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PROFORM DESIGNER™ USER GUIDE VERSION 4.0

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## About Lytrod Software, Inc.

Established in 1985, Lytrod Software is a privately held company committed to producing high-quality variable document design tools. For over 25 years Lytrod has developed software tools that help Xerox customers get the most out of their production printers.

Lytrod Designer Suite generates personalized documents and business forms for Xerox VI Compose (Variable Data Intelligent PostScript Printware), and legacy environments. Lytrod Software's innovative solutions for high volume enterprise printing environments implement modern advances in the print industry, while preserving the means to utilize and enhance legacy form resources.

Lytrod has extensive knowledge and experience with Xerox customers and continues to exceed industry expectations with new and innovative products.

Our products are continually refined, and your input is our number one source for product improvements. Send comments to:

Lytrod Software, Inc.  
2573 Clay Bank Road, Suite 4  
Fairfield, CA 94533  
Phone: 707/422-9221  
Fax: 707/429-5179  
email: [support@lytrod.com](mailto:support@lytrod.com)

# Lytrod Software Services and Support

Technical support is offered to customers who have purchased a maintenance contract through either Lytrod Software or Xerox.

## Lytrod Support

If you have a current maintenance contract purchased through Lytrod Software, the following options are available to you:

### Telephone Support

1-707-422-9221

Lytrod Software technical support is offered Monday through Friday, 7:00 am to 4:30pm Pacific Time.

### Email Support

[support@lytrod.com](mailto:support@lytrod.com)

Response to email will be within 4 hours during the standard technical support hours.

## Xerox Support

If you have purchased support through Xerox, please call 1-800-821-2797

## Web Site

The web address for Lytrod Software products is <http://www.lytrod.com>. Current product, training and sales information is readily available at this site, as well as online live tutorials.

## Training

Lytrod offers a variety of training options, including web-based training. Please visit <http://www.lytrod.com/services/training.php> for details and pricing.

Lytrod also offers a wide variety of 1-2 minute "How-To" videos on our YouTube channel. Please visit <http://www.youtube.com/user/LytrodSoftware>

## Proform Designer Protection Key (Dongle)

Lyrod Software products are protected via a protection key (also referred to as locking device or dongle) that is designed to be attached to the parallel or USB port of a computer. The protection key retains the software license of operation. A licensed key must be attached to the parallel or USB port of the system that is attempting to access the software during the entire session of operation.

### New Software Licenses

Software protection keys are programmed for operation according to the licensing agreement. A code (numeric string) and instructions may be issued from Lyrod Software that will enable the protection key with a license of operation.

Each Lyrod Software product purchased from Xerox is shipped without a license of operation. These products purchased from Xerox can be enabled by contacting Lyrod Software to register each new license.

Products purchased directly from Lyrod Software will be shipped with a 30-day temporary license of operation. Once full payment is received within the 30-day grace period, established in the Lyrod Software purchasing terms, Lyrod Software will issue a license to enable the software for full operation without an expiration date.

### Lost Software Protection Keys (dongles)

Software Protection Keys will not be sold individually if lost or stolen. **Full purchase price of the software will be charged for all dongle replacements, with no exceptions.**

### Defective Software Protection Keys

If dongles are damaged or fail to perform, there will be a fee to obtain a replacement dongle after the original dongle has been returned to Lyrod Software, Inc. Replacement dongles will not be shipped until the original dongle is received.



---

# Getting Started with Proform Designer

**L**ytrod Software Proform Designer is a user-friendly variable data layout and forms design tool. Sophisticated one-to-one marketing pieces and transactional/promotional statements can be easily created from either mainframe, XML, or database delimited data. The Microsoft Windows GUI interface includes wizards and drop-down menus for easy drag-and-drop data placement. The simplest personalized letter, or the most complex rule-based job, is created without any scripting. Specialized OMR drawing tools with data-driven pre-slugging create a more efficient scannable document. Proform Designer can be used to convert and/or create fonts, images and forms for PostScript, PCL and Xerox Metacode printers.

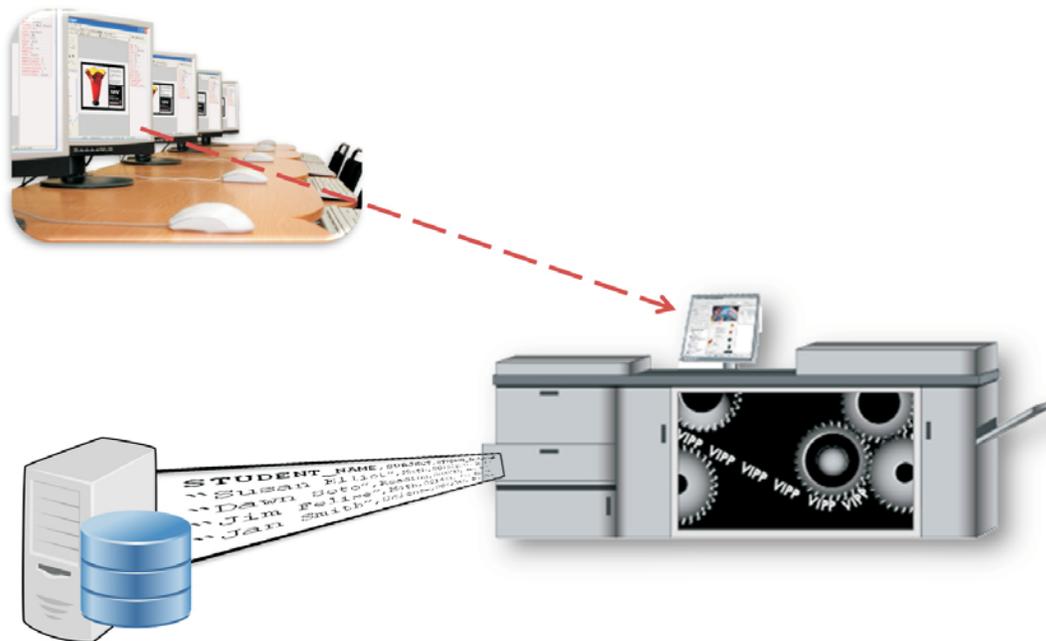
Easily create simple personalized letters or sophisticated variable documents (conditional rule-based text, images, page designs, media, slipsheet, etc.). Take full advantage of the operational flexibility and speed of Dynamic Document Construction – building data-driven, personalized documents at the moment of output, and at the rated speed of the device.

## Lytrod Software's 'Just Send the Data' Workflow

Lytrod Software Designer suite of products support the Xerox FreeFlow VI Compose template and resource driven variable data workflow, referred to as Dynamic Document Construction (DDC). Proform Designer can generate DDC VI resources for production print within seconds, regardless of the number of variable records in the job. VI resources and template instructions generated from Proform Designer are of minimum file size and are easily transmitted through the network. VI Compose caching capabilities RIP resources once, processing only the data records, after the initial RIP, at the rated speed of the engine. This workflow is ideal for repeated jobs (transactional statement printing, etc.) and one-off jobs that need to be out the door A.S.A.P. (postcards, personalized letters, etc.).

### Dynamic Document Construction:

- The variable document is designed in Proform Designer.
- VI Compose resources are sent from Proform Designer to the DFE of a VI Compose-enabled production print device(s), the hard drive of a VI Compose-enabled office printer, and/or the FreeFlow VI eCompose (formerly VIPO).
- Once the resources are housed at the engine, the data is transmitted directly to the printer and/or the FF VI eCompose. The document is dynamically constructed at the time of printing.



# Installation

Before beginning, you need to install Proform Designer onto your computer. There is a Proform Designer setup program on the enclosed CD that will lead you through the installation process.

## System Requirements

To run Proform Designer you will need the following:

- Microsoft Windows operation system XP, Vista, Windows7, Windows8
- PC user rights for periodic access to and editing of system registry during software operation (may require Admin Rights or that User Account Controls are turned off)
- USB Port (for license dongle)
- 256 MB of RAM
- 1 GB hard disk space
- Pentium IV 2.8 Ghz/AMD Athlon 2800 Mhz or faster processor
- CD-ROM Drive
- Two-button mouse
- 17” Super VGA monitor or larger (recommended)
- Internet access and software \*.exe download rights for Automatic Software Update Service

## Installing Designer

Installation of the software requires PC administrative rights that enable the installation of software, access to the system registry, and installation of a device driver for the dongle.

### ❖ To install Designer (USB dongle)

- Insert the installation CD into the CD ROM drive. An automatic setup menu will appear. Follow the directions on the menu. International versions of the software will offer the installation in the English, French, German or Spanish languages.
- Reboot
- Attach the USB dongle and use the Windows New Hardware Device Wizard (Should automatically appear) to find a driver for the USB dongle.



If installing on a 64-bit Windows7 or Windows8 system, the software may default to be installed on the **Program Files (x86)\Proform Designer** folder. Click on the Browse button and choose the **Program Files\Proform Designer** folder instead.

#### ❖ To install Designer (parallel port dongle)

- Attach the parallel port dongle to the system prior to the initial boot up before installing the software.
- Insert the installation CD to the CD ROM drive. An automatic setup menu will appear. Follow the directions on the menu. International versions of the software will offer the installation in the English, French, German or Spanish languages.



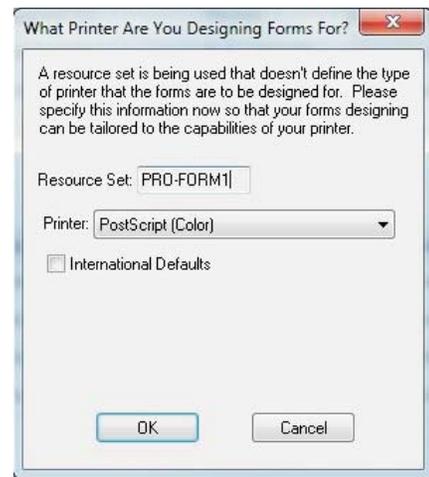
If the installation wizard does not automatically launch, run the setup.exe program from the CD.



Multiple software licenses are required to run the software on multiple workstation seats.

### What Printer are You Designing Forms For?

When Designer opens for the first time, the printer and forms language that will be used can be selected. There is the additional option of enabling the **International Defaults** check box. If this box is enabled, Designer will automatically set A4 as the default paper size, millimeters as the default page size unit, all rulers to centimeters and the OMR default to 40 channel.



## Automatic Software Updates

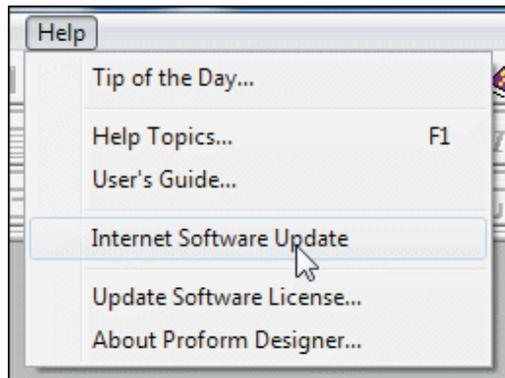
This feature is only available to customers who are current on their software maintenance or who are Xerox Internal personnel. Proform Designer will automatically check for version updates upon installation and every 7 days thereafter.

### ❖ To enable an automatic software update

1. With no forms open, go to the **Edit** menu and select **Preferences**.
2. Access the **System** tab.
3. Check the **Enable Internet Based Software Updating** check box.
4. Click **OK**.

### ❖ To force an automatic update to occur

1. With no forms open, select **Designer Software Update** from the **Help** menu.
2. If your maintenance is current or you are a Xerox Internal user, Designer will update your software if a new version is available.



## Using the Documentation

In addition to the printed documentation, much of Proform Designer is documented in an on-line help system.

### Proform Designer Documentation Set

---

Online Help	Within Proform Designer an online help system is available for access during the operation of the program. This online help can be quickly accessed and the help window can be displayed while you continue your work.
-------------	--



Context-Sensitive Help	Integrated within Proform Designer is a context-sensitive help system that displays information relevant to the current task. Context-sensitive help is accessed by clicking What's This and then clicking on the item for which to view information.
------------------------	---

Fly-by ToolTips	Information on icons and buttons will display as you position the cursor over an icon or button within the toolbars.
-----------------	--

User Guide	The written documentation you are currently reading provides an in-depth description of Proform Designer.
------------	---

## Documentation Conventions

The conventions used in this documentation are defined as follows:

### Mouse Conventions

The following conventions are used when referring to the mouse:

When you read this...	Do this...
Click a button	Position mouse over the button and click
Open menu	Position mouse over the main menu, depress mouse, position mouse over the requested menu item and click the mouse button.
Enable check box	Click the check box to place an "X" in the box.
Disable a check box	Click the check box to remove the "X" in the box.
Select Text	Click and hold down the left mouse button at the beginning of the text selection, drag mouse to the end of the selection and release the mouse key.
Select Object	Be sure no other object is selected. Position mouse over object until the mouse pointer changes to the shape of the object, then click. The object will now have markers at various points on the edge.

### Keyboard Conventions

The following conventions are used when referring to keyboard actions:

When you read this...	Do this...
Press ENTER	Press the Enter key on your keyboard
SHIFT + MOUSE	Press the Shift key and click the left mouse button at the same time.
CTRL + MOUSE	Press the Control key and click the left mouse button at the same time.

### User Guide Conventions

When you see this...	It means this...
	A note
	A tip
	An Item of Interest
	Look Here

## Using Online Help

### ❖ To access help topics

1. Select **Help topics** from the **Help** menu.
2. Click one of the following tabs:
  - **Contents** tab to browse topics by category.
  - **Index** tab to list index entries. Enter the first letter(s) of the index entry to jump to that topic.
  - **Find** tab to search for a particular word or phrase.



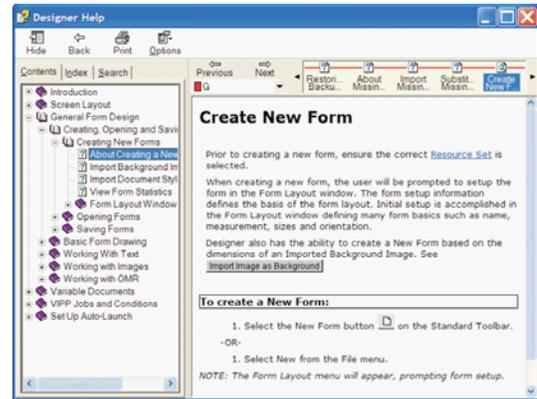
### Accessing Context-Sensitive Help

Context-sensitive help is accessible from anywhere within Proform Designer. When accessing context-sensitive help, use these guidelines:

To get help on...	Click here...
Windows	The Context Help button on the toolbar, drag the context help icon to item within the window.
Menu Commands	The Context Help button on the toolbar, drag the context help icon to the menu and click.
Tools and dialog controls	The Context Help button on the toolbar, drag the context help icon to the item you want help on and click.
Selected object	Right-click the object and select the Properties menu item for information on that object's Fly-by ToolTips.

### Fly-By ToolTips

Fly-By ToolTips are available for all toolbar buttons and provide a brief description of its operation. Position the mouse over the toolbar button and wait for a few seconds. The Fly-By ToolTips will appear below and slightly to the right of the toolbar button.



# Proform Designer Screen Layout

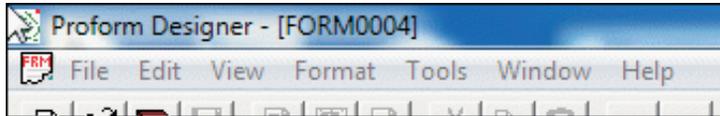
## Design Area

The design area is used to display and edit any forms that may be open. More than one form may be open at a time. The most recently opened form will be displayed. All will be listed in the **Window** menu. Selecting a form from this list will cause it to be displayed. Each form is displayed in its own window in the design area with associated Minimize, Maximize, Restore, and Close buttons. Minimizing or reducing the current window will allow other open forms to be viewed. Only the active form can be edited. The active form is designated by clicking in the form's window or selecting it from the **Window** menu.

Toolbar Button(s)	Screen Item
	The view of the design area can be enlarged or decreased using the Zoom buttons on the View toolbar or by choosing the desired view from the View menu.
	Rulers can be displayed at the top and left or the bottom and right of the design area to aid in placement of form elements. These rulers can be undocked and moved around the design area by dragging them onto the form. They can be redocked by clicking on them with the right mouse button and choosing the desired location.
	A grid can be displayed on the screen (as well as printed on a proof print) to assist with form layout and measurement. Grid values are defined in the <b>Form Setup window</b> . See page 72.

Scroll bars are available at the right and bottom of the design area. These are used to move the desired area of the form into view. Information pertaining to the active form is displayed in the Ribbon bar, which is beneath the design area.

## Menu Bar



The Menu bar is displayed at the top of the screen and provides access to all menus available in Proform Designer. Each menu contains a list of commands that will be displayed when the user chooses a menu title. Non-selectable commands will be grayed out. Non-selectable commands are features that are not available to the user at the time of selection based on the type of form element selected.

Some Menu bar commands are followed by an arrow marker indicating that a cascading menu will appear. These cascading menus typically request further clarification as to the function being performed. For example, the Import command from the **File** menu has a cascading menu. This menu requests further information regarding the Import function (Font, Image, Text, etc.)



Some Menu bar commands are followed by an ellipsis (...) indicating that a pop-up menu will appear.



## Quick Keys

Most commands have their associated quick key listed to the right of the command. Quick keys provide users with quick access to various functions via the keyboard. Most commands also have a corresponding button on a toolbar.

Quick Key	Command/Action
Ctrl + A	Select All
Ctrl + C	Copy
Ctrl + F	Find
Ctrl + G	Group
Ctrl + H	Replace
Ctrl + N	File New
Ctrl + O	File Open
Ctrl + P	File Print
Ctrl + R	Rotate
Ctrl + S	File Save (Must select Save As from File menu before this command is enabled.)
Ctrl + V	Paste
Ctrl + X	Cut
Ctrl + Y	Edit Redo
Ctrl + Z	Edit Undo
DEL	Delete
F1	Help
F2	Attach Object, Text Box, Data
F3	Find
F5	Position Object
F6	Next Pane
F7	Format Object (Not Text Box)
F8	Zoom Fit To Page
F9	Preferences
F10	Refresh Screen
Shift + F1	Context Help
Shift + F6	Previous Pane

## Pop-up Menus

Pop-up menus appear when further information is required from the user. Information is requested in the form of edit boxes, drop-down boxes, spin boxes, radio buttons, and check boxes. Pop-up menus also contain action buttons.

### Radio Buttons

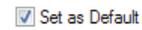
Radio buttons represent a group of choices in which only one option can be selected. They appear as a set of small circles along with their associated descriptions. A radio button is set when a dot appears in the middle of the circle. The circle will be empty if the choice is not selected.



Radio Buttons

### Check Boxes

Check boxes are similar to radio buttons in that a group of items are listed and can be set or not. They differ in that check boxes are used for independent or nonexclusive choices. One or more check boxes can be set as desired.



Check Boxes

A check box appears as a square box with accompanying label. When the choice is set, a check mark appears in the box. The box will be empty if the choice is not selected.

### Action Buttons

Each menu has one or more buttons that provide control over the pop-up menu. This control may be to accept the changes or cancel changes. It may also control the pop-up of additional menus. Action buttons are OK and CANCEL.



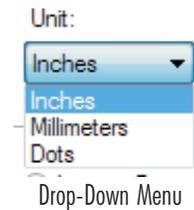
Action Buttons

### Edit Boxes

Edit Boxes prompt for input of user defined information.

## Drop-Down Menus

A drop-down menu typically displays a list of choices. The choices can be shown as text, icons or other graphics. The purpose is to display a collection of choices from which the user can make their selection. The list is displayed upon demand. In its closed state, the control displays the current selection. The user opens by clicking the down arrow to the right of the control to change the selection.



## Spin Boxes

Spin boxes are edit boxes that accept a limited set of values. Spin boxes have up-down control buttons to increment or decrement the value. The user can also type a value directly into the box by clicking the mouse over the value and typing the desired value.



## Ribbon Bar

The Ribbon bar displayed at the bottom of the design area provides various information to the user. The left side of the Ribbon bar displays messages based on the current menu field or mouse position. The right side of the Ribbon bar displays information pertaining to the current form.



The right side of the Ribbon bar contains twelve fields. From left to right, the purpose of the fields are to define the following:

- The current Resource Set
- Name of Job
- Job and Data Record Counter
- Number of record being viewed of total records (example shows 1st record of 9 records)
- The X coordinate of the element selected or the cursor if no elements are selected
- The Y coordinate of the element selected or the cursor if no elements are selected
- The ordering position of the selected item on the page. Higher numbers indicate forward positioning.
- The unit of measure in which the X/Y coordinates are displayed, as defined in the Preferences menu
- The zoom level of the active form
- The current time or the total amount of time spent on the active form, based on the selection in the Preferences menu. The 24 hour clock time format is supported for international operating systems.
- Number Lock
- Scroll Lock
- Insert/Overwrite

## Scroll Bars

Scroll bars are available to maneuver quickly throughout your form. Scroll bars appear whenever the user is in a view such that their entire form is not able to be displayed in the Design Area. Scroll bars will appear on the bottom and right sides of the screen. Click and drag the scroll bar to move the form up/down, left/right as necessary. Page Up and Page Down keys also allow for quick maneuvering. Arrow keys are located at left/right side of bottom scroll bar and top/bottom of right scroll bar to allow scrolling in smaller increments.

## Toolbars



Various toolbars are available within Proform Designer to provide quick access to commonly used functions. Users are given the ability to organize the commands to suit their needs. You can easily customize the tools on the toolbar. For example, you can add and remove menus and buttons, create custom toolbars, hide or display toolbars and re-locate toolbars. Toolbars contain not only buttons, but drop-down menus as well. ToolTips are available for toolbar buttons to identify their function.

Individual toolbars can be undocked and moved around the design area. This is done by dragging the toolbar onto the design area. They can be re-docked by dragging them back to the toolbar area.

### Display/Hide Toolbars

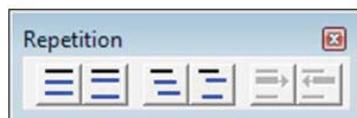
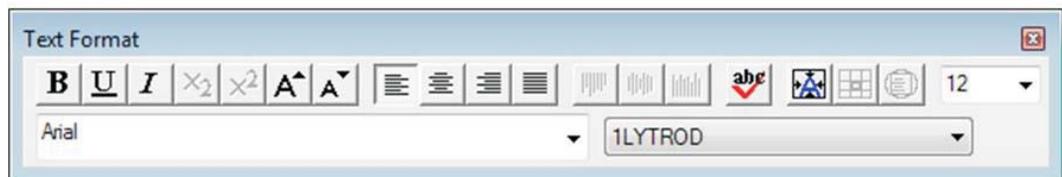
Toolbars can be removed from the screen if desired. Toolbars buttons are grouped according to functionality and placed with similar functioning buttons on a single toolbar. For example, all drawing toolbar buttons can be found on the Drawing toolbar. This not only makes locating buttons simplified, but assists users in organizing their desktop.

#### ❖ To display/hide toolbars

1. Select **Toolbars** from the **View** menu.
2. Toolbars will be listed by name in the **Toolbars** list.
3. Check on/off the appropriate **Toolbar**.

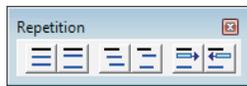
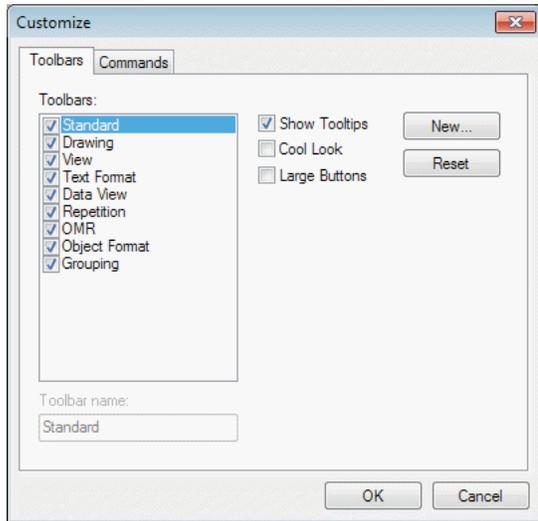
### Change Appearance of Toolbars

Toolbars can be displayed as normal, cool look, and/or large buttons. Toolbars will be displayed in normal view by default.



### ❖ To change toolbar appearance

1. Go to the **View** menu and select **Toolbars**.
2. Enable the **Large Button** and/or **Cool Look** button as desired.
3. Disable the check boxes to return to normal view.



Normal



Cool Look



Large Buttons

### Enable/Disable ToolTips

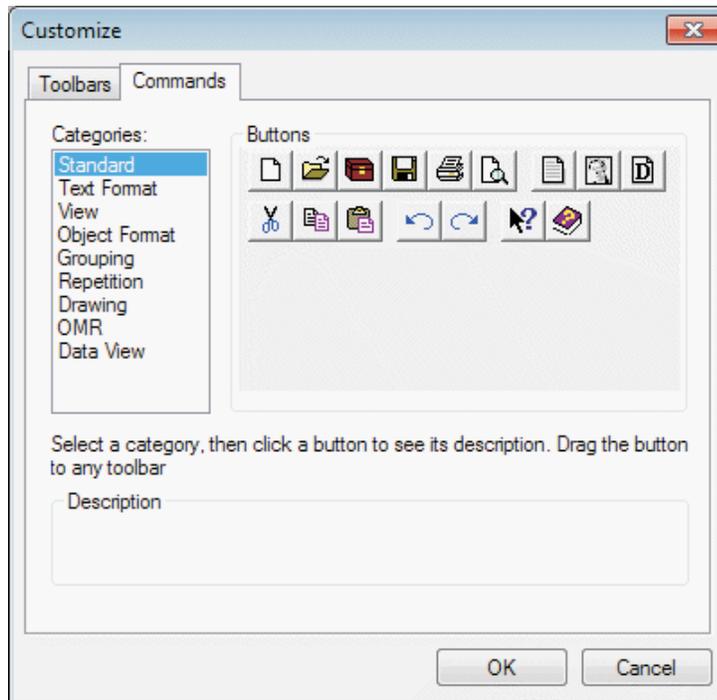
ToolTips provide a brief description of the purpose of a toolbar button. They appear automatically when the mouse is held over a button for a short period of time when the Show ToolTips option is set on.

### ❖ To set the Show ToolTips option

1. Go to the **View** menu and select **Toolbars**.
2. Check the **Show ToolTips** button.

## Customize Toolbars

Toolbars can be tailored to the users needs by removing and adding toolbar buttons to them.



