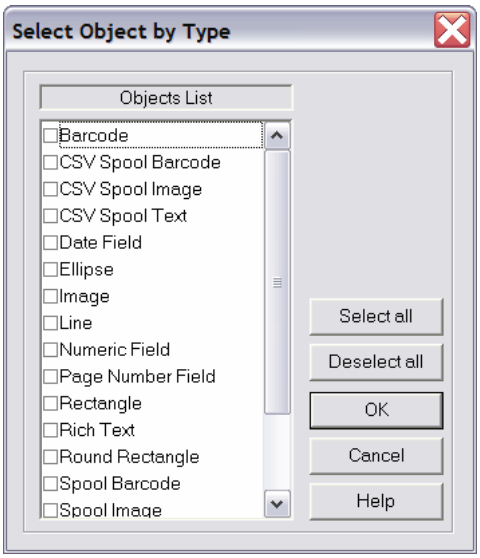
Select All

This command selects all the drawing objects available in the active page.

Select All can be initiated through the Edit menu or the following keyboard shortcut:

Filter Selection…

This command allows you to select specific types of objects within your document. Choosing Edit→Filter Selection… displays the following dialog:



Simply check the types of object you wish to select and click on OK.

Library / Import

This command loads previously-saved library objects from the disk.

Choosing this command will open up the Import Components From Library dialog asking to enter the needed information for the components.

Library / Export

This command saves the selected components to the hard disk.

Choosing this command will open up the Export Components To Library dialog asking to enter the needed information for the components.

Properties...

This command displays the properties related to the currently-selected object. When chosen, it opens the associated property sheet of the component.

The property sheet can be launched by double-clicking on the drawing object or through the following icon, keyboard shortcut and action:

 ***OR*** 

Default Properties...

Displays the default properties of the active document. These settings are used whenever a new object is created.

Selecting this command opens the Default Properties property sheet containing the following pages: Line Property Page, Fill Property Page, Font Property Page, Round Corners Property Page.

View Menu

The View Menu allows you to display or hide system toolbars, which provide convenient, single-click access to common functions.

Toolbar→Standard Bar

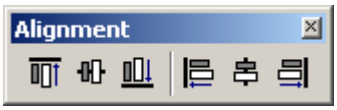
This command either displays or hides the Standard Toolbar, as shown in the following figure:

Here is a complete list of buttons available in the Standard Toolbar:

Click	To
	New. Creates an empty new document.
	Open. Opens an existing document.
	Save. Saves the active document to the hard disk.
	Compile. Compiles the active document to the *.fpf file format.
	Cut. Removes selected component(s) from the active document and copies them to the Clipboard. This button is only enabled if there is at least one selected component.
	Copy. Copies the selected component(s) of the active document to the Clipboard. This button is only enabled if there is at least one component selected.
	Paste. Inserts a copy of the components(s) stored in the clipboard into the active document.
	Print Preview. Displays an approximation (based on printer selection and settings) of how the document will appear once it's printed.
	Print. Sends the active document to the printer.
	About. Displays the About dialog, containing information about the application and vendor.
	Help. Activates context-sensitive help.

Toolbar→Align Bar

Shows or hides the alignment buttons toolbar, as displayed below:



The buttons on the Alignment toolbar will only be enabled if there is more than one component selected on the active document.

Here is a complete list of buttons available in the Alignment Toolbar:

Click	To
	Align Top. Moves the selected objects so that the topmost edges are aligned.
	Align Middle. Moves the selected objects so their center areas are aligned vertically.
	Align Bottom. Moves the selected objects so that the bottommost edges are aligned.
	Align Left. Moves the selected objects so that their leftmost edges are aligned.
	Align Center. Moves the selected objects so their center areas are aligned horizontally.
	Align Right. Moves the selected objects so that their rightmost edges are aligned.

Toolbar→Canvas Bar

Shows or hides the canvas buttons toolbar, as displayed below:

Here is a complete list of buttons available in the Canvas Toolbar:

Click	To
	Undo. Undoes the last change or action performed on a component.
	Redo. Steps forward through undone actions.
	Toggle Grid. Shows or hides the user-defined grid.
	Snap to Grid. Enables or disables grid snap.

Toolbar→Drawing Bar

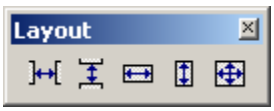
Shows or hides the drawing buttons toolbar, as displayed below:

Below is a complete list of buttons available in the Drawing Toolbar:

Click	To
	Select. Selects components for editing or manipulation.
	Rich Text. Inserts a Rich Text object.
	Line. Allows the user to draw a line on the document.
	Ellipse. Adds a user-definable oval object.
	Round Rectangle. Inserts a rectangle with rounded corners into the document.
	Rectangle. Adds a rectangle object.
	Image. Imports an external bitmap image and places it in the document.
	Barcode. Places a barcode in the document.
	Field. Inserts field text object.
	Spool Barcode. Places spool barcode data. This button will only be enabled if a spool file is currently loaded.
	Spool Image. Places spool image data. This button will only be enabled if a spool file is currently loaded.
	Spool Text. Places spool text data. This button will only be enabled if a spool file is currently loaded.
	CSV Spool Barcode. Places CSV barcode data. This button will only be enabled if a spool CSV file is currently loaded.
	CSV Spool Image. Places CSV image data. This button will only be enabled if a spool CSV file is currently loaded.
	CSV Spool Text. Places CSV text data. This button will only be enabled if a spool CSV file is currently loaded.

Toolbar→Layout Bar

Shows or hides the layout buttons toolbar, as displayed below:



NOTE: The buttons on this toolbar will only be enabled if there is more than one component selected on the active document.

Here is a complete list of buttons available in the Layout Toolbar:

Click	To
	Space Across. Moves three or more selected components so that the horizontal space between them is the same.
	Space Down. Moves three or more selected components so that the vertical space between them is the same.
	Same Width. Compares two or more selected objects and changes their width to match that of the last one selected.
	Same Height. Compares two or more selected objects and changes their height to match that of the last one selected.
	Same Size. Compares both the height and width of two or more selected objects and changes their dimensions to match that of the last one selected.

Toolbar→Nudge Bar

Shows or hides the nudge buttons toolbar, as displayed below:

The Nudge command enables you to move selected objects in single-pixel increments in any of four different directions. The buttons on the Nudge toolbar will only be available if there is at least one component selected on the active document.

Here is a complete list of buttons available in the Nudge Toolbar:

Click	To
	Nudge Up. Moves the selected component(s) up one pixel.
	Nudge Down. Moves the selected component(s) up one pixel.
	Nudge Left. Moves the selected component(s) left one pixel.
	Nudge Right. Moves the selected component(s) right one pixel.

Toolbar→Property Bar

Shows or hides the property buttons toolbar, as displayed in the figure below:

The Property Toolbar allows for quick access to the properties of the currently-selected object.

Here is a complete list of buttons available in the Property Toolbar:

Click	To
	Properties. Displays the associated properties of the selected component(s). This button is only enabled if there is at least one component selected.
	Output. Shows or hides the output window
	Properties Window. Shows or hides the property window, displaying the related properties of the active selected component(s).

Toolbar→Rotate Bar

Shows or hides the rotate buttons toolbar, as displayed in the figure below:

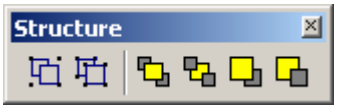
The buttons on the Rotate Toolbar will only be enabled if there is at least one selected component on the active document that supports rotation.

Here is a complete list of buttons available in the Rotate Toolbar:

Click	To
	Rotate. Rotates the selected component(s) to any angle. Use Tools→Angle Snap to restrict rotation to 15 degree increments.
	Rotate Left. Rotates the selected component(s) 90 degrees to the left.
	Rotate Right. Rotates the selected component(s) 90 degrees to the right.

Toolbar→Structure Bar

Shows or hides the Structure Toolbar, as shown in the figure below:



From the Structure Toolbar, you can group and ungroup objects, bring objects to the top, send them to back or move them up or down one layer.

Here is a complete list of buttons available in the Structure Toolbar:

Click	To
	Group. Links the selected components together into a single collection. This button will only be available if more than one component is selected in the active document.
	Ungroup. Breaks apart a previously-grouped object. This button is only available when a grouped object is selected.
	Front. Brings the selected component(s) to the top of all the other components.

	Back. Sends the selected component(s) back below all the other objects in the active document.
	Forward. Brings the selected component(s) up one level within the stack of objects on the active document.
	Backward. Sends the selected component(s) down one level within the stack of objects on the active document.

Toolbar→Zoom Bar

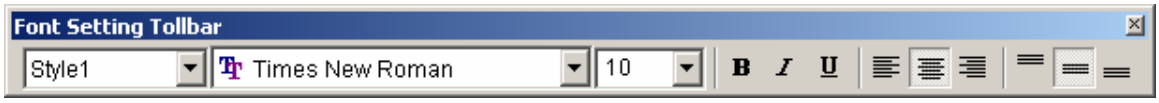
Shows or hides the zoom toolbar, as displayed in the figure below:

Here is a complete list of buttons available in the Zoom Toolbar:

Click	To
	Zoom. Activates the zoom tool. Clicking on an area of the current document will increase the magnification of that area.
	Current zoom percentage. This value can be set manually to get a specific, desired zoom.
	Zoom to Selection. Displays a view that shows all the components in the active document.
	Pan. Allows the user to move the active document in any direction.

Toolbar→Font Bar

Use this command to show or hide the Font Toolbar, as displayed below:



The controls on the Font Setting Toolbar will only be enabled if all of the selected components support font and alignment features.

Here is a complete list of buttons available in the Font Toolbar:

Click	To
	Style. Indicates the style of the selected component. Also can be used to apply a particular style to a component.
	Font. Indicates the current font of the selected component. Can also be used to change the font.
	Size. Indicates the font size of a component, and allows for the font size to be changed.
	Bold. Indicates if the selected font has a bold attribute assigned, or can be used to add or remove a bold attribute.
	Italic. Indicates if the selected font has an italic attribute assigned, or can be used to add or remove an italic attribute.
	Underline. Indicates if the selected font has an underline attribute assigned, or can be used to add or remove an underline attribute.
	Left Align. Indicates if the selected text object is left-justified, or can be used to change the current formatting to left-justified.
	Center Horizontally. Indicates if the selected text object is horizontally centered, or changes the current formatting to centered.
	Right Align. Indicates if the selected text object is right-justified, or can be used to change the current formatting to right-justified.
	Justify. Indicates if the selected text object is fully-justified, or can be used to change the current formatting to fully-justified.
	Top Align. Indicates if the selected text object is aligned with the top, or to change the current text positioning to top-aligned.
	Center Vertically Align. Indicates if the selected text object is aligned in the center, or to change the current text positioning to center-aligned.
	Bottom Align. Indicates if the selected text object is aligned with the bottom, or to change the current text positioning to bottom-aligned.

Status Bar

Shows or hides the FormPort Designer status bar, as displayed in the following figure:

The left area of the status bar describes the actions of menu items when you navigate through the menus using the arrow keys. Similarly, this area shows messages that describe the actions of toolbar buttons as you depress them and before releasing them.

If after viewing the description of the toolbar button command you wish not to execute the command, then release the mouse button while the pointer is off the toolbar button.

The right areas of the status bar indicate which of the following keys are latched down:

Indicator	Description
CAP	The Caps Lock key is currently latched down.
NUM	The Num Lock key is currently latched down.
SCROLL	The Scroll Lock key is currently latched down.

Ruler

Shows or hides the interface ruler.

The ruler is used to show the unit of measurement in the active document, and to facilitate the creation of components with specific sizes.

Grid

Shows or hides the grid  .

The grid is useful for placing components at precise locations within a document.

Properties Window

Shows or hides the Properties Window  .

The Properties Window is a dockable window that shows the properties of the selected component(s) in the active document. The properties shown in this window can either be changed directly, or through the traditional object-editing method.

Zoom→Zoom

Activates the Zoom tool  .

After clicking on this command, the cursor will change to a magnifying glass. Left-clicking anywhere in the document will increase the magnification in 25% increments (to a maximum of 650%). Right-clicking will zoom out in 25% increments (to a minimum of 25%). You can zoom a specific region by clicking and dragging to define the area and then releasing the mouse button.

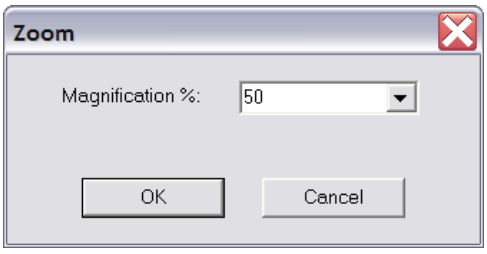
Zoom→Zoom 1:1

Zooms the document to the normal scale of 100%.

Zoom→Zoom Custom...

This command is used to zoom in 25% increments.

When selected, the custom zoom dialog appears, as shown below:



Select a value from the drop-down menu and then click on OK to initiate. Clicking on Cancel will abort the custom zoom procedure.

Zoom→Zoom To Selection...

This handy tool  determines the perfect zoom level necessary to fill the screen with the currently-selected object.

NOTE: At least one object must be selected for this feature to be available.

Zoom→Fit to Width

Use this command to set the zoom of the document so that all of the components are visible in the screen horizontally.

Zoom→Fit to Height

Use this command to set the zoom of the document so that all of the components are visible in the screen vertically.

Zoom→Fit to Page

Changes the view of the active document so that all of the components are visible on the screen both horizontally and vertically.

Page Menu

From the Page menu, you can map both spool and CSV files, define page properties, add or remove pages and jump to a specific page in a multi-page document. For detailed descriptions of these features, proceed to the following section.

Spool Mapping→Spool File→Load Spool File…

This command loads a spool file into the active document. Before you can insert a spool object, a spool files must first be loaded. This menu option is only available when no spool or CSV file is currently loaded in the active document.

Once selected, a File Open dialog appears and asks for the name and location of the spool file to be loaded.

Spool Mapping→Spool File→Reload Spool File

This command *reloads* a previously-loaded spool file, and is only available if a spool file has already been loaded.

Spool Mapping→Spool File→Unload Spool File

This command *unloads* a previously-loaded spool file (and all associated spool objects) from the active document, and is only available if a spool file has already been loaded.

Spool Mapping→Spool File→Display 'Copied' Area

This command shows or hides the original spool data after it's been copied and manipulated within FormPort Designer. This old data is normally displayed in blue text.

This command can also be invoked by pressing the F3 key.

Spool Mapping→Spool File→Display 'Moved' Area

This command shows or hides the original spool data after it's been moved and manipulated within FormPort Designer. This old data is normally displayed in red text.

This command can also be invoked by pressing the F2 key.

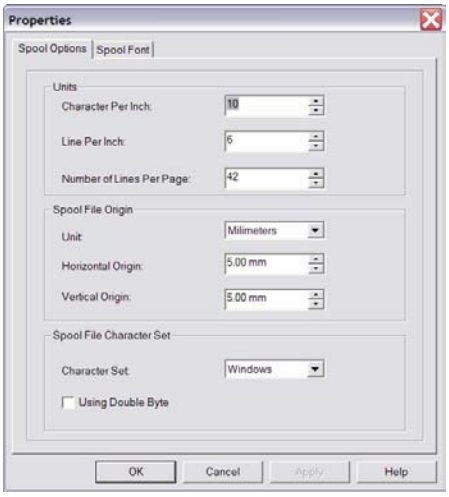
Spool Mapping→Spool File→Display 'Unused' Area

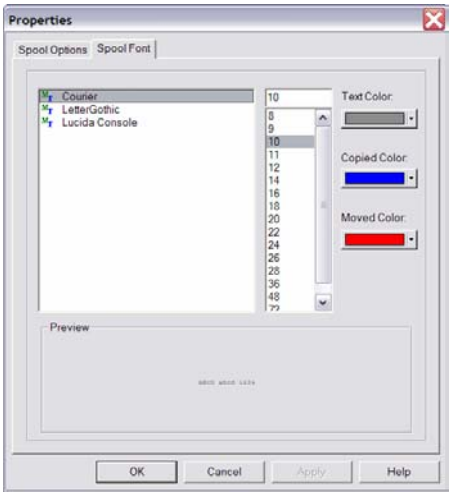
Use this command to show or hide the portions of the spool file that won't be used in the final document. This data is normally displayed in gray text.

This command can also be invoked by pressing the F4 key.

Spool Mapping→Spool File→Spool File Options

Use this command to change the spool file options, as shown in the following images:



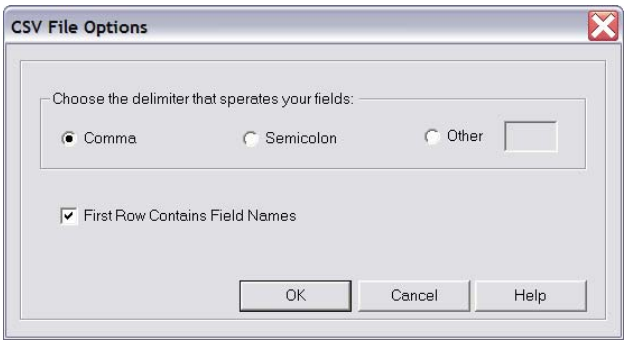


From these screens you can define the appearance, font and color of spool data within your document.

Spool Mapping→CSV File→Load CSV File

Use this command to load a CSV file into the active document. Loading a CSV file is required before a CSV object can be inserted.

This menu command will only be available if there is no spool file or CSV file already loaded into the document.



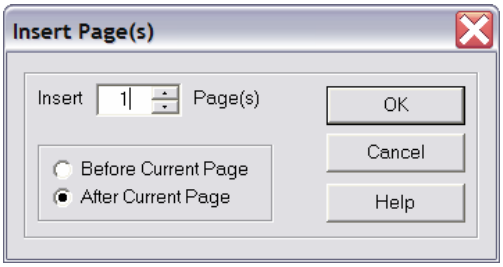
NOTE: When loading a new CSV file, you must tell FormPort Designer which method was used to separate the data in the file (comma, semicolon, etc.).

Spool Mapping→CSV File→Unload CSV File

Use this command to unload a previously loaded CSV file (and all associated CSV objects) from the active document. This command is only available when a CSV file has already been loaded.

Page Control→Insert Page

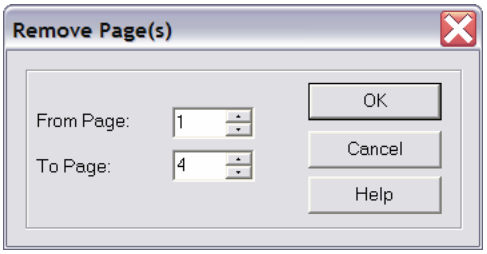
Use this command to insert new empty pages into the active document.



Multiple pages can be added either before or after the current page.

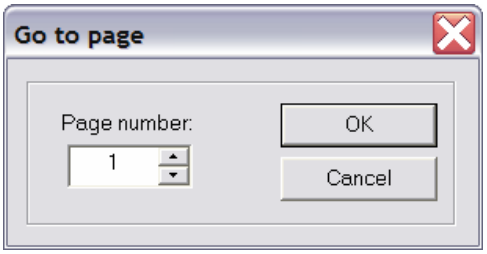
Page Control→Remove Page

Use this command whenever you need to remove a page or a specific number of pages (and all the components currently on those pages) from the active document.



Page Control→Go to Page

Use this command to go directly to a specific page number within the active document.

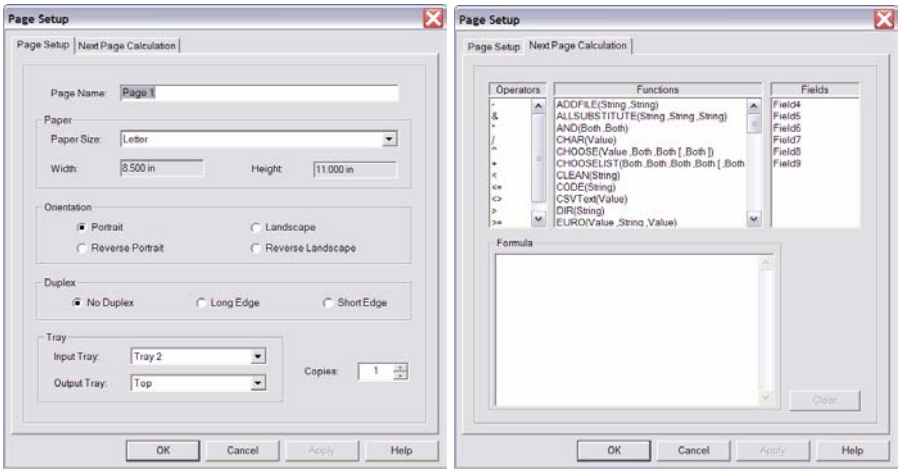


Enter the page number in the Page number field and then press OK to go to their.

Page Setup

Use this command to modify the properties associated with the current page of the active document. These settings can be the same for every page in a multi-page document, or completely unique for each page.

The image below illustrates both tabs of the Page Setup property sheet:



Insert Menu

From this menu you can insert external data files into your FormPort Designer form.

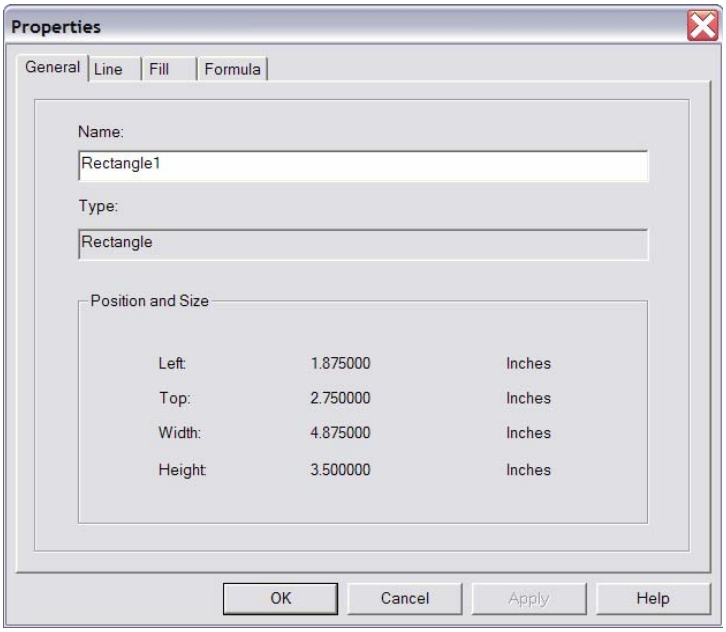
Properties

Once an object has been inserted into a document, various attributes and properties can be assigned so as to further define its appearance and function. This section describes each of these properties.

NOTE: The properties available are dependent on the type of object to which they're being applied.

General

General properties are displayed on this page.

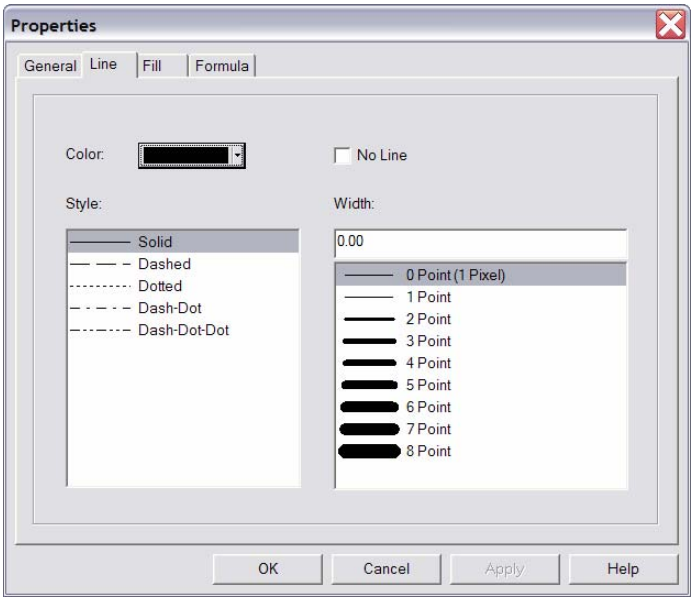


This page contains the information about the component name, component type and component position and size.

This page is for informational purposes only, and other than the Name field, these values can't be edited directly.

Line

This page contains the information related to the line settings of components with borders.



Color

This button determines the border color of the component. Click on it to see a popup window and other color choices.

No Line

If you wish the component's border to be invisible, check this option.

Style

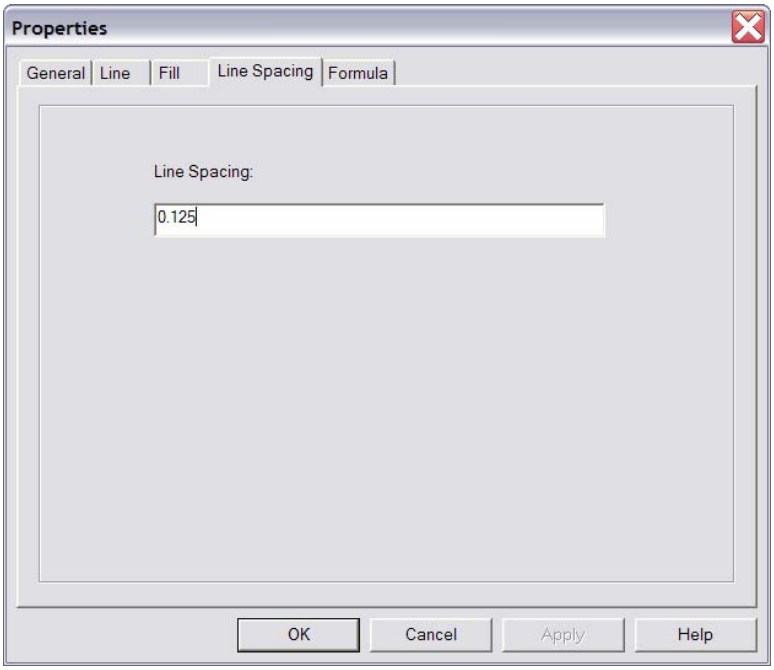
The style of single-pixel borders can be selected from this list. If the current border is thicker than one pixel, this list will be grayed-out.