### ❖ To customize a toolbar

1. Go to the **View** menu and select **Toolbars**.
2. Select the **Commands** tab to enable toolbar edit mode.
3. Remove and rearrange buttons from toolbars by dragging the buttons off toolbars or to a new location.
4. Add buttons to toolbars by dragging buttons from the **Buttons** list in the **Commands** tab onto the desired toolbar.



The user can further tailor the toolbars by creating a new custom toolbar.

---

## Create Custom Toolbar

### ❖ To create a custom toolbar

1. Select **Toolbars** from the **View** menu.
2. click the **New** button.
3. An edit box will appear allowing the user to name the toolbar.
4. The new toolbar will now appear in the **Toolbar** list.

## Working with Rulers

### Rulers



Rulers are a helpful tool in form measurement. The rulers can be displayed in a variety of units (inches, centimeters, dots, and grids) and can be docked/re-docked as necessary.



### ❖ To display rulers

1. Click **Show Ruler** on the **View** toolbar.  
<OR>
2. Select **Options** from the **View** menu.
3. Select **Rulers** from the **Options** menu.

### ❖ To define ruler unit

1. Select **Preferences** from the **Edit** menu.
2. From the **Design** tab, check **Show Ruler** to show/hide rulers.
3. Select unit of measure by choosing desired unit in **Ruler Unit** drop-down list.

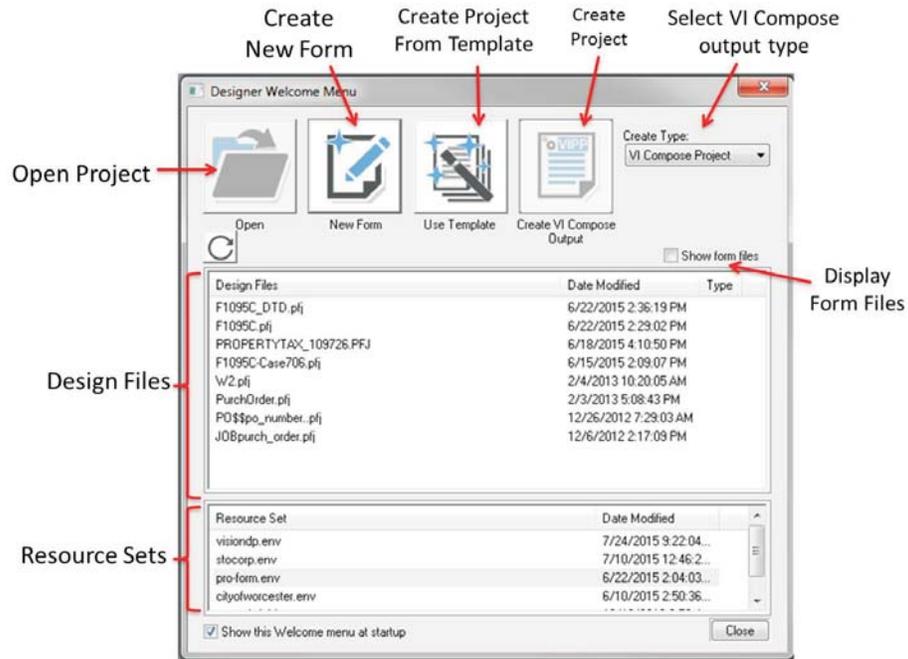
## Docking/Re-Docking Rulers

Rulers will be shown on the top and right side of the Proform Designer screen when first enabled. The user can re-dock the rulers to the left and bottom as desired. Rulers may also be undocked to better assist users with form measurements.

- To undock ruler, drag the ruler to a location within the design area.
- To re-dock ruler, click the right mouse button over the ruler and select location at which to re-dock the ruler (left/right for vertical ruler or top/bottom for horizontal ruler).

## Welcome Menu

Upon starting up VisionDP, the Welcome Menu will appear. This menu will give you access to the most commonly used functions and assists in quickly and easily opening up and creating new forms/projects.

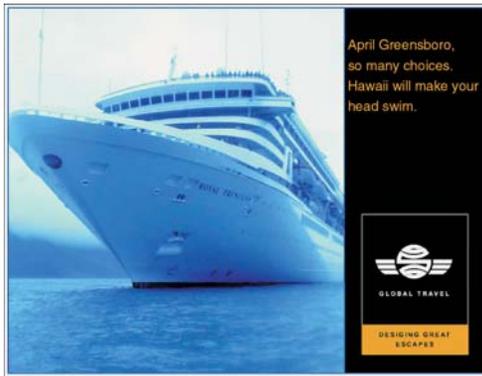


Open button	After selecting a file (project .pjf or single form .fsl,.dtd) you can click on Open to open your design file.
New Form button	The New Form button will create a new single blank form
Template button	Clicking on the Template button will open up the Choose Template menu. Templates allow for easy creation of projects in a few simple steps. Templates are explained in detail on page 265
Create VI Compose Output button	Once a project file has been selected from the Design Files list, and an output type is selected from the Create Type drop-down, click the Create VI Compose Output button to automatically create the output for the selected project without having to open the design.
Create Type drop-down	Use this drop-down menu to select the type of VI Compose Output you would like to create when using the Create VI Compose output button.
Show Form Files check box	Selecting this check box will display all single forms(.fsl, .dtd, .frm) in the Design Files list.
Design Files	List of all available .pjfs/.dtd that are associates with the active Resource Set
Resource Sets	List of all resource sets. To edit Resource Set settings, double click on resource set name.

## Design Planes

Proform Designer places document objects within three design planes that affect the layering of the objects. Each plane can be viewed individually or in combination. The order of the planes are as follows from bottom to top: Background, Static Form, Data Plane.

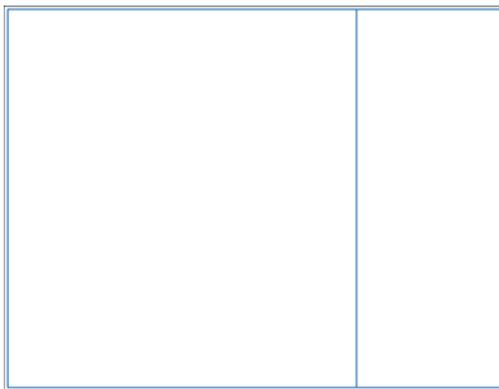
There is also an optional Secure Plane in which the user can define a secure password that will need to be provided any time editing to the secure plane is made.



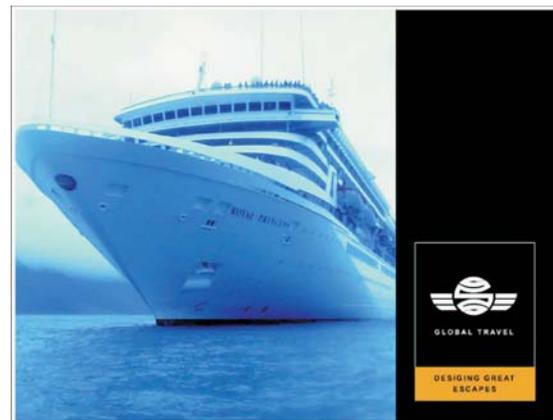
All Planes Viewable



Data Plane Viewable



Static Plane Viewable



Background Plane

## Static Form Plane

All elements that are drawn in Proform Designer that do not include a data element are part of the **Static Form Plane** by default. Elements in the Static Form Plane will be placed in the form file created upon output. Therefore, the elements in the Static Form Plane will be saved into the following files:

- PostScript environment: extension .PS
- PCL environment: extension .PCL
- XES environment: extension .XES
- Metacode environment: extension .FRM.
- Images and fonts will be saved as well.

## Data Plane

Objects that contain, or are produced from, variable data elements will be placed in the Data Plane (except variable images placed on the Background Plane). This would include text blocks with data, data-driven images, conditional images or text, variable fields, etc. The Data Plane is the topmost plane, in front of the Static Form and Background Plane. Upon output, data elements and/or their placement will be stored as VI Compose commands in the \*.JDT, \*.DBM or \*.XJT files.

## Background Plane

The Background Plane can contain a printable image file, or objects that are viewable in the Designer interface but are non-printable. The Background Plane is always below the Static Form and Data Planes. Objects placed in the Background Plane are locked into the place of import, so they are anchored into place and cannot be selected when placing or drawing objects in the static or data planes. Background objects can only be edited or moved in Edit Background mode.

The Background Plane has two main uses:

- Pre-printed stock:

Non-printable background images are useful in emulating pre-printed stock. Drawn objects (lines, boxes, circles, etc.) can also be placed in the background plane to assist in the design process (emulating perforated paper, folds, etc.), and will not print.
- Pre-designed pages:

Printable background images are useful in anchoring full page design images that may have data or static objects drawn on top. The option for printable background images is only available for forms designed with variable data (VI Compose) and are limited to \*.EPS, \*.JPG, \*.TIF, and \*.PS file types. Background images can also be variably driven (data-driven backgrounds and conditional rule-based) but will always be on the bottom layer (under the Static Form and Data Planes).

### ❖ To add static elements to the Background Plane

Select the static element that is to be added to the **Background Plane**. Right click the mouse and select **Background Plane**. The element is now part of the background plane.

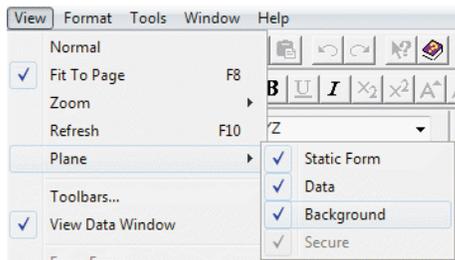


Only static form elements can be added to the background plane. Conditional background images can be created by importing a background image when creating the new form or by importing background images through the **File** menu.

### ❖ Working with the Background Plane

Elements in the **Background Plane** can only be selected for modification (moving, resizing, deleting), if you select the **Background Plane** option from the **Edit** menu. Background elements selected will have a special fly-by graphic to distinguish them from non-background elements as defined on page 97.

### Viewing Document Planes



Viewing document planes

Each plane can be viewed individually or in combination. To view the various design planes, select from the **View** menu the **Plane Option**. The planes currently being viewed will appear with a check mark as shown above. Select the appropriate plane to either remove or add it to the display.



It is recommended to work with the background plane not activated since it makes it easier to select objects on the page. To enable/disable the background plane access **Background** from the **Edit** menu. If this Edit Background option has a check mark, then the background plane is activated. When the background plane is active, it is more difficult to select static form plane elements.

## Secure Plane

Designer gives you the option to create a Secure Design Plane within your form that can only be accessed when an administrator-defined password is provided. All elements created within the other design planes can be edited while the Secure Plane is selected, but will only be password-protected once they have been “sent to the Secure Plane”. All elements can be sent to the Secure Plane.

### ❖ To Create a Secure Design Plane

1. Access the **Form Layout** window by either creating a new form or selecting it from the **Edit** menu.
2. From the **Form Setup** Tab, enter a password in the **Secure Password** entry box.

*Note: Password can be up to 256 characters.*

3. The Verify Password window will appear prompting you to re-enter your desired password.

Click **Ok**.

### ❖ To Change Password of Secure Design Plane

1. Go to the **Edit** menu, and select **Form Layout**.
2. From the **Form Setup** Tab enter in the new desired password.
3. The **Verify Password** window will appear prompting the user to enter in the old password before a new password can be defined.
4. Enter the old password and click **Ok**.

### ❖ To View elements within the Secure Plane

1. Go to the **View** menu and select the **Plane** Option.
2. A drop down list of the planes will appear with check marks next to the planes that are currently visible.
3. Select **Secure Plane** from the list to enable the Plane.
4. A prompt will appear requiring the input of the password associated with the secure plane.

### ❖ To send selected elements to the Secure Plane

1. Select element you wish to send to Secure Plane.
2. Right click the mouse, and choose the **Secure Plane** from the Properties menu.



# Resource Sets

**R**esource Sets provide the ability to organize the files and printer information associated with a project or a group of projects. A Resource Set contains information about your printer and any resources available on the printer. This helps Proform Designer guide the forms design process based on what it knows about your printer. For instance, a Xerox HighLight Color printer needs different ink information than a full color printer, and an 11X17 form should only be designed if your printer supports tabloid paper.

Resource Sets also provide an avenue for resource management. A service bureau or the design department of a large company may want to keep resources separated based on customer or department. A Resource Set can be defined for each client containing logos and custom fonts specific to that client's needs, even if all of the forms are eventually printed on the same printer.

You will be provided with a basic Resource Set (PRO-FORM) that defines standard printer defaults based on the information gathered during installation. This Resource Set can be used as a basis to create a unique environment. Additional Resource Sets can be created as needed.

When designing forms for a production environment, use a Resource Set based on the production printer, even if other printers may be used for pre-production proof printing. Proof printers do not necessarily need to have an associated Resource Set.

# Working with Resource Sets

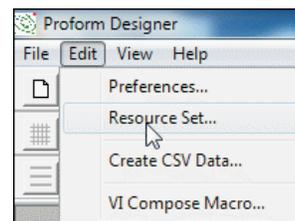
## Selecting a Resource Set

The Resource Set selected should represent the final destination printer. For example, if a page will eventually be merged with data on an iGen3, but will be proof-printed on an HP LaserJet. The PostScript Color Resource Set should be chosen when designing this page, since that is what will be used to print to the iGen3.

The current Resource Set name is displayed in the Ribbon Bar. The Resource Set must be selected before form design begins and cannot be changed while a form is open. When a form is saved, the Resource Set information is stored in the form. Therefore, when opening the form in the future, the correct resource set will be enabled.

### ❖ To select a resource set

1. Close all forms.
2. Select **Resource Set** from the **Edit** menu.
3. From the **Resource Set** drop-down menu, select the desired Resource Set. The information in the window will update to reflect the selection.



## Creating a Resource Set

There may be an occasion in which a new Resource Set needs to be created. A Resource Set for each printer type supported should be maintained. A basic Resource Set (PRO-FORM) that defines standard printer defaults based on the information gathered during installation is created during setup. All other Resource Sets need to be created if necessary.

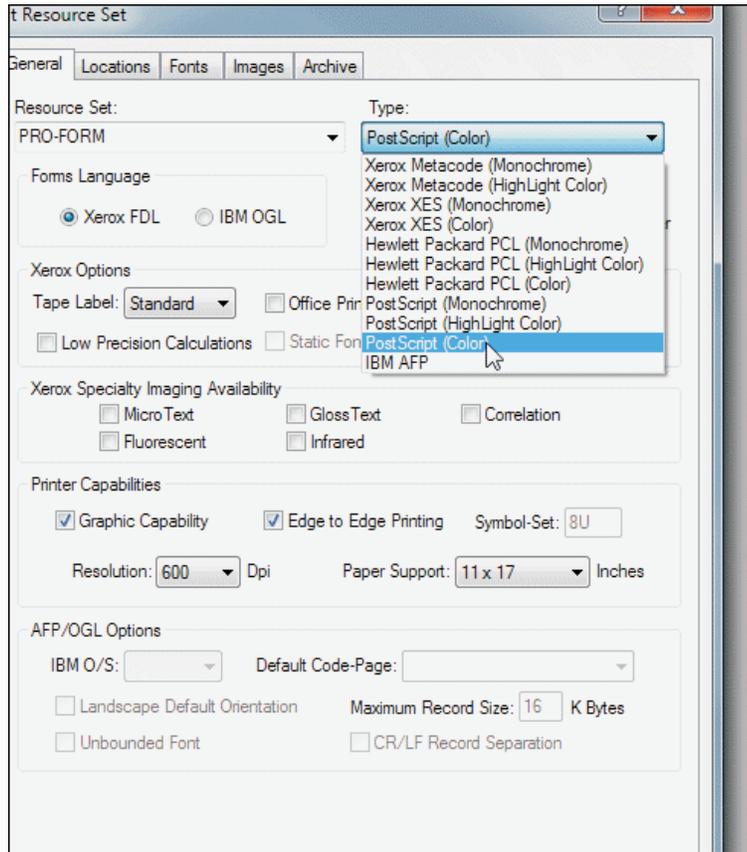


### ❖ To create a new resource set

1. Close any open forms.
2. Click the **Create Resource Set** button from the **Standard** toolbar.
3. Enter the name of the new Resource Set into the **Resource Set** field. All existing Resource Sets are listed in the drop-down so that you can avoid duplicating Resource Set names. You may also choose to use the name that is generated for you and displayed in the Resource Set field.

## Supported Printers

Printer types supported within Proform Designer include Xerox Metacode (Monochrome and HighLight Color), Hewlett Packard PCL (Monochrome, HighLight Color and Color), Xerox XES (Monochrome and Color), PostScript (Monochrome, HighLight Color and Color) and IBM AFP.



### ❖ To choose destination printer

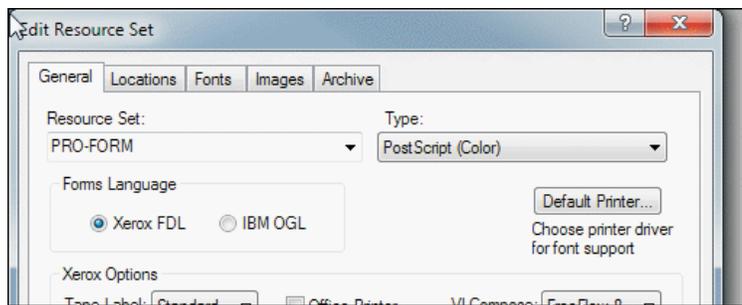
1. Close all forms.
2. Select **Edit** and then choose **Resource Set**.
3. From the **General** tab of the **Edit Resource Set** menu, choose a printer type from the **Type** drop-down menu.



Selecting a specific default printer model aids in defining limits as to what you are allowed to do in Designer..

## Choose Printer Driver for Font Support (Default Printer Button)

Windows defines PostScript printer fonts by the active PostScript printer driver. Although the Designer products use Lytrod Software developed output drivers, the defined Windows PostScript printer driver is used for the Proof Print function as well as for determining available PostScript printer fonts.



To ensure that the correct print driver has been selected, it is recommended that users go to the Resource Set and select a PostScript printer when updating the software to a newer release. The printer information will then be stored in the Resource Set and the available PostScript printer fonts will be gathered.

## Installing PostScript Print Driver in Windows



Installing print drivers into the Windows environment is the first step to adding a printer into any software product. Print drivers can be obtained from disks provided upon purchase of the printer or from printer manufacturers website. You can download Xerox print drivers from [www.xerox.com](http://www.xerox.com).

## Forms Language

Resource Sets identify which type of forms language you will be creating. This information affects the

Proform Designer source file as opposed to the actual print file. However, you should choose the language appropriate for your printer. Xerox FDL should be chosen for all printers other than AFP printers.

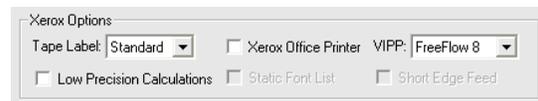


#### ❖ To choose forms language

1. Close all forms.
2. Select **Resource Set** from the **Edit** menu.
3. Check the **Xerox FDL** or **IBM OGL** radio button as appropriate.

## Xerox Options

The Xerox Options section of the Resource Set window defines the options available on a Xerox printer. The options are as follows:



- **Tape Label** – This options should be selected if the Resource Set is being defined for a Xerox Metacode printer that requires a tape label record header at the start of each form, font or image file (FRM, FNT, LGO and IMG files). These headers are used to identify the files. If **None** is selected, no tape label will be created. The **Standard** option creates a tape label that is the usual 128 byte record as designed by Xerox to proceed Metacode resources. An **Extended** tape label is a Standard tape label padded with zeroes to 512 bytes. Extended tape labels are used to ease storage of files on systems that do record blocking (mainframe computers).
- **Xerox Office Printers** – Special settings are available for using VI Compose on Xerox N-Series, Phaser, and DocuCentre printers. When the Xerox Office Printers check box is enabled, it becomes possible to print VI Compose applications to a local, networked office printer.
- **VI Compose** – If the Resource Set is being defined for a VI Compose enabled Xerox PostScript printer, then choose the version of VI Compose installed on the printer. This will enable all of Proform Designer's data mapping capabilities for that particular version of VI Compose. Select from Disabled, Version 2.1, Version 2001, Version 4.0, Version 5.0 or FreeFlow 4, through FreeFlow 10.
- **Low Precision Calculations** – When performing calculations, Designer can either use the VI Compose method or the PostScript method. The VI Compose method is less precise than the PostScript method. If you do not require a high amount of precision (VI Compose will produce out to 9 decimal places) enable the **Low Precision Calculations** check box.

- **Static Font List** – This check box will be available when working in a metacode environment. Enabling this check box will prevent Designer from modifying and reloading the font list before every page is printed. By using the same font list for each page, printing speeds are optimized.

**Short Edge Feed** – This check box is available when working in a metacode environment. Enabling this check box allows Designer to correctly rotate the images being used on the form when the paper is being fed into the printer using the Short Edge Feed direction.

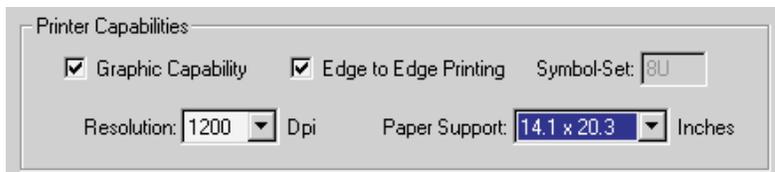
**Xerox Specialty Imaging** – Five Specialty Imaging capabilities are possible: MicroText, GlossMark Text, Correlation Text, Fluorescent Effect and InfraRed Effect. You may tailor the availability of these within Designer by checking one or more of the checkboxes to allow Specialty Imaging to be designed into your applications. By checking MicroText, GlossMark Text or Correlation, Designer will ask for the fonts associated with this Specialty Imaging effect.

## Printer Capabilities

Resource Sets contain information regarding the type of printer being supported with each Resource Set. In regards to printer type, the user will choose a type as opposed to a specific printer model. Additional printer information is also defined to specify unique capabilities of the various printer models.

Non standard printer capabilities can be defined in the **Printer Capabilities** section of the **Edit Resource Set** window. The following printer capabilities can be defined:

- **Graphic Capability** – This option defines the availability of graphics hardware on Xerox Metacode (LPS) printers. Xerox 3700 and 4235 printers have the necessary hardware to handle graphics.
- **Edge-to-Edge** – This option defines whether or not the printer can print to the edge of the paper.
- **Paper Support** – This option defines the maximum paper size the printer supports.
- **Resolution** – This option defines the resolution the printer supports. NOTE: Some Xerox printers are limited to 300dpi.



### ❖ To define printer information in a Resource Set

1. Close all forms.
2. Select **Resource Set** from the **Edit** menu.
3. From the **General** tab of the **Edit Resource Set** menu, specify the appropriate printer information for the current Resource Set as follows:
  - Check the **Graphic Capability** box if applicable.

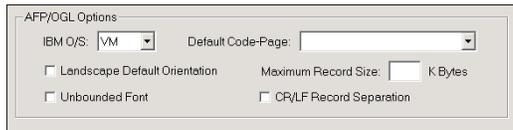
- Check the **Edge-to-Edge** box if applicable.
- Choose maximum Paper Size supported from the **Paper Support** drop-down menu.
- Choose printer resolution from the **Resolution** drop-down menu.
- For PCL Printers, the Symbol Set default can be defined. Symbol Sets define character mapping for the fonts.

## AFP/OGL Printer Specifications

There are several printer options specific to AFP printers. If you have selected AFP as the printer type, the following options will be available:

- **IBM O/S** - Defines mainframe operating system. This is important when creating fonts and page segments for AFP printers. The choices are VM, VSE, MVS and AS/400.
- **Default Code Page** - Sets a default code-page. The code-page is used when creating fonts for AFP printers and serves as a guideline as to which characters to include in the font and in what positions.
- **Landscape Default Orientation** - Sets Landscape as 0° orientation. (i.e. IBM 3800 printer)
- **Maximum Record Size** - Mainframe operating systems usually have a maximum size for a variable length record. To prevent a font or page-segment from exceeding this limit, specify the maximum record size in kilo bytes.
- **Unbounded Font** - Specifies that AFP fonts will be produced in a Unbounded box format.
- **CR/LF Separation** - Places a carriage-return line-feed combination at the end of each structured field record, easing the transfer of the AFP files to the mainframe by allowing each record to be placed in a variable length record.

### ❖ To set AFP printer specifications



The screenshot shows a dialog box titled "AFP/OGL Options". It contains the following elements:

- A dropdown menu for "IBM O/S" with "VM" selected.
- A dropdown menu for "Default Code-Page".
- A checkbox for "Landscape Default Orientation".
- A checkbox for "Unbounded Font".
- A text input field for "Maximum Record Size" followed by "K Bytes".
- A checkbox for "CR/LF Record Separation".

1. Close all forms.
2. Select **Resource Set** from the **Edit** menu.
3. From the **General** tab, specify AFP specifications as follows:
  - Choose the Operating System from the **IBM/OS** drop-down menu.
  - Choose the **Default Code Page** from corresponding drop-down menu.
  - Define the maximum structured field record size.
  - Check the **Landscape Default Orientation** box to set landscape as 0° orientation.
  - Check the **Unbounded Font** box to create AFP fonts in unbounded box format.
  - Check the **CR/LF Separation** box to place carriage-return line-feed combination after each structured field record in font files.

## HighLight Color Specifications

If you have selected the HighLight Color printer type, a default ink catalog, palette, and ink must be identified for the Resource Set.



The image shows a dialog box titled "Color Defaults". It contains three dropdown menus: "Ink Catalog" set to "DEFAULT", "Palette" set to "SIMPLE", and "Ink" set to "WHITE".

### ❖ To set color options

1. Close all forms.
  2. Select **Resource Set** from the **Edit** menu.
  3. From the **General** tab, select **Ink Catalog**, **Palette** and **Ink** from the corresponding drop-down menus.
- 



Other than by importing resources directly onto a form, Resource Set information can only be modified when no forms are active in Proform Designer.

---

## Working with Fonts

Designer provides automatic access to any fonts expected to be standard on your printer. These fonts should already be displayed in your Font List. Designer also allows access to all of the TrueType fonts available on your system. Any additional fonts that you wish to use can be added to your Font List by importing them into your form or into the Resource Set.