Width

The width of solid borders can be determined through this list. If the border is using a style other than solid, this list will be grayed-out and not available.

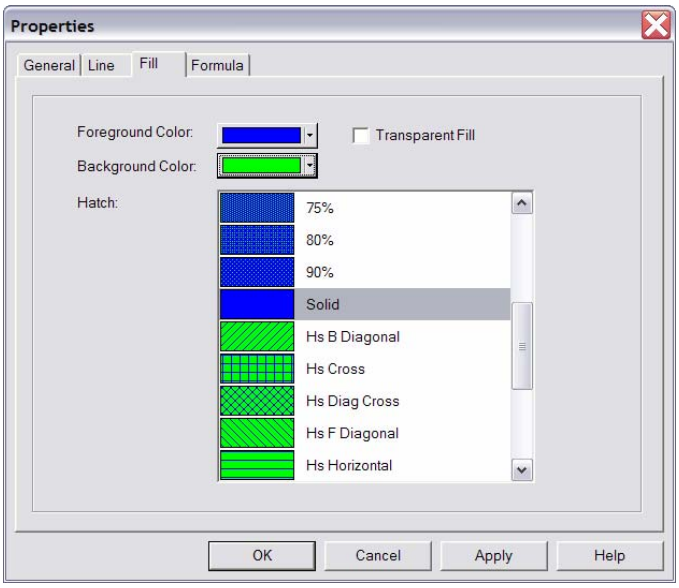
Line Spacing

This page contains the information related to the field spacing. Enter the correct line spacing for the field object in the related edit box.



Fill

This page contains the information related to the manner in which the component has been filled.



Foreground Color

This color button indicates the foreground color of both solid and non-solid hatch patterns used to fill components. Click on the button and select the desired color from the popup window. This option isn't available when Transparent Fill is checked.

Background Color

This color button indicates the background color in hatch patterns. If the current fill is solid, this color isn't used. Like foreground color, this option isn't available when Transparent Fill is checked.

Transparent Fill

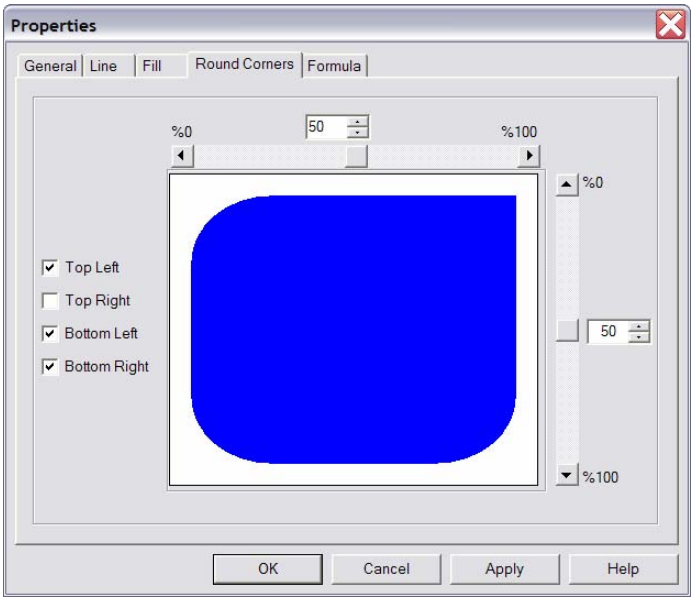
This option turns the non-border region of components transparent.

Hatch

Displays the patterns available for components that support the fill attribute. Fills can be either solid or a number of two-color patterns.

Round Corners

This page contains the information related to the rounded corners of the round rectangle object.



Top Left

If checked, indicates the Top Left corner will be rounded.

Top Right

If checked, indicates the Top Right corner will be rounded.

Bottom Left

If checked, indicates the Bottom Left corner will be rounded.

Bottom Right

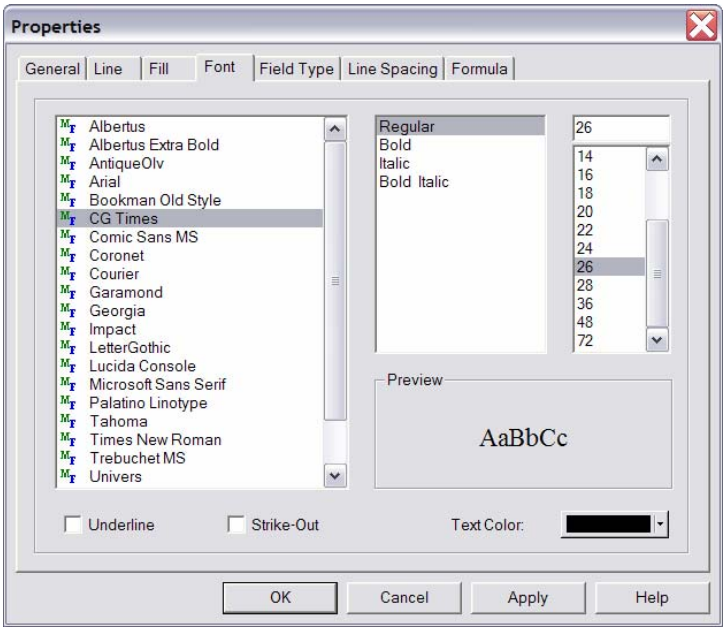
If checked, indicates the Bottom Right corner will be rounded.

Percentage

Determines the amount of curve to apply to the edges of the object. Both of these values are linked; changing one automatically changes the other.

Font

This page contains the information related to the font properties of supported components.



Font Name

This list indicates the currently-assigned font as well as the others available.

Font Style

Indicates the current style as well as the other available styles for assignment.

Font Size

Shows the current font size and a list of all the sizes available.

Underline

Selecting this checkbox will add an underline to the current text object.

Strike-Out

Selecting this checkbox will add a line through the current text object.

Text Color

This button defines the color of the current text object. Click on it to display a popup window with other color selections. Most text objects are black by default.

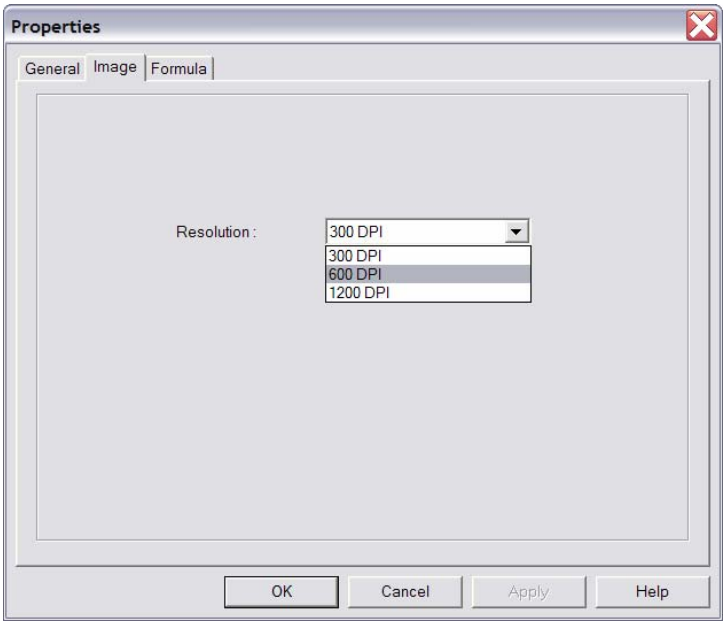
Preview

This area provides a sample of what the resulting text object will look like.

After making any changes, click on either OK or Apply to accept them, or Cancel to revert the text object back to what it was.

Image Properties

This page allows you to define the resolution of an imported image.

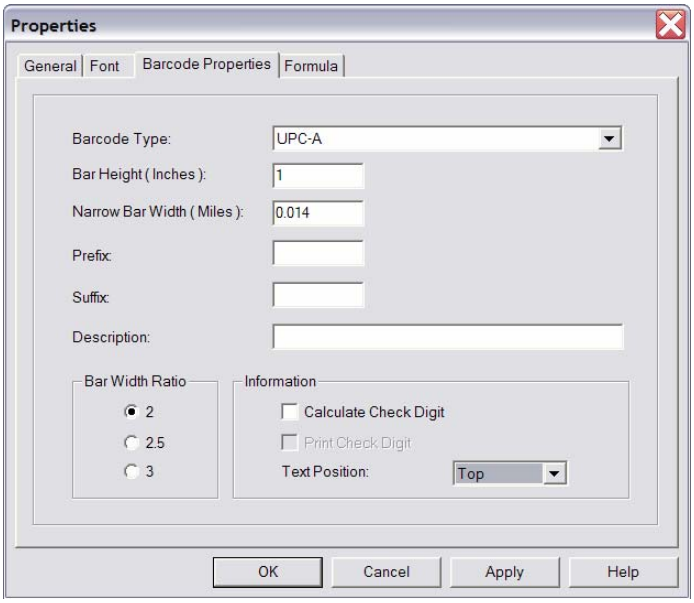


Simply select the desired resolution from the drop-down list and choose OK.

NOTE: Increasing the resolution of an image will make it appear to shrink.

Barcode

This page contains the information related to the barcode settings.



Barcode Type

Indicates the type of the current barcode object. This value can be changed through the drop-down menu.

Bar Height

Specifies the height of the barcode.

Narrow Bar Width

Determines the width of the barcode.

Prefix

Barcode prefixes can be entered in this field.

Suffix

Barcode suffixes can be entered here..

Description

Enter a user-defined description of the current barcode here.

Bar Width Ratio

Sets the barcode width ratio to either 2, 2.5 or 3.

Calculate Check Digit

Should be checked to enable the calculate check digit feature.

Print Check Digit

Check to enable the print check digit option.

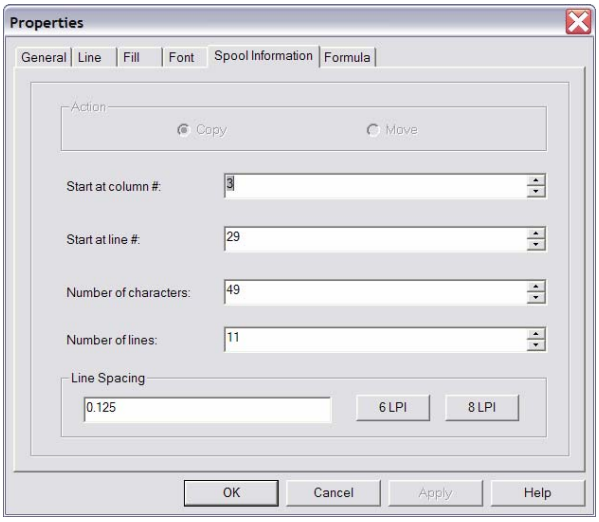
NOTE: Print Check Digit with be grayed-out unless the Calculate Check Digit option is checked.

Text Position

Choose between aligning text along the top or bottom of the barcode.

Spool Info

This page contains the information related to the spool objects settings.



Action

This section indicates how the spool data was manipulated after being inserted. This option is only available at insertion time and is only shown for informational purposes.

Start at column #

Displays the starting column number of the selected text area.

Start at line #

Displays the starting line number of the selected text area.

Number of characters

Displays the number of characters in the widest available line in the selected text area.

Number of lines

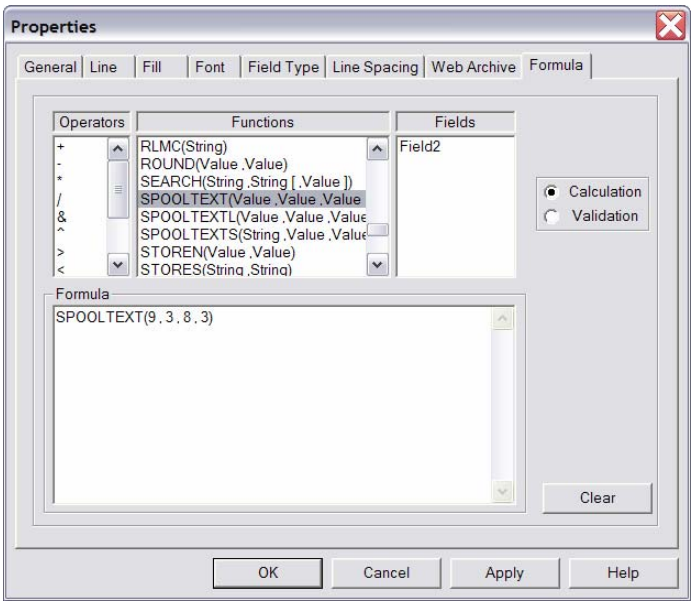
Displays the maximum number of lines that will appear in the spool object.

Line Spacing

Displays the space between each line of the spool object in LPI (Line-Per-Inch) units. The two buttons (labeled 6 LPI and 8 LPI) are simply shortcut buttons used to enter the specified values automatically.

Formula

This page contains information about any formulas assigned to the selected object.



Operators

Displays the list of operators. Double-click on any of these to append them to the object's formula.

Functions

Displays the list of functions. Double-click on any of these to append them to the object's formula.

Fields

Displays the list of fields in the active document. Double-click any of these to append them to the object's formula.

Formula

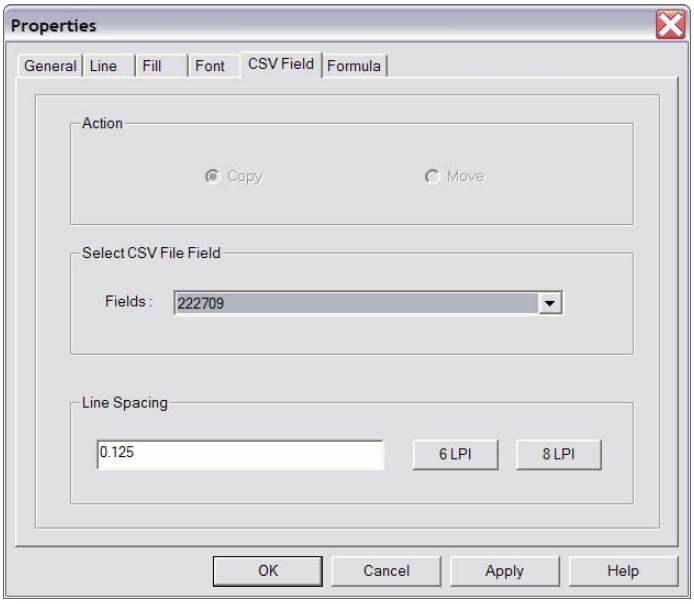
Displays the object's final formula. This formula can also be entered or edited manually by typing in the Formula edit box.

Calculation & Validation

This part of the page will only be visible if the object supports both the Calculation Formula and Validation Formula. If present, ensure the correct value is set.

CSV Field

This page contains the information related to the CSV files that have been mapped and inserted into the document.



Action

This section indicates how the CSV data was manipulated after being inserted. This option is only available at

insertion time and is shown here only for informational purposes.

Fields

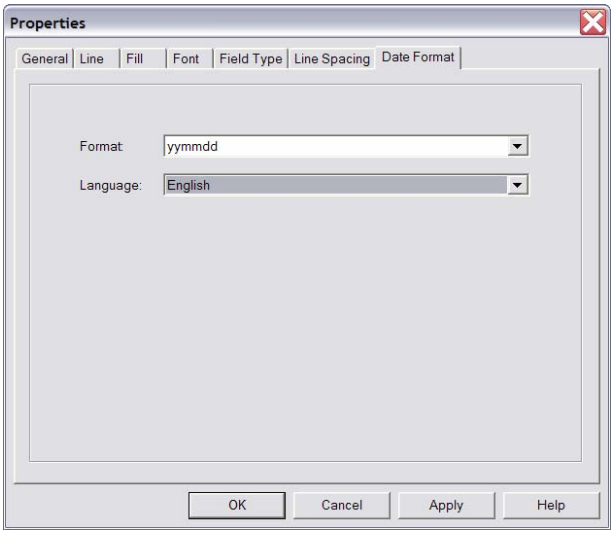
This drop-down menu lists the separated objects from the first line of the CSV file. Choose the one you wish to display.

Line Spacing

Displays the space between each line of the spool object in LPI (Line-Per-Inch) units. The two buttons (labeled 6 LPI and 8 LPI) are simply shortcut buttons used to enter the specified values automatically.

Date Format

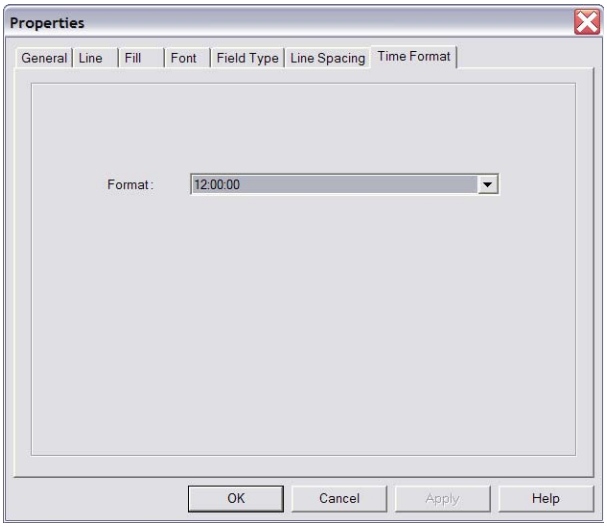
This page allows you to choose a specfic date format.



Select a Format and Language from the drop-down menu and then click on OK.

Time Format

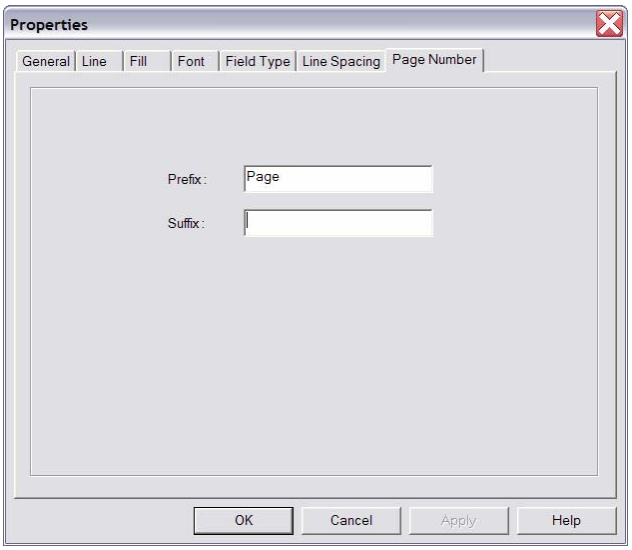
This page allows you to pick a specific time format.



Select the desired time Format and then click on OK to accept.

Page Number

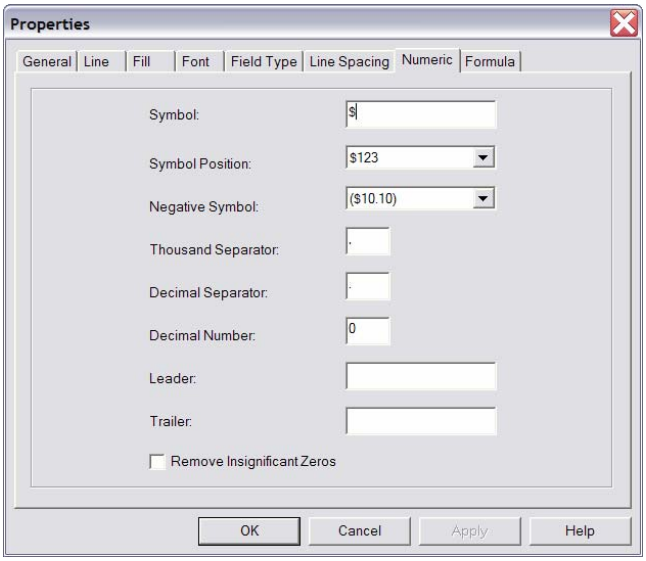
This allows you to define the look of the page number object.



Enter a Prefix and Suffix into the appropriate edit field and then click OK to accept.

Numeric

This page contains the information related to the numeric field.



The following settings are available through the numeric page:

Symbol

Defines the currency symbol to display with monetary values.

Symbol Position

Indicates where the monetary symbol should be placed in relation to the amount.

Negative Symbol

Allows you to specify where a negative symbol (if used) will be placed in relation to the amount.

Thousand Separator

Enter the character you'd like to serve as a separator for values in excess of a thousand.

Decimal Separator

Enter the character you'd like separate whole and decimal numbers.

Decimal Number

Specify the number of digits to follow the decimal separator symbol.

Leader

Enter a Leader string of up to 12 characters.

Trailer

Enter a Trailer string of up to 12 characters.

Remove Insignificant Zeros

Check this checkbox if you wish the insignificant zeros in the numbers to be removed from the monetary amounts.

Spool Text

Selecting this command or icon  inserts a spool text component into the active page. This command is only active if there is a spool file currently loaded into the active document.

The Spool Text component supports the following properties:

General Property Page, Line Property Page, Fill Property Page, Font Property Page, Spool Info Property Page, Formula Property Page

Spool Image

Selecting this command or icon  inserts a spool image component into the active page. This command is only active if there is a spool file currently loaded into the active document.

The Spool Image component supports the following properties:

General Property Page, Spool Info Property Page, Image Property Page, Formula Property Page

Spool Barcode

Selecting this command or icon  inserts a spool barcode component into the active page. This command is only active if there is a spool file currently loaded into the active document.

The Spool Barcode component supports the following properties:

General Property Page, Font Property Page, Spool Info Property Page, Barcode Property Page, Formula Property Page

CSV Spool Text

Selecting this command or icon  inserts a CSV spool text component into the active page. This command is only active if there is a CSV file currently loaded into the active document.

The CSV Spool Text component supports the following properties:

General Property Page, Line Property Page, Fill Property Page, Font Property Page, CSV Field Property Page, Formula Property Page

CSV Spool Image

Selecting this command or icon  inserts a CSV spool image component into the active page. This command is only active if there is a CSV file currently loaded into the active document.

The CSV Spool Image component supports the following properties:

General Property Page, Spool Info Property Page, Image Property Page, CSV Field Property Page, Formula Property Page

CSV Spool Barcode

Selecting this command or icon  inserts a CSV spool barcode component into the active page. This command is only active if there is a CSV file currently loaded into the active document.

The CSV Spool Barcode component supports the following properties:

General Property Page, Font Property Page, Spool Info Property Page, Barcode Property Page, CSV Field Property Page, Formula Property Page

Field

Selecting this command or icon  inserts a field component into the active page. Although the default border for this component is transparent, a virtual red border appears around the field object to indicate the bounding rectangle and assist placement.

The Field component supports the following properties:

General Property Page, Line Property Page, Fill Property Page, Font Property Page, Line Spacing Property Page, Formula Property Page

Date Field

Selecting this command inserts a date field component into the active page. Although the default border for this component is transparent, a virtual red border appears around the field object to indicate the bounding rectangle and assist placement.

The Date Field component supports the following properties:

General Property Page, Line Property Page, Fill Property Page, Font Property Page, Line Spacing Property Page, Date Format Property Page

Time Field

Selecting this command inserts a time field component into the active page. Although the default border for this component is transparent, a virtual red border appears around the field object to indicate the bounding rectangle and assist placement.

The Time Field component supports the following properties:

General Property Page, Line Property Page, Fill Property Page, Font Property Page, Line Spacing Property Page, Time Format Property Page

Page Number Field

This command inserts a page number field component into the active page. Although the default border for this component is transparent, a virtual red border appears around the field object to indicate the bounding rectangle and assist placement.

The Page Number Field component supports the following properties:

General Property Page, Line Property Page, Fill Property Page, Font Property Page, Line Spacing Property Page, Page Number Property Page

Numeric Field

This command inserts a numeric field component into the active page. Although the default border for this component is transparent, a virtual red

border appears around the field object to indicate the bounding rectangle and assist placement.

The Numeric Field component supports the following properties:

General Property Page, Line Property Page, Fill Property Page, Font Property Page, Line Spacing Property Page, Numeric Property Page, Formula Property Page

Rich Text

Choosing this command or icon  inserts a text component field into the active page. After insertion, a Rich Text component automatically goes into edit mode.

The Rich Text component supports the following properties:

General Property Page, Line Property Page, Fill Property Page, Font Property Page, Line Spacing Property Page, Formula Property Page

Image

Choosing this command or icon  inserts an external image component into the active page.

The Image component supports the following properties:

General Property Page, Image Property Page, Formula Property Page

Barcode

Use this command or icon  to insert a barcode component into the active page.

The Barcode component supports the following properties:

General Property Page, Font Property Page, Barcode Property Page, Formula Property Page

Line

Use this command or icon  to insert a line component into the active page.

The Line component supports the following properties:

General Property Page, Line Property Page, Formula Property Page

Rectangle

Selecting this command or icon  inserts a rectangle component into the active page.

The Rectangle component supports the following properties:

General Property Page, Line Property Page, Fill Property Page, Formula Property Page

Round Rectangle

Use this command or icon  to insert a round rectangle component into the active page.

The Round Rectangle component supports the following properties:

General Property Page, Line Property Page, Fill Property Page, Round Corners Property Page, Formula Property Page

Ellipse

Selecting this command or icon  inserts an ellipse component into the active page.

The Ellipse component supports the following properties:

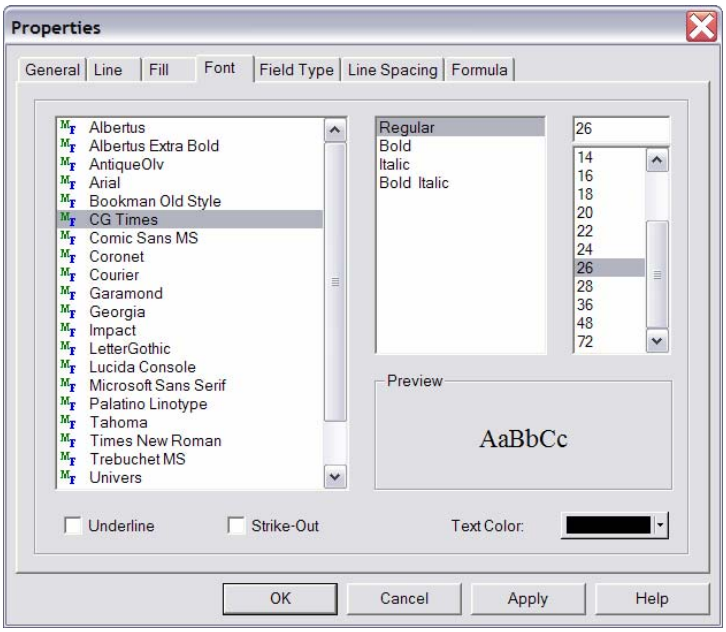
General Property Page, Line Property Page, Fill Property Page, Formula Property Page

Format Menu

The Format menu enables you to modify the look of text objects.

Font

Use this command to display and set the font attributes of the currently-selected text object(s). This command will open the component property sheet, with the Font property page tab selected, as shown below:



Justification→Left

Use this command to align the *left* edge of the currently-selected component(s).

Justification→Center Horizontally

Use this command to *center* the currently-selected component(s).

Justification→Right

Use this command to align the *right* edge of the currently-selected component(s).

Justification→Justify

Use this command to align *both* the *left* and *right* edges of the currently-selected component(s).

Justification→Top

Use this command to align the text in the currently-selected text component against the *top* border of the object.

Justification→Center Vertically

Use this command to vertically *center* the text in the currently-selected text component within the borders of the object.

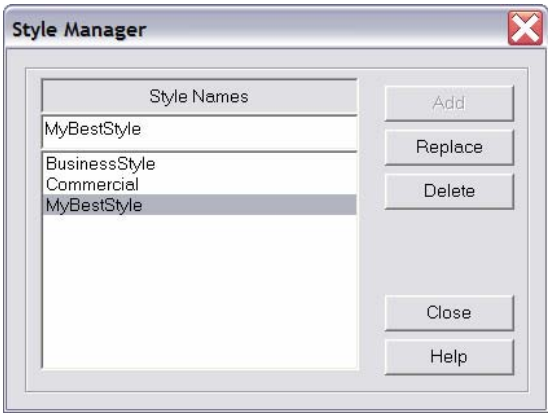
Justification→Bottom

Use this command to align the text in the currently-selected text component against the *bottom* border of the object.

Style…

Use this command to open the Style Manager dialog window.

NOTE: You must have a text object selected for the Style… command to be enabled.



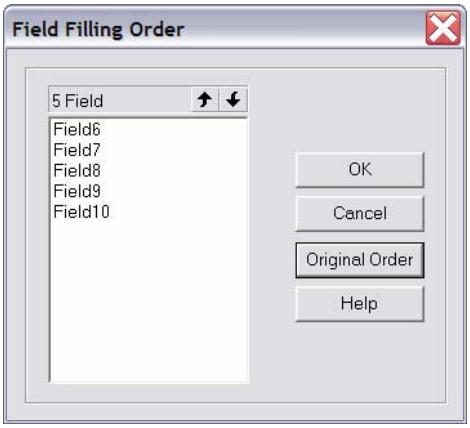
After you've modified the appearance of a text object, you can give a name to that look and save it in the style manager. This style can then be applied to other text objects to save time and ensure a consistent look.

Tools Menu

Under the Tools menu, you can further refine and optimize the components that make up your form.

Field Filling Order…

Through this dialog window, you can specify the order in which the text fields will be filled.



NOTE: There must be at least two fields in the document for this option to be available.

To change the order, simply select a field and then use either the up or down arrow keys to move it around the list. Click on OK to accept the new order, or Cancel to revert back to the original order.

Group Resize…

This feature allows you to resize multiple objects in a single step. Resizing can be performed horizontally, vertically or both dimensions at once.

NOTE: At least two objects must be selected for this command to be enabled.

Group Align

Align Top

Use this command or toolbar icon  to move the selected object(s) into alignment with the topmost portion of the last selected object. At least two objects must be selected for this command to be available.

Align Middle

Use this command or toolbar icon  to move the selected object(s) into horizontal alignment with the last selected object. At least two objects must be selected for this command to be available.

Align Bottom

Use this command or toolbar icon  to move the selected object(s) into alignment with the bottommost portion of the last selected object. At least two objects must be selected for this command to be available.

Align Left

Use this command or toolbar icon  to move the selected object(s) into alignment with the leftmost portion of the last selected object. At least two objects must be selected for this command to be available.

Align Center

Use this command or toolbar icon  to move the selected object(s) into vertical alignment with the last selected object. At least two objects must be selected for this command to be available.

Align Right

Use this command or toolbar icon  to move the selected object(s) into alignment with the rightmost portion of the last selected object. At least two objects must be selected for this command to be available.

Group Layout

Space Across

Use this command or toolbar icon  to equally space three or more selected objects *horizontally* on the current page.

Space Down

Use this command or toolbar icon  to equally space three or more selected objects *vertically* on the current page.

Same Width

Use this command or toolbar icon  to change the *width* of the selected components so that they match the width of the last selected object. At least two objects must be selected for this command to be available.

Same Height

Use this command or toolbar icon  to change the *height* of the selected components so that they match the width of the last selected object. At least two objects must be selected for this command to be available.

Same Size

Use this command or toolbar icon  to change the both the *height and width* of the selected components so that they match the width of the last selected object. At least two objects must be selected for this command to be available.

Group

Group Command

Use this command or toolbar icon  to group selected components into a single object. Grouped objects can easily be ungrouped later if needed. This button is only available if there is more than one selected component in the active document.

Ungroup

Use this command or toolbar icon  to ungroup the selected group component. This button is only available after you select a group in the active document.

Bring to Front

Use this command or toolbar icon  to bring the selected component(s) to the topmost layer of the object stack. You must select at least one object for this command to be available.

Send to Back

Use this command or toolbar icon  to send the selected component(s) to the bottommost layer of the object stack. You must select at least one object for this command to be available.

Bring Forward

Use this command or toolbar icon  to elevate the selected component(s) up one level in the object stack. You must select at least one object for this command to work, and it ceases to have an effect once the object has reached the top of the stack.

Send Backward

Use this command or toolbar icon  to send the selected component(s) down one level in the object stack. You must select at least one object for this command to work, and it ceases to have an effect once the object has reached the bottom of the stack.

Nudge

The Nudge command moves the selected object(s) a single pixel in the direction you specify.

Nudge Up

Use this command or toolbar icon  to move the selected component(s) *up* one pixel.

Nudge Down

Use this command or toolbar icon  to move the selected component(s) *down* one pixel.

Nudge Left

Use this command or toolbar icon  to move the selected component(s) *left* one pixel.

Nudge Right

Use this command or toolbar icon  to move the selected component(s) *right* one pixel.

Rotate

Free Rotation

Select this icon  to freely rotate the current object. Using angle snap constrains free rotation to increments of 15°.

Left 90 Degrees

Click this icon  to rotate the selected object 90° to the *left*.

Right 90 Degrees

Click this icon to rotate the selected object 90° to the *right*.

Snap to Grid Command

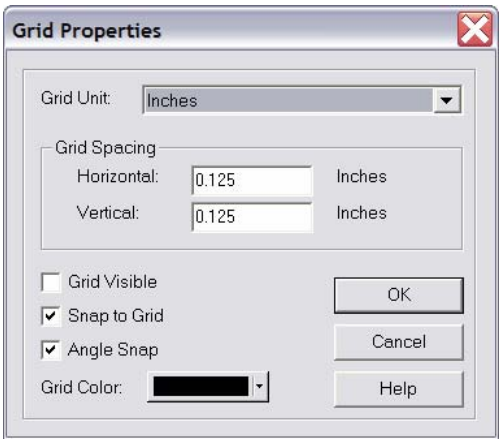
Use this command or toolbar icon to enable or disable the Snap to Grid feature for components on the active document page. Grid settings can be customized through the Tools→Grid Properties command.

Angle Snap Command

Use this command to activate or deactivate the Angle Snap feature used when rotating objects. When enabled, objects rotate in 15° increments. Grid settings can be customized through the Tools→Grid Properties command.

Grid Properties…

Use this command to open the Grid Properties dialog. This dialog will give the ability to set the grid properties.

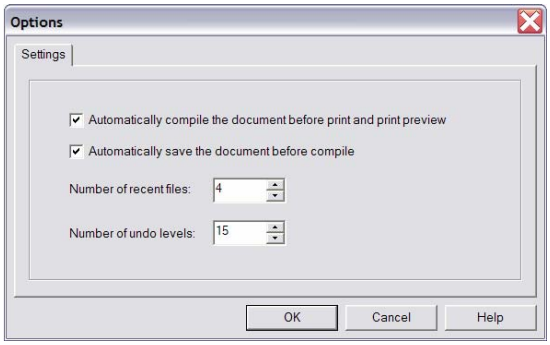


Auto Select Tools

Enable this command to automatically select all inserted or drawn objects. When off, you must manually select new objects before modifying their properties.

Options

Through this menu item you can customize how some functions of FormPort Designer behave.



In addition, you can specify whether or not FormPort Designer automatically complies documents prior to displaying a print preview or before printing the document. You can also set how many recent files appear in the File menu history list (up to a maximum of 16) and set the number of undo levels (50 maximum).

NOTE: Setting excessive undo levels could impact system performance, and should always be used with caution.

Window Menu

The Window menu contains the items listed below:

Cascade

This command arranges multiple opened windows in an overlapped fashion.

Tile

Arranges multiple opened windows in a non-overlapped fashion.

Arrange Icons

Arrange the icons for minimized windows at the bottom of the main window. If there is an open document window at the bottom of the main window, then some or all of the icons may not be visible since they'll be underneath this document window.

Close All

Use this command to close all of the currently-open documents. If there are any unsaved changes in any of the documents, the Save dialog will open and prompt you to save.

Open Files List

The application displays a list of currently-open document windows at the bottom of the Window menu. A check mark appears in front of the document name of the active window. Select any document from this list to make it active.

Help Menu

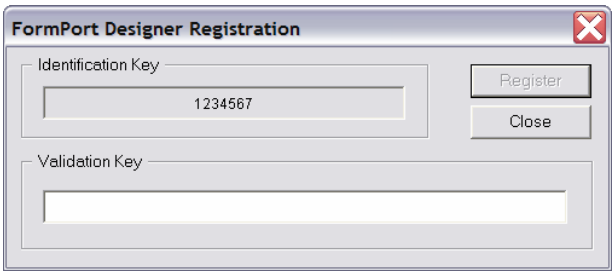
The Help menu contains links to various assistance resources.

Contents

Use this command to open the online help documentation's table of contents.

Register FormPort Designer…

This menu item launches a dialog box allowing you to register FormPort Designer.



To register the product, perform the following procedure:

1. Copy the Identification Key and Email it to register@capellatech.com with a valid return address.

2. When you receive the Validation Key, enter it into the FormPort Designer Registration dialog and click on the Register button.

FormPort Designer is now registered and ready to use without restrictions.

Technical Support

Contact information for technical support is displayed by selecting this menu item.

About

Use this command to display a window with version and copyright information.

Chapter 3: Tutorials

These tutorials are intended to give you a taste of FormPort Designer and get you up to speed in creating your first forms.

This section consists of the following basic tutorials, and should be performed in order:

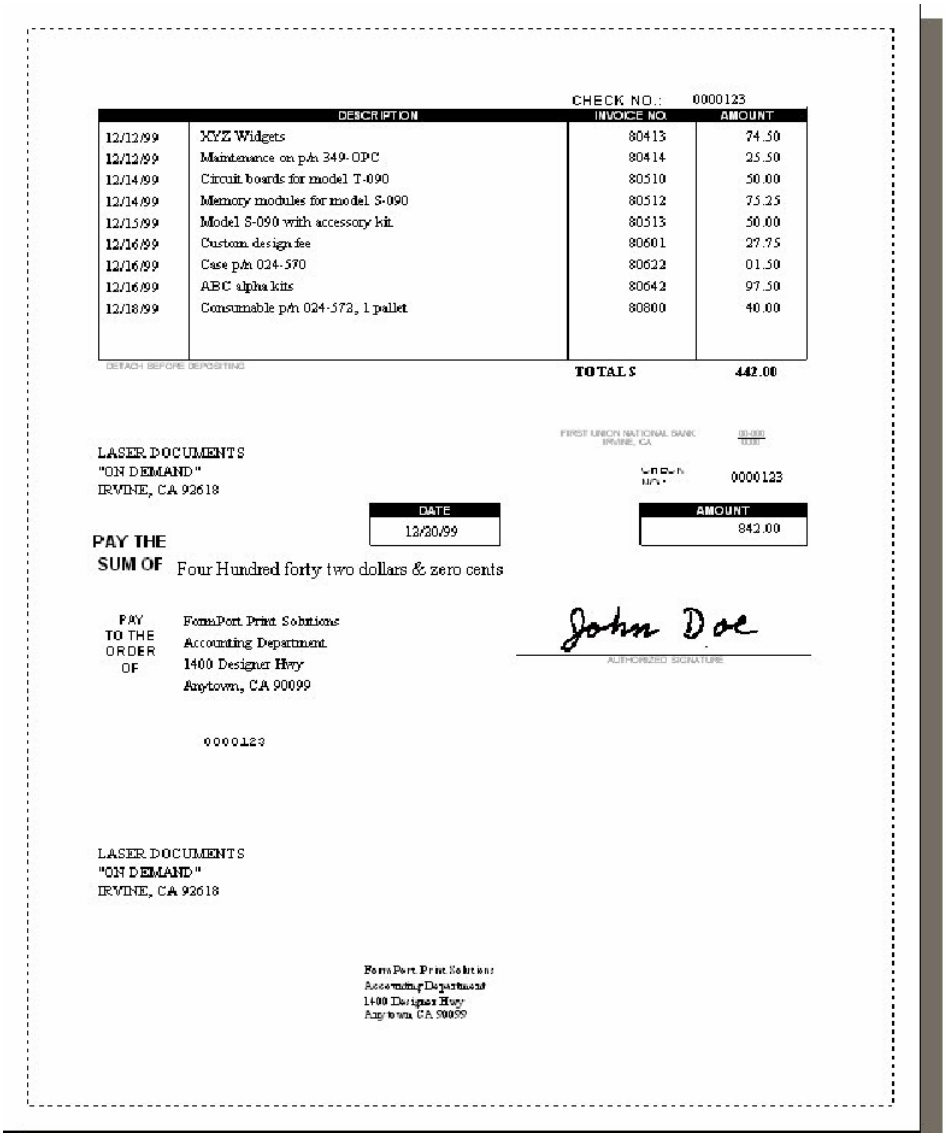
- FormPort Designer Tutorial
- Multiple Accounts Tutorial
- Email Tutorial

FormPort Designer Tutorial

The purpose of this tutorial is to help familiarize you with the basic features and functionality of Formport Design. The form you'll be creating is an AP Check that will be printed on a standard HP printer.

This tutorial explores and describes the following features and functions: lines, boxes, fixed text, logo, signature, micr line, mapped data original copy from tray 1 and internal copy from tray 2

Once complete, the form should look like the sample below.



CHECK NO.: 0000123

DESCRIPTION		INVOICE NO.	AMOUNT
12/12/99	XYZ Widgets	80413	74.50
12/12/99	Maintenance on p/n 349-OPC	80414	25.50
12/14/99	Circuit boards for model T-090	80510	50.00
12/14/99	Memory modules for model S-090	80512	75.25
12/15/99	Model S-090 with accessory kit	80513	50.00
12/16/99	Custom design fee	80601	27.75
12/16/99	Case p/n 024-570	80622	01.50
12/16/99	ABC alpha kits	80642	97.50
12/18/99	Consumable p/n 024-573, 1 pallet	80800	40.00
		TOTALS	442.00

DETACH BEFORE DEPOSITING

FIRST UNION NATIONAL BANK
IRVINE, CA

LASER DOCUMENTS
"ON DEMAND"
IRVINE, CA 92618

0000123

DATE: 12/20/99

AMOUNT: 842.00

PAY THE SUM OF Four Hundred forty two dollars & zero cents

PAY TO THE ORDER OF
FormPort Print Solutions
Accounting Department
1400 Designer Hwy
Anytown, CA 90099

John Doe
AUTHORIZED SIGNATURE

0000123

LASER DOCUMENTS
"ON DEMAND"
IRVINE, CA 92618

FormPort Print Solutions
Accounting Department
1400 Designer Hwy
Anytown, CA 90099

Prerequisites

To complete this tutorial, you must have the following files:

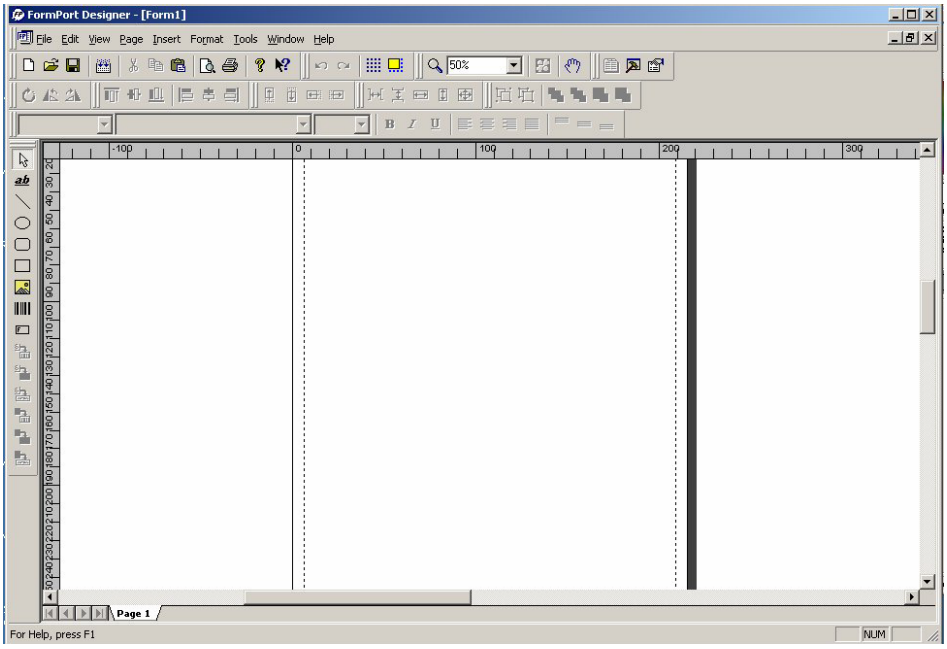
- jdoe.jpg
- Demodata.txt
- Demospool.txt

These files can be found at the following location:

C:\Program Files\CapTech\FormPort Designer\Tutorials and Test Files\FormPort Designer Tutorial

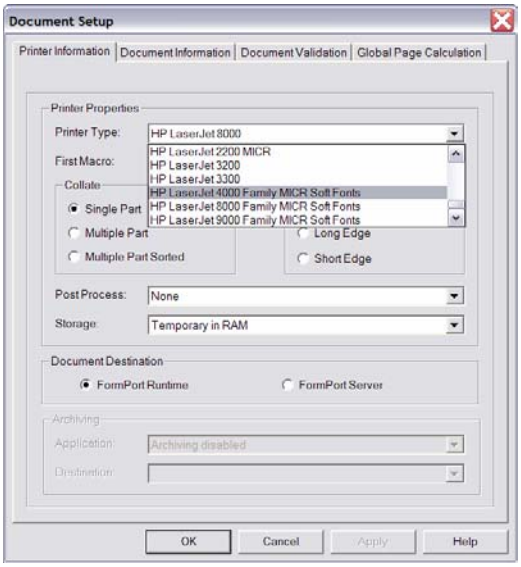
Getting Started

Click on Start→Programs→Formport→Formport Designer to launch the program. The following screen appears:



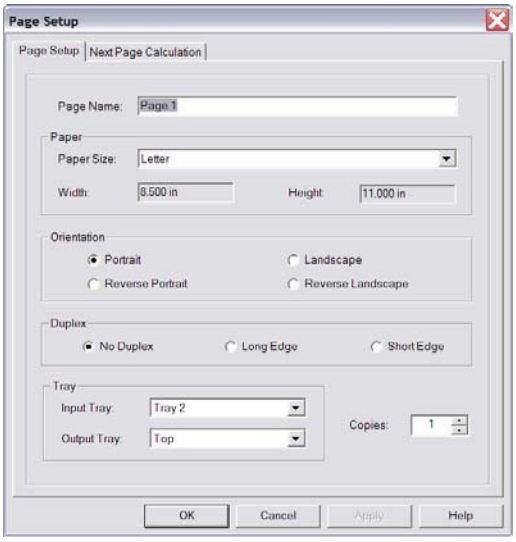
Choose Printer and Paper size

3. Click on File→Document Setup. The Document Setup page appears.



4. For Printer Type, select HP Laserjet 4000 Family Micr Soft Fonts from the drop-down menu list.

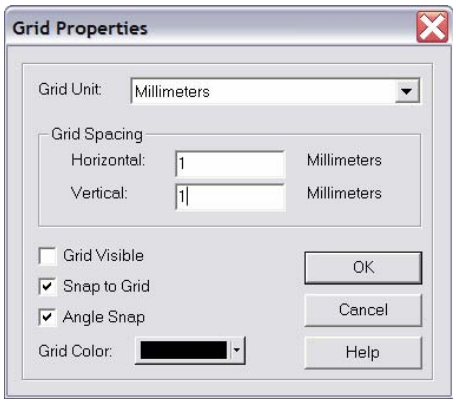
5. From the top FormPort Designer menu, select Page→Page Setup. The following Page Setup screen appears:



6. Verify Paper Size is set to Letter and Orientation is set to Portrait.

Set Grid Size and View

From the top FormPort Designer menu, click on Tools→Grid Properties to bring up the Grid Properties screen, as shown below:



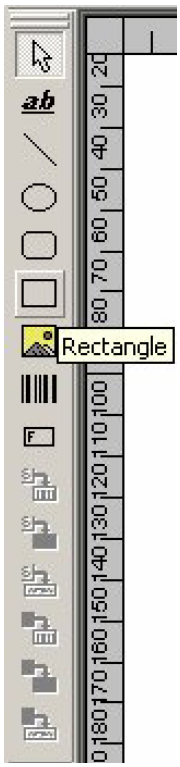
1. For Grid Units, select Millimeters.

2. For Grid Spacing, enter 1 for both Horizontal and Vertical.

3. Make sure the Grid Visible box is unchecked.

Creating a Black Box

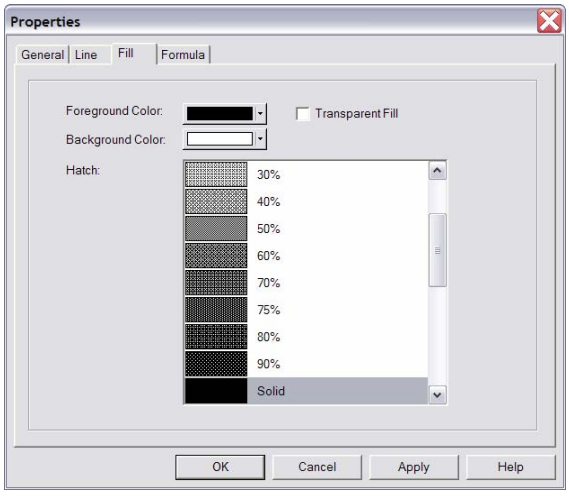
Begin by clicking the Rectangle button on the Drawing Toolbar on the left side of the screen.



1. Click and drag the cursor across the screen.

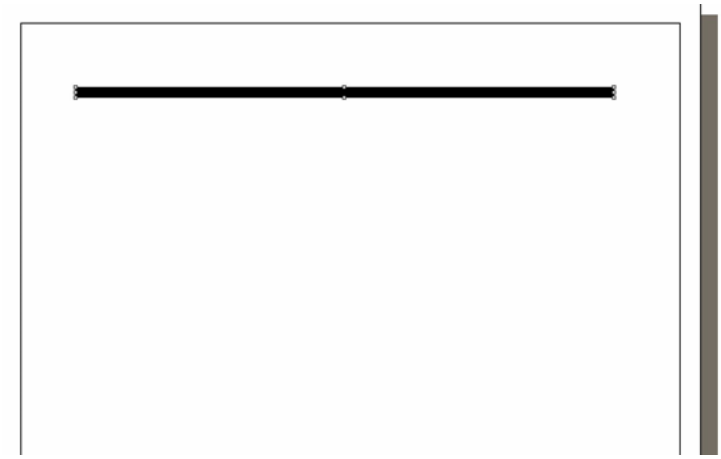
2. Right-click inside the rectangle and choose Properties from the menu shown.