### Supported Font Formats

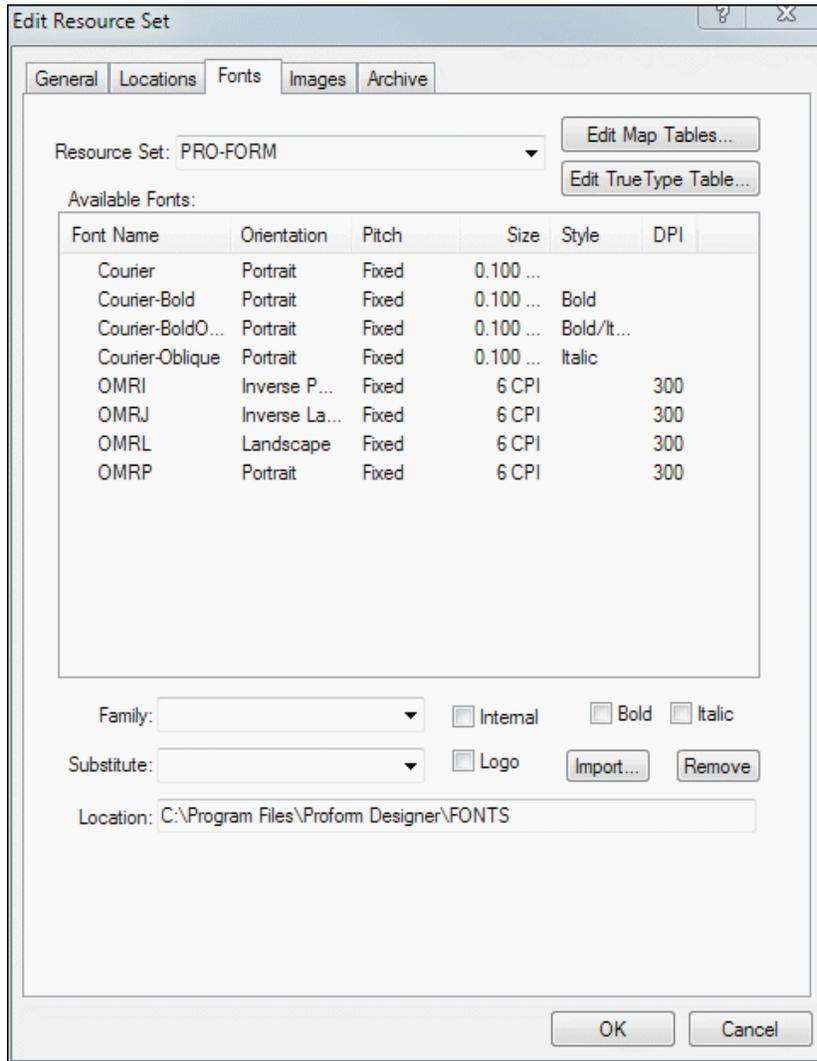
Metacode Fonts	Font format supported by Xerox Metacode printers, (LPS printer) - .FNT.
Xerox XES ASCII Dynamic Fonts	Decentralized printer fonts that are typically used by minicomputers and microcomputers that are connected to the decentralized printer through either a parallel printer interface or sync serial interface.
Xerox XES EBCDIC Dynamic Fonts	Fonts that are used by mainframe computers communicating to the decentralized printer through a synchronous serial data communications protocol such as the IBM 3770 SNA or 3780 bisync.
Xerox DSBU Fonts	Format (DSBU) supported by Xerox 3700, 4235, 4700, and 4045CP (with Signage cartridge) printers to bypass cell size, total font size and orientation limitations of the XES font.
AFP Bounded/Unbounded Fonts	IBM AFP fonts consisting of three different files, coded font file, character set and code page using the EBCDIC character set.
PCL Fonts	Font format supported by PCL printers including Hewlett Packard and Xerox. PCL 5 supported on late model, PCL 4 on many previous printers.
PostScript Type 1 and Type 3 Fonts	Supported by all PostScript printers



Various techniques are used by laser printers to place toner onto a page. For example, text using the same bitmap font may print significantly darker on a HP LaserJet than on a Xerox printer. Proform Designer does not make any automatic adjustments to a font for this printing difference. Manual adjustments can be made in the Bitmap Editor available in Lytrod Software's font tool, BitCopy, if necessary.

## Adding Bitmap Fonts to the Resource Set

Once a Resource Set has been created, bitmap fonts can be added. Existing bitmap fonts must be added to the Resource Set for use within Proform Designer. Importing fonts directly into the resource set is a convenient way of adding multiple fonts to the resource set in a single pass.



### ❖ To add bitmap fonts to the Resource Set

1. Close all forms.
2. Select **Resource Set** from the **Edit** menu.
3. From the **Fonts** tab, click **Import**.
4. An open menu will appear allowing file selection. Click the **Files of type** drop-down to select the file type.
5. Select the font or fonts to be imported and click **Open**. Multiple fonts may be selected by holding down the <SHIFT> or <CTRL> keys.
6. The **Available Fonts** list will now reflect the imported font(s).



This method is only available if no forms are active within Designer.

---

### Importing Bitmap Fonts

It is also possible to import fonts, one at a time, when the form is open in Designer. An imported font will automatically be added to the Resource Set. The imported font will also be set as the current font in the font list.

Before any bitmap fonts can be added to the resource set, however, they must be present in the Windows Fonts directory. To place a font in this directory, access the Start menu and select Control Panel. Open the Fonts folder, go to the File menu and choose Install New Font.

### ❖ To import fonts while a form is active

1. Select **Import** from the **File** menu.
2. Select **Font** from the **Import** menu.
3. An open menu will appear allowing file selection. Select a file type from the **Type** drop-down menu.
4. Select the file to be imported and click **Open**.
5. A menu will appear allowing the user to define font family. Select font family from the family drop-down list or type family name in the edit box. The purpose of font families is discussed later in this chapter.
6. The **Font** drop-down list will now reflect the newly imported font as the current font.

## Importing Scalable Fonts

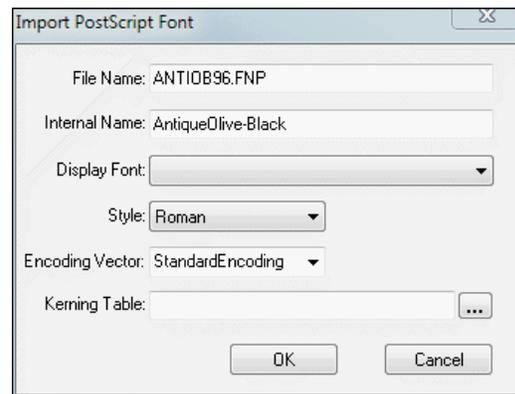
PostScript scalable fonts can be imported into Designer. Importing scalable fonts will update Designer's PostScript table, as well as download the fonts to PostScript printers. These fonts can then be output to the VI Compose resource directories when creating VI Compose jobs. Once the fonts are imported into Designer, they will be displayed with a PS icon in all Designer font drop-down menus. Importing scalable fonts is a useful way of diminishing bitmap font resources and creating the most efficient VI Compose Jobs.

Only the .pfb font should be imported into the resource set.

Before any scalable fonts can be added to the resource set, however, the .pfm must be present in the Windows Fonts directory. To place a .pfm font in this directory, access the Start menu and select Control Panel. Open the Fonts folder, go to the File menu and select Install New Font.

### ❖ To Import PostScript Scalable Fonts

1. Select **Resource Set** from the **Edit** menu.
2. Select the **Fonts** tab from the **Edit Resource Set** window.
3. Click **Import**.
4. The **Import Bitmap Font** window will appear. Select **PostScript font (\*.fnp, \*.pfa, \*.pfb)** from the **Files of type** drop down.
5. Select a **.pfb** PostScript Scalable font. Click **Open**.
6. The **Import PostScript Font** window will appear. The **Internal Name** and **Style** fields will automatically be populated.
7. Choose the **Display Font**. This will define how the Font is displayed on-screen.
8. Define the encoding vector to be used for the font. The encoding vector defines the characters that are available to the font. ISO Latin 1 Encoding and Standard Encoding are available for every font. Other vectors may be available as well.
9. Click the ellipses next to the **Kerning Table** field to browse for the appropriate .afm table. This table will provide kerning information to the VI Compose enabled printer.
10. Click **OK**.

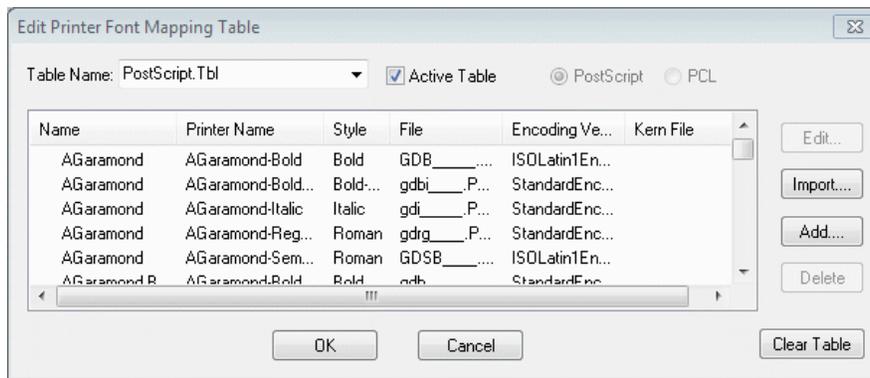


## Edit the PostScript Table

It is possible to edit Designer's PostScript table from within the Fonts tab of the Edit Resource Set menu.

### ❖ To edit the postscript table

1. Click the **Edit Map Tables** button from within the **Fonts** tab of the **Edit Resource Set** menu.
2. The **Edit Printer Font Mapping Table** window will appear.
3. Make necessary font additions or deletions.
4. Click **OK**.



## Font Location

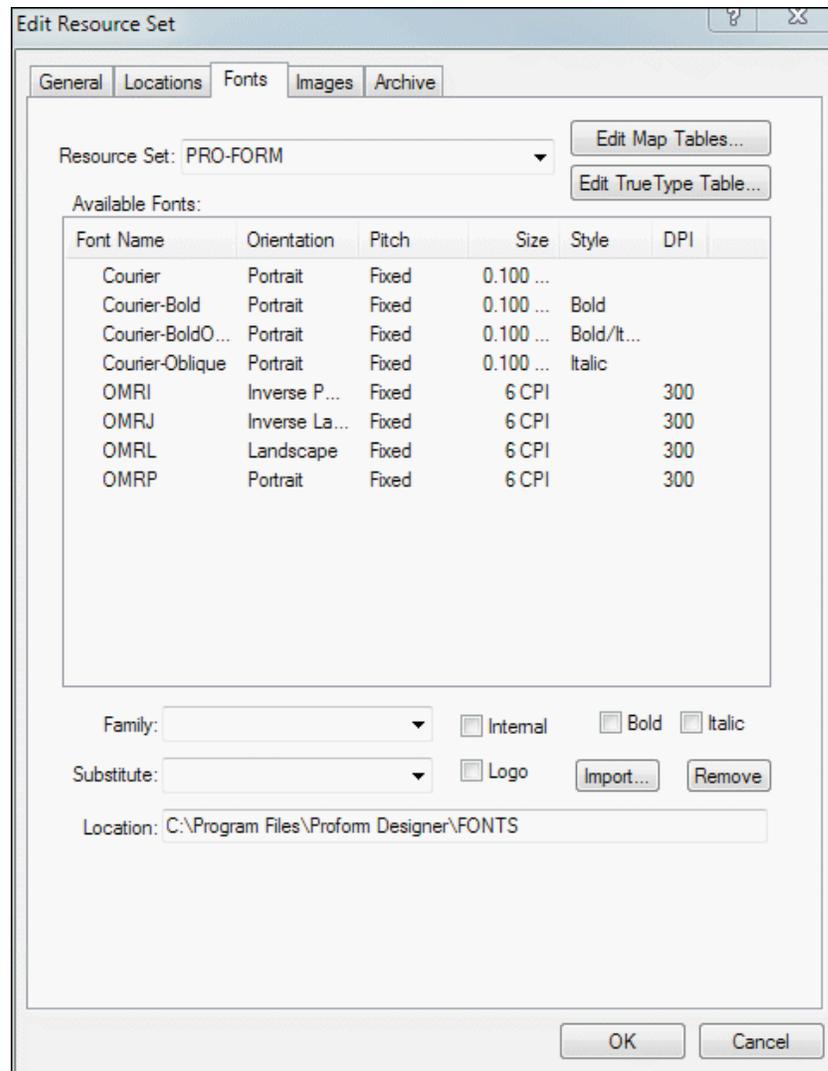
Each Resource Set has an associated default location for fonts. Designer uses this location as the output directory. Any font files created when a form is saved are stored in this location.

### ❖ To set font location

1. Close all forms.
2. Select **Resource Set** from the **Edit** menu.
3. From the **Locations** tab, specify a font location in the **Font** edit box or click to browse in order to locate the desired location.

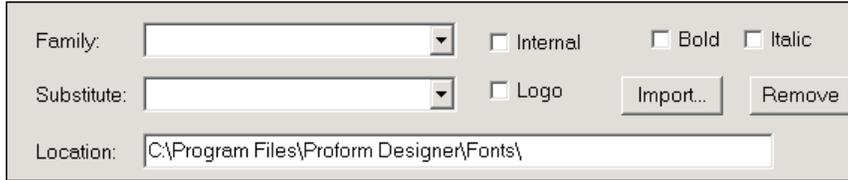


Font files are always stored in Designer's default font directory, as specified in the Locations tab of the Edit Resource Set window. Existing fonts can be imported into this directory from anywhere on the system.



## Font Specifications

The Resource Set contains point size and style information about each font. This important information is used when listing available fonts. Designer cannot always determine style characteristics when the font is imported, so it is also possible to define those characteristics manually.



The screenshot shows a dialog box titled 'Font tab of the Resource Set menu'. It contains the following elements:

- Family:** A dropdown menu.
- Substitute:** A dropdown menu.
- Location:** A text input field containing the path 'C:\Program Files\Proform Designer\Fonts\'.
- Internal:** A checkbox.
- Bold:** A checkbox.
- Italic:** A checkbox.
- Logo:** A checkbox.
- Import...:** A button.
- Remove:** A button.

Font tab of the Resource Set menu

### ❖ To define font specifications

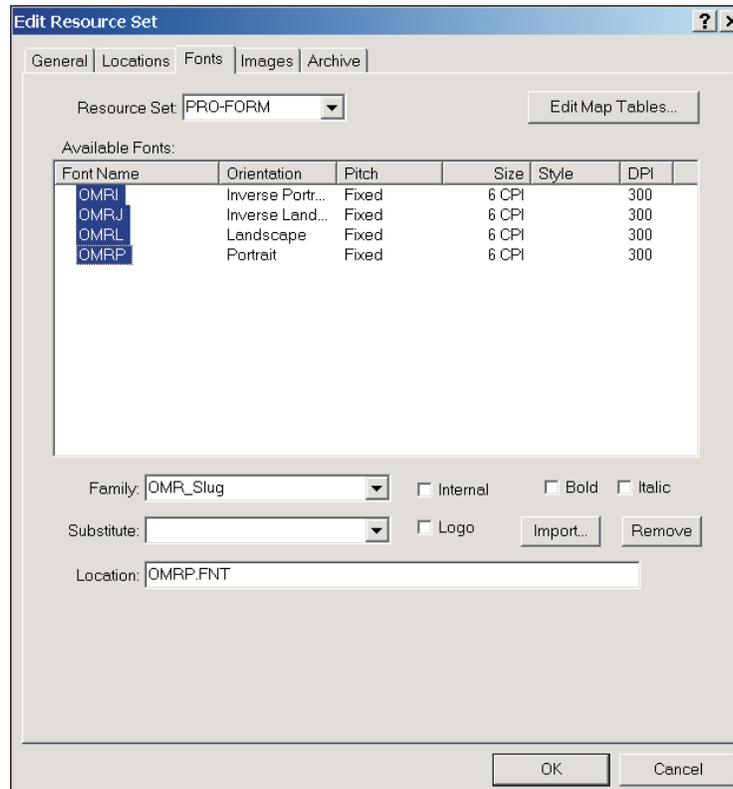
1. Close all forms.
2. Select **Resource Set** from the **Edit** menu.
3. From the **Fonts** list, select the font you wish to define.
4. Check appropriate attributes as follows: **Bold** and/or **Italic**



Xerox Metacode and XES fonts do not contain style (bold or italic) and point size information. To use these fonts in the most efficient manner requires setting the information manually.

## Font Family

Assigning a family name allows similar imported fonts to be grouped in a font family. The family name is then displayed in the Type drop-down menu instead of each individual font minimizing the size of the font list. When a family name is selected only the available point sizes are displayed in the Point Size menu.



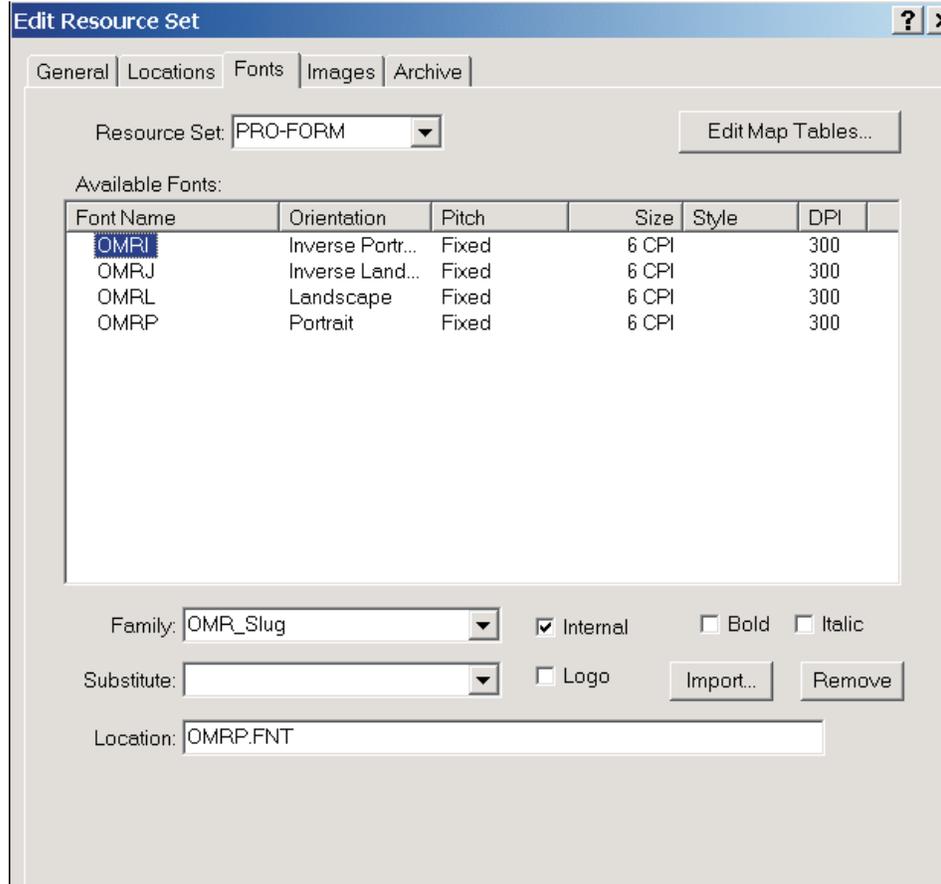
Font tab of the Resource menu

### ❖ To define a font family

1. Close all forms.
2. Select **Resource Set** from the **Edit** menu.
3. From the **Fonts** list, select the font(s) you wish to define.
4. Select an existing family name from the **Family** drop-down list or define a new one by typing it into the **Family** edit box.

## Internal Printer Fonts

Fonts that reside on your destination printer do not need to be downloaded every time they are used in a form. In order for Designer to know they are printer resident, an Internal flag must be set in the resource set.



Font tab of the Resource menu  
Internal flag Checked

### ❖ To set a font(s) as internal

1. Close all forms.
2. Select the **Resource Set** from the **Edit** menu.
3. From the **Fonts** list, select the font(s) you wish to define as Internal.
4. Check the **Internal** check box.

## Removing Fonts

Fonts can be removed from a Resource Set if necessary. Removing fonts from a resource set simply removes the reference to that font in the resource set. It does not delete the actual font file.

### ❖ To remove a font(s)

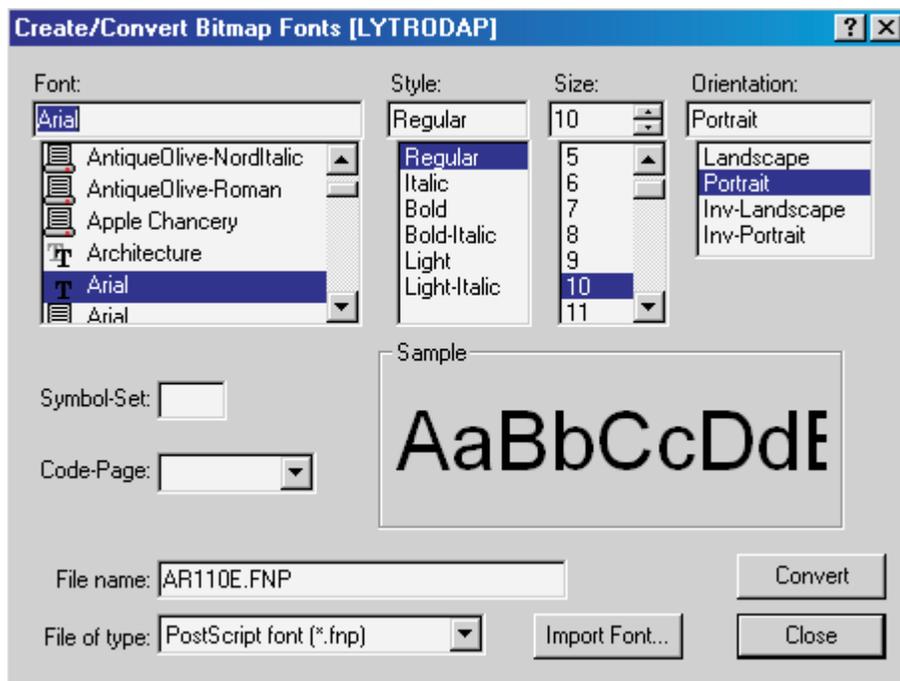
1. Close all forms.
2. Select **Resource Set** from the **Edit** menu.
3. From the **Fonts** tab, select the font(s) to be removed.
4. Click the **Remove** button.

## Converting Fonts

The **Convert Font** function allows for the manual conversion of Windows TrueType, PostScript or bitmap fonts to bitmap fonts or logos. This is useful when the need arises to have a font used outside of the form. (e.g. for data if not using VI Compose).

### ❖ To Convert Fonts

1. Close all existing forms.
2. Go to **File** menu and select **Convert**.
3. Select **Fonts...**
4. Select the **Font** type, **Style**, **Size** and **Orientation**.
5. Select the **File of Type** in the drop-down menu.
6. Click the **Convert** button. One bitmap font will be converted with the font **type**, **style**, **size** and **orientation** settings selected.
7. Click the **Close** button when finished with all font conversions.



## Determining PostScript Printer Based Font Selection

Windows defines PostScript printer fonts by the active PostScript print driver. Although the Designer products use Lytrod Software developed output drivers, the defined Windows PostScript print drivers are used for the Proof Print function as well as for determining available PostScript printer fonts.

### Installing Windows Print Drivers

Installing print drivers into the Windows environment is the first step to adding a printer into any software product. Print drivers can be obtained from disks provided upon purchase of the printer or from the printer manufacturers website. You can download Xerox print drivers from [www.xerox.com](http://www.xerox.com)

#### ❖ To install windows printer drivers

1. From the Windows **Start** button, select **Settings** and then choose **Control Panel**.
2. Double-click on the printer icon.
3. Double-click on the add printer icon.
4. Follow the Wizard directions to complete the driver installation.

### Determining Printer Fonts in Designer

Installing the PostScript print drivers into your Windows environment will enable the specific printer font information provided by the drivers to be accessible to Designer. The PostScript drivers will then need to be defined within the Resource Set.

General Locations Fonts Images Archive

Resource Set: PRO-FORM Type: PostScript (Color)

Forms Language  
 Xerox FDL  IBM OGL   
Choose printer driver for font support

Xerox Options  
Tape Label: Standard  Office Printer VI Compose: FreeFlow 8  
 Low Precision Calculations  Static Font List  Short Edge Feed

Xerox Specialty Imaging Availability  
 Micro Text  Gloss Text  Correlation  
 Fluorescent  Infrared

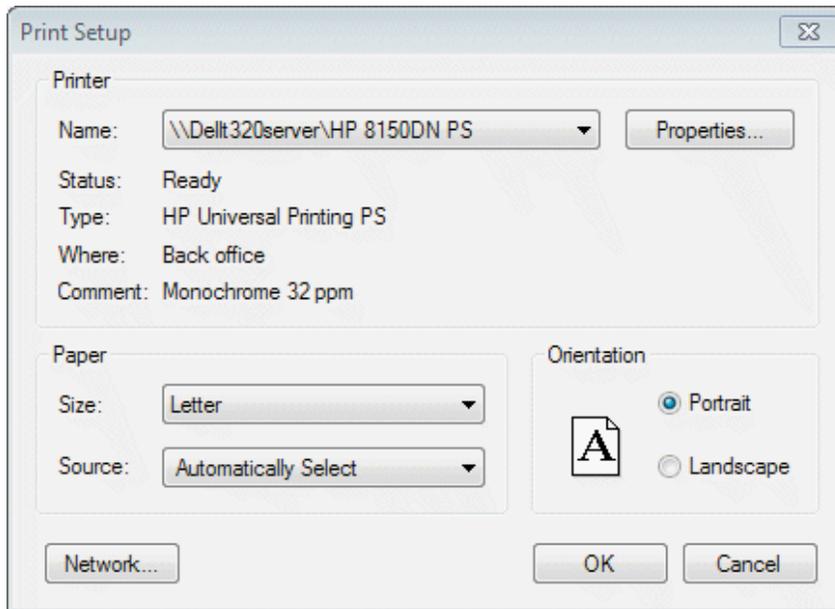
Printer Capabilities  
 Graphic Capability  Edge to Edge Printing Symbol-Set: 8U  
Resolution: 600 Dpi Paper Support: 11 x 17 Inches

AFP/OGL Options  
IBM O/S: Default Code-Page:  
 Landscape Default Orientation Maximum Record Size: 16 K Bytes  
 Unbounded Font  CR/LF Record Separation

General tab of the Edit Resource Set window  
Select the Default Printer button to add PostScript print drivers

❖ **To access the PostScript print driver in Designer (enabling PostScript printer based type 1 font selection)**

1. Close all forms.
2. Select **Resource Set** from the **Edit** menu.
3. From the **General** tab of the **Edit Resource Set** menu, select the **Default Printer** button.
4. Select the installed PostScript printer from the drop-down menu in the **Print Setup** window.