3. Click the Fill tab and uncheck the Transparent Fill box.



4. Choose Solid from the Hatch menu and press OK.

The document should now resemble the following illustration:



Create a Transparent Box

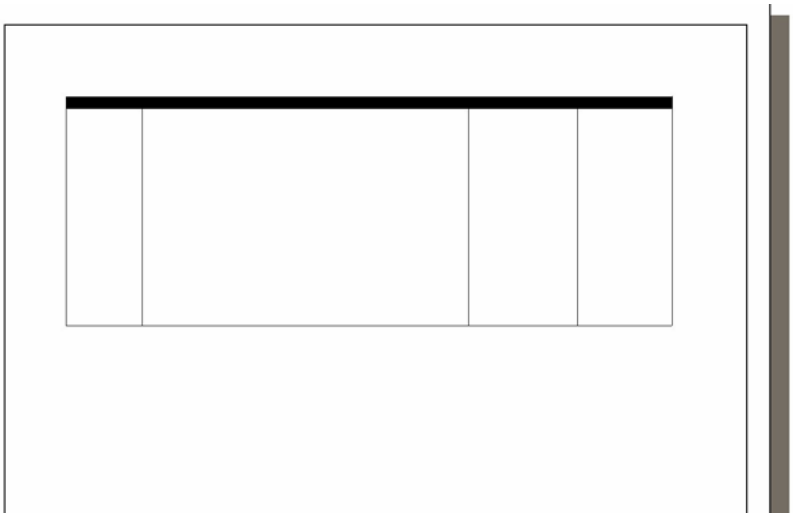
Repeat the previous procedure to create another box directly below the first one. On this one, make sure the Transparent Fill option is checked.

Creating Horizontal and Vertical Lines

Select the Line button  on the Drawing Toolbar.

NOTE: You can constrain the line tool to horizontal or vertical lines (as opposed to diagonal) by holding down the **SHIFT** key.

Click and drag the cursor to the desired length on either side of the black rectangle, as shown in the following image:



Formatting Graphic Objects

The following tools are available to assist you as you build your page:

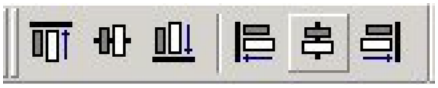
Nudge Tool

The Nudge tool allows you to move a selected object a pixel at a time in any of four directions.

Select an object, click on any of the Nudge tools and watch the result.

Aligning Objects

The alignment tools allow you to precisely align objects along their edge or through their midpoints. Alignment tools only become active after you've selected one or more objects.



When performing an alignment, the last object selected is used as the reference object to which all other objects are positioned. After selecting an object, you can choose additional objects by holding down either the **CTRL** or **SHIFT** keys.

From the Alignment Toolbar, select the manner in which to align the objects. The choices are: align top, center horizontally, align bottom, alight left, center vertically and align right.

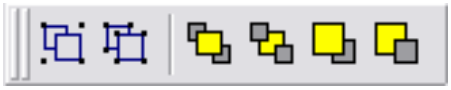
Changing the Layout of Multiple Objects

The Layout tools are only active when more than one object is selected, and are used to ensure the height, width and spacing between objects is uniform. Like the alignment tools, the last object selected is used for reference.

Select the objects whose layout you wish to change, click on the desired icon and observe the result.

Changing Object Structure

Objects can also be grouped to facilitate easier manipulation and prevent accidental alterations. Grouped objects can always be ungrouped later if needed.

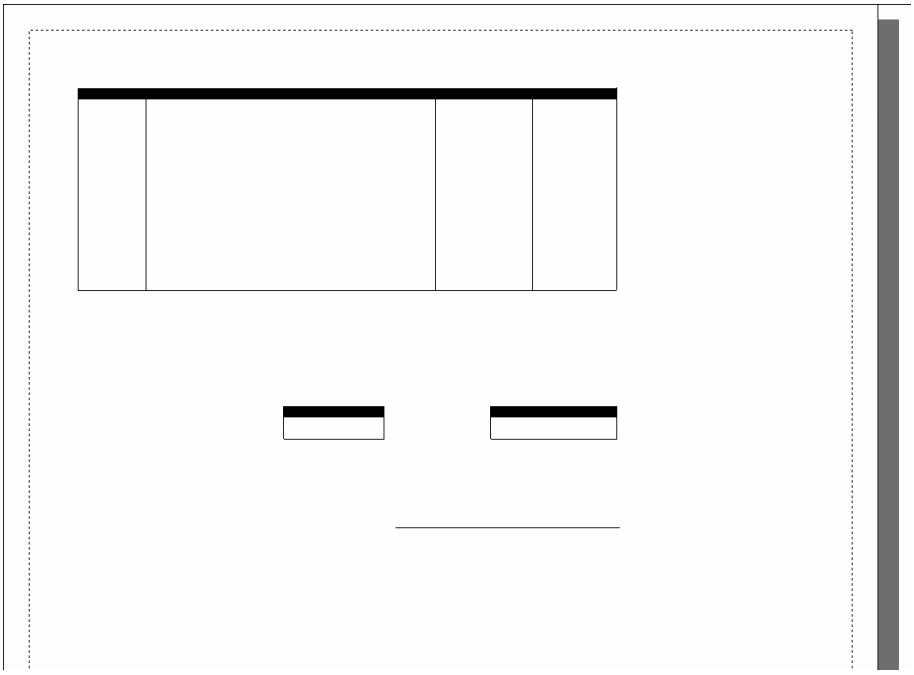


To group, select two or more objects by holding down either the **SHIFT** or **CTRL** keys. Click on either the Group icon on the Structure toolbar, or choose through Tools→Group→Group.

Objects on a page can also be moved forward and backward through the stack of other objects in a document. Tools to move selected objects forward and backward can also be found on the Structure toolbar.

Completing the Graphical Layout

Utilizing the tools described so far, continue creating a page that resembles the illustration below:



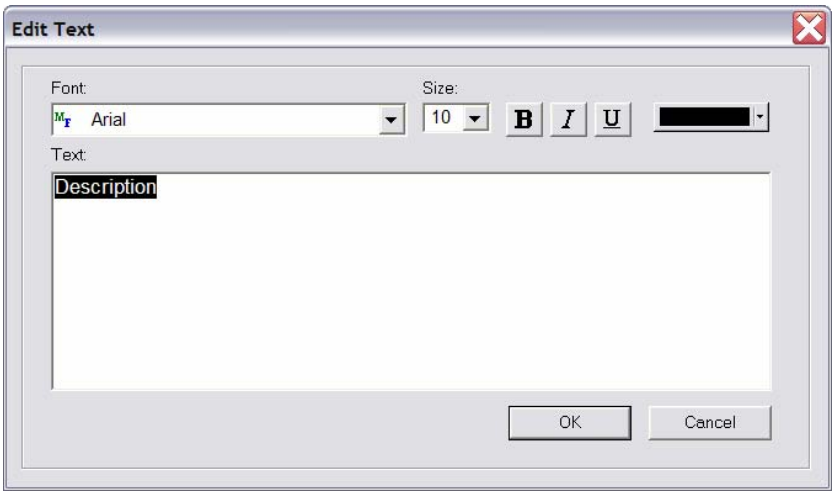
Creating Text Inside the Black Box

To add a text element to your page, follow the procedure below:

1. From the Drawing Toolbar, click the Rich Text button ab.

2. Click and drag the cursor to place text at the desired location.

3. Right-click inside the text space and choose Edit Text from the resulting menu, as shown below:



4. Enter the text you wish to appear on the form. To alter the appearance of the text, highlight it, select font Arial Size 10 and change the color to white. Click on OK to accept the new format changes.

By default, text objects have a single pixel border around them. To turn off this border, right-click on the text object and choose Properties from the resulting menu. Click on the Line tab and check the No Line box.

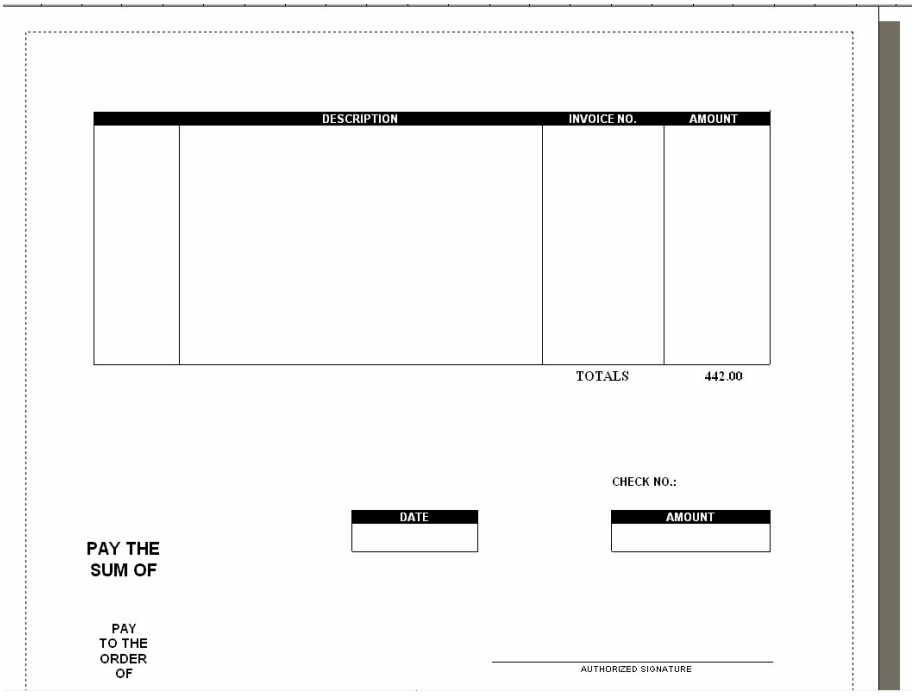
Rotating Text Objects

Text objects can be rotated through the Rotate toolbar.

To rotate a text object, first select the text you wish to rotate.

- To rotate 90° to the left, select Rotate Left on the Rotate Toolbar.
- To rotate 90° to the right, select Rotate Right on the Rotate Toolbar
- To manually rotate text objects to any angle, select Rotate on the Rotate Toolbar and drag the cursor out from the center of the object. Text rotation can be constrained to 15° increments by using the Tools→Angle Snap command.

Continue to add text objects until your document resembles the following illustration:



Inserting Logos and Signatures

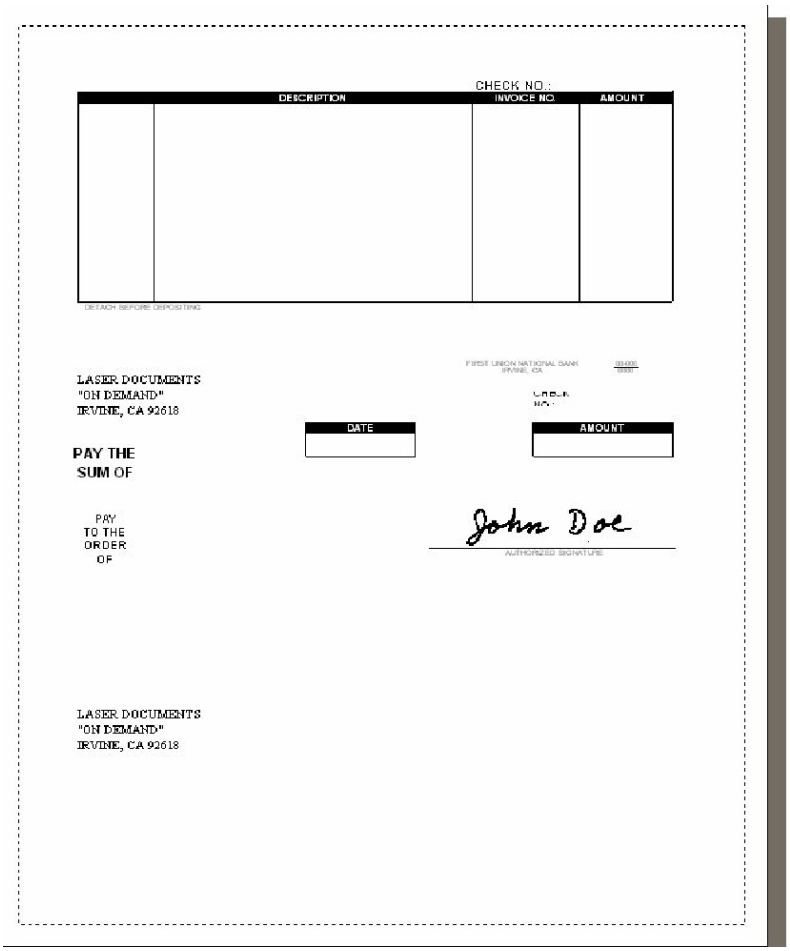
Forms can be further enhanced through the use of bitmap images of company logos and signatures. To import a bitmap image, follow the procedure below:

1. Select the Image icon from the Drawing Toolbar.

2. Click and drag the cursor in the spot you'd like to place the image.

The Open dialog appears and you must provide a path and filename to load. Choose the image Jdoe.jpg from the current directory.

3. By default, images come into FormPort Designer at a resolution of 300 dpi. To reduce the size of this image, right-click on the image, select the Image tab and increase the resolution to 600 dpi. Position the signature image, as shown in the following image:



Mapping Data

Now that the look of the page has been established, it's time to import and map the spool data.

1. Click on Page→Spool Mapping→Spool File→Load Spool File. From the resulting dialog box, select the file Demospool.txt

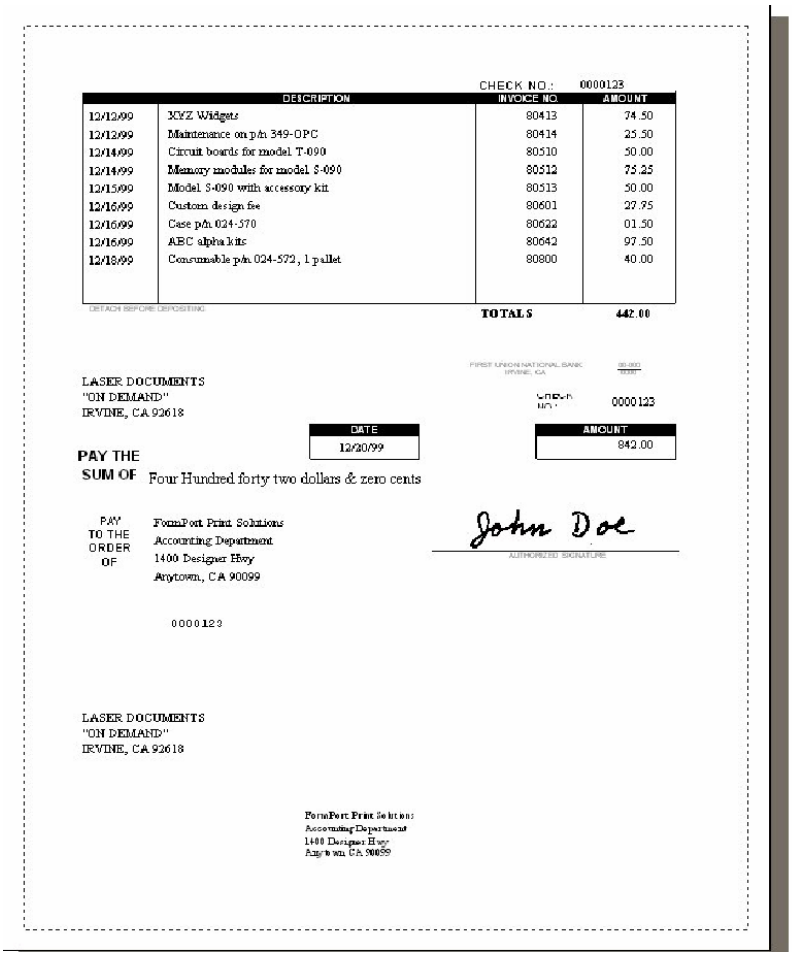
2. The data file should now be displayed in the background of the form in gray text.

3. Click On the Spool Text icon  .

4. Drag the cursor over the data that you wish to map. A Spool Properties dialog appears that indicates displays the line and column positions of the text you've selected. Make sure Copy is checked and choose OK.

The spool data has been extracted from the spool file and can now be moved anywhere on the page.

Continue to map the spool data until your form resembles the following image:



CHECK NO.: 0000123

DESCRIPTION		INVOICE NO.	AMOUNT
12/12/99	MYZ Widgets	80413	74.50
12/12/99	Maintenance on p/n 349-OPC	80414	25.50
12/14/99	Circuit boards for model T-090	80510	50.00
12/14/99	Memory modules for model S-090	80512	75.25
12/15/99	Model S-090 with accessory kit	80513	50.00
12/16/99	Custom design fee	80601	27.75
12/16/99	Case p/n 024-570	80622	01.50
12/16/99	ABC alpha kits	80642	97.50
12/18/99	Consumable p/n 024-572, 1 pallet	80800	40.00
		TOTALS	442.00

DETACH BEFORE DEPOSITING

FIRST UNION NATIONAL BANK
IRVINE, CA

LASER DOCUMENTS
"ON DEMAND"
IRVINE, CA 92618

CHECK NO.: 0000123

DATE: 12/20/99

AMOUNT: 842.00

PAY THE SUM OF Four Hundred forty two dollars & zero cents

PAY TO THE ORDER OF
FormPort Print Solutions
Accounting Department
1400 Designer Hwy
Anytown, CA 90099

John Doe
AUTHORIZED SIGNATURE

0000123

LASER DOCUMENTS
"ON DEMAND"
IRVINE, CA 92618

FormPort Print Solutions
Accounting Department
1400 Designer Hwy
Anytown CA 90099

Add Micr Line

1. Highlight the mapped Check No. field. Copy and paste the Check No. field and move it to the Micr Line area

2. Right Click on the field and select the Properties→Formula tab and enter the text below into the formula box:

"C"& (spooltext(64,27,9,1))&"C A123456789A C458795C"

NOTE: Your actual SPOOLTEXT formula might vary slightly depending on the location of the Check No field on the page.

3. Click on the Font tab and select the E13B font.

Create a Copy and Select Tray 2

1. Insert a page by clicking Page→Page Control→Insert Page and choose After Current Page. Click on OK.

2. Return to the first page by clicking on the Page 1 tab at the bottom of the screen.

3. Select all objects by choosing Edit→Select All or by holding down the **CTRL** key and pressing the **A** key.

4. Select Edit→Copy or hold down the **CTRL** key and press **C**.

5. Go back to the blank, new page by clicking on the Page 2 tab at the bottom of the screen.

6. Select Edit→Paste or hold down the **CTRL** key and press **V** to paste a copy of the data from the first page.

7. While still on the second page, delete the micr field and the signature objects.

8. Select Page→Page Setup and select Tray 2.

9. Select File→Document Setup and click on Multiple Part under Collate.

Print the Form

1. Click File→Print and enter a name to save and compile the form.

2. Check the box Merge the page with sample spool data.

3. Select the printer to print to and then Click OK.

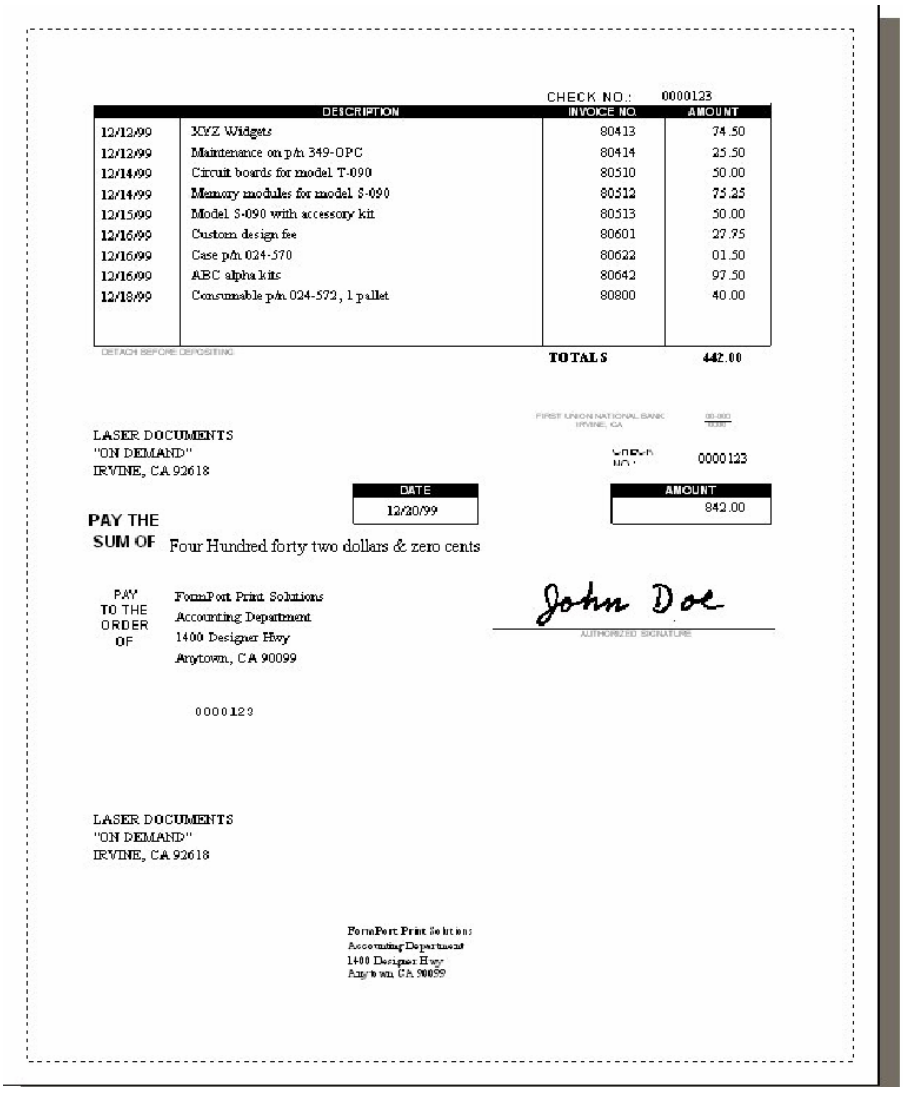
Multiple Accounts Tutorial

NOTE: This tutorial can only be performed after creating the form in the FormPort Designer Tutorial, which demonstrates the basics of FormPort Designer.

This tutorial provides an example on how to print a specific check depending on the check number range. A sample .fpd file, testCheckNum.fpd, is located in C:\Program Files\CapTech\FormPort Designer\Tutorials and Test Files\Multiple Accounts Tutorial.

Determining which Check to Print by Check Number

1. Open FormPort Designer and load your document from the previous tutorial, as shown in the figure below:



CHECK NO.: 0000123

DESCRIPTION		INVOICE NO.	AMOUNT
12/12/99	XYZ Widgets	80413	74.50
12/12/99	Maintenance on p/n 349-OPC	80414	25.50
12/14/99	Circuit boards for model T-090	80510	50.00
12/14/99	Memory modules for model S-090	80512	75.25
12/15/99	Model S-090 with accessory kit	80513	50.00
12/16/99	Custom design fee	80601	27.95
12/16/99	Case p/n 024-570	80622	01.50
12/16/99	ABC alpha kits	80642	97.50
12/18/99	Consumable p/n 024-572, 1 pallet	80800	40.00
		TOTALS	442.00

DETACH BEFORE DEPOSITING

LASER DOCUMENTS
"ON DEMAND"
IRVINE, CA 92618

FIRST UNION NATIONAL BANK
IRVINE, CA

CHECK NO.: 0000123

DATE: 12/20/99

AMOUNT: 842.00

PAY THE SUM OF Four Hundred forty two dollars & zero cents

PAY TO THE ORDER OF
FormPort Print Solutions
Accounting Department
1400 Designer Hwy
Anytown, CA 90099

John Doe
AUTHORIZED SIGNATURE

0000123

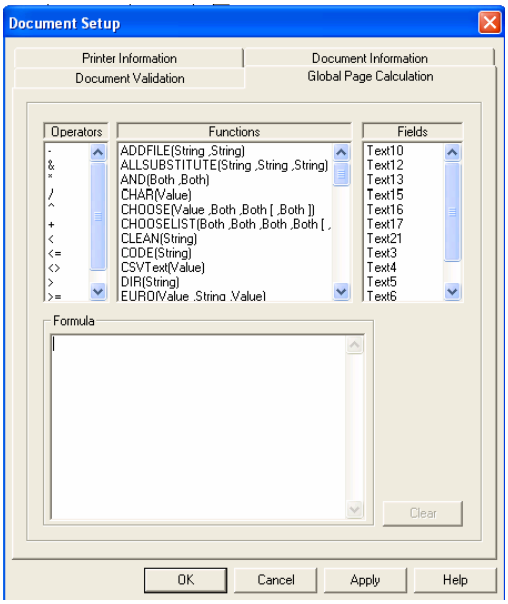
LASER DOCUMENTS
"ON DEMAND"
IRVINE, CA 92618

FormPort Print Solutions
Accounting Department
1400 Designer Hwy
Anytown, CA 90099

2. Insert a new page after this one and create a check for a different account.

NOTE: Load the same spool file used for the previous page.

3. When both checks are finished, go to File→Document Setup and click the Global Page Calculation tab.



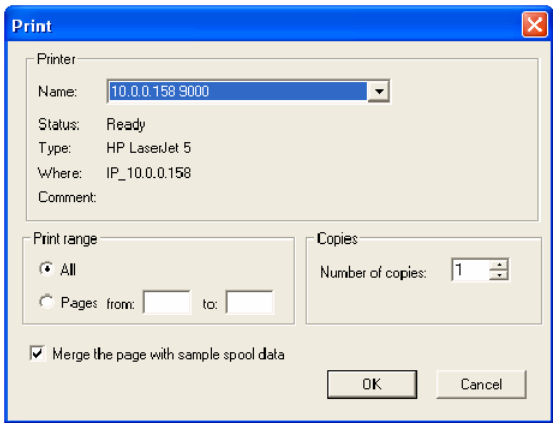
4. In the Formula box, type in the following:

IF (VALUE (SPOOLTEXT (67, 2, 7, 1)) > 5000000, 2, 1)

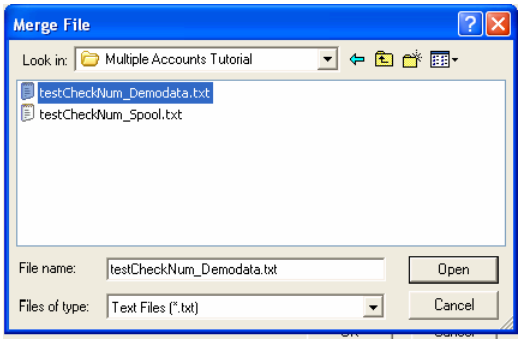
This formula checks if the value of the check number is greater than 5000000. If true, page 2 will be selected, otherwise page 1 will be selected. The “SPOOLTEXT (67,2,7,1)” formula is the formula for the check number. To make sure this is correct, you can right click on the check number, select properties, and click the Formula tab.