Select a PostScript printer to enable the Designer software to access PostScript printer fonts

---

Selecting the PostScript print driver allows access to standard printer fonts in the design process. It is much more efficient to select printer fonts. If TrueType fonts are selected, then bitmapped fonts (.pfa for VI Compose) are created on output.

---

## Installing Additional PostScript Printer Fonts

After installing the PostScript print driver, a list of available printer fonts will be represented by a printer or PS icon in the font list. Additional printer fonts (which will also be represented by a printer icon in the font list) can be installed by using products such as **Adobe Type Manager**.

When printing in a PostScript environment, it is highly recommended to use PostScript printer fonts, instead of TrueType fonts. When using Windows TrueType fonts in a form, the fonts are converted to bitmapped fonts (.PFA files) during output to the printer. For this reason, Lytrod Software offers various utilities which allow for the conversion of **TrueType** fonts into **PostScript Type 1** fonts. (For more information, please contact Lytrod Software) Using PostScript printer fonts ensures the cleanest and crispest printout of fonts on a PostScript printer.

Once a PostScript Type 1 file is created, the font file will need to be installed into the Windows operating system and downloaded to the printer. Adobe Type Manager offers the ability to install PostScript printer fonts into Windows. A light version is available at no cost from the Adobe website. Windows 2000 and XP have this capability built into the operating systems. Once the font is installed in Windows, Designer will be able to utilize the new font as a printer font.

### ❖ To Install Fonts into windows using Adobe Type Manager

1. Within Adobe Type Manager, select the **Add Fonts** tab.
2. Select **Source Font** from the drop-down menu.
3. Select the desired font and then click the **Add** button. The font is now in the destination folder.
4. Download the font to the printer.

## Installing and Converting TrueType Fonts

TrueType fonts are commonly available through the Windows operating system and are installed through the Windows font utility. Although TrueType fonts are convenient, they are converted upon output from Designer into bitmapped fonts, which are inefficient and do not offer the high quality print of scalable fonts. It is recommended that either the use of TrueType fonts in Designer is restricted or that they are converted to printer fonts.

### ❖ To restrict TrueType fonts

1. Open Designer.
2. Access the **Edit** menu and select **Preferences**.
3. Select the **System** tab and check the **Restrict TrueType** fonts check box.
4. Click the **OK** button to accept the default settings.

## Installing TrueType fonts into Windows

TrueType font files obtained from other sources than the operating system must be installed into the operating system before it is recognized in the Proform Designer software.

❖ **To install TrueType fonts in windows**

1. From the Windows **Start** button, select **Settings** and then choose **Control Panel**.
2. Double-click on the **Fonts** directory icon.
3. In the **File** menu select **Install New Font**.
4. Select the appropriate drive and directory in which the font files are located.
5. Select the font file.
6. Click the **OK** button to accept.

## Working with Images

### Supported Image Formats

Designer allows the import of most standard image formats.

#### Standard Image Formats

(.pcx)	Zsoft PC Paintbrush
(.tif)	Tagged Image File Format
(.bmp)	Windows Bitmap
(.jpg)	JPEG File Interchange Format
(.psd)	Adobe Photoshop
(.png)	Portable Network Graphics
(.tga)	TARGA
(.gif)	Graphics Interchange Format
(.wmf)	Windows Metafile
(.pdf)	Portable Document Format
TIFF, IOCA, FAX	compressed or uncompressed using CCITT, with different groups and dimensions

It is also possible to import standard print-format graphics.

#### Print-Format Image Formats

(.psg) IBM Page Segment	Monochrome
(.img) 9700 Graphic Image Xerox Format	Monochrome, Xerox Raster Encoded Format 2.1, Two Plane HighLight Color raster image
(.pcl) HP PCL 4/5 Raster Graphic	Monochrome, Hewlett Packard PCL Imaging Color Mode, 256 Color
(.eps) Encapsulated PostScript image file	Monochrome, 256 Color (created in Lytrod Software's ImageCopy)
(.xes) Xerox XES Graphics Window	Monochrome, Four Plane CYMK Full Color

#### Print-Format Logo Formats

(.lgo) 9700 Logo Format	Monochrome, Two Plane HighLight Color
(.lgh) HP PCL 4/5 Logo	Monochrome
(.lgp) Encapsulated PostScript Logo	Monochrome
(.lgx) Xerox SEX Logo	Monochrome



Any imported graphic will be converted to the proper print format when a form is saved. These image files will be located in the Resource Set's default image location.

## Multi-Page PDF Images

PDF files that are multiple pages can be imaged and imported into Designer. Once imported, the pages can be scrolled through and the desired page can be placed on the form. The image will be placed on the form with the same dimensions as the original PDF page, but it can be resized and rotated once on the form.

### ❖ To Choose a page of a multi-page PDF

1. Click the **Import Image** button on the **Drawing** toolbar, or select **Import** and choose **Image** from the **File** menu.
2. Choose a PDF file with two or more pages. Import the file.
3. Click on the form to place the PDF image.
4. Right click and choose **Change Page** from the context menu.
5. An **Extract Image from Multiple Pages** window will appear. The window will show the name of the PDF file and the current page. The **Previous Image** and the **Next Image** buttons can be used to move backward and forward through the pages of the PDF.
6. After choosing the desired page, click **Close** to close the window. The page selected will be imaged.

For our convenience, the elements in the Data Plane will be saved into the following environment into a file with the extension .PS; in a PCL environment in file with the extension .XES; in a Metacode environment in a file with the extension of .XES; in a Metacode environment in a file with the extension of .EXM. Images and fonts may also be saved in appropriate files.

#### Data Plane

The Data Plane contains any element that contains or is produced from variable data elements: data field, line data field, data graph, data driven image, or text block with variable content. Conditional elements will be placed in the Data Plane since data can only be used in a VLP enabled environment. These data elements will be stored as VLP commands in DBM files.

#### Background Plane

The background plane is used to place elements that are not part of the data plane. There are two types of background elements:

#### ❖ Pre-printer

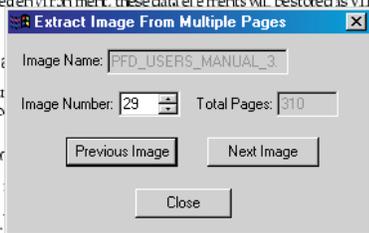
In this case it is used to place elements that are printed on the printer's stock or on printed paper.

#### ❖ Pre-designed pages

If you have designed your application in another product such as Page Maker or QuarkXPress, you can import the design as a "background" and place additional elements (usually data elements) on the background. The background can then be called into the variable data job as explained below.

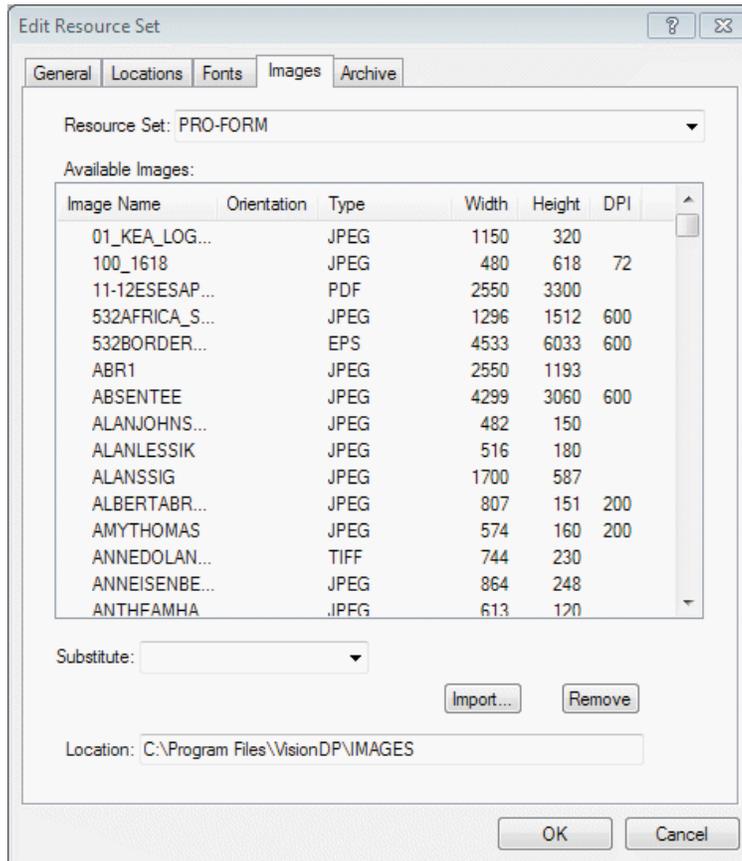
#### ❖ To add elements to the Background Plane

Select the element that is to be added to the Background Plane. Right click the mouse on the element. The element is now part of the background plane.



## Adding Images

Once a Resource Set is established, images can be added. Images must be added to the Resource Set for use within Designer. Adding images through this method is a convenient way of adding multiple images to the resource set in a single pass.



1. Close all forms.
2. Select the **Resource Set** from the **Edit** menu.
3. From the **Images** tab, click the **Import** button.
4. An open menu will appear allowing file selection. Click on the **File of type** drop-down menu to choose the file type.
5. Select image to be imported and click **Open**. Multiple images may be selected by holding down the <SHIFT> or <CTRL> keys.
6. The **Image List** will now reflect the imported image(s).

## Importing Images

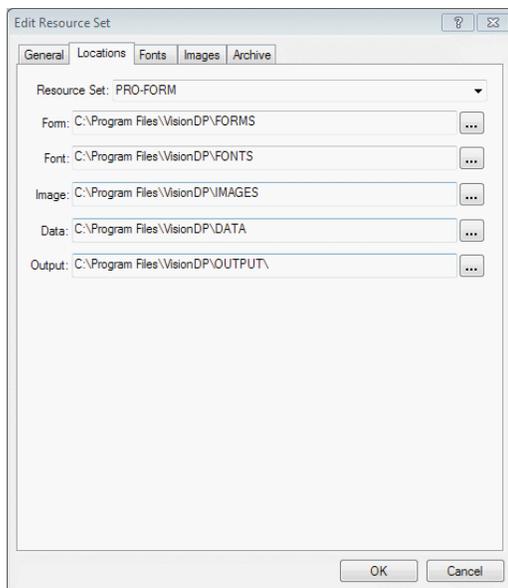
Importing of images is the method of choice while a form is active in Designer. It is convenient while designing a form and coming across an image that requires importing. An imported image will be added to the Resource Set automatically. The imported image will also be placed onto the current form and displayed in the **Image List** drop-down on the toolbar.

### ❖ To import images while a form is active

1. Click on the **Import Image** button from the **Drawing** toolbar, or go to the **File** menu and choose **Import** and then **Image...**
2. An open menu will appear allowing file selection. Click on the **Files of type** drop-down menu to set file type.
3. Select the file to be imported and then click the **Open** button.
4. Click on the location in the form where the image should be placed.

## Image Location

Each Resource Set has an associated default location for images. This is where Designer will automatically look for images.



Resource Set Locations

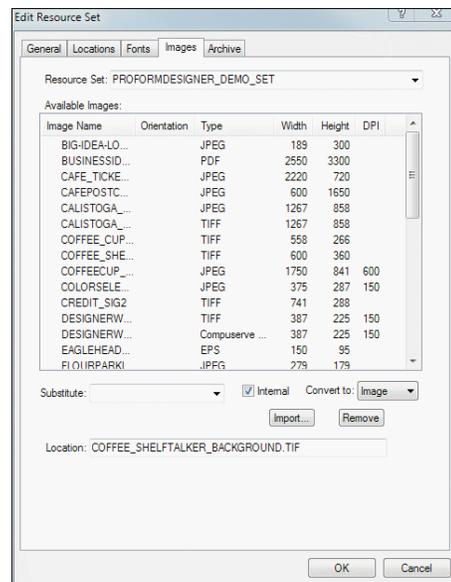


Image tab of the Resource Set menu  
Internal Flag Set

### ❖ To set the image location

1. Close all forms.
2. Select **Resource Set** from the **Edit** menu.
3. From the **Locations** tab, specify an image location in the **Images** edit box or click to browse in order to locate the desired location.



While new image files are always stored in the default directory, existing images can be imported from anywhere. The location of the original image is displayed in the Images tab of the Resource Set menu. If an image file is no longer found in this location when a form is opened, the Missing Resources menu will appear. The image can then be imported from its new location.

### Internal Printer Images

Images that reside on your destination printer do not need to be downloaded every time they are used in a form. In order for Designer to know they are printer resident, the **Internal** flag must be set in the Resource Set.

### ❖ To set an image(s) as internal

1. Close all forms.
2. Select **Resource Set** from the **Edit** menu.
3. From the **Images** list, select the image(s) you wish to define as Internal.
4. Check the **Internal** check box.

### Removing Images

Images can be removed from a resource set if necessary. Removing images from a resource set simply removes the reference to that image in the Resource Set. It does not delete the actual image file.

1. Close all forms.
2. Select **Resource Set** from the **Edit** menu.
3. From the **Images** tab, select image(s) to be removed.
4. Click the **Remove** button.

## Working with Logos

A logo is essentially an image that is stored in a font format. The image is broken into tiles, one tile per character cell. These tiles are used to rebuild the image when the logo is displayed or printed. Most printers restrict the dimensions of a logo and require that they are only one color. For this reason, the logo format is most appropriate for small, simple images, such as company logos. There are several benefits to the logo format when an image fits this criterion.

Logos can be used several times in a form without having to repeat the actual image information, therefore reducing the file size of the form. It is also possible to call logos from the variable data stream. Another advantage is the ability to colorize a logo within a form. When designing forms for full-color printers, all colors in the image are converted to the selected color producing a one-color logo. Xerox HighLight Color logos support one-color or two-color logos. Two-color logos consist of the HighLight color and black.

Once imported into Designer, logo files are handled just as any other image, and include the ability to resize and scale. There are several output options based on image size, printer capabilities and the Resource Set default settings. Images within the logo size limits can be saved as a logo or an image. This is determined by the Logo specification in the Resource Set. Any image exceeding the dimension limits will be saved in an image format.

Some Xerox printers require additional hardware in order to print images. If the selected printer does support the IMG format, images within the logo limitations can be created as an LGO or IMG as mentioned previously.

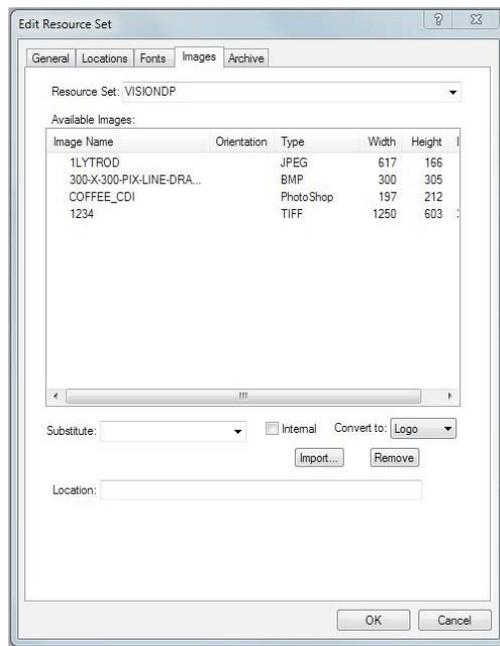


Image tab of the Resource Set menu  
Logo Option Enabled

❖ **To convert an image to a logo**

1. Close all forms.
2. Select **Resource Set** from the **Edit** menu.
3. From the **Images** tab of the **Resource Set** menu, select the desired image.
4. Select **Logo** from the **Convert To** drop-down menu. This will convert the selected image to a logo format.
5. Click on the **Yes** button at the **Convert Image** window
6. Define Logo Parameters: Choose **Orientation**, **Color Planes**, enable the **Highlight Color** check box, and set **Highlight Color** parameters as applicable.



Define Logo Parameters window



Convert Image Window



Highlight Color Image and Logo parameter options are expanded on in Chapter 6: Working with Images.

## Converting Images

The **Convert Image** function allows for the creation of specialized bitmapped images without the limitations of the resource set. Bitmapped images can be created independent of the form for use in other applications.

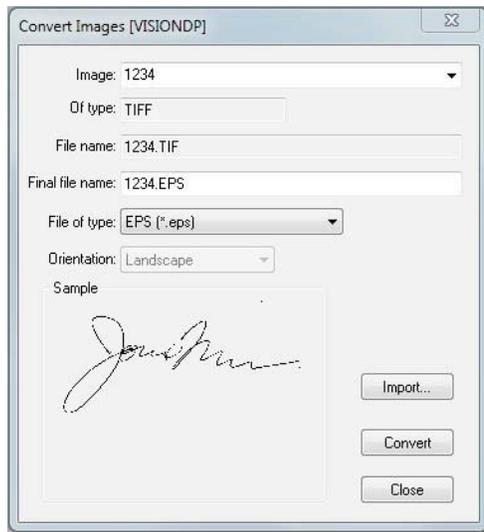
### ❖ To Convert Images

1. Close all existing forms.
2. From the **File** menu select **Convert**.
3. Select **Images**.
4. From the **Image** drop-down menu, select the image file to convert.



Only image files already imported into your Resource Set will be listed in the Image drop-down. The **Import...** button will allow you to import additional images while still in the **Convert Images** window.

5. Select the type of file the image will be converted to in the **File of Type** drop-down menu.
6. Click on the **Convert** button, and then click the **Yes** button when the conversion is complete.



7. Click the **Close** button when finished.

## Working with Data Files

Data files that can be processed by VI Compose can be imported into Designer as defined below. The types of data that can be imported are database (delimited), line data (print ready ASCII files) and XML. In the Resource Set you can define the default data directory as well as the directory where you would like your VI Compose files to reside.

### Supported Data Formats

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Delimited	Data typically generated from a database where each line represents a record with field information in each record delimited with a common character such as a comma. If the delimiter is used within a data field, then single or double quotes must surround the data field to act as a text qualifier. The first record must define the field names delimited. Non-printable characters are restricted from existing in field names.
Line data	Line data is data that is a flat ASCII file in a "print ready" format. This type of data is typically generated from a mainframe computer for printing on line printers. The record is now defined as the data relating to one source. For example, a phone bill. Each record may contain several pages of data which varies based on the customer call usage. It now is critical to define the record break as well as the maximum number of lines that can be printed on each page.
XML Data	XML is a grammatical system for constructing custom mark-up languages, where the data is organized into a tree structure. Designer will treat XML data fields in the same manner as delimited data fields. After the data file is imported, all of the data fields will be listed in the data drop-down menu.

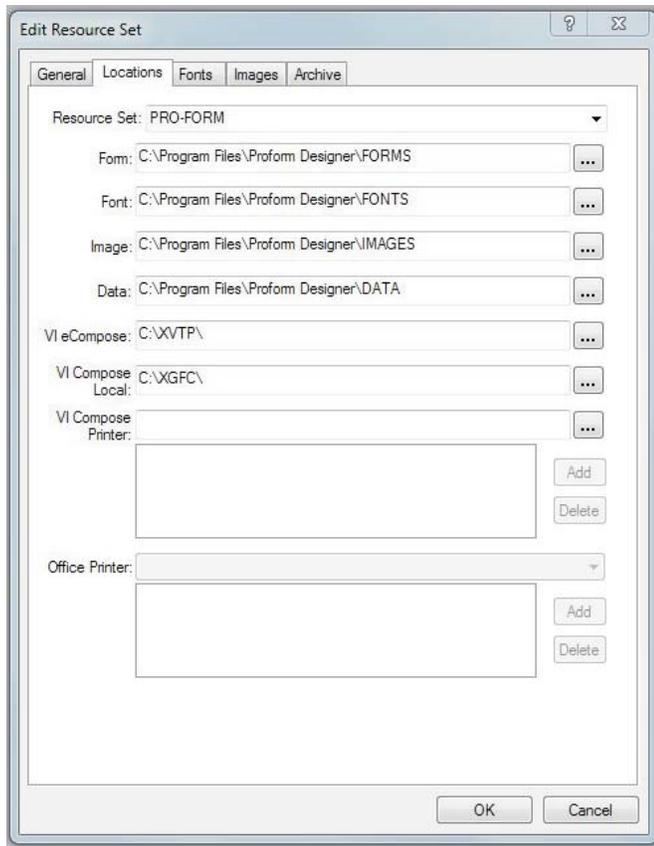
---

### Line Data Record Breaks

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Fixed length	Fixed length records have the same number of lines in each record.
PCC	PCC (print carriage control) is examined in the first byte of each line. ASCII PCC bytes are supported.
ASCII Character	A single character can be defined as the record break. For example a Form Feed.
Text String	In records that have varying length, a common text string can break the record before or including the line which contains the text.

## Data & VI Compose File Location



Each Resource Set has a default location for VI Compose files. **VI Compose Local** files are stored within the C:\xgfc directory in appropriate sub-directories (i.e. fontlib, imglib, mislib, jdlib, formlib). The **VI Compose Printer** location gives the option to map the VI Compose files to the \xgfc directory on a VI Compose enabled network printer. When saving Jobs, the VI Compose files will be saved to the location specified in the Resource Set. Thus, if three VI Compose printers are defined, the VI Compose Job will be saved to all three printers; the same is true for Office Printers. However, since VI Compose Jobs are saved in a different manner depending upon if they are being saved to VI Compose or an office printer, a job cannot be saved to both a VI Compose and Office printer at the same time.



The VI Compose enabled network printers must be recognized as workstations on a Windows network. Network connectivity software may be required.

## Archive Resources

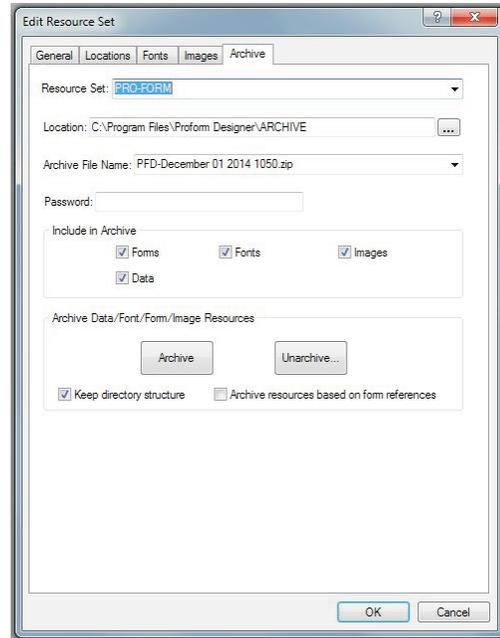
Designer can archive the critical user files (forms, fonts, images, data and resource sets) into a single file for easy backup/archiving purposes. Any resource set that is archived can also be un-archived with the simple click of a button.

### ❖ To archive resources

1. Access the **Archive** tab of the **Edit Resource Set** menu.
2. Select the resource set that you want to archive from the **Resource Set** drop-down menu.
3. By default, the archived resources will be placed in C:\Program Files\Proform Designer\ARCHIVE.

Click the ellipses (...) button to designate a different location for the resources to be stored.

4. A default file name will be entered into the **Archive File Name** field. To change the default name to a custom name, delete the default name and enter the desired name into the field.
5. Create a password if desired. The password will be required whenever the archive is opened.
6. Define which resources will be included in the archive. Enable or disable the check boxes to choose from **Resource Sets**, **Form**, **Font**, **Image**, and **Data**.
7. Click the **Archive** button to archive the resources.



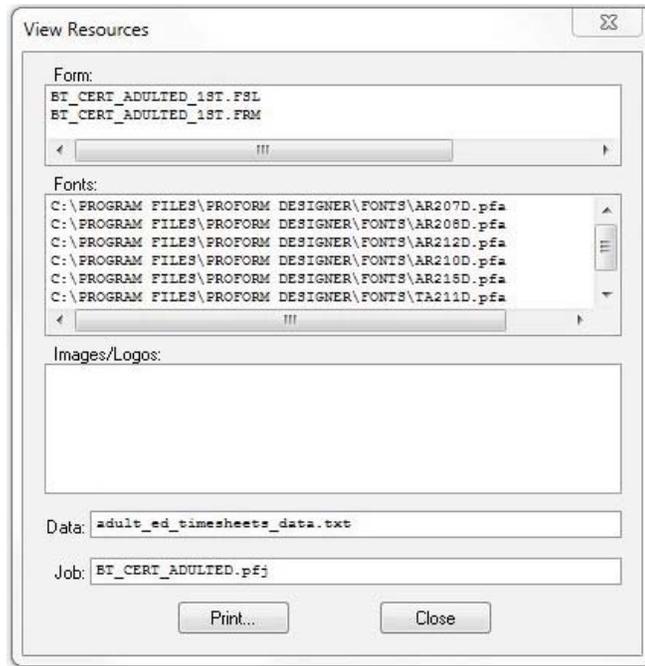
---

To un-archive resources, specify the information in the same manner as described above, and click the **Unarchive** button.

---

## View Form Resources

When transferring forms to the printer, it may be necessary to identify resources associated with the form to be transferred. This tool will list all fonts, logos, images and data that are used within the form, so that they can be transferred to the printer. This is especially important when printing on Xerox LPS printers as all resources must be located on the printer. It may also be important when transferring PCL/PS and Xerox XES forms in which the resources have not been included in the form file.



### ❖ To View Form Resources

1. With your form open, select **View** and then choose **Form Resources**.
2. The **View Resources** menu will appear listing fonts, logos and images used in the current form.
3. To print the **View Resources** menu, click **Print**. To close the menu, click **Close**.



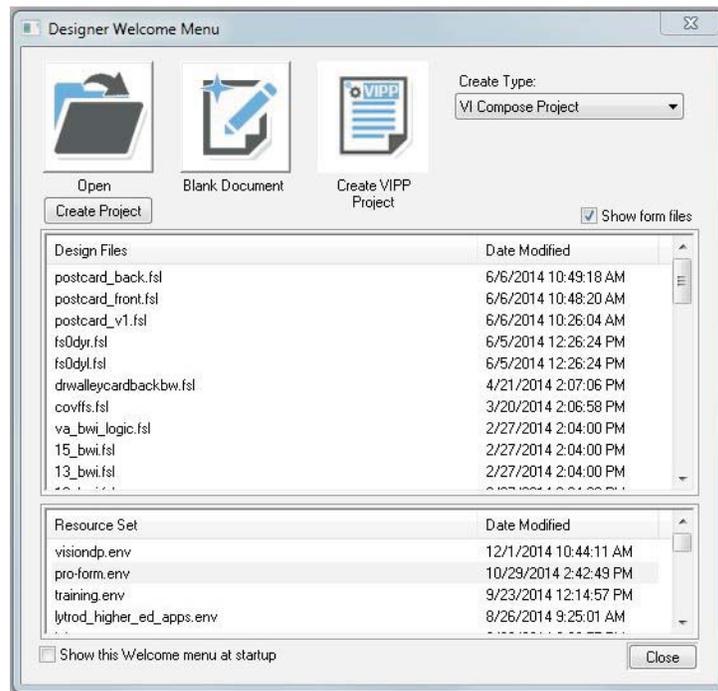
For more information on including resources in PCL/PS and Xerox XES form files, see page 80.

# Opening, Creating and Saving Forms

There are several different file types Proform Designer supports on input. Full support of Xerox source and object form files along with IBM form source is provided. File formats supported are: Proform Designer Source (.FSL), Xerox FDL Source (.FSL), Xerox Metacode Form (.FRM), Xerox EPS Printer Source (.FSL), Red-Titan (Mode R and Mode X) Sources (.FSL), DeskTop Designer (.DTD), Office Designer (.DTD), IBM OGL Version 2.0 (.OSL) and Designer Jobs (.PFJ). The default file type will be determined from information in the current Resource Set.

Newly created forms will be created in a format compatible with the printer information provided in the Resource Set. This printer specification is also used to determine the available functions allowed when the form is being created.

## Opening Forms

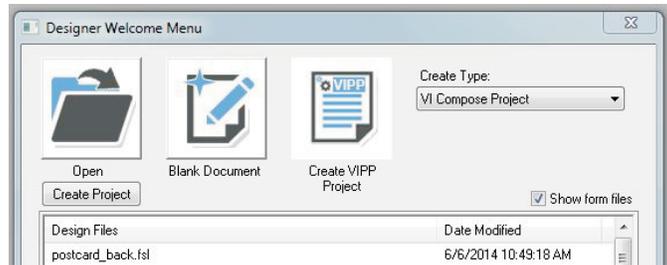


### ❖ To open a form using the Welcome Menu

1. Select the desired Resource Set from the bottom list on the Welcome Menu, this will display the .pfj's associated with the resource set in the Design File list.

To display single page .fsl/.dtd files, click on the Show form files check box.

2. Double click on the form, or select it and click the **Open** button.



### ❖ To open a form

1. Click **Open Form** from the **Standard** toolbar or select **Open** from the **File** menu.
2. In the **Look in** box, click the drive or folder location that contains the form.
3. Browse to the folder containing the form that you wish to open.
4. Double-click the form, or select it and click **Open**.



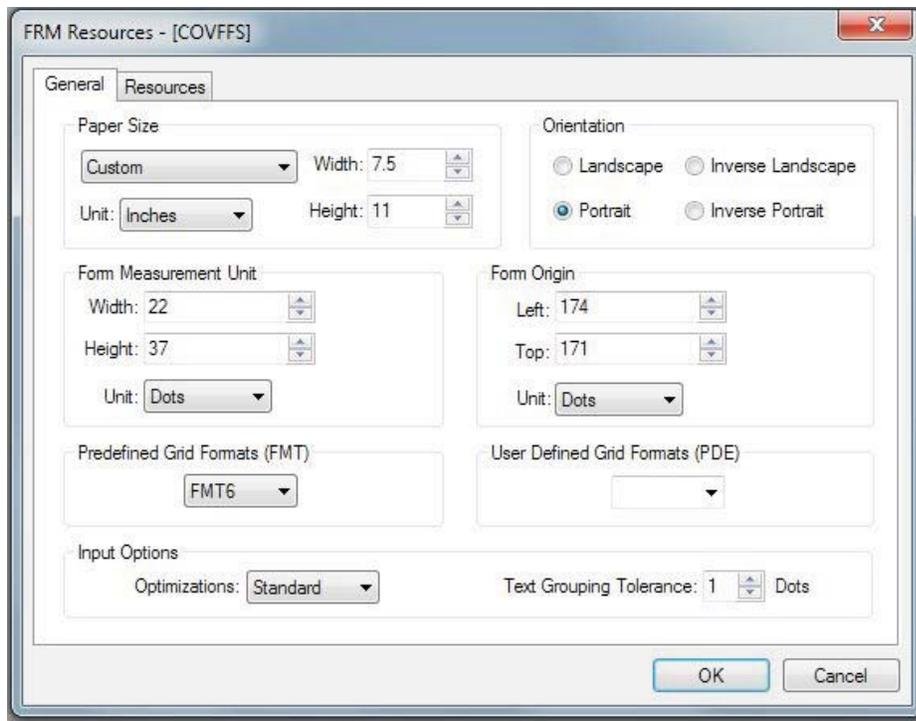
To open a recently used document, click the appropriate file name from the history list at the bottom of the **File** drop-down menu.

### ❖ To show/hide recent file list

1. Select **Preferences** from the **Edit** menu.
2. From the **System Preference** tab, use arrow keys in the **Recent File List** field to specify number of recently used files (if any) to be displayed in the **File** menu.

❖ **To open a Xerox LCDS form object file (.FRM)**

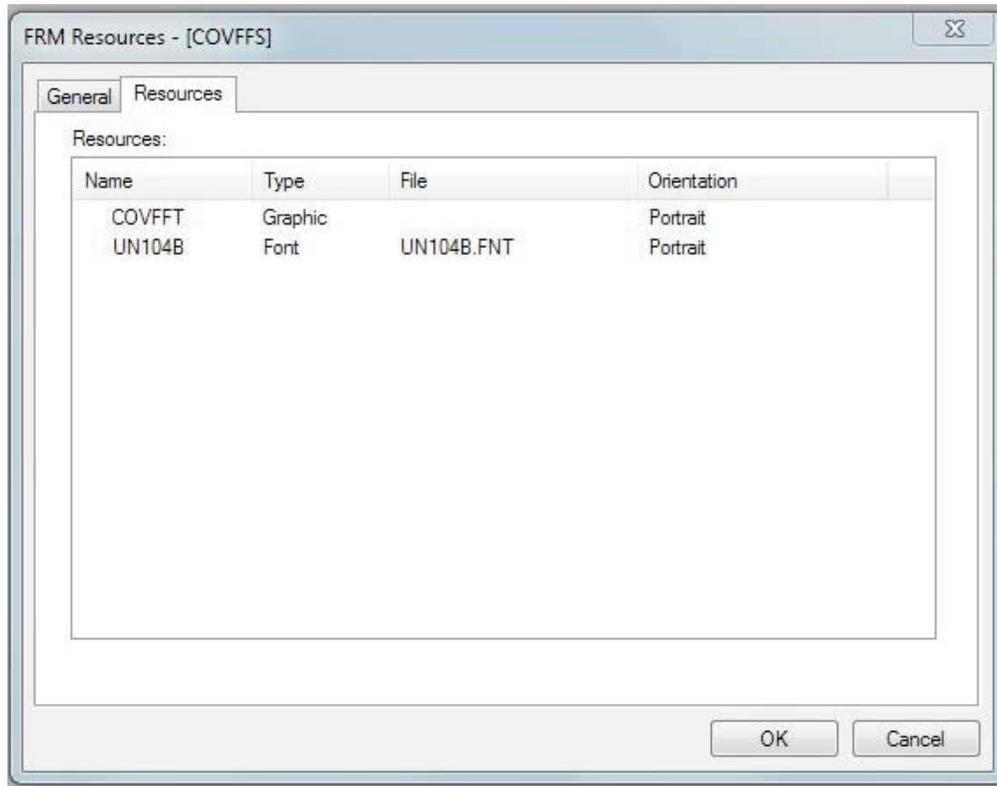
1. Click **Open Form** from the **Standard** toolbar or select **Open** from the **File** menu.
2. In the **Look in** box, click the drive or folder location that contains the form.
3. Browse to the folder containing the form to be opened.
4. Double-click the form, or select it and click **Open**.
5. The **FRM Resources** menu will appear as follows:
  - The **FRM Resources** menu will assume the form setup traits based on the information contained in the file. These traits include paper size, orientation, grid setting, etc. The user can modify this information as necessary and should not rely upon the assumptions made. Always verify the information before the form is opened.
  - The **Resources** tab of the **FRM Resource** menu will list the resources used in the form. The orientation of the fonts is used to assume the orientation of the form. If this information is not available, the orientation setting for the form may be inaccurate.





The ability to open .FRM files is provided mainly as a method to salvage forms when the .FSL is no longer available. In most cases, it is best to edit from the .FSL file if at all possible.

---



Resource tab of the FRM Resources window displays list of resources used in a form



The actual grid format cannot be determined from the .FRM file. Portrait forms will default to FMT6 and landscape forms to FMT1. The grid settings can be changed from this menu or from the Form Layout menu after the form has been opened.

---

### ❖ To open a backup file

1. Locate Backup File, stored in Designer's Forms folder.
2. Rename the file to have the appropriate form source extension (.FSL or .OSL) as appropriate.
3. Click **Open Form** from the **Standard** toolbar or select **Open** from the **File** menu.
4. In the **Look in** box, click the drive or folder location that contains the form.
5. In the folder list, browse to the folder containing the form to be opened.
6. Double-click the form you want to open.



The backup file will have the same name as the form with a .BAK extension. It will also be located in the same folder as the form.

---

## Multiple Document Interface

Designer uses a Multiple Document Interface (MDI). This allows multiple forms to be active/open within Designer at the same time.

### ❖ To switch between forms

1. Select the **Window** menu.
2. Select the desired form from the list at the bottom of the **Window** menu.
3. If multiple forms are already open, the user can minimize and maximize forms to switch between them.

## Missing Resources

Upon opening forms in Designer, a check will be made to verify that all of the resources (fonts, logos and images) are located in the folders defined in the active Resource set. A menu will appear allowing users to correct any missing resource issues.

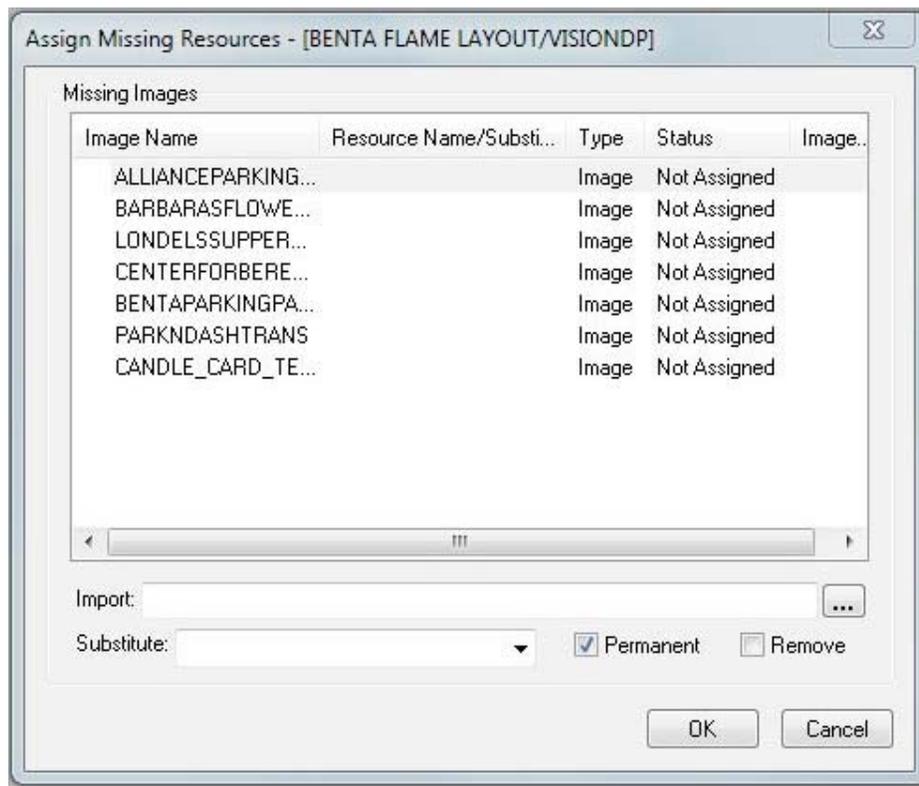
Missing resources can be handled in one of five ways:

1. Locate the resource file and import it into the Resource Set.
2. Select a resource to substitute for the missing resource permanently.
3. Modify the current form to use a new resource.
4. Make a temporary substitution in order to simply view the form.
5. Images/Data can be removed from the form to allow the form to be displayed.

In most cases it is best to import the resource that is missing. Any resource that is substituted will probably not be identical to the original. Therefore, some redesigning of the form may be required, resizing or repositioning text blocks, re-wrapping text, etc.

If the original resource is no longer available, a permanent substitution may be made. This is done by importing a similar resource or by choosing a font from the **Substitute** font list. The Substitute font list contains all of the fonts in the current Resource Set along with the list of available TrueType fonts. A permanent substitution affects all forms that may contain the missing resource. Once the substitution is made any readjustments needed to account for the substitution can be made to the form.

There is also the option to modify only the current form. This is done by choosing a substitute resource and disabling the **Permanent** check box. The resource reference in the current form will be permanently changed to reflect the substitution, but this in no way affects other forms opened in the future. This method also allows a temporary substitution to be made for the purpose of viewing a form, because the form is not actually modified until it is saved. This means, however, that no changes can be made to the form unless the substitution is to be permanent.



❖ **To import a missing resource**

1. Select the font, image or data name to be assigned.
2. Click ellipsis button (...) adjacent to the **Import** file field.
3. A **Select File** window will appear.
4. In the **Look in** box, click the drive or folder location that contains the resource.
5. In the folder list, double click folders until you open the folder containing the missing resource.
6. Double click the resource you want to import, or highlight it and click **Open**.

❖ **To substitute missing resources**

1. Select the font or image name to be substituted.
2. Select a substitute resource from **Substitute** drop-down menu.
3. When a scalable font is selected, an **Assign Font** window will appear.
4. Select **Font**, **Style**, **Point Size** and **Orientation** from corresponding list boxes in the **Assign Font** window.



Temporary font substitution will only affect the form being opened.

---

❖ **To make a permanent resource substitution**

1. Check the Permanent check box to indicate permanent substitution.
2. Select font/image name to be used as the substitution.
3. Select a substitute resource from the **Substitute** drop-down menu.
4. When a scalable font is selected, an **Assign Font** window will appear.
5. Select **Font**, **Style**, **Point Size** and **Orientation** from corresponding list boxes in the **Assign Font** window.



Permanent font substitution will make a reference of the substitution for all forms which reference the missing resource.

---

## Creating New Forms

When creating a new form, the user will be prompted to setup the form in the **Form Layout** window. The form setup information defines the basis of the form layout. Initial setup is accomplished in the **Form Layout** window defining many form basics such as name, measurement, sizes and orientation.

There are three ways to create a new form, listed below:



### ❖ To create a new form

- Click on the **Blank Document** button within the Welcome menu.
- Click **New** on the **Standard** toolbar
- From the File menu, select **New**.



The **Form Layout** window will appear, prompting form setup.

## Form Layout

The screenshot shows the 'Form Layout' dialog box with the following details:

- Form Setup** tab selected.
- Form Identification** section: Name: FORM0002, Title: (empty).
- Settings** section: Color: Full Color (dropdown), Secure Password: (empty).
- Time Management** section: Form Elapsed Time: 0.00 hours, Paused checkbox (unchecked), Reset button.
- Import** section: Background..., Style..., Template... buttons.
- OK** and **Cancel** buttons at the bottom right.

## Form Name

Form Name refers to an internal name. This name is used to reference the form on most printers. It is recommended that this form name match the eventual file name given to the form. It is important to be aware that the number of characters of the internal name is limited on some printers. For example, internal names can only be six characters on Xerox LPS printers, and eight characters on AFP printers.

### ❖ To specify a form name

1. Open the **Form Setup** tab from the **Form Layout** properties window.
2. Indicate the **Form Name** in the edit box provided.

## Form Title

Form title provides the ability to provide comment information regarding the form. It can be used to indicate form title, clarify form usage, track revisions, etc.

### ❖ To specify a form title

1. Open the **Form Setup** tab from the **Form Layout** properties window.
2. Indicate a **Title** in the edit box provided.

## Form Resolution

Two form resolutions are available: 240dpi, 300dpi, dependent on Resource Set definitions. 240 resolution will be available only if the form is OGL, otherwise the form will be 300 dpi.

### ❖ To specify form resolution

1. Open the **Form Setup** tab from the **Form Layout** properties window.
2. Select the desired resolution from the **Form Resolution** drop-down.

## Color

Permits a color form to be globally changed to a monochrome or HighLight Color form.

## Secure Password

Defines the global password for the secure plane. Once defined, one or more elements on the page can be switched to the secure plane.

## Paper Size

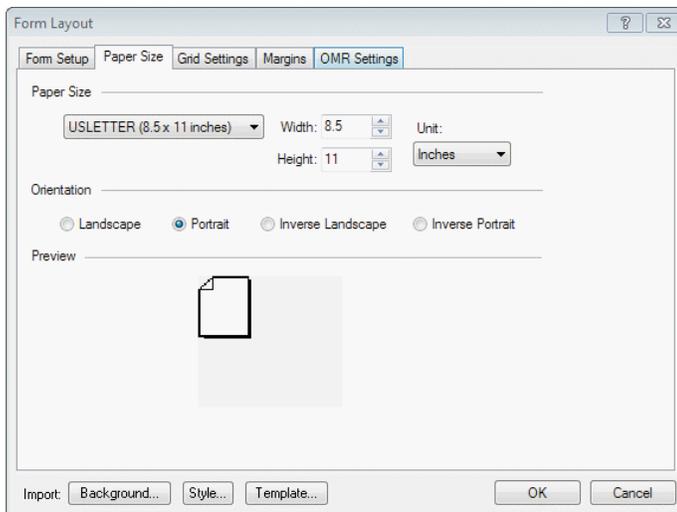
This selection defines the size of the physical paper. Designer supports various predefined paper sizes, and paper size support is dependent on the output printer specified in the active Resource Set. Custom paper sizes are also available by defining the **Width** and **Height** in the appropriate fields.

Supported Paper Sizes:

8.5 x 11" (letter)	14 x 17"	14.33 x 26.0 "
8.65 x 11.67"	17 x 17"	A3 (297 mm x 420 mm)
8.5 x 13.7	12 x 18"	A4 (210mm x 297mm)
8.5 x 14" (legal)	12.6 x 19.2"	B4 (257mm x 364mm)
11 x 17"	14.33 x 20.5"	B5 (182mm x 257mm)
14.33 x 22.5" SRA4	(225mm x 320mm)	

### ❖ To specify paper size

1. Open the **Paper Size** tab from the **Form Layout** window.
2. Select paper size from the **Paper Size** drop-down list.

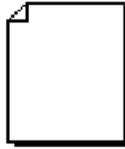


### ❖ To specify default paper size

1. Select **Preferences** from the **Edit** menu.
2. Select the paper size from the **Paper Size** drop-down list.

## Form Orientation

Form orientation determines which way the page faces. Form orientation is either portrait (shortest edge of the page at the top), or landscape (longest edge of the page on top), or inverse of portrait or landscape.



Portrait



Inverse Portrait



Landscape



Inverse Landscape

### ❖ To specify form orientation

1. Open the **Paper Size** tab from the **Form Layout** properties window.
2. Select orientation.

### ❖ To specify default form orientation

1. Select **Preferences** from the **Edit** menu.
2. Select orientation.



---

When designing forms for printers in an AFP environment, the OGL forms language defines page orientation based on the degree of rotation: 0°, 90°, 180°, or 270°. The actual orientation is based on the paper size and printer model. For an IBM 3800 printer, a 0° rotation is assumed by Designer to be landscape. For all other IBM printer models, a 0° rotation is assumed to be portrait.

---

## Grid Settings

The position of each element on a form is determined by a particular unit of measure. The default unit of measure is a grid. The grid is a user-defined measurement in the X and Y direction as well as an origin from which all measurements are distanced. This is convenient when designing a form around variable data. A grid can be defined that matches the spacing of the variable data font being used on the form. Multiple grids can be defined on a single form.

Predefined grid formats (FMT1 - FMT13 and FMT1A - FMT9A) are available for use within Designer. In addition to these formats, users can create custom grids to be used with the current form or add a custom grid format to the current resource set for future use.

The origin value is the point from which all placements are measured. Changing the origin will cause form elements to be moved in relation to the new origin. This is a convenient way to assure alignment with variable data.

Number	Width	Size	Height	X	Y
1	30		30	0	0



If the A4 paper size is selected in the Paper Size tab of the Form Layout menu, the FMT1A-11a grid settings will automatically appear in the Pre-defined drop down menu.

### ❖ To select a grid format

1. Select **Edit** then click on **Form Layout**. The **Form Layout** menu will appear.
2. Select the **Grid Settings** tab.
3. Specify **Grid Size Width** and **Height** values along with **Form Origin**
  - <OR> Select a **Pre-defined** Grid Format
  - <OR> Select **Custom** Grid Format
4. Click **Update** in the Define Grid List.

### ❖ To add a custom grid format

1. Select **Edit** then click on **Form Layout**. The **Form Layout** menu will appear.
2. Select the **Grid Settings** tab.
3. Specify Grid settings (width/height and origin) in the **Grid Size/Form Origin** section.

4. Click the **Save** button. The new custom Grid Format will be added to the **Custom** list and is automatically named. A user-defined name can also be defined before saving to make it easier to remember the grid settings in the future.

#### ❖ To specify form origin

1. Select **Edit** then click on **Form Layout**. The **Form Layout** menu will appear.
2. Select the **Grid Settings** tab.
3. Specify origin in the **Left** (X coordinate) and **Top** (Y coordinate) fields.



Current unit of measure is shown in the Unit drop-down. Units of measure available are inches, centimeters, and dots.

#### ❖ To display grid



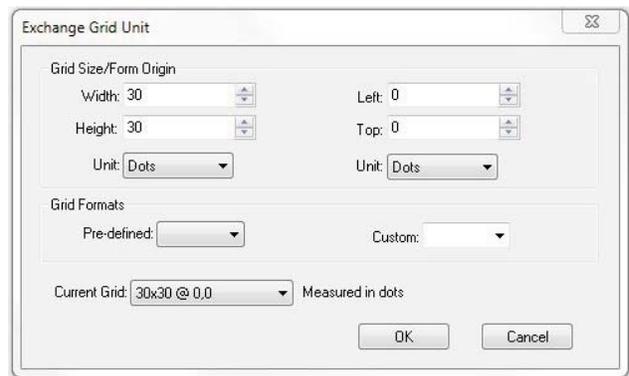
1. Click the **Show Grid** button on the **View** toolbar.  
<OR>
1. Select **Options** from the **View** menu.
2. Select **Grid** from the **Options** menu.

## Grid Exchange

Use Grid Exchange to change the grid used by the form if you do not want to affect the positioning of objects on the form. This may be handy if the form was not originally designed using a grid. This is a convenient option if the size of the variable data font used with the form has changed.

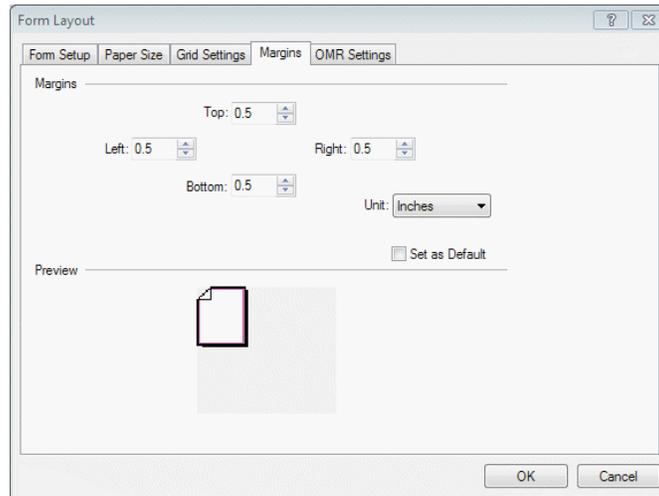
#### ❖ To exchange the form grid

1. Select **Grid Exchange** from the **Tools** menu.
2. Select the grid you wish to change from the Defined grid List.
3. To change the Grid Size and Form Origin, select a Predefined grid format, or select a custom grid format.
4. Click the **OK** button to perform the grid exchange and close the window.



## Margins

Page Margins define the printable area of a page. These margins are used as guides for design purposes. Changing page margins does not affect the form origin or move form elements.



### ❖ To specify page margins

1. Select **Edit** then click on **Form Layout**. The **Form Layout** menu will appear.
2. Select the **Margins** tab.
3. Use the arrow keys to specify margins in **Left**, **Right**, **Top** and **Bottom** fields.

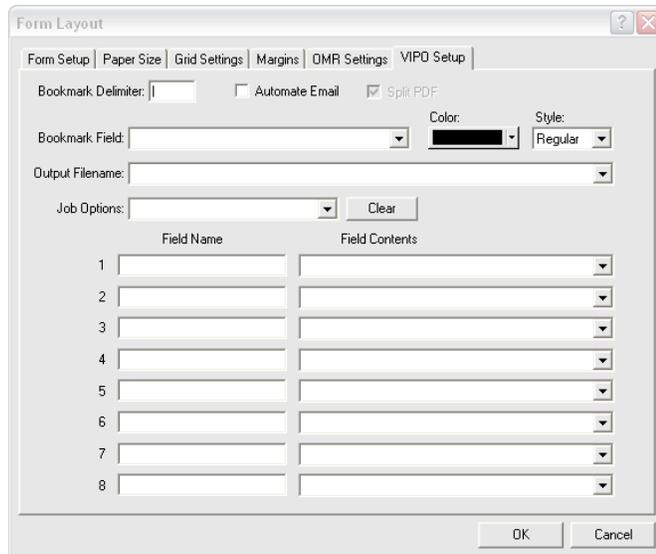
### ❖ To view page margins



1. To display **Page Margins**, click **Margins** on the **View** toolbar.  
<OR>
1. Select **Options** from the **View** menu.
2. Select **Margins** from the **Options** menu.

## FreeFlow VI eCompose (VIPO) Setup

The VI eCompose Setup tab within the Form Layout menu allows the user to create a FreeFlow VI eCompose (VIPO) profile and bookmark. For multiple-page jobs, a profile and bookmark can be defined in the Layout window for each form, but only one profile and bookmark will be recognized and must be chosen in the Proform Designer Job tree before creating VI Compose resources. In the VI eCompose Setup tab, field names or user-defined variables can be used to populate the fields to automate an email client or communicate other information to the FreeFlow VI eCompose.