5. Click OK, and then compile the document.

6. To test the application, go to File→Print and check the Merge the page with sample spool data option.



7. When the Merge File window appears, select the testCheckNum_Demodata.txt file in the C:\Program Files\CapTech\FormPort Designer\Tutorials and Test Files\Multiple Accounts Tutorial directory.



8. Click OK to print, then check to make sure the correct checks print out.

E-mail Tutorial

NOTE: This tutorial can only be performed after creating the form in the FormPort Designer Tutorial, and will only work if run through FormPort Server.

There are two ways of emailing documents with FormPort Server. The first is to use the Email Agent to send the entire job to a specified email address, and the second way to extract the email address of the recipient from the data file. With this method, you are able to divide the job into several parts and email them individually to the specified email address.

Using the Email Agent to Send the Entire Job

1. Create a new Printing process called “EMAIL.”

2. Add a Printer profile and select a logical printer (For this example, the printer is referred to as “Log1”)

3. Add a FormPort agent and select the appropriate parameters

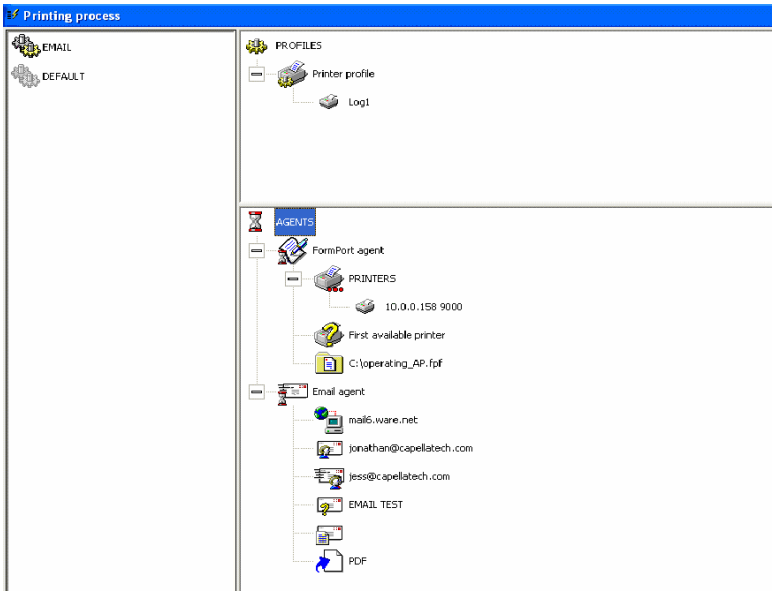
4. Right-click FormPort Agent and select “Add an agent.”

5. Select the Email agent.

NOTE: The Email agent must exist *below* the FormPort agent.

6. Fill in the basic parameters (host name, address of sender, address of recipients, email subject and message, and attachment file format)

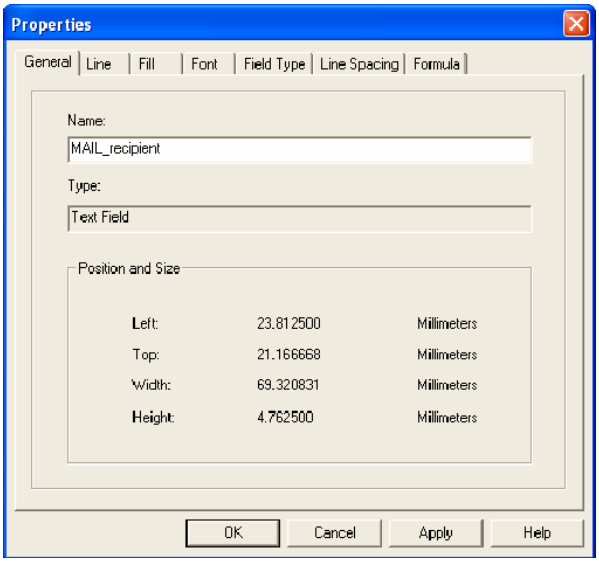
7. When a data file is sent to the Log1 printer, the job will be sent to the printer specified in the FormPort agent. This job will then be emailed using the data provided in the Email Agent.



For more information on the Email agent, please consult the FormPort Server Users Manual.

Emailing Multiple Jobs to Multiple Recipients

In order for FormPort Server to detect a recipient's email address within the data file, a field must be created within the application containing the formula for the mapped email address. The name of this field MUST begin with the word "MAIL". Two processes and two logical printers will be used for this function.



1. Create a new Printing process called “FILE SPLIT.”

2. Add a new Printer profile and select a logical printer (For this example, this printer will be referred to as Log 1).

3. Add a File split agent.

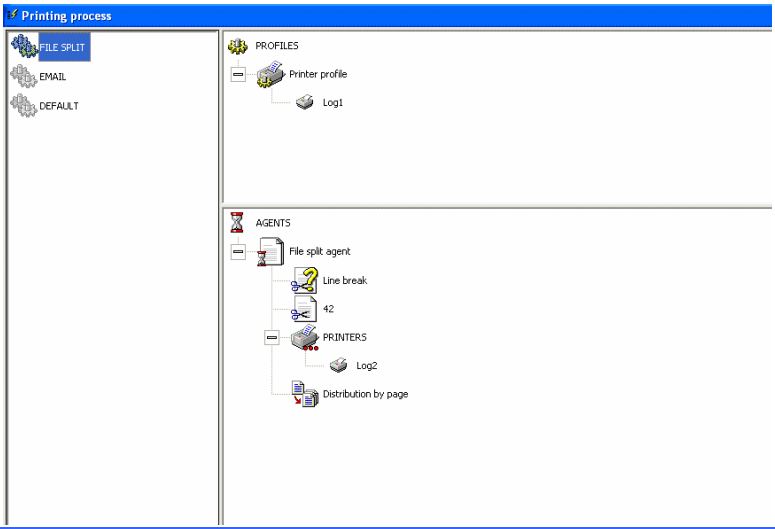
4. Select the appropriate mode for Pages break mode.

5. Input the value for the cut sequence. This depends on which page break mode is selected.

- If Line break is selected, the cut sequence should contain the number of lines in which the job will be divided into. In other words, a new page will be created every n lines, where n is the number inputted.
- If String break is selected, the cut sequence should contain a text sequence. The File split agent divides the job when it reaches this sequence. This sequence can also include the carriage return, “\r\n”.
- If Form Feed break is selected, the cut sequence parameter is not used. The job will be divided when a form feed is encountered in the data.

6. Right click the printer in the File split agent and select a second logical printer (For this example, this printer will be referred to as Log2).

7. Select the strategy to send the spool. This is what the first process should look like.



8. Create a new process called “EMAIL” below the first process just made.

9. Add a new Printer profile and select the Log2 printer.

10. Add a FormPort agent and select the appropriate parameters (for testing purposes, use the form check_email.fpf in C:\Program Files\CapTech\FormPort Designer\Tutorials and Test Files\Email Tutorial).

11. Right click FormPort Agent and select “Add an agent.”

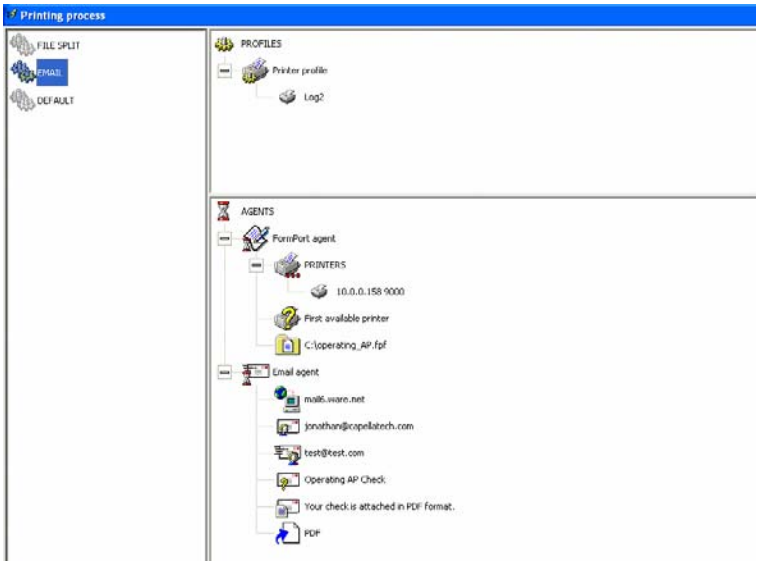
12. Select the Email agent.

NOTE: The Email agent must exist below the FormPort agent.

13. Fill in the basic parameters (host name, address of sender, email subject and message, and attachment file format).

The “List of recipients” parameter will be overridden by the email addresses extracted from the data file. This parameter must not be empty or else an error may occur.

The following illustration is what the second process should look like:



When a data file is sent to the Log1 printer, the job will be split according to the parameters set in the File split agent. These jobs are then sent to the Log2 printer. Each job will be sent to the printer specified in the FormPort

agent, then emailed to the extracted email address in the data file. To test this, open the Demodata_email.txt file and change the email address at the top of each record to your email address. Send this data file to the log1 printer. You should receive the check in your email.

Chapter 4: Procedures and Additional Features

This chapter explains how to perform some of the most-common functions and procedures available in FormPort Designer, as well as how to use some of the additional, special features.

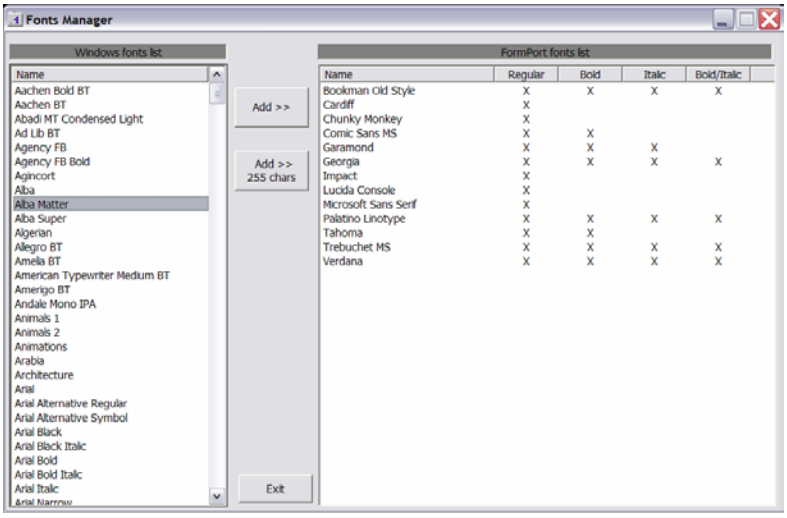
General Procedures

This section provides detailed instructions for a few common FormPort Designer operations.

Adding Fonts

To ensure document consistency, FormPort Designer uses a proprietary set of fonts that differ from what may be installed on your system. If you wish to use some of your own fonts in a document, you must use the Fonts Manager utility.

1. To launch the Fonts Manager, click on Start→Programs→FormPort→Fonts Manager.



2. Select the font you wish to add, and then click on the Add>> button to convert it and add it to the FormPort fonts list.

NOTE: If you'll be printing your document on a different system, you must make sure any new fonts are also installed on that system as well.

Configuring

How to alter FormPort Designer's settings.

Question:

How can I configure the document settings?

Answer:

Settings for the active document can be specified through the Document Setup Property sheet, which can be accessed by selecting File→Document Setup…

Question:

How do I change default properties?

Answer:

Default properties are a collection of settings applied to components as they're placed on the screen. Defining specific settings can greatly increase document creation workflow.

Default properties can be set through the Default Properties Property Sheet that can be accessed by selecting Edit→Default Properties…

Question:

How can I change the page settings?

Answer:

Page settings for the current document can be accessed and changed by selecting Page→Page Setup.

Question:

How do you change the grid properties?

Answer:

The grid is useful for placing components at precise locations on a page, and can be adjusted to by selecting Tools→Grid Properties…

Inserting Objects

This section describes how to import external and graphical objects and place them in your document.

Question:

How do I associate a spool file with the active document?

Answer:

The first step to loading a spool file into the active document is selecting Page→Spool Mapping→Spool File→Load Spool File. The contents of the spool file should become visible on the page and ready for mapping.

Question:

Okay, after loading a spool file, how do I insert a text component into the active page?

Answer:

Using the Insert→Spool Text command allows you to draw a marquee around the desired text object. This text object can then be moved and formatted as needed.

Question:

How do I insert a spool image component into the active page?

Answer:

Spool image components can be inserted into the active page by using the Insert→Spool Image command.

Question:

How do I insert a spool barcode component into the active page?

Answer:

Spool barcode components can be inserted into the active page by using the Insert→Spool Barcode command.

Question:

How can I insert a field component into the active page?

Answer:

Field components can be added through the Insert→Field command.

Question:

How do I associate a CSV file with the active document?

Answer:

The first step to loading a spool file into the active document is selecting Page→Spool Mapping→CSV File→Load Spool File.

Question:

Once a CSV file is loaded, how do I insert a CSV spool text component into the active page?

Answer:

Using the Insert→CSV Spool Text command allows you to insert text by drawing a marquee anywhere on the page.

Question:

How do I insert a CSV spool image component into the active page?

Answer:

CSV Spool image components can be inserted into the active page by using the Insert→CSV Spool Image command.

Question:

How do I insert a CSV spool barcode component into the active page?

Answer:

CSV Spool barcode components can be inserted into the active page by using the Insert→CSV Spool Barcode command.

Question:

How do I add a date field to the active page?

Answer:

A date field component can be added to the current document with the Insert→Date Field command.

Question:

How can I add a time field component to the active page?

Answer:

To add a time field component, use the Insert→Time Field command.

Question:

How do you add a page number to the current document?

Answer:

A page number field can be added through the Insert→Page Number Field command.

Question:

How can I add graphical objects to the current document?

Answer:

Through the Insert menu, it's possible to add lines, rectangles, rectangles with rounded corners and ellipses to you document.

Question:

Is it possible to export an object from the current page for use in other documents?

Answer:

Yes. Objects can be exported and stored in a library for use in other documents. To export an object from the current page, select the object and then choose Edit→Library→Export.

Question:

After I've placed an object into a library, how can I insert it into a new document?

Answer:

With the new document loaded, select Edit→Library→Import to insert and place the object on your page.

Modifying Objects

Once objects have been inserted into the active document, they can be selected and modified to suit your particular needs.

Question:

I want to modify some objects on the page, but how can I select specific objects by their type?

Answer:

Specific components can be easily be selected through the Edit→Filter Selection command.

Question:

How do I add more pages to my document?

Answer:

Pages can be added by selecting Page→Page Control→Insert Page. An Insert Page dialog box will appear, allowing you to specify how many pages you'd like to add.

Question:

How can I change the font properties of text objects?

Answer:

Select the text object and then choose Format→Font. From the resulting dialog box, you can choose different font types, styles and colors.

Question:

I've modified my fonts just the way I like them. Is there some way I can create text styles to save time and ensure a consistent look?

Answer:

The font properties of text components can be saved as a style by choosing the desired object and then selecting the Format→Style command. When the dialog box appears, give your style and name and click on Add. Your new style will now be available from the drop-down menu of the Font toolbar.

Question:

Now that my document is complete, how can I change the field filling order?

Answer:

The order in which fields are filled can be changed at any time through the Tools→Field Filling Order command. A dialog box appears and allows you to select any field and move it either up or down through the list with the arrow keys.

Question:

Once I have objects precisely how I want them, is it possible to group them together?

Answer:

Yes. To group two or more objects, simply select them and then either click on the group icon, or choose Tools→Group→Group.

Import Forms Features

FormPort Designer allows you to import compiled forms from this and previous versions. This feature is useful for opening and editing older documents, or for recreating forms where the original has been accidentally deleted or lost.

Importing Forms

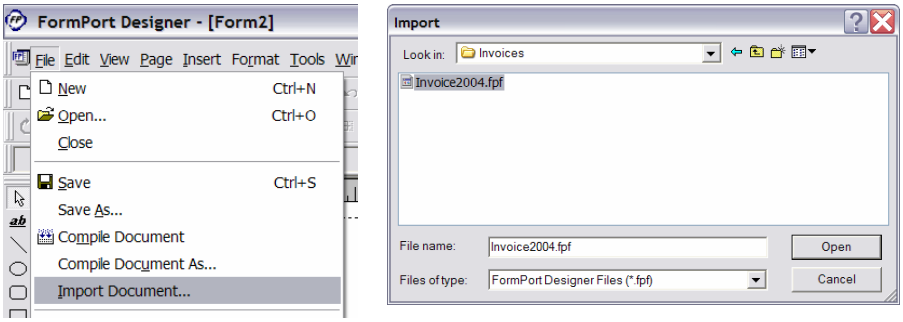
This section explains how to import both old and new forms—and the inherent limitations of each.

Importing an old form

Suppose you created forms with FormPort Design 5 and now you wish to convert them with the FormPort Design 6 format so that you can use the new functionalities.

NOTE: Be aware you cannot open or import FormPort Designer WF3 files directly. However, compiled FPF files from any previous version can be imported.

To import a complied form from a previous version, select File→Import Document…

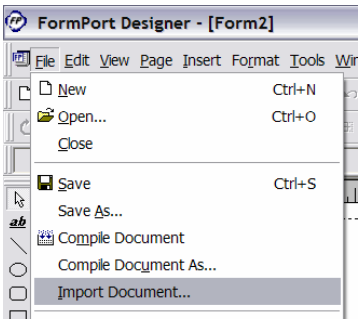


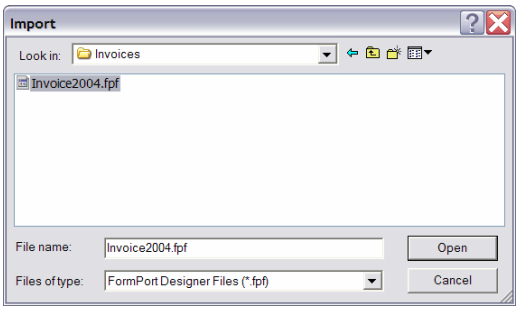
From the resulting Import dialog, indicate the path of the compiled document and click on Open.

Importing a new form

Now suppose you created a form with FormPort Designer version 6 and then saved and compiled the form. This would result in a compiled FPF file and the original FPD file. But if something happened to the original FPD file and it was accidentally deleted or lost, you can recreate it by importing the compiled FPF file.

To import the compiled document, select File→Import Document…





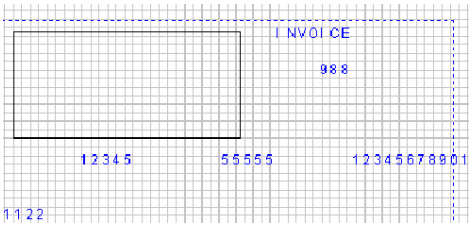
From the resulting dialog box, provide a path and then click on Open to import it.

As you can see, the import procedure for old and new forms is the same; FormPort Designer automatically detects the version of the compiled document. However, the limitations of the import feature are the same.

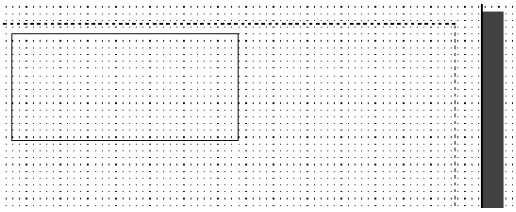
Import Limitations

It's important to understand that compiled FPF files don't contain all the information from the original form, and only have the essential data required by the print engine. Whenever you load a spool file into FormPort Designer, the data is displayed in the page background before being mapped. Although this data is stored in the FPD (or WF3) file, it serves no function in the compiled document and is left out.

This is why when you import an FPF file you won't see the spool data in the background of the page, as shown in the following screenshots:



Original Document

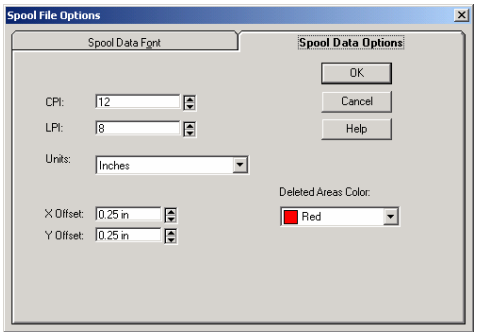


Imported Document

However, some characteristics of the page are known. For example, the number of lines per page and character set. But there are also some page characteristics that are unknown, such as number of characters per inch, etc.

Importing from FormPort Designer Version 5

Be aware of the following limitations when importing older FPF files.



CPI

Character per inch. This setting is not included in the FPF file and is therefore not imported, since it's only used to display the spool file in FormPort Designer and isn't used by the print engine. Whenever importing an FPF file, a default CPI value will be used.

LPI

Lines per inch. This setting is also not stored in the complied document and not imported. Instead, a default value of 6 LPI is used for all imported forms.

Units

Since units are used to calculate the origin of the spool file within FormPort Designer, it's not included in the compiled form, and reverts to a default value when imported.

X Offset, Y Offset

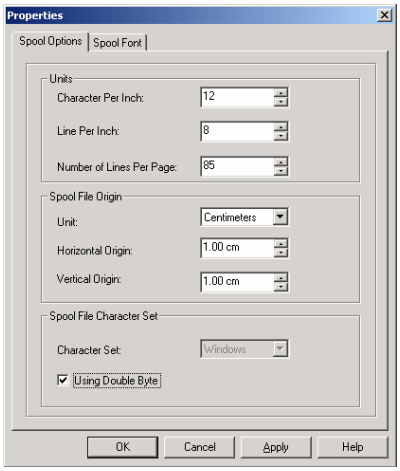
These values are only used to position the spool file and aren't included in the compiled form. Instead, a default value is used.

Deleted Areas Color

This parameter isn't stored in the compiled form and reverts to the default setting when a document is imported.

Importing from FormPort Designer Version 6

Forms created with version 6 of the application have similar limitations when imported.



CPI

Character per inch. This setting is not included in the FPF file and is therefore not imported, since it's only used to display the spool file in FormPort Designer and isn't used by the print engine. Whenever importing an FPF file, a default CPI value will be used.

LPI

Lines per inch. This setting is also not stored in the complied document and not imported. Instead, a default value of 6 LPI is used for all imported forms.

Number of lines

Since the print engine needs to know the number of lines, this value is included in compiled forms and is correctly imported.

Unit, Horizontal, Vertical Origin

These values are only used to position the spool file and aren't included in the compiled form. Instead, a default value is used.

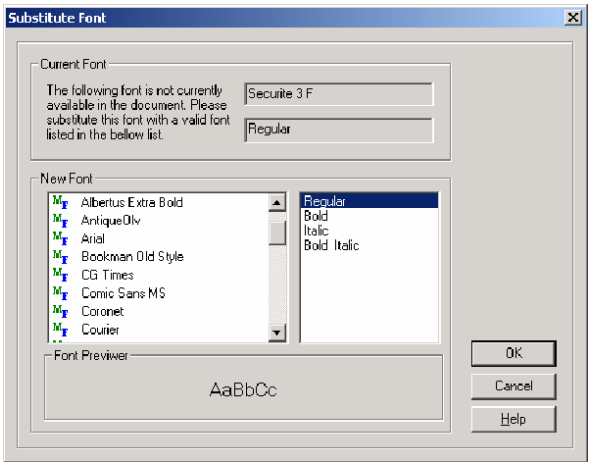
Character Set

Character Set information is properly imported.

As you can see, many parameters are not imported. However, since the number of lines per page is so important to the print engine, this value is. In previous versions of FormPort Designer this parameter was fixed, but in the current version it's variable.

Importing Text objects

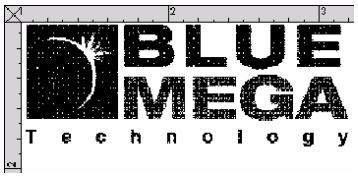
When importing a form containing a special font that isn't currently installed on the system, the following dialog will appear and ask you to make a font substitution:



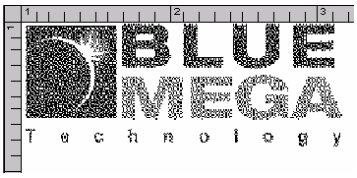
Simply choose an appropriate font to substitute (and applicable attributes) and press the OK button.

Importing Image objects

Form images that conform to standard resolutions (300, 600 or 1200 DPI), should import correctly. Depending on the original image resolution, the imported object might appear to differ slightly, but the printed result should be the same.



Original Image



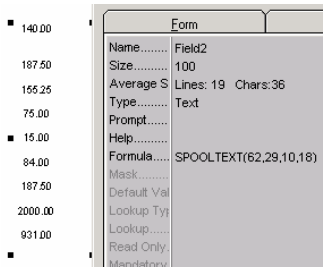
Imported Image

As you can see, the size of the image is the same, but the quality of gray is different because the graphic library used to display the image has changed.