The screenshot shows the 'Form Layout' dialog box with the 'VIPO Setup' tab selected. The dialog has several tabs: 'Form Setup', 'Paper Size', 'Grid Settings', 'Margins', 'DMR Settings', and 'VIPO Setup'. The 'VIPO Setup' tab contains the following controls:

- Bookmark Delimiter:** A text input field containing the character '|'. To its right is a checkbox for 'Automate Email' (unchecked) and a checked checkbox for 'Split PDF'.
- Bookmark Field:** A dropdown menu.
- Color:** A color selection box showing a black swatch.
- Style:** A dropdown menu with 'Regular' selected.
- Output Filename:** A text input field.
- Job Options:** A dropdown menu and a 'Clear' button.
- Field List:** A table with two columns: 'Field Name' and 'Field Contents'. It contains 8 rows, each with an empty text input field for the field name and a dropdown menu for the field contents.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

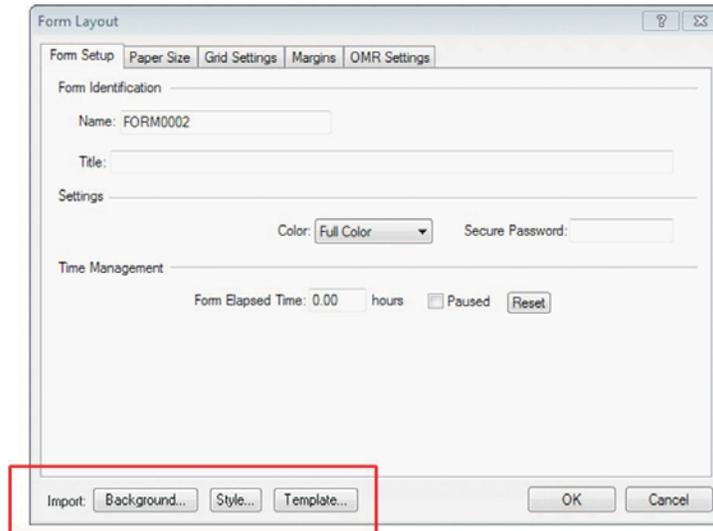
When the VI eCompose setup is complete, Designer will create a profile (.pfl) file in the `xvtp\users\designer\profiles` directory and name it `[formname].pfl`. If the Automate email check box has been enabled, Designer will also create a rule file in the `xvtp\dispatch\rules` directory.

### ❖ To Define a VI eCompose Profile and Bookmark

1. Select **Edit** and choose **Form Layout**. Click on the **VI eCompose Setup** tab.
1. Define a **Bookmark Delimiter**. This can be anything but a comma or a period.
2. Check the **Automate email** box if an automated email client is being set up.
3. Select an **Output File Name**. This must be a variable or a field name containing the name of the .PDF file that will be created by FreeFlow VI eCompose.
4. 1 through 4 of the Fields are designated for email automation and will be greyed out if the **Automate Email** check box is enabled.
  - **ToEmail** - a variable or a field name containing the email address of the recipient.
  - **From** - a variable or a field name containing the email address of the sender.
  - **Subject** - a variable or field name containing the text of the email's subject line.
  - **Contents** - a variable or field name containing the path to the text file that contains the email's contents.
5. Fields 5-8 can be used for other VI eCompose information.

## Import a Background, Document Style or Template

When creating a new form, the layout of the form can be borrowed or created from existing forms, documents, or templates. By importing a background, style, or template, the creation of forms is much easier than starting from scratch each time.



### Importing Background

The Import Background option allows you to choose an image that the newly created form will be based off of. The selected image will define the page size and orientation. The image will be placed in the background plane, and will be assumed to be a printable background. To change this assumption, enable Background mode in the Edit menu drop-down, select the image and from the properties menu, remove the Print Image name.

### Importing Document Style

Any existing form can be chosen to borrow its “Document Style”, including form name, title, page size, orientation, grids, margins and data settings. A substantial time savings can be achieved when developing multiple pages for the same application.

### Importing Templates

Many pre-defined Templates are available for Labels, Cards (business and postcards), Letters and PDF documents. Templates are separated by general categories, and once the template is selected from a list, you will be guided through various menus showing which Multi-Up settings, Paper and Form Sizes, Cut Marks, and images to be used as backgrounds are pre-selected. Any of these settings may be changed along the way. If changed, the last menu gives you the ability to save this to either a new template or overwrite the existing template.

#### ❖ To import a Background Image

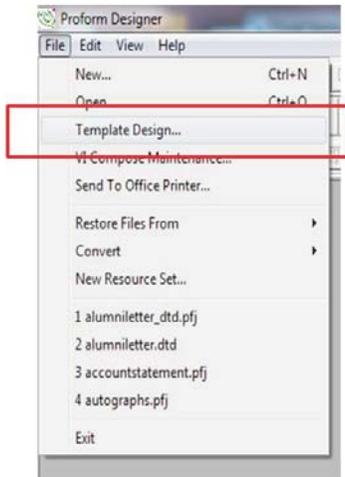
1. From the file menu, select **New Design...** or select the **New Form** button.
2. The **Form Layout** menu will appear. Name your new form.
3. At the bottom of the menu, select the **Import Background** button.
4. Browse and select the desired image to be used as the background for your form. The new form will automatically be sized to fit the dimensions of the selected image.
5. Click **OK** to create the new form with background image.

#### ❖ To import a Document Style

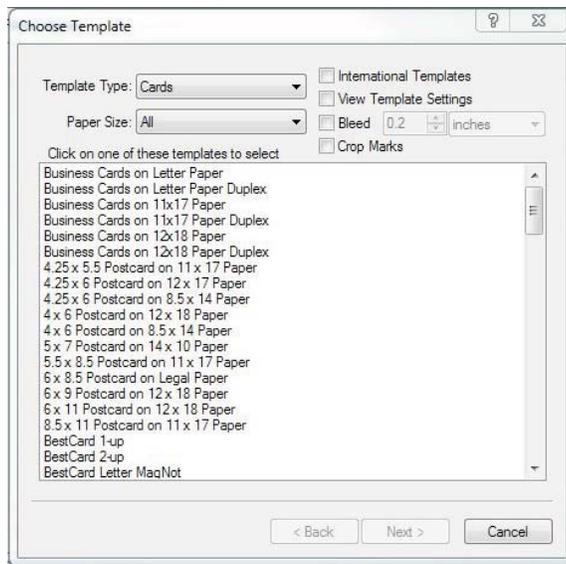
1. From the file menu, select **New Design...** or select the **New Form** button.
2. The **Form Layout** menu will appear. Name your new form.
3. At the bottom of the menu, select the **Import Style** button.
4. Browse for the desired form that would like to copy the "document style" from. This will create a new form with the same dimensions and data file used from the form you selected. Any images, text, and drawn form items will not be copied onto this new form.
5. Click **OK** to create a form with a borrowed Document Style.

## ❖ To import a Template

1. From the file menu, select **Template Design**.



2. The **Choose Template** menu will appear. Use the check boxes to the right to select options for bleed and crop-marks if desired. Selecting these check boxes will narrow the list of available templates to choose from. Use the **Template Type** drop-down menu to select the type of template you would like to use.



3. Select the desired template and click **Next**. The following menu will display the default settings that have been defined for the template.

4. Once all the settings have been reviewed, click **Finish**. If any settings have been altered from the default settings and you would like to keep them for later use within the template, click the **Save Template** button to either save the current template or create a new one.
5. Click **OK** to finish defining settings in the Form Layout menu.
6. The **Import Data** menu will appear. Browse and select the desired data file to be used, or select the **No-Data** button if creating a simple application that does not require a data file.
7. Once all settings have been defined, the form will open with the data window also showing. In most cases, a job will also be opened with settings for Multi-Up, Paper Size, and cut marks defined.

## Saving Forms

You can save the active form you are working on, whether it is a new or a previously existing form. Active forms can be saved with a different name or in a different location than they were previously saved.

You can save a document in source format and/or in print file format as defined by the current Resource Set. To convert your form to a new format other than that defined in the current Resource Set, see Export Form on page 89.

### Supported Source Formats:

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(.FSL)	Proform Designer/Xerox FDL/HFDL Source
(.OSL)	IBM OGL Version 2.0 Source

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### Supported Print Formats:

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(.FRM)	Xerox Metacode Object File
.PCL)	PCL Form (
(.PS)	PostScript Form
(.XES)	Xerox XES Form
(.DBM, .JDT, .XJT)	Xerox VI Compose Form

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Xerox VI Compose forms (.DBM, .JDT, and .XJT) are discussed on page 355.



### ❖ To save new form

1. Click **Save** on the **Standard** toolbar or select **Save As** from the **File** menu.
2. To save the document in a different folder other than the default, click a different drive in the **Save in** box, or double-click a different folder in the folder list.
3. To save the document in a new folder, click **Create New Folder**.
4. In the **File name** box, type a name for the form. The internal name of the form will by default appear in the File name box.
5. Select output format from the **Save as** drop-down menu.
6. Click the **Save** button.



Output formats listed in the **Save As** drop-down are based on printer definitions in the current Resource Set. The **Save As** menu will be different depending upon the type of file being output.





#### ❖ To save an existing form

1. Click the **Save** button on the **Standard** toolbar or select **Save** from the **File** menu.
2. The form will be saved in the same folder by the same name.



Saving the form in a printable file format will not only create a print file, but it will also create all of the necessary resources, as well as update the Proform Designer source file (.FSL). Saving the form as a Proform Designer AFP source form will only create resources for AFP forms (page segments and fonts).

## Auto-Save

You can protect your work by using the Auto-Save feature. Auto-Save will save your form as a Proform Designer form periodically as you work. The Auto-Save will save at user-defined intervals. A form file must be named before Auto-Save will be activated.

#### ❖ To activate auto-save

1. Select **Preferences** from the **Edit** menu.
2. From the **System** tab, check **Auto-Save**.
3. Use arrow keys to indicate interval time in minutes.



Take caution when setting the Auto-Save interval. Setting the interval too short can cause unwanted over-saving of files.

## Create Backup Files

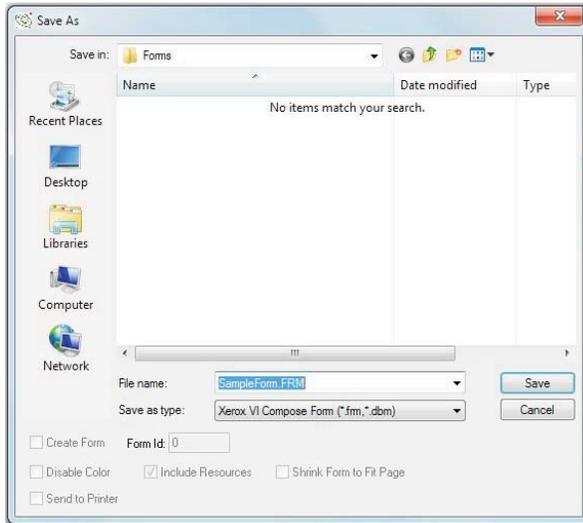
You can protect your work by using the Backup File feature. By activating this feature, the previous copy of the form will be renamed to form.BAK every time you save a form. It will also be located in the same folder as the form.

#### ❖ To create backup files

1. Select **Preferences** from the **Edit** menu.
2. From the **System** tab, check **Create Backup File**.

## Xerox FRM Save Options

There are several options unique to creating Xerox FRM files. The **Save As** window will reflect unique options based on the type of file being output.



Xerox LCDS .FRM Save As window

### Disable Color

The disable color option will produce a monochrome form object file from an FSL file containing highlight/full color commands. This enables the same forms to print on a full line of Xerox printers regardless of color capability. All box FILLS will be converted to SHADING MEDIUM. All colored lines and borders will be made black.

#### ❖ To enable disable color option

1. Begin the File Save Process as follows:
  - Select **Save As** from the **File** menu.
  - To save the document in a different folder other than the default, click a different drive in the **Save in** box, or double-click a different folder in the folder list.
  - To save the document in a new folder, click **Create New Folder**.
  - In the **File name** box, type a name for the form.
  - Select output format from **Save as Type** drop-down.
2. Check the **Disable Color** checkbox.
3. Click the **Save** button.



## Create Tape Label

Proform Designer allows Xerox FRMs and resources (fonts, logos and images) to be created with or without a Tape Label record at the front of the file. Depending on how these files are transferred to the LPS printer determines if a tape label is necessary or not. Most transfer methods require a tape label.

### ❖ To create files with a tape label

1. Begin the file save process as follows:
  - Select the **Save As** from the **File** menu.
  - To save the document in a different folder other than the default, click a different drive in the **Save in** box, or double-click a different folder in the folder list.
  - To save the document in a new folder, click **Create New Folder**.
  - In the **File name** box, type a name for the form.
  - Select output format from **Save as** drop-down.
2. Enable the **Tape Label Files** checkbox.
3. Click the **Save button**.



## Ink-Result

The Ink-Result command defines a default action that the printer can use if black dots are placed over color dots. A limitation on the HighLight color printer prevents color and black dots to occupy the same spot on the printed page. Selecting **BLACK** gives priority to the black dot, while selecting **COLOR** gives priority to the color dot. By selecting **SYSTEM**, whatever default that has been defined at the printer will be used.

### ❖ To define ink-result

1. Begin the file save process as follows:
  - Select **Save As** from the **File** menu.
  - To save the document in a different folder other than the default, click a different drive in the **Save in** box, or double-click a different folder in the folder list.
  - To save the document in a new folder, click **Create New Folder**.
  - In the **File name** box, type a name for the form.
  - Select output format from **Save as** drop-down.
2. Choose **Ink-Result** from drop-down menu as either **Black**, **Color** or **System**.
3. Click the **Save button**.



## PCL/PS/XES Save Options

There are several options unique to creating PCL, PostScript and Xerox XES form files. The Save As window will reflect unique options based on the type of file being output.

### Create A Form

File format allows one or more forms to be stored in printer memory. This feature provides for multi-page forms to be cycled without the necessity of downloading the form for each page printed. A unique macro ID can be assigned to each form. Variable data streams can then be formatted to call a specific macro to be merged with the data when appropriate.

*Macro creation options are available when saving as PCL, PostScript or XES. Macro ID capability is only available when saving as PCL and PostScript.*

#### ❖ To assign a macro to a PCL, PostScript, or XES form

1. Begin file save process as follows:
  - Select **Save As** from the **File** menu.
  - To save the document in a different folder other than the default, click a different drive in the **Save in** box, or double-click a different folder in the folder list.
  - To save the document in a new folder, click **Create New Folder**.
  - In the **File name** box, type a name for the form.
  - Select output format from **Save as** drop-down.
2. Check the **Create Form** checkbox.
3. Specify macro ID number in the **Macro ID** field (not applicable for XES).
4. Click the **Save** button.



### Shrink Form to Fit Page

This option allows the same form to be printed on a variety of printers regardless of edge-to-edge capability. While some PCL/PS/XES printers can print to the edge of the page, many have restrictive margins such as the HP series of printers. This option will scale and shift the form in combination in order to fit the page.

#### ❖ To enable shrink to fit

1. Begin the file save process as follows:
  - Select **Save as** from the **File** menu or select **Save** from the **File** menu.
  - In the **File name** box, type a name for the form.
  - Select output format from **Save as** drop-down.
2. Check **Shrink Form to Fit Page** checkbox.

3. Click the **Save** button.

### Disable Color

The disable color option will produce a monochrome form object file from an FSL file containing highlight color commands. This enables the same forms to print on a full line of printers regardless of color capability. All box FILLS will be converted to SHADING MEDIUM. All colored lines and borders will be made black.

#### ❖ To enable the disable color option

1. Begin the File Save Process as follows:
  - Select **Save As** from the **File** menu.
  - To save the document in a different folder other than the default, click a different drive in the **Save in** box, or double-click a different folder in the folder list.
  - To save the document in a new folder, click **Create New Folder**.
  - In the **File name** box, type a name for the form.
  - Select output format from **Save as** drop-down.
2. Check the **Disable Color** checkbox.
3. Click on the **Save** button.



#### ❖ To Include Resource Files

All resources used in a form (fonts and images) can be included in the output form file using the Include Resource feature, thus providing a complete form in a single file. *The Include Resource Files option only has meaning when creating XES and PCL forms. Include Resources will automatically be done when creating PostScript.*

1. Begin the file save process as follows:
  - Select **Save as** from the **File** menu or select **Save** from the **File** menu.
  - To save the document in a different folder other than the default, click a different drive in the **Save in** box, or double-click a different folder in the folder list.
  - To save the document in a new folder, click **Create New Folder**.
  - In the **File name** box, type a name for the form.
  - Select output format from **Save as** drop-down.
2. Check the **Include Resources** checkbox.
3. Click the **Save** button.

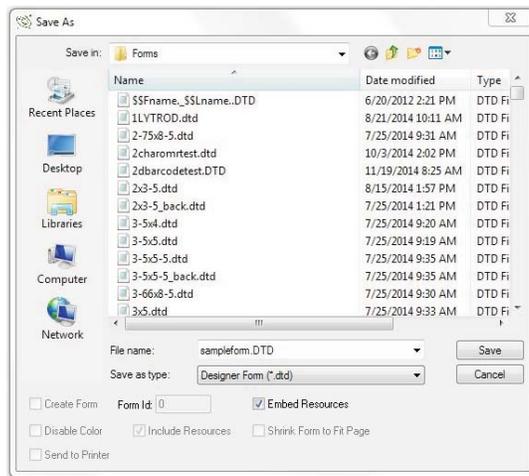


## Embed Resources in .DTD File

Saving a form in .dtd format will make that form accessible to all of the Designer products. Resources (data, fonts, and images) can now be embedded in the .dtd file in order to contain all resources into a single file for transfer.

### ❖ To embed resources in .dtd file

1. Open the form that will be saved as a .dtd file.
2. Go to the **File** menu and select **Save As**.
3. Go to the **Save as type** drop-down menu and select **Designer Form (\*.dtd)**.
4. Enable the **Embed Resources** check box.
5. A .dtd form can be opened by any of the products in the Designer series.



### ❖ To open a .dtd file with embedded resources

1. Go to the **File** menu and select **Open**. Highlight the .dtd form that you want to open, and click **Open**.
2. The embedded resources are automatically placed in the appropriate **Font**, **Image**, and **Data** folders.
3. The form will be displayed using the embedded resources.



This option should only be used when archiving the form or transferring the form to another system.

## Output a Static Form to an Image

Static forms can be saved as .tif, .jpg, .pcx, .bmp, or .eps images as well as the standard PS, PCL and XES form formats.

### ❖ To output a static form to an image

1. Open the form that you wish to output.
2. Select **Save As** from the **File** menu of the open form.
3. Choose the **Static Form as Image** option from the **Save as type** drop-down menu.
4. Click **OK**.

## Close a Form

### ❖ To close a form

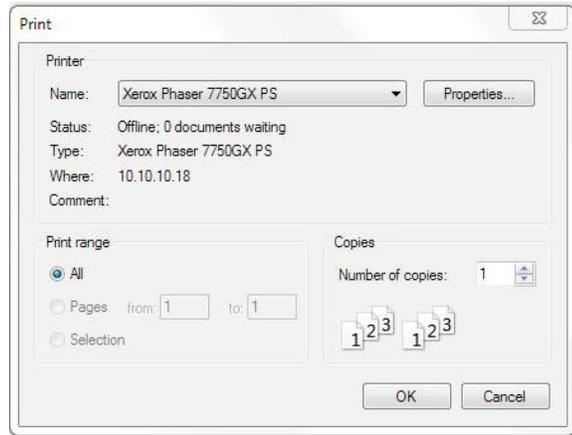
1. Select **Close** from the **File** menu.
  - If the file has not been saved, you will be prompted to do so.
  - If the file has been saved, the form will be closed.



Designer has a Multiple Document Interface. Therefore, multiple forms can be open at one time, eliminating the need to close a form in order to open or start a second.

## Proof Print

At any time while designing a form, you can print a quick “proof”. This “proof” can be printed on any type of printer that is attached to your PC and has been properly set-up in Windows. You can also use the Print Preview function to get an idea of how the form will print. **The Proof Print is used solely for assisting with design and will not necessarily create the same image as that created when using the Save, Save As or Export options.** This is due to the fact that the proof print option is using the Windows print drivers and the Save, Save As or Export options use Lytrod Software created printer drivers.



### ❖ To proof print

1. Select **Proof Print** from the **File** menu.
2. Select **Printer** from the **Name** drop-down. Additional printer properties can be selected by clicking the **Properties** button.
3. Choose the number of copies to be printed using the spin arrows or by entering the number manually.

### ❖ To view print preview

1. Select **Print Preview** from the **File** menu.

## Form Export

The form export function allows forms to be converted to a printer format other than the one for which it was originally designed. This function also allows you to change a form's associated resource set. It provides an automated conversion of the form along with all resources, including fonts, logos and images.

Supported Print Formats:

- Xerox Metacode Object File (.FRM)
- PCL Form (.PCL)
- PostScript Form (.PS)
- Xerox XES Form (.XES)
- Xerox VI Compose Form (.DBM), (.JDT) or (.XJT)

### ❖ To export a form

1. Select **Export** from the **File** menu.
2. Choose **Form** from the **Export** menu.
3. An **Export Form** window will appear.
  - To export the document to a different folder other than the default, click a different drive in the **Save in** box, or double-click a different folder in the folder list.
  - To export the document to a new folder, click on **Create New Folder**.
  - In the **File name** box, type a name for the form. The current form name will already be filled in.
  - Select the output format to which the form will be exported from the **Save as** drop-down.
4. Click the **Save** button.



## Change the Resource Set used by a Form/Job

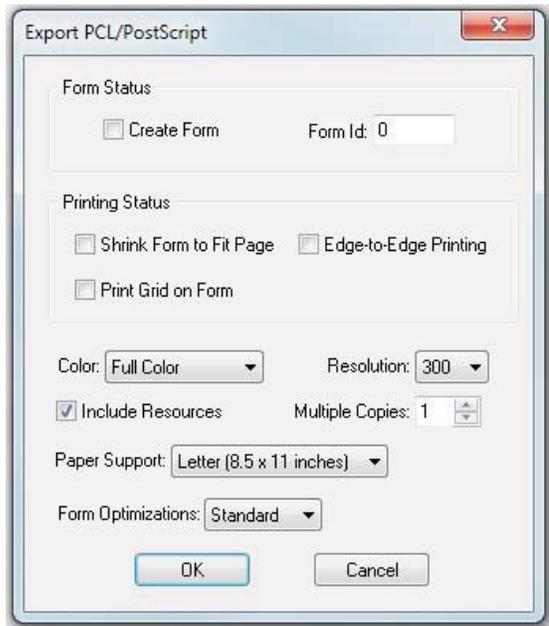
Once a form or Job has been created, the resource set that is associated with it can be changed.

### ❖ To change resource sets

1. Go to the **File** menu of an open form and select **Export**.
2. Choose either **Form** or **Job**.
3. Click the **Option** button.
4. Select the new resource set with which the form will be associated.

## PCL/PS/ XES Export

Forms may be exported to PCL, PostScript and Xerox XES from any of the other supported printer formats. The form, along with all resources, will be converted. There are options available upon exporting to handle any conversion issues that may be involved in the export.



### ❖ To specify PCL/PS/XES options

1. Select **File** and choose **Export**.
2. Choose **Form** from the **Export** menu.
3. An **Export Form** window will appear.
  - To export the document to a different folder other than the default, click a different drive in the **Save in** box, or double-click a different folder in the folder list.
  - To export the document to a new folder, click **Create New Folder**.
  - In the **File name** box, type a name for the form. The current form name will already be filled in.
  - Select output format as **PCL object form (.pcl)**, **PostScript object form (.ps)** or **XES object form (.xes)** from the **Save as Type** drop-down.
4. Click **Options** to view PCL/PS/XES export options.
5. An **Export PCL/PostScript** window or **Export XES** window will appear with the following export options:



<b>Export Option</b>	<b>Description</b>
Create Form	Will create a form file that can be stored on the printer for later merging with variable data. If not checked, a file that prints the form is produced.
Form ID	Allows an ID to be assigned to the form file so that the form can be referenced by variable data. This option is not available when exporting to XES.
Shrink Form to Fit Page	Specifies that the exported form needs to be shrunk to fit more restrictive print margins than what it was originally designed for.
Edge to Edge Printing	Specifies that exported form can print edge to edge.
Print Grid on Form	Allows the printing of the grid lines over the form. Assists in measurement and design modifications.
Color	Specifies what type of color, if any, should be included in the exported form.
Resolution	Specified resolution of exported form. This option is not available when exporting to XES: resolution must be 300 dpi in this case.
Include Resources	Includes fonts, logos and images in the actual form file so that only one file needs to be transferred to the printer.
Paper Support	Defines largest paper size supported on destination printer.
Form Optimizations	Allows print driver to combine/eliminate elements to create a smaller form file.

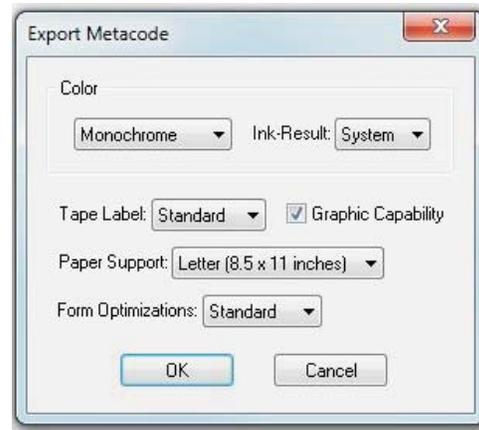
6. Click **OK** to accept options and return to **Export Form** window.
7. Click **Save** to complete export process.

## Metacode FRM Export

Forms may be exported to Metacode FRM from any of the other supported printer formats. The form along with all resources will be converted. There are options available upon exporting to handle any conversion issues that may be involved in the export.

### ❖ To specify Metacode FRM options

1. Select **File** and choose **Export**.
2. Choose **Form** from the **Export** menu.
3. An **Export Form** window will appear.
  - To export the document to a different folder than the default, click a different drive in the **Save in** box, or double-click a different folder in the folder list.
  - To export the document to a new folder, click **Create New Folder**.
  - In the **File name** box, type a name for the form. The current form name will already be filled in.
  - Select output format as **Xerox object form (.frm)** from the **Save as** drop-down.
4. Click **Options** to view Metacode export options.
5. An **Export Metacode** window will appear with the following export options:



Export Option	Descriptions
Color	Specifies what type of color, if any, should be included in the exported form. Choices are limited to HighLight color or Monochrome.
Ink-Result	A limitation on the printer prevents color and black dots from occupying the same spot on the printed page. Ink-Result allows specification of which should take priority.
Tape Label Files	Creates the exported form with a Tape Label. Select None, Standard or Extended.
Graphic Capability	Specifies whether or not graphics/images can be created. Some Xerox printers require additional hardware to support image files.
Paper Support	Defines largest paper size supported on the destination printer.

## File Transfer

Once a form has been completed, it must be transferred to the laser printer. The method of file transfer is dependent on the type of laser printer you are using. Some common methods of file transfer include network, parallel, floppy disk, and host transfer. Proform Designer provides the ability to gather all resources associated with the form and place into a folder or zip file to ease the transfer problem.



Please see page 60 for more information on viewing form resources.

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## Send Form to Folder

In addition to being able to send a form and all its resources to a floppy disk for file transfer, Designer can also send a form and all its resources to a specified folder.

### ❖ Send form to folder

1. Open the form that you want to send to the folder.
2. Select **Send Form To** from the **File** menu and choose **Folder**.
3. The **Browse for Folder** menu will appear.
4. Select the folder to which you will send the form and all its resources.
5. Click **OK**.

## Send Files To Archive

Designer will determine all resources of a form or application, zip all of these files together and save a zip file in the Archive folder.

### ❖ To send files to archive

1. Open the form that you want to send to archive along with all its resources.
2. Select **Send Form To** from the **File** menu and choose **Archive**.

# Basic Form Drawing

All form elements can be drawn using the mouse. To draw an element, select the appropriate draw mode and place the mouse where you want to start the element. To create an element, you must drag the mouse and release to end. Paths require that you drag and click at each point location.

## Drawing Form Elements

### Drawing Lines, Boxes, Circles, OMR Responses, and Paths

Icon	Draw Mode
	Line Draw
	Box Draw
	Circle Draw
	OMR Response Draw
	Path Draw

#### ❖ To draw lines, boxes, circles and OMR responses

1. From the **Drawing** toolbar, click the appropriate draw tool.
2. Position mouse where the element should begin, press and hold the left mouse key to begin drawing.
3. Drag to draw the element and release the mouse key to end.

## Drawing Paths

### ❖ To draw paths

1. From the **Drawing** toolbar, click the **Path Draw** button to enable path draw mode.
2. Position mouse where the path should begin and press and hold the left mouse key to begin drawing.
3. Click the left mouse button to indicate each point of the path and continue drawing.
4. Double click the left mouse button to end drawing or single click the right mouse button.



### ❖ To close a path

1. Select path(s) to close.
2. Click **Close/Open Path** on the **Format** toolbar to toggle between closed and opened path.



### ❖ To continue a path from the ending point

1. Select path(s) to continue.
2. Click **Continue Path from End** on the **Format** toolbar.



### ❖ To add a point to a path

1. Select path.
2. Select point to the right of the location of the new point to be added. To select a point, click the left mouse button on the point handle while holding the <SHIFT> key.
3. Click **Add New Point** on the **Format** toolbar to add a new point to the left of the point selected.

## Grid Snap

Grid Snap is an important design feature when drawing, resizing and moving form elements. The grid snap option ensures the user that all form elements will fall on  $\frac{1}{4}$  grid,  $\frac{1}{2}$  grid or full grid unit and not on any other fractional values thereof. This guarantees creation of lines that intersect and eases alignment.



Grid section of the Design tab of the Preferences window

### ❖ To define grid snap interval

1. Select **Preferences** from the **Edit** menu.
2. From the **Design** tab, specify **Mouse Snap** increment.

## Selecting Form Elements

In order to manipulate a drawing element, it must first be selected.

It is often difficult to tell if you are positioned properly over a particular form element. Designer's cursor will change to indicate proper positioning. The various cursor shapes indicate the type of element over which the cursor is positioned. The mouse must be positioned over the border of an element in order to select it except in the case of shaded or filled boxes, circles and path. In these cases, any position over the element will be sufficient for selection.

Cursor                      Background Object      Cursor      Selected Object

			Horizontal Line
			Vertical Line
			Diagonal Line
			Box
			Circle
			Path
			Text

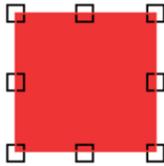


### ❖ To select a form element

1. From the **Drawing** toolbar, click **Select Mode**.
2. Position the mouse over the element to be selected and click the left mouse key.



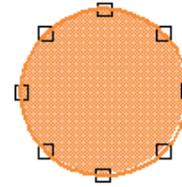
*Selected items will be displayed with selection handles. To select overlapping objects, it may be necessary to de-select all objects prior to making selection.*



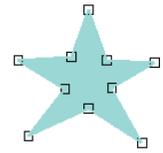
Selected Box



Selected Line



Selected Circle



Selected Path

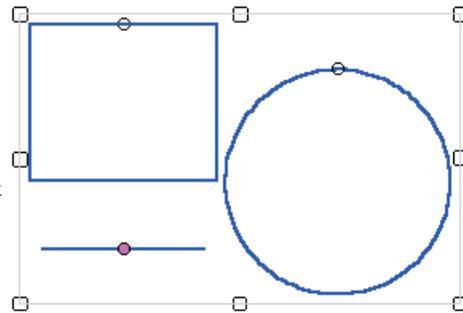
### ❖ To select multiple elements

1. From the **Drawing toolbar**, click **Select Mode**.
2. Position your mouse over the element and hold the <SHIFT> key while clicking the left mouse key over the desired elements.

<OR>



3. Click **Group Mode** from the **Drawing toolbar**, and draw a box around the elements to be selected. The <SHIFT> key in combination with the left mouse key can be used to add or remove individual elements from the group.



Group of Elements

### ❖ To select all elements

1. Choose **Select All** from the **Edit** menu.
2. All elements on the form will be selected. The <SHIFT> key in combination with the left mouse key can be used to remove individual elements from the selection.



When multiple items are selected, a group is automatically created. Elements will be shown in blue with one round selection marker per element. A group box will surround the elements.

## Moving and Copying Form Elements



### ❖ To move using the mouse

1. Select the element(s) to be moved.
2. Position the mouse over the element(s) and drag element(s) to a new location.



### ❖ To copy using the mouse

1. Select the element(s) to be copied.
2. Position the mouse over the element(s) and drag element(s) to a new location while holding down the <CTRL> key.



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When moving and copying elements using the mouse, grid snap will affect the interval in which an element is moved or copied. Grid Snapping is described in detail on page 96.

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### ❖ To position an element through the Properties window

1. Select the element.
2. Select **Object** from the **Format** menu or click the right mouse button and select **Format** from the context menu.
3. From the **Size and Position** tab of the **Properties** window, use the arrow keys to specify position (X and Y coordinates).
  - The X/Y coordinates for lines represent the starting point and ending point. Both values need to be changed to re-position a line rather than resize a line.
  - The X/Y coordinate for boxes represent the origin or top left corner.
  - The X/Y coordinate for circles represent the center point.
  - The X/Y coordinates for paths represent the individual points in the path. All point coordinates would need to be modified by the same amount to affect overall Path position.

### ❖ To position a group of elements

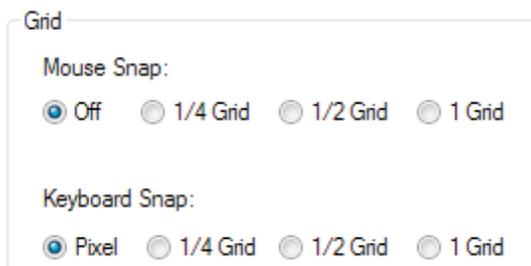
1. Group form elements to be formatted.
2. Select **Group** from the **Format** menu or click the right mouse button and select **Format** from the context menu.
3. From the **Size and Position** tab of the **Group Properties** window use the arrow keys to specify X/Y values for the group origin (top left corner).



Current unit of measure is shown in the **Unit** drop-down. Units of measure available are grids, inches, centimeters and dots.

## Keyboard Snap

Keyboard Snap is an important design feature when moving form elements using the keyboard (grid stepping). The keyboard snap option ensures the user that all form elements will fall on a pixel,  $\frac{1}{4}$  grid,  $\frac{1}{2}$  grid or full grid unit and not on any other fractional values thereof. This guarantees creation of lines that intersect and eases alignment.



Keyboard Snap section of the Design tab of the Properties window

❖ **To set keyboard snap**

1. Select **Preferences** from the **Edit** menu.
2. From the **Design** tab, specify **Keyboard Snap** increment.

❖ **To move using the keyboard (grid stepping)**

1. Select the element(s) to be moved.
2. Use arrow key representing the direction in which to move.

### Horizontal/Vertical Hold

When drawing, moving or copying form elements, either the horizontal or vertical placements can be held. Once the position of an element is correctly placed in one direction, the position in the opposite direction can be changed without altering the held placement.



❖ **To hold vertical position (move horizontally)**

1. Select form element(s) in which the vertical position is to be held.
2. Hold the left or right arrow keys while performing draw, move or copy operation.



❖ **To hold horizontal position (move vertically)**

1. Select form element(s) in which the horizontal position is to be held.
2. Hold the up or down arrow keys while performing draw, move or copy operation.

### Resizing Form Elements



❖ **To resize using the mouse**

1. Select the element(s) to be resized.
2. Position mouse over appropriate handle and drag to new size.



When resizing boxes, corner handles resize both width and height proportionally. Center handles resize width or height respectively. When resizing circles, the center point will remain constant as the radius is increased or decreased.



When resizing elements using the mouse, grid snap will affect interval in which element is resized. Grid Snapping is described in detail on page 96.

### ❖ To resize through the Properties window

1. Select element(s).
2. Select **Object** from the **Format** menu or click the right mouse button and select **Format** from the context menu.
3. From the **Size and Position** tab of the **Properties** window use the arrow keys to specify size.

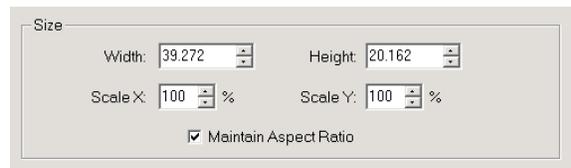


Paths are not resized through the **Properties** window in the same fashion as other elements. The X/Y coordinates in the **Size and Position** tab of the **Path Properties** window represent the individual point locations.

## Group Scaling

### ❖ To scale a group of elements

1. Group form elements.
2. Select **Group** from the **Format** menu or click the right mouse button and select **Format** from the context menu.
3. From the **Size and Position** tab of the **Group Properties** window use the arrow keys to specify width/height values for the group or percentage to scale.



Scaling section of the Size and Position tab of the Group Properties window

## Grid Settings

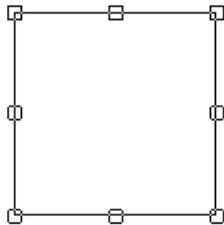
Changing the grid for a form element or a group of form elements can be done. By doing so, the element or group of elements will realign with the new grid. Therefore, the element(s) will be resized accordingly and the position may be affected based on a new grid origin.



Defined Grids drop-down on the Drawing toolbar

### ❖ To change the grid of a form element or group of elements

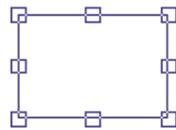
1. Select an element or a group of form elements.
2. Choose the new grid from the **Defined Grids** drop-down menu in the **Drawing** toolbar.



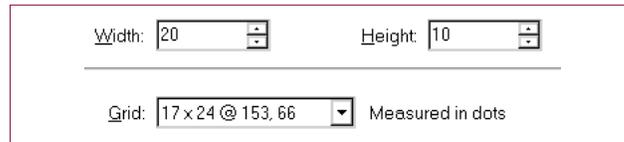
Actual box size using original grid



Width and Height and Grid Setting for Box (Original grid)



Actual box size using the new grid



Width and Height and Grid Setting for Box (New grid)

In the previous example: The grid setting for the box has been changed. The width and height of the box remain the same (20 grids by 10 grids). However, because the grid size is different, the width and height values are now based on the new grid size causing the box to be resized accordingly.



OMR objects are drawn based on predefined OMR grids. All grids used on the form are displayed in the Defined Grids drop-down. The grid for the entire form can be set to the OMR grid if the OMR element is drawn before any other element is placed on the form.



Current unit of measure is shown in the **Unit** drop-down. Units of measure available are grids, inches, centimeters and dots.

## Keyboard Snap

### ❖ To resize using the keyboard (grid stepping)

1. Select the element to be resized.
2. Hold the <CTRL> key in combination with the arrow key representing the direction in which to resize.



Stepping can be used when fine movement or resizing is difficult to achieve through mouse movements. Detailed information on setting keyboard snap interval is described on page 100.

## Moving, Copying and Resizing Summary

Cursor Shape	Operation
	Move
	Move holding vertical position
	Move holding horizontal position
	Copy
	Copy holding vertical position
	Copy holding horizontal position
	Resize width
	Resize height
	Resize width and height respectively

## Deleting Form Elements

### ❖ To delete a Form Element

1. Select the element(s) to be deleted.
2. Click the <DELETE> key on the keyboard.

## Form Element Repetitions

Repetitions are useful when there are multiple elements to be drawn that are the same size and share the same attributes. There are two different types of repetitions available: even and exact. Even Repetitions allow users to create a group of items evenly spaced at a user-defined interval, and can be vertical, horizontal, or staggered. Exact Repetitions allow users to create a group of items in which each item is placed at varying user-defined intervals, and can be vertical, horizontal, or random. Repetitions not only save time when initially designing forms, but also when making modifications later. Line, box, circle and path repetitions can be created.

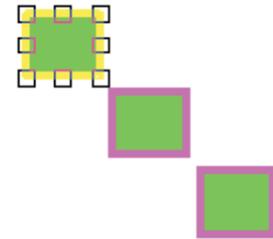
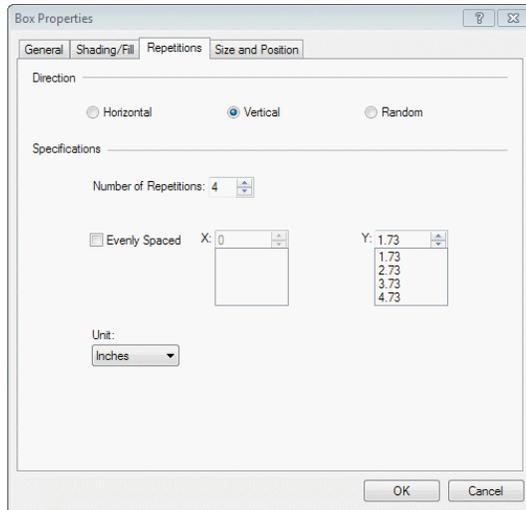
Icon	Repetition Mode
	Even Repetitions
	Exact Repetitions
	Staggered Repetitions
	Random Repetitions

## Creating Even Repetitions



### ❖ To create even repetitions using the mouse

1. Select element to be repeated.
2. Click the appropriate repetition button from the **Repetition** toolbar.
  - Click **Even Repetition** to create evenly spaced horizontal/vertical repetitions.
  - Click **Staggered Repetition** to create evenly spaced staggered repetitions.
3. Click left mouse button at the appropriate distance and direction (on the first repetition) from original item to set interval.
4. Continue to click left mouse button to add additional repetitions.



Staggered Box Repetitions

#### ❖ To create even repetition through the repetition window

1. Select the element to be repeated.
2. Select **Object** from the **Format** menu.
3. Open the **Repetition** tab from the **Properties** window.
4. Choose the appropriate radio button indicating repetition direction (horizontal, vertical or random).
5. Specify the number of repetitions in the **Number of Repetitions** edit box or by using the spin arrows.
6. Check the **Evenly Spaced** checkbox.
7. Specify the interval in the appropriate X/Y edit box. Specify X value if creating horizontal repetitions and a Y value if creating vertical repetitions. Specify both if creating staggered repetitions.

#### ❖ To change interval through mouse

1. Select the repetition group to modify.
2. Click the **Even Repetition** or **Staggered Repetition** tool as appropriate on the **Repetition** toolbar.
3. Position the mouse over an individual element in the group.
4. Drag element to new location to change interval.

❖ To change interval through repetition window

1. Select the repetition group to modify.
2. Select **Object** from the **Format** menu.
3. Open the **Repetition** tab of the **Properties** window.
4. Modify appropriate X/Y value(s).



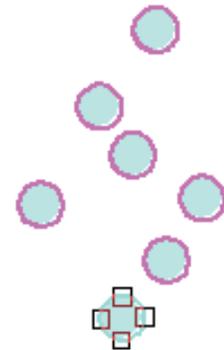
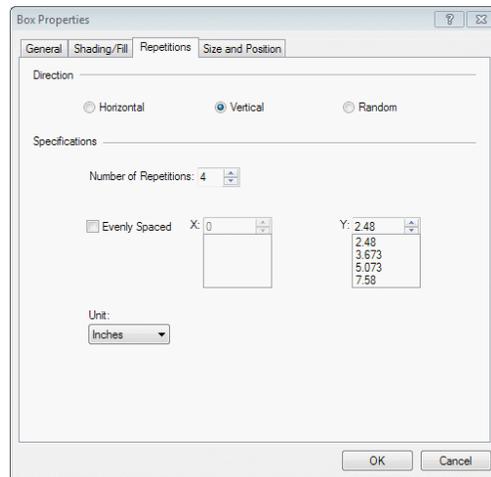
Interval section of the Repetition window

## Creating Exact Repetitions



❖ To create exact repetitions using the mouse

1. Select the element to be repeated.
2. Click the appropriate repetition button from the **Repetition** toolbar
  - Click **Exact Repetition** to create horizontal/vertical repetitions.
  - Click **Random Repetition** to create random repetitions.
3. Click the mouse pointer at the location of each desired repetition.



Exact Random Circle Repetitions

❖ **To create exact repetitions through the Repetitions window**

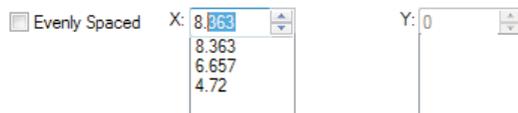
1. Select an element to be repeated.
2. Select **Object** from the **Format** menu.
3. Open the **Repetition** tab from the **Properties** window.
4. Choose appropriate radio button indicating repetition direction (horizontal, vertical or random).
5. Specify number of repetitions in the **Number of Repetitions** edit box or by using the spin arrows.
6. Specify repetition locations in X/Y edit boxes.

❖ **To reposition individual elements using the mouse**

1. Select a repetition group to modify.
2. Click **Exact Repetition** or **Random Repetition** as appropriate on the **Repetition** toolbar.
3. Position the mouse pointer over an individual element in the group.
4. Drag the element to a new location.

❖ **To reposition individual elements through the repetition window**

1. Select a repetition group to modify.
2. Select **Object** from the **Format** menu.
3. Open the **Repetition** tab of the **Properties** window.
4. Modify X/Y location of the individual repetition to re-position by clicking on a value in the list and then editing the value in the corresponding edit boxes.



Repetition location section of the Repetition window

## Adding Elements to Repetitions

### ❖ To add an element to a repetition using the mouse

1. Select a repetition group to modify.
2. Click the appropriate **Repetition Mode** button on the **Repetition** toolbar.
3. Click the left mouse button to add items to the group.
  - For Even and Staggered repetitions, added elements will be placed at the end of the group.
  - For Exact and Random repetitions, added elements will be placed at the location where the mouse is positioned.

### ❖ To add an element to a repetition through the Properties window

1. Select a repetition group to modify
2. Select **Object** from the **Format** menu.
3. Open the **Repetition** tab of the **Properties** window.
4. Increase the number in the **Number of Repetitions** edit box.
5. Specify the location of the added repetition in corresponding X/Y edit boxes.



## Deleting Elements from Repetitions

### ❖ To delete an element from a repetition

1. Select repetition group to modify.
2. Click on appropriate **Repetition Mode** button on the **Repetition** toolbar.
3. While holding down the <SHIFT> key, select the element you wish to remove.
4. Once selected, press the <DELETE> key to delete the element.

## Breaking Elements from Repetition Groups

All elements in a repetition group must have the same attributes applied and be the same size. There may be times in which an individual element requires unique traits. In this case, the element must be broken away from the rest of the repetition group. Once broken, it will no longer be associated with the group and will be seen as an individual form element.



### ❖ To break an element from a repetition

1. Select a repetition group.
2. Click on the appropriate **Repetition Mode** button on the **Repetition** toolbar.
3. While holding down the <SHIFT> key, click left mouse button over the element you wish to break way from group.
4. Click **Break** on the **Repetition** toolbar.

---

The “broken” item will not be deleted. It will only be removed from the repetition group.

---

## Form Element Joining

Line, Box, Circle, and Path elements can be joined together and can be repeated together. However, only like elements can be joined (e.g. path elements to path elements, circles to circles, etc), and the elements must be the same size. Text blocks can also be joined into a single block.

### ❖ To join form elements



1. Click the **Select Group Mode** button from the **Drawing** toolbar.
2. Click the left mouse button to begin drawing. Drag a grouping box around the form elements and release the mouse key to end.



3. Click the **Join into Repetition** button on the **Repetition** toolbar.

## Formatting Elements

Several attributes can be defined for form elements. These attributes are the same whether formatting an individual element or a repetition.

Some of the formatting attributes can be applied to all of the different form elements (lines, boxes, circles and paths), while a few may only be applicable to certain form elements.

Several formatting options are available to a group of elements. These options are similar to those found when formatting individual lines, boxes, circles and paths. The group formatting tool allows universal formatting of different form elements simultaneously. Some formatting options will not affect all of the elements in a particular group if not applicable to that element. For example, shading will not affect any lines just as line direction will not affect anything other than lines. The pointer icon will identify attributes that can be applied to a group of elements.

Formatting tools unique to groups will be described in detail at the end of this chapter.



Detailed information regarding the formatting of OMR responses can be found in Chapter 9 - Creating OMR Forms.

### Thickness and Style

Line/Border thicknesses are represented in POINTS from 0 - 14, except in the OGL environment (0-99 points). Three styles are available including solid, dotted and broken. Thickness and style will affect lines of all directions along with box, circle and path borders. It will also affect diagonal lines within boxes and circles. In the FDL environment, fractional values cannot be entered.



This attribute can also be applied to a group of elements.



#### ❖ To define line and border thickness and style

1. Select the element to be formatted.
2. To change the thickness, click the appropriate thickness button (**Increase Border Thickness/Decrease Border Thickness**) from the **Format** toolbar.
  - To increase border thickness, click **Increase Border Thickness**.
  - To decrease border thickness, click **Decrease Border Thickness**.
3. To change the style, click the **Change Border Style** button from the **Format** toolbar to rotate through available styles.



## Zero Thickness Lines/Borders

Line/Border thicknesses can be set to 0. These lines/borders will be invisible and will not print. The benefit of using zero lines is the ability to create invisible boxes or circles so that text, data, data graphs, and images can be placed within them and positioned using the attach and position functions. Invisible lines can also be used to complete a box for this same purpose.



This attribute can also be applied to a group of elements.

### ❖ To create a zero line object

1. Right click the object, and select **Format** from the context menu.
2. Access the **General** tab.
3. Go to the **Thickness** field and use the spin buttons to set the thickness to 0.
4. Click **OK**.

### ❖ To view zero lines

1. Select **Options** from the **View** menu.
2. Select **Zero Lines** from the **Options** menu.



## Color

Color changes will affect lines of all directions along with box, circle and path borders. It will also affect diagonal lines within boxes and circles, and shadings within boxes, circles and closed paths. It will not affect fill within boxes, circles and closed paths. Please see page 115 for information on color fill.

### ❖ To change line/border color

1. Select the item(s).
2. To change the color of a selected item(s), click **Palette** or **Border Color** from the **Format** toolbar.
3. Select the appropriate color.



The availability of colors is dependent on whether the form has been defined as monochrome, highlight color or full color.



When applying color to a group of elements there are additional capabilities implemented to specify type of coloration. Please see page 115 for more information on applying color to a group of elements.



## Adding Diagonal Lines

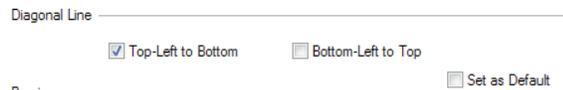
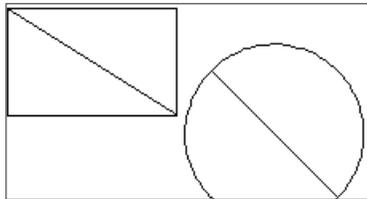
Diagonal lines can be added to boxes and circles. The attributes of the diagonal lines will match the border attributes.



This attribute can also be applied to a group of elements.

### ❖ To add diagonal lines

1. Select the box or circle to which you will add the diagonal lines.
2. Click the **Toggle Diagonal Lines** button on the **Format** toolbar. Two diagonal lines will be toggled on or off.
3. To specify a particular diagonal line to be added/removed, click the left mouse button on the corner handle, while holding down the <SHIFT> key. The corners will then be selected.
4. To add/remove only one diagonal line in a specific direction, select **Object** from the **Format** menu or click the right mouse button and select **Format** from the context menu.
  - From the **General Attributes** tab, check the appropriate button (**Top-Left to Bottom**/**Bottom-Left to Top**) to enable/disable diagonal lines.



Diagonal Line section of the General Attributes tab of the Properties window.

### ❖ To add diagonal lines to a group of elements

1. Click the **Toggle Lines** button on the **Format** toolbar. Two diagonal lines will be toggled on or off.
2. To add/remove only one diagonal line in a specific direction, select **Group** from the **Format** menu or click the right mouse button and select **Format Group** from the context menu.
  - From the **Lines and Borders** tab, check the appropriate button (**Top-Left to Bottom**/**Bottom-Left to Top**) to enable/disable diagonal lines.

## Shading Form Elements

Shading can be applied to boxes, circles and closed paths.



This attribute can also be applied to a group of elements.



### ❖ To shade element

1. Select element(s).
2. Click the appropriate shading button on the **Format** toolbar to apply shading.

### ❖ To specify shading pattern

1. Select element(s).
2. Select **Object** from the **Format** menu.
3. From the **Shading/Fill** tab select a shading type from the drop-down menu.

### ❖ To specify shading pattern for a group of elements

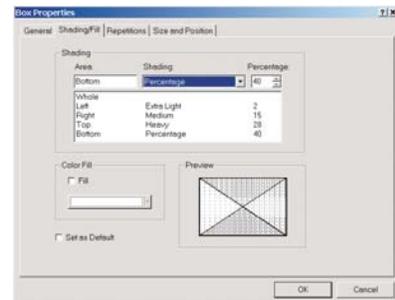
1. Group elements.
2. Select **Group** from the **Format** menu.
3. From the **Shading** tab select a shading type from the drop-down menu.