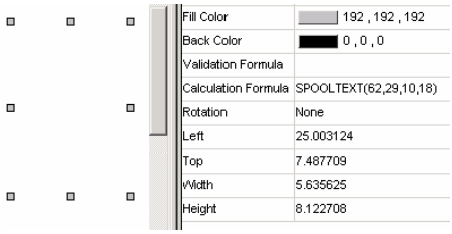
If the resolution is not standard, the image won't import correctly. In this case, you'll need to delete the image and then insert a clean image to replace it.

Importing Spooltext objects

Although spooltext objects are imported correctly, their contents are not displayed since they're not used by the print engine. However, all formulas assigned to the object are imported, as you can see in the figure below:



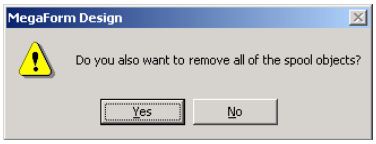
Original



Imported

As you can see, although the spooltext object is empty after importing it, the formula remains the same and will print correctly.

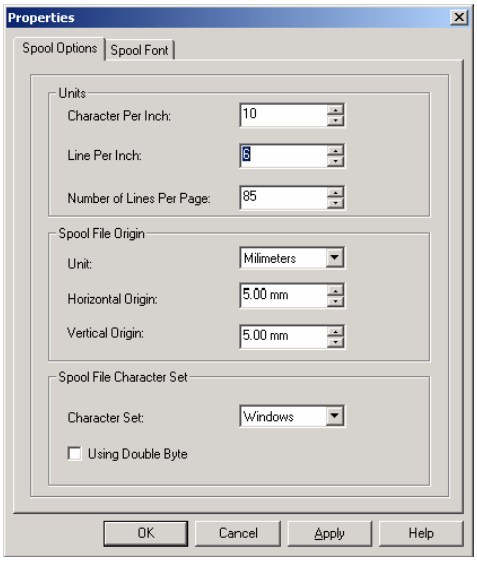
If you wish to see the spool file data in the background, you must first unload the sample spool page by selecting Page→Spool Mapping→Spool File→Unload Spool File. The following dialog will then appear asking if you want to remove all spool objects.



Be sure to click on No.

You can now reload the original spool file by selecting Page→Spool Mapping→Spool File→Load Spool File.

If the spool data doesn't appear correct, you may have to modify the Lines Per Inch value, as shown below:

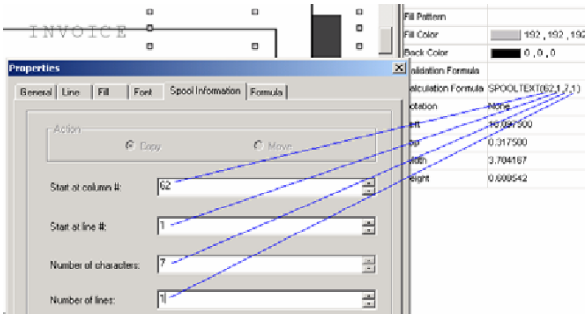


NOTE: When you reload a spool file, the contents of spooltext objects are not automatically updated and will remain blank.

To update the contents of a spool file, open FormPort Designer's Properties Window. This information window will appear along the right-hand side of the application, as shown in the following figure:

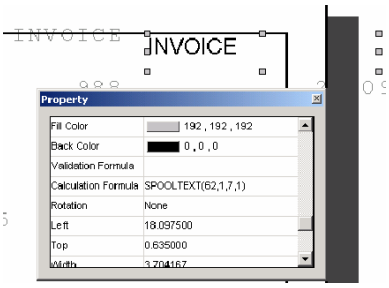
Whenever you select a spooltext object on the page, the associated information and formula will appear in the Properties Window.

Now modify the spooltext object by opening the object's Property window and selecting the Spool Information tab. Using the formula information displayed in the Properties Window on the right for reference, modify the parameters on the Spool Information page to match.



Once you've made the necessary changes, click on OK to accept.

The spooltext object will now update and correctly display its contents.



Chapter 5: Scripting Commands

Although most common tasks can be performed using the WYSIWYG interface, to fully unleash the power and functionality of FormPort Designer you need to define formulas using the powerful, embedded scripting language. These simple commands enable a wide range of additional features.

Advanced users may discover they can actually perform some actions quicker through the scripting commands, as opposed to using the graphical interface. Each of these commands are described in detail in the following section.

List of functions

Proceed through this section for a list of all the available functions, their syntax and examples of how to use them.

ADDFILE

Appends the current field data to an external file. The data could contain formulas, fixed text in quotes or any number of other text strings. A value of True (1) is returned if ADDFILE successfully writes the file. If not, False (0) is returned.

Syntax:

ADDFILE(“filename” , “data”)

filename

The filename of the external file (in quotes) to place data. If the file already exists, new data will be appended to the end of the file. If no file exists with that name, a new file will be created.

data

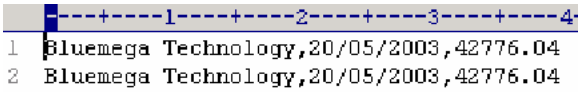
The data to write to the file, also in quotes.

Example

Consider the following formula:

```
ADDFILE("Logfile.csv", SPOOLTEXT(6,13,30,1) & "," &
SPOOLTEXT(81,3,10,1) & "," & SPOOLTEXT(85,81,8,1) & "!*n*!" )
```

In this formula, the SPOOLTEXT function returns data from the spool file and then inserts it into a file called "Loggile.csv." The macro !*n*! is used to insert a new line. The content of this file is:



You can use this function to create a report file containing a summary of the original spool file. For example, suppose you create an invoice form and you have a spool file or CSV file that contains 100 invoices. Now you want to create an external file that contains the name of the customer, the date and the monetary total of the invoice. This can be accomplished by adding a field in the form (probably outside of the printed area) with a formula using the ADDFILE function. After printing, you'd have a separate text file containing the customer's name, date and monetary total of each invoice.

ALLSUBSTITUTE

Substitutes text within a text string with other user-defined text. Use ALLSUBSTITUTE when you want to replace all occurrences of a text sequence with alternate text. This function is similar to a word processor's search and replace feature.

NOTE: If the text defined as old_text is not found in the string, the new_text value will not be inserted.

Syntax:

ALLSUBSTITUTE(text, old_text, new_text)

text

The text string you wish to modify.

old_text

The text you want to replace.

new_text

The new text you want to insert.

Example

Consider the following formula:

```
ALLSUBSTITUTE( SPOOLTEXT(81,3,10,1), "/", " - ")
```

This formula first reads the spool file using the SPOOLTEXT function. The string returned by the SPOOLTEXT function is "20/05/2003".

The formula is modified as follows:

```
ALLSUBSTITUTE( "20/05/2003"), "/", " - ")
```

The function substitutes all "/" characters with " – ". Thus, the string "20/05/2003" is converted to "20 – 05 – 2003"

Here's another formula using the ALLSUBSTITUTE function:

```
ALLSUBSTITUTE( SPOOLTEXT(44,8,44,1), " ", "")
```

This formula reads the spool file with the SPOOLTEXT function and the formula is modified:

```
ALLSUBSTITUTE( “12345 55555 12345678901 99”, " ", "")
```

By replacing all “space” characters with nothing, this formula removes the spaces between characters of the string and you’ll receive the following result: “1234555551234567890199”.

AND

This Boolean function returns a True (1) value only if both supplied logical arguments are true. If either (or both) are false, then a False (0) value is returned.

Syntax:

AND(logical_cond1, logical_cond2)

logical_cond1

are two conditions that may also be complex formulas.

logical_cond2

Example

Consider the following formula:

```
IF(AND(EXACT(SPOOLTEXTL(1,29,1,35),"*"),FIND("#",SPOOLTEXTL(1,29,92,35))),"Line starting with ‘*’ and containing ‘#’", "Detail line")
```

This formula reads 35 lines—line by line—and then applies the formula to each one. For each line, the formula reads the first character – SPOOLTEXTL(1,29,1,35) – and compares this character with ‘*’ – EXACT(SPOOLTEXTL(1,29,1,35),"*"). Then the formula reads the line – SPOOLTEXTL(1,29,92,35) – and searches for the character ‘#’ – FIND("#",SPOOLTEXTL(1,29,92,35)) – in the line. If the line starts with the character ‘*’ AND if the line contains the character ‘#’, then the first part of the IF function is executed – "Line starting with ‘*’ and containing

‘#’"; otherwise the second part of the IF function is executed – "Detail line".

As you can see, the first condition of the AND function could return 0 (zero) or 1, because Exact is a Boolean function.

But the second condition of the AND function contains the FIND function. FIND could return 0 (zero) or a positive value that can be greater than zero. It’s the reason why the AND function considers that zero is FALSE and a value greater than zero is TRUE.

If you need to test more than 2 conditions, you can nest AND function:

```
AND( AND ( x1 > 10 , x1 < 20 ), AND ( y1 > 15 , y1 < 30 ) )
```

Where x1 and y1 are valid numeric values.

CHAR

Returns the character that corresponds with the ANSI number specified.

Syntax:

CHAR (number)

number

Any number between 1 and 255 representing the ANSI value of a desired character.

Example

Consider the following formula:

```
CHAR(27) & CHAR(27) & “%-20006X”
```

CHAR(27) is the escape character for a PCL printer. Using this character begins the escape sequence. This formula would be interpreted by the printer as follows:

```
<esc><esc>%-20006X
```

You can use this function to send an escape sequence to call the JetCAPS MICR Dimm, for example. The JetCAPS MICR Dimm has a feature to convert a numeric value into a string:

'452.00' is converted into 'Four hundred and fifty two'.

To call this feature, you need to include a PCL escape sequence. So you start this sequence with CHAR(27).

CHOOSE

Returns a specific value from a list of numbers. This value is determined through a user-supplied index number. If the value indexInList is not in the valid range, a blank string is returned.

Syntax:

CHOOSE(indexInList, itemList)

indexInList

A number that corresponds with the desired list item contained in item_list.

itemList

A list of numbers, formulas, or text separated by commas. This value can contain a maximum of 29 items.

Example

Consider the following formula:

CHOOSE(VALUE(SPOOLTEXT(93,1,1,1)),"Mrs.", "Ms", "Mr.")

Using the SPOOLTEXT function, this formula first reads the current spool file. In this instance, the string returned by the function is '3.' Since the CHOOSE function requires a numeric value as the first parameter, the string must be converted from text to numeric.

Because of this, the formula would be modified as follows:

CHOOSE(3, "Mrs.", "Ms", "Mr.")

In this example, “Mr.” would be printed. If the first parameter were to be changed to “1,” then “Mrs.” would be printed. And using “2” would print the value “Ms.”

CHOOSELIST

Returns a value from a list of numbers as specified by a key string.

Syntax:

CHOOSELIST(KeyString, itemList, [returnValue])

KeyString

A value, formula or string within the itemList.

itemList

A list of up to 100 numbers, or text separated by commas. Each item a strong or value to be returned if found.

returnValue

An alternate text string or value to be returned in the event the KeyString is not found in the itemList.

Chooselist returns itemList1 if the keyString is found in itemList.

Example

Consider the following formula:

```
CHOOSELIST(SPOOLTEXT(1,1,2,1),"IN","Invoice","DO","Delivery Order","PO","Purchase Order","Other")
```

This formula uses the SPOOLTEXT function to read the spool file. In this instance, the parameters of SPOOLTEXT specify that we read on line 1, column 1, 3 characters on 1 line. Then the string that is returned is ‘IN’.

The formula then becomes:

```
CHOOSELIST( “IN”, "IN", "Invoice", "DO", "Delivery Order", "PO", "Purchase Order", "Other")
```

Now the formula will compare the first parameter to each group of items.

First parameter “IN” is compared in the following manner:

- To “IN”: if equal then “Invoice” is returned
- Then to “DO”: if equal then “Delivery Order” is returned
- Then to “PO”: if equal then “Purchase Order” is returned
- “Other” is returned if not found.

This function can also be used in the Document Validation or Global Page Calculation formula to detect which form or which you want to use.

CLEAN

Removes all non-printable characters from either text or the result of a formula derived through external files.

Syntax:

CLEAN(text)

text

Any information from which you want to remove non-printable characters.

Example

Consider the following formula:

```
CLEAN( CHAR(7) & SPOOLTEXT(6,13,30,1) & CHAR(13) )
```

First the formula creates a temporary string starting with character 7 and the content of SPOOLTEXT function (Capella Technologies), ending with character 13.

So the formula becomes:

```
CLEAN( “?Capella Technologies?” )
```

CHAR(7) and CHAR(13) are replaced by ‘?’ character because it is not possible to display these characters. This string will now print “Capella Technologies.”

CODE

This function returns the ANSI value of the first character in a specified text string.

Syntax:

CODE(text)

text

The text from which you want the ANSI code equivalent of the first character.

Example

Consider the following formula:

```
CODE( SPOOLTEXT( 1, 31, 92, 1) )
```

The formula first reads the spool file. The returned string is the line number 31. This line starts with '*' character. So the formula is modified as:

```
CODE( "*Your PO #: 123456789 … … " )
```

The CODE function returns the ANSI value of the first character. The character '*' has an ANSI value equal to 42.

Suppose you want to detect if the first character of the line is '*', you can create two different formulas. But the result will be the same.

Formula 1 (using IF and EXACT) and formula 2 (using IF and CODE)

```
IF( EXACT( SPOOLTEXT( 1, 31, 1, 1), "*"), "Yes", "No")
IF( CODE( SPOOLTEXT( 1, 31, 1, 1) ) = 42, "Yes", "No")
```

The returned string will be "Yes" in both cases if the line starts with '*'.

CSVTEXT

Returns both text and numerical data (in quotes) from a designated field of the current CSV file. If the value specified by field is not in range, an empty string will be returned. This function is similar to the SPOOLTEXT

function except it's used to retrieve data from CSV files rather than spool files.

Syntax:

CSVTEXT(field)

field

The number of the field in the list (first field = 1).

Example

Examples of this function are essentially provided throughout this section. Whenever you see the SPOOLTEXT function being used to retrieve data from spool files, you can use the CSVTEXT function to get data from a CSV file.

DIR

DIR is a Boolean function that first checks to see if a specific file exists, and then returns either a value of True (1) if it does, or False (0) if it doesn't.

Syntax:

DIR(text)

text

The name of a file (in quotes) to check for.

Example 1

Consider the following formula:

DIR ("..\spool1.txt")

The file name is "..\spool1.txt". If this file exists, then the formula returns "1." Otherwise, the formula returns "0."

You can use this function to validate a SPOOLImage or CSVImage field, which are used to read data from spool and CSV files, respectively. The data read is considered the name of the image you wish to dynamically

print. If the image doesn't exist on the server, the print engine will generate an error. To avoid this error message, you can provide a validation formula in the SpoolImage or CsvImage.

Example 2

The SpoolImage has a calculation formula such as SPOOLTEXT(1,1,20,1). If the SPOOLTEXT function returns "my_picture.bmp", the SpoolImage field will try to open this image and print it. But since this image is not available on the server, you'll receive and error message.

Now you put a validation formula for the same SpoolImage field. This formula is:

```
DIR ( SPOOLTEXT( 1, 1, 20, 1) ).
```

The SPOOLTEXT function returns the same value ("my_picture.bmp"). Then the DIR function returns "0" if the image doesn't exist, or a "1" if it does.

Because this formula is in the validation of the field, the calculation formula is not evaluated when the validation formula returns "0." The calculation formula is only evaluated if the validation formula returns "1."

EURO

Converts a number to a Euro (€) equivalent as established by the European Union (EU).

Syntax:

EURO(value, currency, precision)

value

The currency value you want to convert.

currency

The letter string, corresponding to the code for the source currency.

precision

The number of decimals to provide in the returned value.

Code currency:

"FRF", "ITL", "FL", "NLG", "DEM", "BEF", "LUF", "FIM", "ATS", "ESP", "IEP", "PTE", "GRD"

Example

Consider the following formula:

```
EURO( VALUE( SPOOLTEXT(25,73,8,1) ), "DEM", 2)
```

Using the SPOOLTEXT function, the formula reads the spool file and returns “50763.55” in quotes. The VALUE function can then be used to convert the result into a numeric variable (without quotes). Using the DEM rate, the EURO function converts the value into a Euro equivalent, and returns the converted value rounded with 2 digits.

EXACT

Compares two text strings and returns a value of True (1) if they are exactly the same, or False (0) if they are not. This function is case-sensitive.

Syntax:

EXACT(text1, text2)

text1

The first text string. This value can be a formula that returns a string.

text2

The second text string. This value can also be a formula that returns a text string.

Example

Consider the following formula:

```
IF( EXACT( SPOOLTEXT(71,83,3,1), "USD"), "US Dollars", "Other")
```

SPOOLTEXT function reads in the spool file and returns a string in quotes. Using SPOOL1.TXT, SPOOLTEXT function returns “USD”. The EXACT function is comparing the SPOOLTEXT result (“USD”) with “USD”. If they are identical, then the first part of the IF function is returned, and “US Dollars” will be printed. If they are different, then the second part of the IF function is returned. “Other” will be printed.

The EXACT function is only used to compare text strings. If you want to compare numeric values, you have to use the symbol “=.”

EXIT

Cancels a print operation after the current page, resulting in an error code being returned. This function is typically used in a validation formula, when incorrect data is detected in the spool data file. A blank string is always returned by this formula.

Syntax:

```
EXIT( returnCode, text )
```

returnCode

The exit code returned by the print engine to the calling application.

text

The error message to be displayed on the console or written in the log file.

Example

Consider the following formula:

```
EXIT( 1, “Error message” )
```

The EXIT function cancels the process, but the print engine will continue to print the current page.

FIND

FIND function finds one text string within another text string and returns the number of the starting position of that search string. FIND is case sensitive and does not allow wildcard characters.

The default value of start_pos is "1," and will return the first character in the search string (depending on start_pos) if left blank.

Syntax:

FIND (find_text, within_text [, start_pos])

find_text

The text you want to find.

within_text

The text string containing the text you want to find.

start_pos

Specifies the character at which to start the search.

Example

Consider the following formula:

```
FIND( "Dis", SPOOLTEXT( 1, 72, 92, 1) )
```

First the formula reads the spool file using the SPOOLTEXT function and returns a string, then the formula is:

```
FIND( "Dis", " 51263.55 50763.55 Dis 15 % -7614.53" )
```

FIND searches for the word "Dis" in the string, and returns the position where it finds the first letter that matches with "Dis". In this case, the returned value would be 41. Since this is a numeric value (without quotes), you can use this function as a numeric parameter in yet another function.

For example, the LEFT function accepts two parameters; the first one is a string, the second is a numeric value. You can replace the second parameter by a FIND function.

LEFT (“This is a sample text”, FIND(“ text”, “This is a sample text”))

The part of the function FIND(“ text”, “This is a sample text”) returns 17. So the new formula is:

LEFT (“This is a sample text”, 17)

FORMAT

Returns a string formatted in accordance with user-defined instructions. A value of “#” indicates an *insignificant* zero, and “0” indicates a *significant* zero.

Syntax:

FORMAT(text, format)

text

The text to be formatted.

format

A string that contains the format of the converted string.

Example

Consider the following formula:

FORMAT(SPOOLTEXT(13, 72, 8, 1), “### ##0,00”)

The formula reads data in the spool file with the SPOOLTEXT function and returns a string in quotes. Since this string must be numeric, a value of “51263.55” is returned. Now the new formula is:

FORMAT(“51263.55” , “### ##0,00”)

Using the format parameter as reference, the spool data is then reformatted as “51 263,55”. If the format parameter were changed to “000 000.00,” the resulting value would be “051 263.55.”

The FORMAT function is intended solely for altering the format of a string value. To change the format of a numerical value, use the TEXT function.

FULLDATE

FULLDATE returns the current date.

Syntax:

FULLDATE(format, language)

format

The number that represents the format of the date you want to use.

language

The value that represents the language to use to print the date.

List of available date formats:

1 = yymmdd
2 = mm/dd/yy
3 = mm-dd-yy
4 = Mmm dd, yyyy
5 = Mmm...m dd, yyyy
6 = dd Mmm yy
7 = dd Mmm yyyy
8 = dd/mm/yy
9 = dd-mm-yy
10 = dd mmm...m yy
11 = dd mmm...m yyyy
12 = yy/mm/dd
13 = yyyymmdd
14 = mm/dd/yyyy
15 = mm-dd-yyyy
16 = dd/mm/yyyy
17 = dd-mm-yyyy
18 = Mmm dd yy
19 = Mmm...m dd yy
20 = yyyy/mm/dd

List of available languages:

1 = English
2 = Spanish
3 = French

Example

Consider the following formula:

FULLDATE (5, 1)

The result of this formula will differ depending on what date you print the form. In this instance, suppose the form is printed on the 22nd of May in

they year 2005. Using the formula above (format = 5 and language = 1) the following date would be printed: “May 22, 2005.”

Now consider the following formula used on the same date:

```
FULLDATE ( 14, 1 )
```

This formula will print “05/22/2005.”

FULLTIME

FULLTIME returns the current time.

Syntax:

FULLTIME (format)

format

The number that represents the format of the time you want to use.

List of available time formats:

1 = HH:MM:SS 12 hours (with space before if HH < 10)
2 = HH:MM:SS 12 hours AM/PM (with space before if HH < 10)
3 = HH:MM:SS 24 hours (with space before if HH < 10)
4 = HH:MM 12 hours (with space before if HH < 10)
5 = HH:MM 12 hours AM/PM (with space before if HH < 10)
6 = HH:MM 24 hours (with space before if HH < 10)
7 = HH:MM:SS 12 hours (with ‘0’ before if HH < 10)
8 = HH:MM:SS 12 hours AM/PM (with ‘0’ before if HH < 10)
9 = HH:MM:SS 24 hours (with ‘0’ before if HH < 10)
10 = HH:MM 12 hours (with ‘0’ before if HH < 10)
11 = HH:MM 12 hours AM/PM (with ‘0’ before if HH < 10)
12 = HH:MM 24 hours (with ‘0’ before if HH < 10)

Example

Consider the following formula:

```
FULLTIME ( 2 )
```

The result of this formula depends on when you print the form. Suppose that you print the form at 3:27:38 PM. So the format is 2 (HH:MM:SS 12 hours AM/PM).

“ 3:27:38 PM”

Finds different examples

FULLTIME (1) “ 3:27:38”	FULLTIME (7) “03:27:38”
FULLTIME (2) “ 3:27:38 PM”	FULLTIME (8) “03:27:38 PM”
FULLTIME (3) “15:27:38”	FULLTIME (9) “15:27:38”
FULLTIME (4) “ 3:27”	FULLTIME (10) “03:27”
FULLTIME (5) “ 3.27 PM”	FULLTIME (11) “03:27 PM”
FULLTIME (6) “15:27”	FULLTIME (12) “15:27”

IF

The IF function evaluates a specified condition and returns either a value of True (1) or False (0), depending on the result.

Syntax:

IF(logical_test, true_cond, false_cond)

logical_test

Any value or formula that can be evaluated as either True (1) or False (0).

true_cond

The value or formula that is returned if logical_test is determined to be True (1).

This value is not calculated if logical_test returns False (0).

false_cond

The value or formula that is returned if logical_test is False (0).

This value is not calculated if logical_test returns True (1).

Example

Consider the following formula:

IF(EXACT(SPOOLTEXT(1,29,1,1), "*", "Text line", "Detail line")

The SPOOLTEXT function returns the first character of the line 29. If this character is equal to '*', then the first part of the IF function is calculated and then printed. If this character is not equal to '*', then the second part of the IF function is calculated and then printed. If logical_test returns a value of "True," the false_cond is not evaluated.

To create a formula with more than one IF function, you can nest more than one IF function, as shown in the following formula:

IF(X < 5, "X < 5", IF(X < 10, "X < 10","X > 10"))

INT

INT returns an integer portion of a number.

Syntax:

INT (value, dec_separator)

Value

The real number you want to round down to an integer.

dec_separator

Indicates which character is used as a decimal separator (optional). By default, the decimal separator is '.'

Example

Consider the following formula:

INT(VALUE(SPOOLTEXT(13,72,8,1)), ".")

The SPOOLTEXT function reads data in the spool file and returns a string of "51263.55". The VALUE function must then be used to remove the quotes and convert the string into a number. The new formula would now be as follows:

INT(51263.55, “.”)

The INT function simply rounds down a number and returns 51263 as a whole number (without quotes). If you want to correctly round a number, you must instead use the ROUND function.

ISBLANK

ISBLANK determines whether or not a specific text string is empty. If the text is blank, a value of “1” is returned. Otherwise, “0” is returned.

Syntax:

ISBLANK(text)

text

Any text string or formula that returns a string.

Example

Consider the following formula:

IF(ISBLANK(SPOOLTEXT(85,81,8,1)), “To continue”,
SPOOLTEXT(85,81,8,1))

The formula reads data from the spool file and detects whether or not the returned string is empty. If the string is empty, then “To continue” is printed. If the string is not empty, then the contents of the string is printed.

Suppose you have an invoice form with multiple pages and the invoice total on the last page, and you wish to print special information on all pages of the invoice except the page with the total. Since you know that the total only exists on the last page of the spool file, you can add a field with a formula that detects if the total is empty. If it is, the special information is printed.

ISNUMBER – ISNONTEXT – ISTEXT

These three functions work together to test the outcome of a calculation. ISNUMBER determines if a parameter is a valid number, ISNONTEXT verifies that a parameter is not a text string, and ISTEXT checks if a parameter is a text string.

When combined with IF, CHOOSE or CHOOSELIST functions, they provide a useful method for locating errors in formulas.

Syntax:

ISNUMBER(parameter)
ISNONTEXT(parameter)
ISTEXT(parameter)

parameter

The value you want to test. Value can be a numeric value or a text string.

Example

Consider the following formula:

ISTEXT(CHOOSE(VALUE(SPOOLTEXT(92,46,1,0)), 5.5, “20.6”)

The SPOOLTEXT function returns a string. Before the returned value can be used by the CHOOSE function, it must be converted into a numeric value. Depending on the value read from the spool file, the CHOOSE function returns 5.5 (numeric) or “20.6” (string). ISTEXT will then test whether or not the returned value is a string or a number.

- If the CHOOSE function returns 5.5, then ISTEXT function returns “0” or False.
- If the CHOOSE function returns “20.6”, then ISTEXT function returns “1” or True.

LEFT

LEFT returns a specific character (or characters) from the *beginning* of a text string.

Syntax:

LEFT(text, num_char)

text

The text string or formula that contains the characters you want to extract.

num_char

Specifies the number of characters you want to extract. This value must be greater than or equal to zero.

If num_char is greater than the length of the text, the entire string is returned. If num_char is omitted, a default value of "1" is assumed.

Example

Consider the following formula:

```
LEFT(SPOOLTEXT(1,31,92,1), 1)
```

Using the SPOOLTEXT function, the formula reads data from the spool file. The content of line 31 is returned and the new formula would be as follows:

```
LEFT("*Your PO #: 1234567 Our PO #: 876", 1)
```

The LEFT function will then return the first left character of the string, which in this case is '*'.

LEN

LEN returns a value representing the precise number of characters (including spaces) in a specific text string.

Syntax:

LEN(text)

text

The text whose length you wish to determine.

Example

Consider the following formulas:

```
LEN(SPOOLTEXT(12,72,10,1))
LEN(TRIM(SPOOLTEXT(12,73,10,1)))
```

First the SPOOLTEXT function reads data from the spool file and returns the following value: “ 51263.55.” Note the space at the beginning of the result string. The SPOOLTEXT function removes spaces from the end of the string, but not the beginning. To remove spaces at the beginning of the string, use the TRIM function.

The new formulas are as follows:

```
LEN( “ 51263.55” )
LEN( TRIM ( “ 500.00” ) )   LEN( “500.00” )
```

The returned values are then 9 and 6.

LOWER

LOWER returns a specified text string after converting it to lowercase.

Syntax:

LOWER (text)

text

The text strong or formula you want converted to lowercase.

Example

Consider the following formula:

```
LOWER ( SPOOLTEXT ( 53, 13, 30, 1 )
```

The SPOOLTEXT function returns a string from the spool file. In this case, the returned string is “CAPELLA TECHNOLOGIES.” So, the LOWER function would convert the string to lowercase and the final result of the formula would be “capella technologies”.

MID

This function returns a specified number of characters from a text string starting at a user-defined position.

Syntax:

MID(text, start_num, num_char)

text

The text string containing the characters you want to extract. It could be a formula.

start_num

The position of the first character you want to beginning extracting text. If the value of start_num is greater than the length of the text, or less than “1,” MID returns an empty string.

num_char

Speficies the number of characters you want MID to return from the text. If num_char is less than the length of text, but start_num plus num_char exceeds the length of text, MID returns the characters up to the end of text.

Example

Consider the following formula:

```
MID(SPOOLTEXT(1,32,92,1), 17, 25)
```

The SPOOLTEXT function returns a string value from the spool file.

“12345678901234567890123456789012345678901234567”
“ 8108900 HP Laserjet Printer 50 …”

The formula now extracts 25 characters, starting at position 17.

MODULO

MODULO divides a number by a user-specified value and returns a result with the same sign as the divisor.

Syntax:

MODULO (text, divisor)

text

The text number you wish to divide.

divisor

The number by which you want to divide the number defined in text. An error is returned if the divisor is “0.”

Example

Consider the following formula:

```
MODULO( “1234567489048120”, 97 )
```

MODULO must be used when the number corresponding to the text is greater than 2,147,483,647. If the number corresponding to the text is not greater than 2,147,483,647, you can use the operator “%.”

Suppose you have a string equal to “456,” you can calculate the modulo 54 using two different formulas.

Formula 1

MODULO(“456”, 54)

The result would be the string “24.”

Formula 2

VALUE(“456”) % 54

The result would be the number 24.

NOT

NOT reverses the value of its argument. If the expression defined by a logical argument is False, NOT will return True. If it’s True, using NOT will return False.

The NOT function is useful for making sure a certain value is not equal to one particular value.

Syntax:

NOT (logical)

logical

A value or expression that can be evaluated as True (1) or False (0).

Example

Consider the following formula:

IF(NOT(EXACT(SPOOLTEXT(71,83,3,1), “USD”)), “Other”, “US Dollars”)

The formula begins by reading the spool file. The data is then compared to “USD,” and the result of the comparison is reversed. In other words, if the result is True (data is equal to “USD”), the NOT function would return False. Conversely, if the result is False (data is not equal to “USD”), the NOT function returns True.

OR

OR will return a value of True (1) if at least one of the two logical arguments are true. A False (0) value will only be returned if all arguments are false.

Arguments within this function must evaluate to either True (1) or False (0). Complex formulas can return False (0), True (1) or greater than "1" (True).

Syntax:

OR (logical_cond1, logical_cond2)

logical_cond1

Two conditions and may be complex formulas.

logical_cond2

Example

Consider the following formula:

```
IF(OR(EXACT(SPOOLTEXT(1,29,1,1),"*"),FIND("#",SPOOLTEXT(1,
29,92,1))=10 ), "Line starting with * or has # character at position 10",
"Detail line")
```

The SPOOLTEXT function reads the first character of line 29 in the spool file.

This character is then compared with "*," and if equal returns a value of True. In the second part of the OR function, SPOOLTEXT reads line 29 and searches for the character "#." If this character is found at position 10 (as specified in this particular formula), then the second part of the OR function returns True. As you can see, in this case the OR function returns True only if the first character of the specific line is "*" and if there's a "#" character at position 10.

The OR function can also be nested to test more than 2 conditions, as shown in the following formula:

```
OR( OR( x1 > 10 , x1 < 5 ), OR ( y1 > 15 , y1 < 10 ) )
```

Where x1 and y1 are valid numeric values.

AND and OR functions can also be used together in the same formula.

RAND

RAND returns an evenly-distributed random number less than "1" and greater than or equal to "0."

Syntax:

RAND()

Example

To generate a random number greater than or equal to 0 (but less than 100) you would use the following formula:

```
INT ( RAND() * 100 )
```

To generate a random number greater than 50 but less than 100:

```
INT( (RAND() * (100 – 50 + 1) ) +50 )
```

READFILE

READFILE reads an external ASCII file into the current data field.

Syntax:

READFILE("filename", keepformat, charset)

filename

The name of an external file (in quotes) to be inserted at the current position in the formula.

keepformat

A numeric value defining if the text should keep its current format, as determined by the following:

"0" if CR-LF in the data must be removed.
"1" if the text should keep its current new lines.

charset

A numeric value specifying which character set the data file is using, as determined by the following:

"1" for files using the Windows character set.
"2" for files using the PC850 character set.
"3" for files using the Roman8 character set.

Example

Consider the following formula:

```
READFILE( SPOOLTEXT(6,4,20,1) & ".txt", 1 )
```

In this example, the data located on line 4 and column 6 contains the name of the bank. But since there's no information on this bank in the spool file, an ASCII file containing the relevant information can be created. As the SPOOLTEXT function retrieves the name of the bank, the READFILE function can read the external file corresponding to that bank. So, the new formula would be as follows:

```
READFILE ( "bank 1.txt", 1 )
```

The "1" parameter tells the READILFE function that the CR-LF (new line) must be kept when printing the result.

The READFILE function is useful for including dynamic information that's not present in the spool file when printing. When used in conjunction with the WRITEFILE function, numbers to indicate sequential checks could be stored in an external file. This file could then be read to determine the current check number and increment additional checks accordingly.

REPLACE

This function replaces a specified number of characters in a text string with a different text string.

Syntax:

REPLACE (text, start_num, num_char, new_text)

text

The text in which you want to replace some characters.

start_num

The position of the character in text that you want to replace with new_text. This value must be greater than "0." If this value is greater than the text length, it will be assumed to be the length of the text.

num_char

The number of characters you want to replace in the text string. If this value is "0," new_text will be inserted and no characters in the original text string will be replaced.

new_text

The actual text that will replace the designated characters in the text string.

Example

Consider the following formula:

REPLACE(SPOOLTEXT(1,31,20,1), 10, 1, "Number")

The SPOOLTEXT function reads in the spool file and returns a string:

1234567890123456789

"*Your PO #: 1234567"

The REPLACE function will remove 1 character at position 10. And this character will be replaced by the new string “Number”. So the result of this formula is:

“*Your PO Number: 1234567”

REPT

This function repeats designated text a specified number of times. REPT is useful for filling a text string with instances of text.

Syntax:

REPT(text, num_times)

text

The text string you want to repeat.

num_times

A positive number specifying the number of times the text will be repeated. If this value is “0,” an empty string will be returned. If the value isn’t an integer, the additional digits will be ignored.

Example

Consider the following formula:

```
REPT(“*”,12–LEN(TRIM(SPOOLTEXT(82,36,9,1)))) &
TRIM(SPOOLTEXT(82,36,9,1)
```

The formula begins by reading the spool file with the SPOOLTEXT function and returns the following string: “ 1500.00”. But notice the 2 spaces at the beginning of the string? The TRIM function is then used to remove the two extraneous leading space.

Once the formula calculates the length of the string (minus the 2 spaces), and depending on the length, the formula repeats “*” character. So, the new formula is:

```
REPT(“*”, 12-LEN(“1500.00”) ) & “1500.00”
```

LEN(“1500.00”) is equal to 7, so the new formula is:

REPT(“*”, 5) & “1500.00”

And the result is “*****1500.00”

The REPT function is used to generate a formatted string with the same length depending on the length of the input string. By using the REPT and LEN functions, you can ensure the output string will always have the same length.

RIGHT

RIGHT returns a specific character (or characters) from the *end* of a text string.

Syntax:

RIGHT(text, num_char)

text

The text string or formula containing the characters you want to extract.

num_char

Specifies the number of characters you want extracted from the end of the text string. This value must be greater than or equal to “0.” If greater than the length of text, the entire string will be returned. A value of “1” will be assumed if num_char is not supplied.

Example

Consider the following formula:

RIGHT (SPOOLTEXT(1,32,92,1), 1)

The formula starts reading the spool file using the SPOOLTEXT function. It returns a string (line 32). Then the new formula is:

RIGHT(“HP Laserjet Printer 50 U 10 15 187.50 140.62 7031.25 2”, 1)

The RIGHT function will return the first left character of the string, ‘2’.

RLMC

Similar to the MODULO function, RLMC divides a specified number by a divisor. However, unlike MODULO, RLMC utilizes a constant value of "97." The purpose of this function is to support a French check application.

Syntax:

RLMC(text)

text

The text number (containing at least 31 digits) which you want to be divided by a value of "97."

Example

Consider the following formula:

RLMC("95410234587412654158941254502 38")

As you can see, the text contains 31 digits. And the returned code is "09".

ROUND

This function rounds a number to a user-specified number of digits.

Syntax:

ROUND(number, num_digits)

number

The number you want to round.

num_digits

Specifies the number of digits to round the number. When a value of "0" is used, the number will be rounded to the nearest integer.

Example

Consider the following formula:

```
ROUND(VALUE(SPOOLTEXT(13,72,8,1)) *
VALUE(SPOOLTEXT(47,72,2,1)) / 100, 2)
```

The formula reads two variables in the spool file and returns the strings "51263.55" and "15."

Each string is converted into a numeric variable (minus quotes), using the VALUE function. The new formula is:

```
ROUND( 51263.55 * 15 / 100, 2 )
```

The print engine now calculates the formula and produces the following new formula:

```
ROUND ( 7689.5325 , 2)
```

Finally, the ROUND function rounds the value to 2 decimal numbers and the end result is 7689.53.

More Examples

```
ROUND ( 564.4568, 2 ) 564.46
ROUND ( 894.15, 1 ) 894.2
ROUND ( 9871.615, 0 ) 9872
ROUND ( 148.999, 2 ) 149.00
```

SEARCH

This function searches for a specific character or text string and then returns a numerical value representing the location of its first occurrence. SEARCH allows for the use of wildcard characters.

Syntax:

SEARCH(find_text, within_text [, start_pos])

find_text

The text you want to find. If find_text is empty, SEARCH matches the first character defined by start_pos in the designated text string. The following wildcard characters can be used to perform the search:

"?" matches any single character.
"*" matches any sequence of characters.

within_text

The text you wish to search.

start_pos

Specifies the character at which to start the search. If this value is omitted, a default setting of "1" is assumed.

Example

Consider the following formula:

```
SEARCH("PO?#", SPOOLTEXT(1,31,92,1) )
```

The formula starts reading the spool file and the SPOOLTEXT function returns a string in quotes "*Your PO #: 1234567 Our PO #: 876". The new formula is:

```
SEARCH("PO?#", "*Your PO #: 1234567 Our PO #: 876" )
```

The question mark (?) replaces only 1 character. Then the SEARCH function searches "PO?#" and returns the position of the first match character, which in this case would be "7."

SPOOLTEXT

Returns data from the current data spool page (in quotes). New lines are automatically inserted as !*n*! with multiple lines. Starting blanks are removed for numeric fields, and trailing blanks are removed except for barcode fields.

Syntax:

SPOOLTEXT(col, line, length, height)

col

The starting column of the data area (first col = 1).

line

The starting line of the data area (first line = 1).

length

The number of columns (characters) for the data area.

height

The number of lines for the data area.

Example

Consider the following formula:

```
SPOOLTEXT ( 6, 13, 30, 4 )

000001111111111222222222233333333334
567890123456789012345678901234567890
12
13 Capella Technologies
14 3 Oldfield
15 Irvine, CA 92618
16 USA
17
```

The area to retrieve starts at column 6 and line 13; the number of characters is 30 and the number of lines is 4. The SPOOLTEXT function reads the data and stores the result (with quotes) and the special macro !*n*! is inserted to indicate new line. The print engine stores the result in memory in the following manner:

"Capella Technologies!*n*!3 Oldfield!*n*!Irvine, CA 92688!*n*!USA”

When printed, this data would appear as follows:

```
Capella Technologies
3 Oldfield
Irvine, CA 92618
USA
```

Caution should be used when attempting to make calculations from the result of a SPOOLTEXT function. Since the print engine stores the new line as a macro, it might be necessary to instead use the SPOOLTEXTL function to perform a line-by-line calculation.

Another limitation of the SPOOLTEXT function concerns space characters at the beginning of a retrieved value. For example, suppose you use SPOOLTEXT to retrieve data from a spool file, and the print engine stores the following result in memory:

" 500.00!*n*! 4546.50!*n*! 38115.25"

As you can see, space characters at the end of each part of the string have been removed, but each string starts with space characters. If you attempted to use the VALUE function to convert each string to a number, the formula would be as follows:

VALUE(" 500.00!*n*! 4546.50!*n*! 38115.25")

But the result of this formula would be a value of 500.00. This is because characters after the first string (spaces) are not valid digits, so the conversion would halt after the first value. To convert every part of the formula, you must use the SPOOLTEXTL function.

This limitation can also be seen when using the TRIM function, as illustrated in the following formula:

TRIM(SPOOLTEXT(23,69,10,3))
TRIM(" 500.00!*n*! 4546.50!*n*! 38115.25")

In this instance, the returned string would be as follows:

"500.00!*n*! 4546.50!*n*! 38115.25"

You can't use the TRIM function if SPOOLTEXT contains more than one line. Instead, you must use the SPOOLTEXTL function.

SPOOLTEXTL

SPOOLTEXTL returns data from the current spool page and then applies a formula to each line of data. This allows for the application of a formula on a column of values using a single field and a single formula.

Syntax:

SPOOLTEXTL(col, line, length, height)

col

The starting column of the data area (first col = 1).

line

The starting line of the data area (first line = 1).

length

The number of columns (characters) for the data area.

height

The number of lines for the data area.

You can use this function to calculate the product of data in one valid column area with data from another valid column area. If you need to use two SPOOLTEXTL functions in the same formula, the height parameter must be the same in both instances.

Example

Consider the following formula:

```
ROUND(VALUE(SPOOLTEXTL(25,69,8,3))*VALUE(SPOOLTEXTL(
34,69,5,3)) / 100,2)
```

This formula uses the SPOOLTEXTL function to read data line-by-line and then apply the formula to each one. This results in three new formulas, as shown in the following revised formula:

```
ROUND(VALUE(SPOOLTEXT(25,69,8,1))*VALUE(SPOOLTEXT(34,
69,5,1)) / 100,2)
& “!*n*!” &
ROUND(VALUE(SPOOLTEXT(25,70,8,1))*VALUE(SPOOLTEXT(34,
70,5,1)) / 100,2)
& “!*n*!” &
ROUND(VALUE(SPOOLTEXT(25,71,8,1))*VALUE(SPOOLTEXT(34,
71,5,1)) / 100,2)
```

As you can see, the SPOOLTEXTL function has been converted to SPOOLTEXT and the remainder of the formula is applied to the retrieved data.

NOTE: Remember, if you use more than 1 SPOOLTEXT function in a formula then the number of lines (height parameter) must be the same. You can also mix SPOOLTEXT and SPOOLTEXTL functions, but only if SPOOLTEXT reads one line.

SPOOLTEXTS

This function searches for specific text within a defined region of the current spool file. If located, the text is returned in quotes and new lines are automatically inserted as !*n*! with multiple lines. An empty string is returned if the specified text isn't found.

Syntax:

SPOOLTEXTS(text, startcol, startline, stopcol, stopline, coloffset, lineoffset, length, height)

text

A string, in quotes, to be search in the specified spooltext area.

startcol

The starting column for the data search area (first col = 1)

startline

The starting line for the data search area (first line = 1)

stopcol

The ending column for the data search area

stopline

The ending line for the data search area

coloffset

The column offset from the location, where the text was found

lineoffset

The line offset from the location, where the text was found

length

The number of columns (characters) to take for the SPOOLTEXT()

height

The number of lines to take for the SPOOLTEXT()

Example

Consider the following formula:

```
SPOOLTEXTS( “ship”, 1, 72, 25, 75, 13, 1, 6, 1)
```

Using the SPOOLTEXTS function, this formula reads data from the spool file from line 7 and column 1 to line 75 and column 25. From this area, the SPOOLTEXTS function searches for the word “ship.”

If the word “ship” is found, the SPOOLTEXTS function stores the line and column number of the word. Suppose the word is found on line Y and column Y, the SPOOLTEXTS function is then converted into a SPOOLTEXT function, as shown in the revised formula:

```
SPOOLTEXT(13+X, 1+Y, 6, 1)
```

The last four parameters of the SPOOLTEXTS function indicates that if information is found in the first area, the returned string is located on the spool file 13 characters after the column position, 1 line after the line position.

As you can see, the SPOOLTEXTS function is useful for retrieving information that might not always be in the same location within the spool file.

STOREN

This function stores a numeric value in a variable. This variable data can then be used in formulas using [$N#] special field names where “#” is the index number. If the specified data is within the valid index range, and is a number, a value of “1” is returned. Otherwise, a function of “0” is returned.

Syntax:

STOREN(index, value)

index

The numeric variable number where the data has to be stored (0 to 99).

value

The numeric variable value to store (floating point value).

Example

Consider the following formula:

```
STOREN ( 44, VALUE ( SPOOLTEXT ( 85, 81, 8, 1 ) ) )
```

Using the SPOOLTEXT function, the formula reads the spool file and returns the following string: “42776.04.”

The returned string is then converted into a numeric value using the VALUE function. The STOREN function stores this result in the numeric array at index 44. This numeric array is available during the printing process, and can be called through a special formula [$N44].

STORES

Similar to STOREN except this function stores an entire string for use as a variable. This variable data can then be used in formulas using [$S#] special field names where “#” is the index number. If the specified data is within the valid index range, and is a string, a value of “1” is returned. Otherwise, a function of “0” is returned.

Syntax:

STORES (index, string)

index

The numeric variable number where the data has to be stored (0 to 99).

string

The string variable to store (in quotes).

Example

Consider the following formula:

```
STOREN ( 44, SPOOLTEXT ( 6, 13, 30, 1 ) )
```

The SPOOLTEXT function reads the spool file and returns the string "Capella Technologies." Then the STORES function stores this result in the string array at index 44. This string array is available during the entire printing process, and can be called by using the special formula [$S44].

SUBSTITUTE

This function searches through a text string, locates the first occurrence of user-specified text and then replaces it with a new text string.

Syntax:

SUBSTITUTE (text, old_text, new_text)

text

The text string that contains the characters or text you wish to replace.

old_text

The text or characters to be replaced. If this text string is found, its first occurrence will be replaced by new_text. If it's not found, new_text will not be inserted.

new_text

The text that you want to replace old_text.

Example

Consider the following formula:

```
SUBSTITUTE ( SPOOLTEXT ( 86, 81, 8, 1 ), ".", "," )
```

The SPOOLTEXT function reads the spool file and returns the string "42776.04." Using this value, the resulting formula would be as follows:

SUBSTITUTE ("42776.04", ".", ",")

The SUBSTITUTE function would then search for all instances of the "." character in the strong and replace it with a "," character. The final result of this formula would be "42776,04."

SUMCOL

SUMCOL is a math function that calculates the sum of values in a column.

Syntax:

SUMCOL (SPOOLTEXT(… , … , … , …) [, format])

spooltext

(…) is a column of valid numbers.

format

One of the following values:

"1" indicates the text to be converted has a United States format ("," for thousand separator and "." for decimal place). This is the default value.

"2" indicates the text to be converted has a European format ("." for thousand separator and "," for decimal place).

Example

Consider the following formula:

ROUND (SUMCOL (SPOOLTEXT (25, 69, 8, 3)), 2)

The SPOOLTEXT function reads the spool file and returns the values "500.00," "4546.50" and "38115.25."

The SUMCOL function would then add these values and the following formula would result:

ROUND (43161.75000, 2)

The ROUND function further modifies the value, resulting in 43161.75.

If the spool file were to have a European format, the formula would have to be as follows:

ROUND (SUMCOL (SPOOLTEXT (25, 69, 8, 3), 2), 2)

The SPOOLTEXT function returns the values “500,00,” “4546,50” and “38115,25.”

In this example, the SUMCOL function indicates a European format. The format attribute only indicates the input format, and the output format is always in US format. So, the resulting formula would be as follows:

ROUND (43161.75000, 2)

The final result would be 43161.75. If you want the final value to be in a European format, use either the FORMAT or TEXT functions.

TEXT

TEXT function converts a value to text in a user-specified format.

Syntax:

TEXT (value, format)

value

A numeric value or a formula that evaluates to a numeric value.

format

A string defining the number of decimals for the output string (using ‘0’), and the symbol to use as decimal separator.

The format text must be in quotes. To fully differentiate the thousand and decimal separators, be sure to define both in format string. If no format is defined, the default format is '0' (no decimals).

Example

Consider the following formula:

```
TEXT( ROUND ( SUMCOL ( SPOOLTEXT ( 25, 69, 8, 3 ) ), 2 ), "000 000,00" )
```

The SPOOLTEXT function to reads the spool file and returns the values "500.00," "4546.50" and "38115.25." The SUMCOL function adds these values and produces the following revised formula:

```
TEXT( ROUND ( 43161.75000, 2 ), "000 000,00")
```

The ROUND function modifies the number and rounds it down to only 2 decimal places, resulting in the following formula:

```
TEXT( 43161.75, "000 000,00" )
```

The final result of this formula is the string "43 161,75".

TRIM

TRIM removes leading and trailing spaces in a text string.

Syntax:

TRIM (text)

text

The text string from which you want spaces removed.

Example

Consider the following formula:

```
TRIM ( SPOOLTEXT ( 81, 81, 12, 1 ) )
```

The SPOOLTEXT function reads the spool file and returns the string " 42776.04." Using this value, the new formula would be as follows:

TRIM (" 42776.04")

The TRIM function removes the spaces and the final result is "42776.04."

TRIMC

TRIMC removes user-specified leading and trailing characters from a text string.

Syntax:

TRIMC (text, character)

text

The text string you wish to modify.

character

The specific character you wish to delete from the beginning and/or end of the string.

Example

Consider the following formula:

TRIM (SPOOLTEXT (75, 83, 18, 1) , "*")

The SPOOLTEXT function reads the spool file and returns the string "*****42776.04*****." Using this value, the new formula would be as follows:

TRIM ("*****42776.04*****" , "*")

The TRIM function removes all instances of the "*" character, so the final result would be "42776.04."

UPPER

UPPER modifies a specific text string and converts all lower-case characters to uppercase.

Syntax:

UPPER (text)

text

Either a text string or formula you wish to convert to uppercase.

Example

Consider the following formula:

```
UPPER ( SPOOLTEXT ( 6, 13, 30, 1 )
```

The SPOOLTEXT function reads the spool file and returns the string "Capella Technologies" from the specified location. The UPPER function would then convert the string to uppercase and the final result would be "CAPELLA TECHNOLOGIES."

VALUE

VALUE converts a text string representing a number into a numerical equivalent.

Syntax:

VALUE (text, [format])

text

The text (in quotes) containing the text you want to convert.

format

A digit value: 1 means the text to convert has a US format (',' is the thousand separator and '.' is the decimal separator). 2 means the text to convert is in European format (',' is the

decimal separator and '.' is the thousand separator). The default value is 1.

- This function is used to make calculations with spool data. Because the SPOOLTEXT function returns a text string, it is mandatory to convert the text string before making calculation.
- VALUE function returns a number in floating data type.
- The returned value is always in US format, even when indicating a European input format.

Example

Consider the following formula:

```
VALUE ( SPOOLTEXT ( 15, 73, 6, 1 ) )
```

The SPOOLTEXT function reads the spool file and returns the strong "500.00." Thus, the new formula would be as follows:

```
VALUE ( "500.00" )
```

The result is 500.0000000 because the VALUE function returns a number in floating data type. You have to use a VALUE function with a ROUND or a TEXT function, to remove insignificant zero.

If the formula is:

```
VALUE ( SPOOLTEXT ( 15, 74, 6, 1 ) )
```

The SPOOLTEXT function reads the spool file and returns the string "500,00." So, the new formula would be as follows:

```
VALUE ( "500,00" )
```

Because the data you read has a European format and because you forgot to specify the input format, the output numeric value is 500000.00000. In this case you have to modify the original formula:

```
VALUE ( SPOOLTEXT ( 15, 74, 6, 1 ) , 2 )
VALUE ( "500,00" , 2 )
500.000000
```

As you can see, the output numeric value is in US format. Usually you use a TEXT or a ROUND function to correctly format the European output number.

WRITEFILE

WRITEFILE writes the current field data to an external file.

Syntax:

WRITEFILE("filename", "data")

filename

Filename of the external file (in quotes) where the data is to be written. If this file already exists, it will be overwritten by the new data. Otherwise, it will be created.

data

The specific data (in quotes) to be written to the file.

- Include !*n*! macro command in data to insert CR-LF in file.
- Returns 1 if the file is created and data successfully written.

Example

Consider the following formula:

```
WRITEFILE( "Counter.txt", TEXT( VALUE( [$S1] ) + 1, "00000000" ) )
```

Before calculating the formula, the [$S1] special field is replaced by the appropriate value. If the string stored in [$S1] is “1000002”, the formula would be as follows:

```
WRITEFILE( "Counter.txt", TEXT( VALUE( “1000002” ) + 1,
"00000000" ) )
```

The VALUE function is then calculated.

```
WRITEFILE( "Counter.txt", TEXT( 1000002 + 1, “00000000” ) )
WRITEFILE( "Counter.txt", TEXT( 1000003, “00000000” ) )
WRITEFILE( "Counter.txt", “1000003” )
```

The string “1000003” would then be written to the external file called “COUNTER.TXT”.

This function can be used with the READFILE function to read and write a file that contains a counter. For example, you can store the next check number used by a check printing application in an external file. Then you can read this file to know the current check number, and then increment that number and write it into the same external file.

Dynamic Text Formatting

Special macro commands can be inserted into text formulas to modify the appearance of the text merged into fields. These formatting commands begin with the command "!*" and end with "*!". These text formatting commands can be used individually or together within the same text string.

Commands

NOTE: Any text formatting macro command must be in quotes in the formula, like any other text.

!*n*!

New Line command. When found in merged text, a new line is automatically created.

!*v:ptSize*!

Point size command, where the ptSize is the numerical value of the new font point size. This can be applied to all installed fonts.

!*s:S1,S2*!

Font size command. S1 could be R (regular), B (bold), I (italic) or A (all—bold and Italic). S2 can also be R (regular), U (underlined), S (strikeout) or A (all—underline and strikeout). The values of S1 and S2 could also be equal to X if you don't want the attribute changed.

NOTE: Be careful whenever using this macro command. When changing text attributes, you need to verify that the attribute you specify is included in the compiled form. Although the compilation process normally exports font information, FormPort Designer doesn't know what font to export when formulas dynamically change the attributes, and will assume the different font properties indicate a new font. A work-around for this problem is to add a text object outside the page using the font you want to be included during the compilation.

!*f:name_of_font*!

Change font command. Where name_of_font is the name of the new font you want to use. Only fonts installed in FormPort Designer are valid.

!*c:c1,c2,c3*!

Change font color command. Colors are defined by standard RGB values between 0 and 255. In this command, c1 is the RED value, c2 is for GREEN and c3 is BLUE.

Text Formatting Example

It's now time to see and example of these text formatting commands in action. Consider the following sentence:

It must be *possible* to create a ***static*** text object like this

Word	Font and Attributes
It	Arial regular black 12
must	Arial regular red 20
be	Arial regular black 12
possible	Arial italic black 14
to	Arial regular black 12
create	Times New Roman regular black 14
a	Arial regular black 12
static	Arial bold/italic black 9
text	Arial regular black 12
object	Arial regular black 14 underlined
like this	Arial regular dark green 12

As you can see, the formula to implement this appearance is as follows:

"It !*v:020*!!*c:255,000,000*!must!*v:012*!!*c:000,000,000*! be !*v:014*!!*s:IR*!possible!*v:012*!!*s:RR*! to !*f:Times New Roman*! !*v:014*!create !*f:Arial*!!*v:012*! a !*v:009*!!*s:AR*!static!*v:010*! !*s:RR*! text !*v:014*!!*s:RU*!object !*v:012*!!*s:RR*! !*c:000,128,000*!like this"

Special Fieldnames

Some special fieldnames exist within FormPort Designer for the purpose of retrieving information from the form itself, the environment, the data file, etc. These special fieldnames always begin with the "$" character and can be used just like regular field names.

NOTE: Be sure special fieldnames are surrounded by square brackets.

[$FORM]

This fieldname is used to get the form short name but without the path.

[$TITLE]

Used to get the title of the form. An alternative to this would be [$SHORTDESC].

[$AUTHOR]

Used to retrieve author information from the form.

[$REVISION]

Used to get the revision number.

[$DESDATE]

Retrieves the date of the last save.

[$DESCRIPTION]

Used to get the description of the form. An alternative to this would be [$LONGDESC].

[$COPY]

This command retrieves the current copy number—but only in software multi-copy mode. This mode differs from the hardware multi-copy mode that's specified through either the Printer Information or Page Setup.

[$SPAGE]

Used to get the currently-merged spool page number. Since the print engine isn't capable of knowing how many spool pages are in a file at the beginning of the printing process, you can't use a formula such as "page x/y" (whereas 'x'

indicates the current page [$SPAGE]) since the value of 'y' can't be determined.

[$PAGE]

Used to get the currently-used document page number. [$PAGE] returns 1 if page 1 of the form is used, and so on.

[$PSIDE]

Used to retrieve the paper page side. [$PSIDE] returns a value of "1" if the front side of the paper, and a value of "2" indicates the back. This fieldname is only available when operating in duplex mode.

[$DATANAME]

Used to get the *short* name of the data file without path or extension.

[$DATAFILE]

Used to get the *extended* data file name with path and extension.

[$ENDOFDATA]

Determine if the current page of the spool file is the last. A value of "1" is returned if the current page is the last one. If not, a value of "0" is returned.

[$U1] to [$U9]

Stores variables defined using the –U#=parameter command line option.

[$S1] to [$S99]

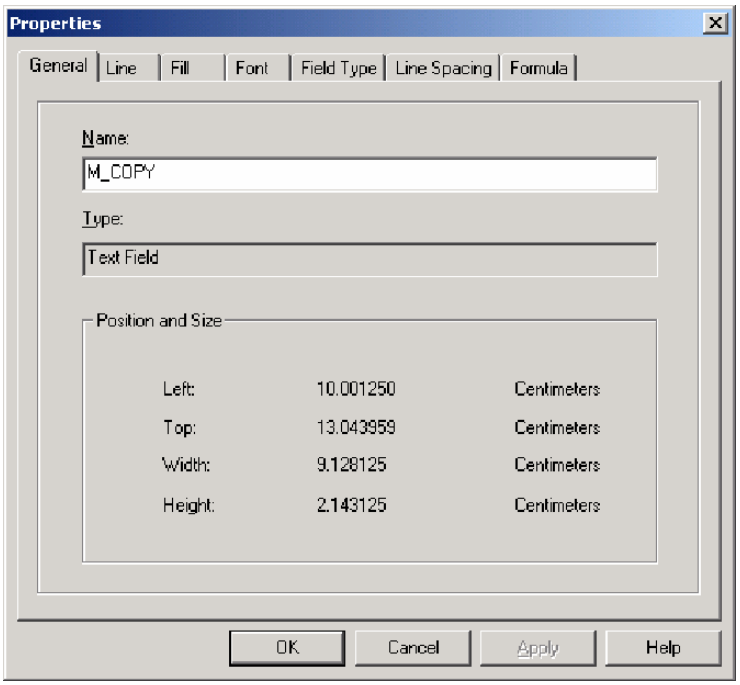
stores text string variables defined using STORES function.

[$N1] to [$N99]

stores text string variables defined using STOREN function.

Special Names for Fields

To use data within a field to perform calculations on a printing page, you can define special names through the property sheet of that object, as showing in the following image:



These special names all begin with a "M_" prefix, and are described in detail below.

M_COPY

This name is used to set the number of copies printed for the current page. The number of copies can then be applied to both printer multi-copy and software multi-copies.

M_DUPLEX

Used to set the status of duplex mode. The formula of this field must return "0" to deactivate the duplex mode, "1" to activate (long edge) duplex mode, or "2" to activate (short edge) duplex mode.

M_INTRAY

Used to set the input paper tray for the current page. The returned numeric value defines the input tray number.

M_OUTTRAY

Sets the output paper tray for the current page. The returned numeric value defines the output tray number.

Since the result of these fields can affect the current page, they're all calculated before sending the page header. This means that Field Filling Order isn't used for these fields and the print engine will calculate them regardless of field order.

Chapter 6: Troubleshooting

This chapter contains a collection of common problems and their solutions.

General Problems

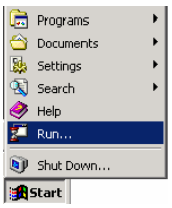
Poor Quality of Imported Bitmaps

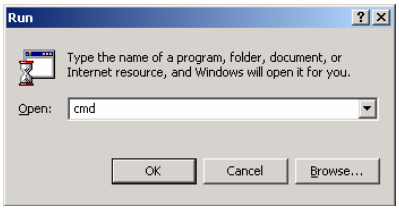
Although FormPort Designer allows you to import a number of different bitmap image formats, all bitmap images are converted to PCX format for use within the application. Depending on the specifications of the imported image, this conversion may alter the appearance of the image object. For best results, convert any bitmap images you plan to import to the PCX format using a paint or photo editing application.

Manually Printing a Form

Manually printing is a useful method of testing a form and the associated spool file since FormPort Designer doesn't report errors when printing. To print manually, the form must first be compiled. The procedure for manually printing forms depends on which operating system you're using.

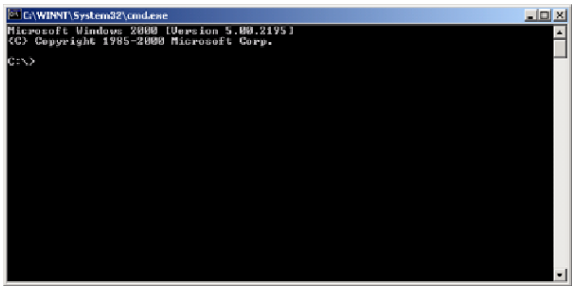
Note the directory and the name of the form and then open a DOS session by clicking on Start→Run from the Windows menu.





In the Run dialog, type "**cmd**" and click on OK.

A DOS session window will open, as shown in the following image:



Change directories to where you placed the compiled document. For example, if you placed the compiled form in the FormPort Designer directory, you'd type the following in the DOS window:

cd \Program Files\CapTech\FormPort Designer

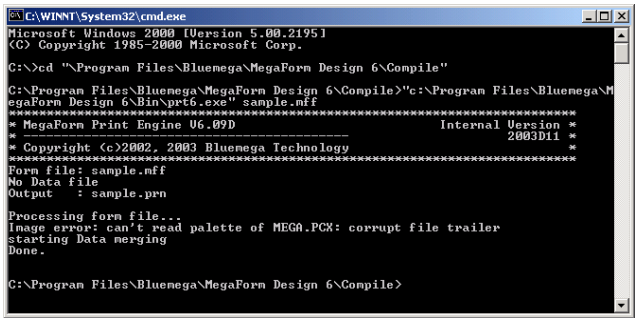
And then press the **Enter** key.

To print the file, enter the following command:

c:\Program Files\CapTech\FormPort Designer\Bin\prt6.exe sample.fpf

NOTE: Be sure to substitute the file "sample.mff" with the name of your file.

Press the **Enter** key to print the form on your screen.



In this example, the exported image has a bad header that the print engine is unable to print. This problem can be corrected by replacing the bad image.

Validating the Input File Format

One of the best ways to eliminate problems with the FormPort Designer print engine is to verify that the spool file associated with the document is valid. When working with a spool file, the most important value to know is the number of lines per page. Whenever you load a spool file into the current page, the number of lines per page is automatically detected. If necessary, this value can be manually changed.

The number of lines per page means that the print engine will read this number of lines from the spool file. If it does not find a formfeed character before the end of the page, all lines are stored. If it finds a formfeed character before the number of lines, it stops reading the spool file. It can never read more than this number of lines per page.

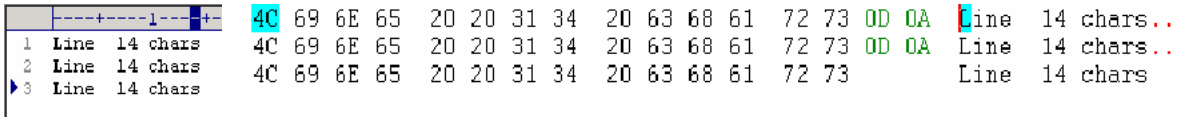
If the number of lines per page is 86, it means that every 86 lines, the print engine will make a page break. This rule is only if one page of the spool file is printing one page of the form.

Special characters

Spool files contain a number of special characters to make them function correctly. A few of these characters are described below.

CR-LF

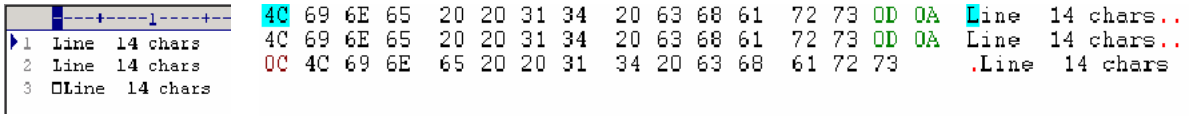
CR-LF indicates a Carriage Return – Line Feed. These two characters indicate a new line in an ASCII editor. CR is equal to ASCII 13 (OD) and LF is equal to ASCII 10 (OA). The following figure shows a line in an ASCII editor and the exact same line in a hexadecimal editor.



As you can see, to separate two lines OD-OA are inserted (CR-LF)

FF

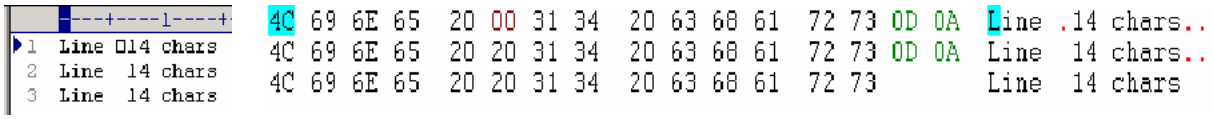
FF indicates a FormFeed. A FormFeed character indicates a page break for the printer and the printer engine. FF is equal to ASCII 12 (OC). The following figure shows a line in an ASCII editor and the exact same line in a hexadecimal editor.



As you can see, there is a FormFeed character (OC) in the file. It tells the print engine to generate a page break and start a new page after the FormFeed character.

Character ASCII '00'

This character indicates the end of a string, and will halt printing the remainder of the line when encountered by the print engine. And example of this character can be seen in the following illustrations; the one on the left is an ASCII editor and the one on the right is the same line in a hexadecimal editor.



When the print engine encounters the '00' character, it stops without reading the remainder of the line.

Appendix A: FormPort Designer Shortcut Commands

For your convenience, here is a complete list of every command that has an associated icon and/or keyboard shortcut.

Icon	Keyboard	Menu Command
	**ctrl+N**	File→New
	**ctrl+O**	File→Open
	**ctrl+S**	File→Save
	--	File→Compile Document
	--	File→Print Preview
	**ctrl+P**	File→Print
	**ctrl+Z**	Edit→Undo
	ctrl+Y	Edit→Redo
	**ctrl+X**	Edit→Cut
	**ctrl+C**	Edit→Copy
	**ctrl+V**	Edit→Paste
--	**Del Key**	Edit→Delete
--	**ctrl+A**	Edit→Select All
	**Alt+Enter**	Edit→Properties
	--	View→Grid
	--	View→Properties Window
	--	View→Output Window
	--	View→Zoom→Zoom
	--	View→Zoom→Zoom to Selection
--	**F2**	Page→Spool Mapping→Spool File→Display Copied area
--	**F3**	Page→Spool Mapping→Spool File→Display Moved area
--	**F4**	Page→Spool Mapping→Spool File→Display Unused area
	--	Insert→Spool Text
	--	Insert→Spool Image
	--	Insert→Spool Barcode
	--	Insert→CSV Spool Text
	--	Insert→CSV Spool Image
	--	Insert→CSV Spool Barcode
	--	Insert→Field
	--	Insert→Rich Text
	--	Insert→Image

	--	Insert→Barcode
	--	Insert→Line
	--	Insert→Rectangle
	--	Insert→Round Rectangle
	--	Insert→Ellipse
	--	Format→Justification→Left
	--	Format→Justification→Center Horizontally
	--	Format→Justification→Right
	--	Format→Justification→Justify
	--	Format→Justification→Top
	--	Format→Justification→Center Vertically
	--	Format→Justification→Bottom
	--	Tools→Snap to Grid
	--	Help→About

Appendix B: FormPort Print Utility

FormPort Print is a command-line utility that provides all the same functionality as printing directly from FormPort Designer.

The command line format of this utility is as follows:

Syntax:

FORMPORT <formName> [dataFile] [options]

<formName>

Name of the compiled FormPort file to print. The extension FPF is assumed if one isn't provided. This is the minimum parameter required unless the –v (verbose) option is defined.

[datafile]

File name of the spool or ASCII data file to be merged with the compiled form. If no value is provided, a blank form will be printed.

[options]

Optional parameter enabling more features and options.

Option Parameters

This section contains a complete list of the option parameters available when using FormPort Print.

-c#

Indicates printer-based multi-copy printing. When used, the printer will print the specified number of similar copies of each page.

Acceptable values for #: **1 to 999**

-C#

Software-based multi-copy printing. When used, FormPort Print will print the specified number of copies of each page. Each data file page will be applied # times to each form page and the [$COPY] value used in calculations will reflect the occurrence number.

Acceptable values for #: **1 to 999**

NOTE: This is parameter is only applicable when printing spool files.

-f

Used to indicate multi-part sorted pages.

-i#

Overrides the forms first macro number (defined during form design).

Acceptable values for #: **1 to 32750**

NOTE: For multi-page documents, each page uses one macro number. For example, if you specify 100 as the first macro number for a 4 pages document, the first page will be stored in printer memory as macro 100, the second page as macro 101, third page as macro 102 and so on. Make sure documents loaded into printer memory don't have overlapping macro numbers.

-l

Specifies that the forms have been preloaded into the printer.

NOTE: When the form Storage has been set to Temporary in RAM in FormPort Designer, this parameter has no effect and the form will be reloaded into printer memory.

-m#

Data character set. When used, indicates which character set the data file is using.

Acceptable values for #:

1 = Windows ANSI (default)
2 = PC850
3 = Roman 8

-n

Instructs the utility to perform no Post Reset (only available for OS/2). In OS/2 V3 and older, the OS/2 print manager performs a Form Feed even when the last byte is not form feed—resulting in generating a blank page after each print job. Using this parameter will prevent that from happening.

-oOutput

Indicates the output destination (file or device name.) To use, replace **Output** with the name of the destination file or device.

Examples:

-oLPT1 for a device like LPT1
-o\\SERVER\HP5SI for a LAN queue (OS/2, NT)
-oprintfile.prn to generate a print file
-ostdout for a print file sent to “stdout”

If no output destination is indicated, the output device name is taken from the MEGAOUT environment variable. If no MEGAOUT environment variable is defined, the name of the form, with the PRN extension is used.

-O"Unix process"

This option is available only in the Unix environment to indicate a Unix process, i.e. to indicate a Unix printer. **-oOutput** option is only used to generate an output file.

Example:

-O"lp –dHP4000 –oraw"

In this instance, HP4000 is the name of Unix printer.

-p<model>

Indicates a printer different than the one specified while creating the form in FormPort Designer. When used, FormPort Print will automatically adapt the printing to fit the specified model (fonts, colors, graphic resolution, printer language, etc.)

<model> must be one of the following printer models:

LJ3, LJ3D, LJ3S, LJ3P: HP LaserJet III family (S=Si)
LJ4, LJ4S, LJ4L, LJ4P, LJ4PL, LJ4V: HP LaserJet 4 family (S=Si)
LJC: HP LaserJet Color
LJ5C, LJ5L, LJ5S, LJ5, LJ5P: HP LaserJet 5 family (S=Si, C=Color)
LJ6P, LJ6L: HP LaserJet 6 family
DJ1200, DJ1600: PCL5 color HP DeskJet family
LJ4000
HPPCL4: All PCL4 printers
HPPCL5: All PCL5 printers
HPPCL5E: All PCL5E printers
HPPCL5C: All PCL5C printers
HPPCL5EC: All PCL5EC printers
PROPR: IBM Proprinter dot matrixprinter (data only)
4722: IBM Financial impact printer (data only)

-q

Quiet form download. When Specified, forms are loaded in the printer but not printed.

-s#1,#2

Spool pages print range. FormPort Print will print only the spool file pages in the specified range, from pages #1 to #2.

NOTE: This is applicable when printing spool files.

-t

Instructs the FormPort Print utility to return the number of spool pages processed, instead of the error code. A value of "0" is returned if an error occurs.

-u#=<value>

Defines the [$U1] to [$U9] User Variables for fields formulas.

Acceptable values for #: **1 to 9**

<value> is an alphanumeric string, without blanks.

-v

Returns the Print Engine version number as a return code (multiplied by 100: value from 100 to 9999). When invoked with **–v** as the first parameter, FormPort Print quits and returns the Print Engine version number multiplied by 100. Example : version 5.10 is returned as 510.

-v#

Specifies the verbose mode.

Acceptable values for #:

0 = no screen output (silent mode)
1 = command line and input/output info.
2 = command line, input/output and doc. info.
3 = command line, input/output, doc. & page info.

NOTE: This mode can be used by the FormPort technical support center to determine the source of form problems.

Return Value

Once the command line is executed, a numerical value indicating the status of the print job is returned.

Depending on the option parameters used, the following information will be returned instead:

- If **–v** was specified, a value representing the module number multiplied by 100 is returned.
- If **-t** was used, the number of spool pages printed by FormPort Print is returned.

If neither of those parameters are defined and an error is encountered, the run-time sends back a value greater than zero and a message describing the error is displayed.

The table below lists all potential return values:

Return Values	
0	No error encountered.
2	Read error in compiled FormPort file.
3	File specified is not a valid FormPort file.
4	Unexpected end of file in FormPort file.
5	Corrupt FormPort file.
7	Cannot open output device or file for printing.
8	Cannot open FormPort file.
9	Cannot open data file.
10	Form's validation formula failed.
11	Memory allocation error when reading FormPort form.
12	Printer-specific font file not found.
14	Corrupted font file.
20	Invalid data file pages range.
21	Invalid copies parameter.
22	Unknown target printer.
23	Unknown data character mapping ID.
24	First command line macro is out of range.
50	Next Page formula page number out of range.
51	Form validation formula looped over 10 consecutive times.
300	Memory allocation error occurred. Contact technical support for assistance.

Environment Variables

The following environment variables are also available:

MEGAOUT

This variable can contain the name of the output device where the data is to be sent. If no **–o** parameter is defined on the command line, that variable will be checked for a destination.

NOTE: MEGAOUT can be a device name like “stdout.”

MEGAOPT

This variable can contain the default settings for the FormPort Print Engine. This is especially useful when the Print Engine is called as a filter using “stdin” and “stdout” standard I/O.

Glossary

administrator

The person responsible for maintaining a computer network.

architecture

The broad design of either hardware or software which defines the structure, capabilities and limitations of the system.

case-sensitive

The ability of an operating system to distinguish between upper- and lower-case letters. For example, “A” would be considered a completely different character than “a.” This is important to know when creating or entering a system password.

client

An application that runs on a computer and relies on a server to perform some specific operation.

data

Pieces of information formatted in a precise manner. Data is what computer programs produce and/or manipulate.

database

Essentially an electronic file system, databases are a collection of information stored in a specific manner that enables computer systems to quickly and easily retrieve them.

driver

A computer program that enables a computer to communicate with a peripheral device such as a printer, scanner or network card.

duplex

When referring to printers, duplex is the ability of some printers to automatically print on both sides of a sheet of paper.

groups

Within a computer network, a collection of computers and devices as defined by an administrator.

Intranet

An internal network accessible only to those within a particular organization, such as a company or corporation.

IP address

A 32-bit numeric address that identifies each device connected to a computer network. Every device connected to the network must have a unique IP address in order to function.

Javascript

A scripting language that enables web programmers to enhance the features and functionality of their websites.

node

Any device on a computer network with a unique network address. This term applies to both computers and printers.

parameter

A characteristic or argument imposed on a program by a user.

port

An interface on a computer through which peripheral devices connect.

printer

An electronic device attached to a computer capable of rendering text and/or graphics onto paper.

print server

A computer on a network that manages one or more printers connected to the network. Any user connected to a network can print by sending their job to the print server.

server

General term for a computer or a device that manages resources on a network.

spool

A single page representation of records in a datafile that's used by FormPort Designer for data mapping.

user

General term for someone operating a computer.

WYSIWYG

What You See Is What You Get. A type of software that provides the user with a visual approximation of what the final document will look like after it has been printed.

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