## Shading with diagonal lines

When shading boxes/circles with diagonal lines, the user has control over which areas are shaded and not shaded and what type of shading is applied to each area. Each area is considered separate and can have its own type of shading.

### ❖ To shade elements with diagonal lines

1. Select box/circle(s) with diagonal lines to be shaded.
2. Select **Object** from the **Format** menu.
3. Access the **Shading/Fill** tab. Use the **Area** and **Shading/Percentage** drop-down menus to select the area to be shaded and which type of shading, if any, will be applied.



Shading section of the Shading/Fill tab of the Properties window.

## Color Fill

Color fill is available for boxes, whole circles and closed paths. Color fill will flood fill the element with the selected ink. When using fill, it is not advised to use box shading unless a solid color is chosen for the fill. Box shading combined with a patterned fill may produce undesirable results. Diagonal lines do not affect the fill, unlike shading.



Color Fill section of the Shading/Fill tab of the Properties window.

### ❖ To fill an element

1. Select element(s) to fill.
2. Select **Object** from the **Format** menu.
3. Check **Fill** to enable fill.
4. From the **Shading/Fill** tab select color from the **Fill** drop-down.

## Rounded Corners

Rounded corners can be applied to boxes and paths. The amount of roundness can also be controlled.



This attribute can also be applied to a group of elements.

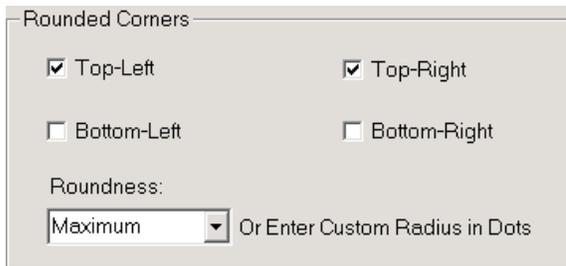


### ❖ To round corners

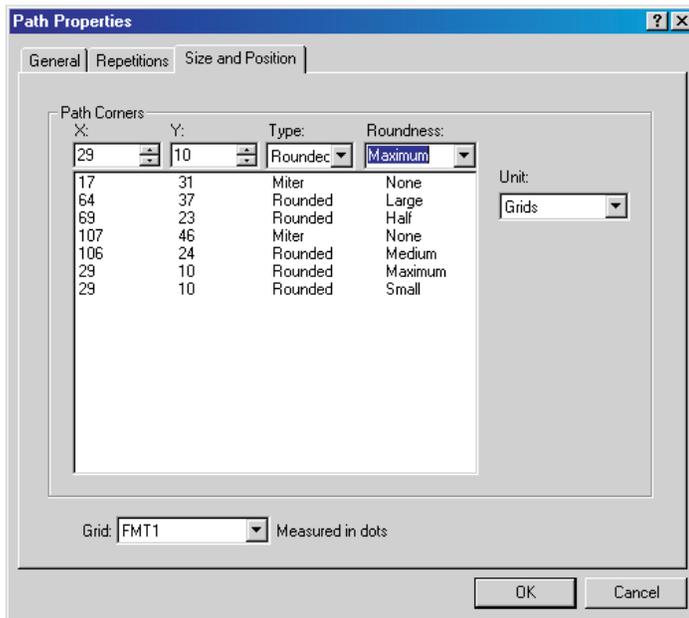
1. Select the element(s).
2. Click **Round/Square Corner** on the **Format** toolbar to toggle between rounded corners and square corners.
3. To specify a particular corner(s) to be rounded, click the left mouse button on the corner handle while holding the <SHIFT> key. The corners will then be selected.
4. Click **Round/Square Corner on the Format** toolbar to toggle between rounded and square corners.

❖ To specify amount of corner rounding

1. Select the element(s).
2. Go to the **Format** menu and select **Object**, or right click and choose **Format** from the context menu..
3. For boxes, select roundness from the **General Attributes** tab of the **Properties** window. If the predefined values are not precise enough, a value (radius of corner) can be specified in dots.



4. For paths, select roundness on a point by point basis in the **Size and Position** tab of the **Properties** window.



Rounded Corner section of Path Properties window



Roundness options include SMALL, MEDIUM, LARGE, HALF and MAXIMUM. A value in dots may also be specified. SMALL is equivalent to 12 dots, MEDIUM is equivalent to 25 dots, and LARGE is equivalent to 37 dots. HALF and MAX are the same for boxes (half the distance of the smaller of the two sides), while a MAX corner length for a path extends the arc as far as possible on both path segments.

#### ❖ To specify amount of corner rounding for a group of elements

1. Group the elements.
2. Go to the **Format** menu and select **Group**.
3. For boxes, select roundness from the **Lines and Borders** tab of the **Properties** window.



Boxes with Rounded Corners  
Small, Large and Maximum Rounding



#### Line Direction

The three line directions available are horizontal, vertical and diagonal. Diagonal lines will initially be drawn at a 45 degree angle. When changing between the three line directions, the starting point (X/Y coordinate) will remain the same while the ending point will change accordingly to accommodate the new line direction.



This attribute can also be applied to a group of elements.

#### ❖ To change line direction

1. Select the line(s).
2. To change the line direction, click **Toggle Line Direction** from the **Format** toolbar.



The angle of diagonal lines can be rotated by holding down the <CTRL> key and positioning the mouse over a line endpoint handle and rotating as needed.



Diagonal lines within boxes and circles cannot have their angle changed. They always begin and end at corner points.

## Quarter/Half/Three-Quarter Circles

Circle segments can be selected and removed to create quarter, half and three-quarter circles.

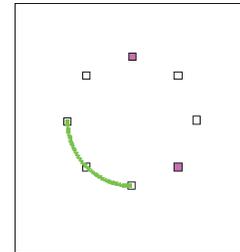


This attribute can also be applied to a group of elements.

### ❖ To create quarter/half/three-quarter circles



1. Select circle(s).
2. While holding the <SHIFT> key, click the left mouse button over desired segment handle(s).
3. Click **Toggle Circle Segment** on the **Format** toolbar to toggle indicated circle segment on and off.



Quarter Circle



When filling quarter, half or three quarter circles, the entire circle will be filled.

## Path Ends

The path end specifications determine the look of the start and end points of a non-closed path.

### ❖ To format path ends

1. Select path.
2. Select **Object** from the **Format** menu.
3. From the **General** tab of the **Properties** window, select path start and endpoint style as **trimmed**, **square** or **rounded**.



**Square** will draw the endpoint as a rectangle. **Trimmed** will draw the endpoint trimmed to the horizontal and vertical. **Round** will draw the endpoint with a semicircle, where the center point is the path endpoint.

## Default Formatting

The default setting is available to set the default attributes of a particular type of form element (line, box, circle, response etc.). There is a default set of attributes for each type of element. These attributes include border thickness, style, color, shading options, diagonal lines, etc. When set, attributes will affect the current element selected as well as each new element drawn until the default is changed.

### ❖ To set Formatting options as Default

1. Select element.
2. Select **Object** from the **Format** menu or click the right mouse button and select **Format** from the context menu.
3. From the **General Tab** or the **Shading/Fill** tab of the **Format Properties** menu, select the desired attributes and check **Set as Default**.

Set as Default



The Set as Default check box will appear in both the General and Shading/Fill tabs in order to give more flexibility in choosing default attributes. Setting the default option in one tab and not the other only sets the attributes in the chosen tab as the default.

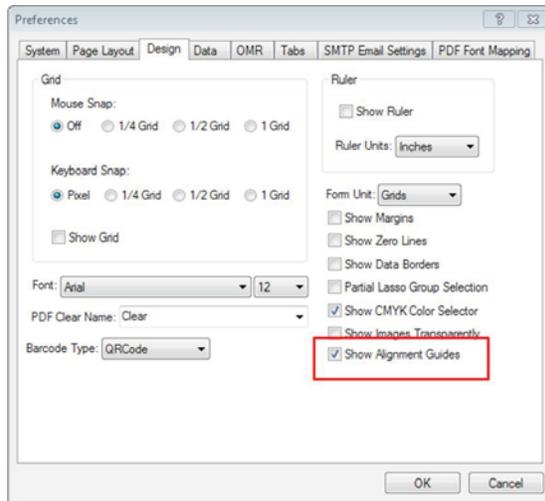
---

# Aligning Objects

Alignment guides will appear when designing if they are enabled through your preferences menu. These are lines that appear to assist in positioning items based on a nearby items center, top, or bottom positioning.

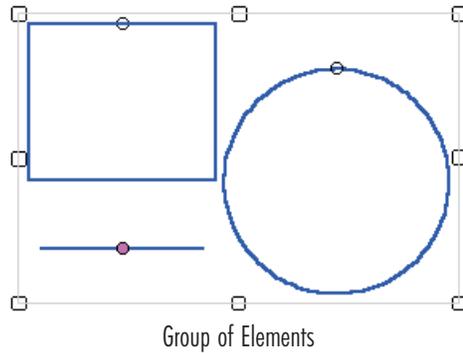
## ❖ To enable alignment guides

1. From the **Edit** drop-down, select **Preferences**.
2. The **Preferences** menu will appear.
3. From the **Design** tab, select the **Show Alignment Guides** check box.



## Group Formatting Tools

When multiple items are selected, a group is created. In addition to the standard formatting that can be applied to form elements, groups have unique formatting tools available. They are only available when working with a group of elements.

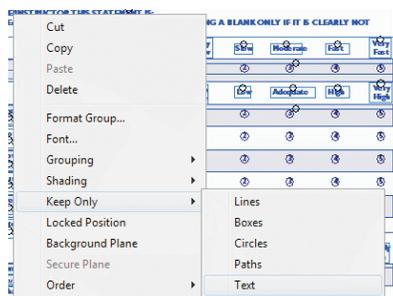


## Keep Only Grouping

The **Keep Only** grouping function allows the selection of specific form elements in a group. After grouping several elements or applying the **Select All** function (go to the **Edit** menu and choose **Select All**), the **Keep Only** function is useful in keeping only the elements of one particular type within the group. This provides an efficient way to format one type of form element.

### ❖ To apply keep only grouping

1. Group elements on the form by selecting the **Group** icon and then left clicking and dragging a box over the desired form elements, or by using the **Select All** function.
2. Right-click and select **Keep Only** from the context menu.
3. Select one element that will be maintained within the created group.





Individual form elements can be selected one at a time by holding down the <Shift> key and using the left mouse button to click over the desired element.

The image shows a screenshot of a "University of Calistoga" course evaluation form. The form is titled "SPRING Semester Course Evaluation Form" and includes fields for "Student ID", "Academic Year", "INSTRUCTOR'S NAME" (MASSARO, A), "COURSE NUMBER" (BIO221), and "SEMESTER" (SPRING). The form contains 14 numbered questions with multiple-choice options. A context menu is open over the form, showing various options such as "Cut", "Copy", "Paste", "Delete", "Format Group...", "Font...", "Grouping", "Shading", "Keep Only", "Locked Position", "Background Plane", "Secure Plane", "Order", "Group Data Frames", "Save as Path Art File...", "Detach Relative Items", "Find...", "Replace...", "Spell Checker...", "Rotate", "Even", "Exact", and "Staggered". The "Keep Only" option is selected, and a sub-menu is open showing "Lines", "Boxes", "Circles", "Paths", "Text", "Images", "OMR", "Data", "Data Conditions", "Image Conditions", "Element Conditions", and "Data Graphs". The "Text" option is selected in the sub-menu.

This example shows the resulting group when the Keep Only grouping function is applied to the entire form. Here all data present in the form is grouped.

## Remembered Grouping

The grouping of form elements can be remembered for future group formatting. After remembered grouping is applied to a set of elements, whenever one form element in the group is selected, the entire group becomes selected. Multiple groups can be remembered, and elements can also be ungrouped. Remembered grouping however is not saved when a form is closed.

### ❖ To apply remembered grouping

1. Click the **Select Group Mode** button on the **Drawing** toolbar.
2. Click and drag a box around the form elements to be grouped.
3. Right click in the selected area to show the context menu
4. Select **Group** from the **Grouping** cascading menu.

### ❖ To ungroup form elements

1. Click on any element of a previously remembered group.
2. Right click in the selected area.
3. Select **Ungroup** from the **Grouping** cascading menu.



The Keep Only function cannot be used with form elements with remembered grouping applied to them, since they are no longer considered individual form elements.

## Aligning Group Elements

The alignment tools allow quick alignment of a group of elements. When using the alignment tools a “master” element is defined as the element for all other elements to be aligned to.

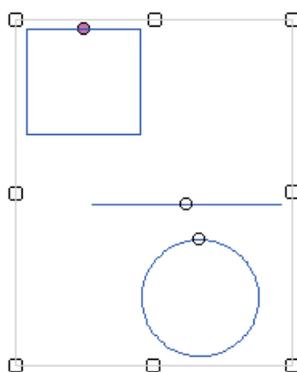
Toolbar Button	Alignment
	Left Align
	Right Align
	Center Align
	Top Align
	Bottom Align

### ❖ To define the “master” element

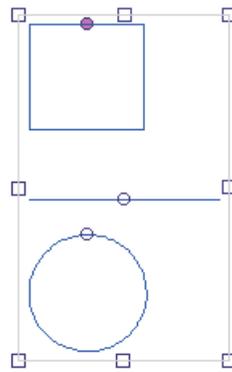
1. Group the elements to be aligned. The default “master” element will be identified with a round, pink handle.
2. While holding the Shift key, click the left mouse button over the special round handle of the element you wish to define as the “master” element. The rounded handle will turn pink to indicate selection.

### ❖ To align elements

1. Group objects to be aligned.
2. Define a “master” element if different from the defaulted “master”.
3. Click appropriate button on the **Tools** toolbar to align objects.



Grouped Form Elements  
Box defined as “master”



Grouped Form Elements  
Aligned Left

## Resizing/Stretching Group Elements

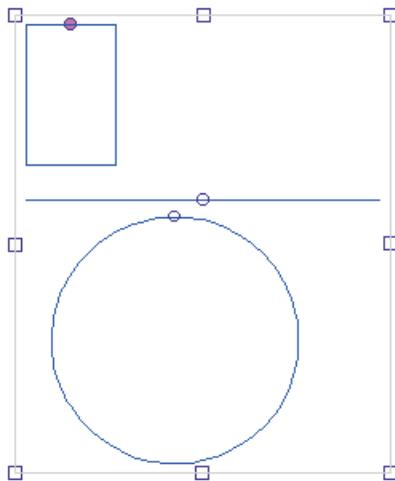
### Resizing Group Elements

The resizing tools allow quick resizing of a group of elements. When using the resizing tools a “master” element is defined as the element for all other elements to be resized to.

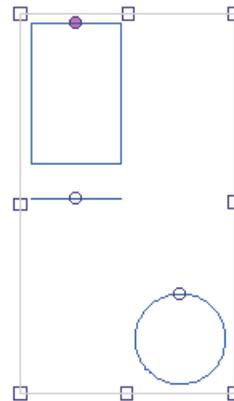
Toolbar Button	Resize Operation
	Make Same Width
	Make Same Height
	Make Same Size (both width and height)

#### ❖ To resize elements

1. Group objects to be resized.
2. Define a “master” element if different from the defaulted “master”.
3. Click appropriate button on the **Tools** toolbar to resize objects.



Group of Form Elements  
Box defined as “master”



Group of Form Elements  
Resized to Same Width



Some functions are not able to affect certain objects in the group. For example: When using the **Make Same Height** function with a group that contains horizontal lines, the horizontal lines will not be modified.

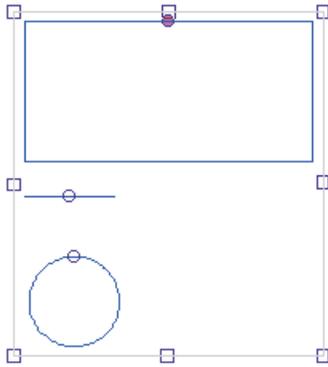
## Stretching Group Elements

Stretching tools are available for groups of elements. It combines the alignment and resizing tools to provide a different approach to resizing elements within a group. There is again a “master” element by which to measure. With stretching, the items will be stretched to align with the “master” element.

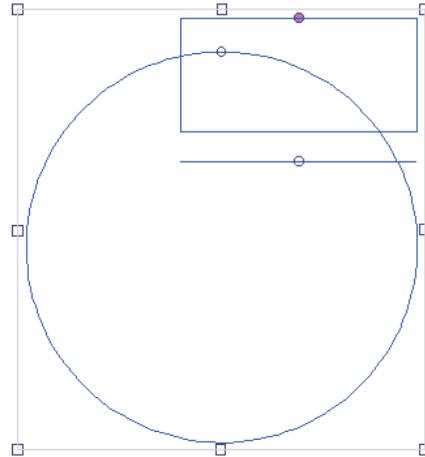
Toolbar Button	Stretch Operation
	Stretch Left
	Stretch Right
	Stretch Top
	Stretch Bottom

### ❖ To stretch elements

1. Group objects to be stretched.
2. Define a “master” element if different from the defaulted “master”.
3. Click appropriate button on the **Tools** toolbar to stretch objects.



Group of Form Elements  
Box defined as "master"



Group of Form Elements  
Stretched Right



When performing resizing and stretching operations to groups that contain circles, it is important to note that circles are measured in terms of radius rather than width and/or height. Therefore, by increasing the width or stretching larger (as in the above example) the overall circle size will be increased by a greater amount than non-circles.

## Applying Color to a Group of Elements

Color changes can be applied to a group of elements in various ways. Special tools have been included to specify the type of coloration to be applied to a group of elements.



### Changing Border Color

Border color will affect lines of all directions along with box, circle and path borders within a group. It will also affect diagonal lines within boxes and circles, as well as shadings within boxes, circles and closed paths.

#### ❖ To change line/border color

1. Group objects.
2. Click the **Border Color** button on the **Grouping** toolbar.
3. Select appropriate color.



### Fill Color

Fill color will affect boxes, circles and paths fill color within the group.

#### ❖ To change fill color

1. Group objects
2. Click the **Fill Color** button on the **Grouping** toolbar.
3. Select appropriate color.



### Text Color

Text color will affect text within the group.

#### ❖ To change text color

1. Group objects
2. Click the **Text Color** button on the **Grouping** toolbar.
3. Select appropriate color.



---

Available colors are dependent on whether the form has been defined as monochrome, highlight color or full color.

---



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# Working with Text

**P**roform Designer has an extensive text editor that allows you to enter and manipulate text much as you would in a word processor. The text cursor is represented by an upper and lower bracket that encases the area where text is being entered.

The text editor allows text to be quickly placed onto forms. Text boxes can be drawn for insertion of text or Proform Designer will automatically create a block for text insertion. Formatting of text is done on a text block basis and through the text editor allowing character by character formatting. Advanced text functions include justification, spell checking, search and replace, and font changes on a character by character basis.

Proform Designer can import and export ASCII text (.TXT), Rich Text Format (.RTF) and Microsoft Word Documents (.DOCX). This allows users to transfer large amounts of text to and from Proform Designer with little effort and without losing all formatting when using .RTF format.

Text from the Windows Clipboard is also available to be pasted into Proform Designer allowing users to copy/cut text from other Windows applications.

## Text Placement

In order to place text onto a form, a text block must first be defined. There are two ways to create a text block. Each method creates a different type of text block.



### ❖ To create a text block

1. Click the **Text Draw** button on the **Drawing** toolbar to enable text mode.
2. Click the left mouse button where a text block should be drawn.
3. Type the desired text when the cursor appears.



.....

This method should be used when entering titles or short lines of text. There will be no column width associated with these text blocks. Text will not automatically word wrap.

.....

### ❖ To draw a text block

1. Click **Text Draw** on the **Drawing** toolbar to enable text mode.
2. Click the left mouse button and drag to draw a rectangular text block.
3. Type the desired text when cursor appears.



This method should be used when entering a paragraph of text. It will create a columnar block of text that will be the column width of the block drawn. As a result, text will word wrap at the end of each line accordingly.



X/Y location is indicated on the ribbon bar location at the bottom of the screen to assist in placing elements in the desired location. More precise size and positioning can be accomplished in the **Size and Position** tab of the **Text Properties** window.

## Selecting Text Blocks



In order to manipulate a text block, it must first be selected.

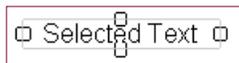
It is often difficult to tell if you are positioned properly over a particular form element. Proform Designer's cursor will change to indicate proper positioning. The various cursor shapes indicate the type of element that the cursor is positioned over.

### ❖ To select a text block

1. From the **Drawing** toolbar, click **Select Mode**.
2. Position your mouse over the text block to be selected and click the left mouse key.



*Selected text blocks will be displayed with selection handles. To select overlapping objects, it may be necessary to de-select all objects prior to making selection.*



Selected Text

## Moving/Copying Text Blocks



### ❖ To move using the mouse

1. Select the text block(s) to be moved.
2. Position the mouse over the element(s) and drag element(s) to a new location.



### ❖ To copy using the mouse

1. Select the text block(s) to be copied.
2. Position the mouse over the element(s) and drag element(s) to a new location while holding down the <CTRL> key.

### ❖ To move using the keyboard (grid stepping)

1. Select the text block(s) to be moved.
2. Hold the <SHIFT> key in combination with the arrow key representing the direction in which to move.

### ❖ To position element through the Properties window

1. Select the text block.
2. Select **Text** from the **Format** menu or click the right mouse button and select **Format** from the context menu.
3. From the **Size and Position** tab of the **Properties** window use the spin arrow to specify position (X and Y coordinate) or type values in the respective edit boxes.



The current unit of measure is shown in the **Unit** drop-down. Units of measure available are grids, inches, centimeters and dots.

## Resizing Text Blocks

When resizing width, column width specification will be changed causing text to word-wrap to new column width. When resizing vertically, line spacing will change to accommodate new text box size.



### ❖ To resize using the mouse

1. Select a text block to be resized.
2. Position the mouse pointer over a resize handle and drag to new size.



When resizing text blocks, corner handles resize both width and height proportionally. Center handles resize width or height respectively.

---

❖ **To resize using the keyboard (grid stepping)**

1. Select the text block to be resized.
2. Hold the <CTRL> key in combination with the arrow key representing the direction in which to resize.

❖ **To define grid step interval (for moving and resizing)**

1. Select **Preferences** from the **Edit** menu.
2. Open the **Design** tab.
3. Indicate the **Keyboard Snap** by selecting the appropriate radio button (Pixel, 1/4 grid, 1/2 grid or full grid).



Stepping can be used when fine movement or resizing is difficult to achieve through mouse movements. Moving an element to an exact X and Y coordinate or defining a specific element size is available in the **Size and Position** tab of the drawing element's respective **Properties** window.

---

❖ **To resize through the properties window**

1. Select the text block to be resized.
2. Select **Text** from the **Format** menu.
3. From the **Size and Position** tab, specify width and height values to resize text block.

## Text Block Formatting

Several attributes can be defined for text blocks.



Several text formatting options are available to a group of elements. These options are similar to those found when formatting individual text blocks. The group formatting tool allows universal formatting of multiple text blocks simultaneously. The pointer will identify attributes that can be applied to a group of elements.

### Text Direction

Proform Designer supports both horizontal and vertical text. Horizontal text reads left to right, while vertical text reads top to bottom, placing characters below the previous. Text can also be made to flow from right to left. This feature is intended for use with Arabic fonts, and will be enabled as a default if Arabic is defined as the language when starting up Proform. However, the option is always available, and any font can be made to flow from right to left if desired.



This attribute can be applied to a group of text blocks.

#### ❖ To orient text vertically or horizontally

1. Select text block.
2. Select **Text** from the **Format** menu, or right click and choose **Format Text** from the context menu.
3. From the **General** tab, select the desired text direction (vertical or horizontal).



Text Direction section of the Properties window

#### ❖ To orient a group of text blocks vertically or horizontally

1. Group text.
2. Select **Group** from the **Format** menu, or right click and choose **Format Text** from the context menu.
3. From the **Text and Images** tab, select the desired text direction (vertical or horizontal).



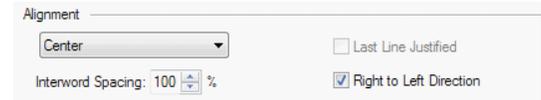
When editing vertical text, text will appear horizontally.



Text can also be rotated by angle. Please see Rotate/Flip Images on page 168 for additional information.

### ❖ To enable text flow from right to left

1. Select that text to be edited and right click the selection.
2. Choose **Format Text** from the context menu.
3. The **Text Properties** window will appear. Access the **General** tab.
4. Enable the **Right to Left Direction** check box.
5. Click **OK** to save this specification and return to the form.



### Font Selection

When working with text blocks, font changes applied will affect the entire block of text.



This attribute can be applied to a group of text blocks.

### ❖ To select text block font

1. Select text block(s).
  2. Choose font typeface and point size from the **Text Format** toolbar as follows:
    - Choose typeface from the **Typeface** drop-down.
    - Choose point size from the **Point Size** drop-down.
- <OR>
- Press <ALT>< F10> keys together to make font selection from the typefaces and point sizes listed.



More detailed font information can be found in the Text Editing section of this chapter.

### Underline, Bold and Italic Styles

When working with text blocks, all style changes applied will affect the entire block of text. To apply style changes on a character-by-character basis, please refer to Text Editing later in this chapter.

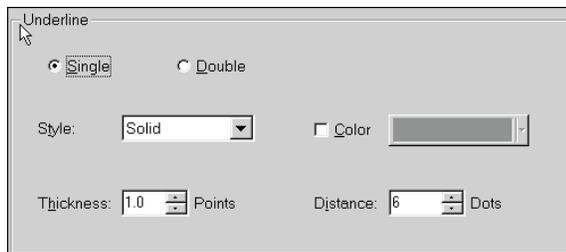
Icon	Style
	Underline
	Bold
	Italic

### ❖ To apply character styles

1. Select a text block to be modified.
2. Click **Bold**, **Underline** and/or **Italic** as desired.

## Underline Style

There is one underline style associated with each text block. If more than one style is required in a single text block, the block must be broken into multiple text blocks as described on page 142.



Underline Style tab of the Text Properties window.

### ❖ To define underline style

1. Select the text block to be formatted.
2. Select **Text** from the **Format** menu.
3. From the **Underline Style** tab of the **Properties** window:
  - Click **Single** or **Double** to choose underline type.
  - Choose style (**solid**, **broken**, **dotted**) from **Style** drop-down.
  - Define underline thickness (**0-14**, **hairline**) using the spin arrows.
  - Choose underline color from **Color** drop-down.
  - Use arrow keys to specify **Distance** value of underline below text baseline.



## Text Color

When working with text blocks, color changes will affect the entire block of text.



This attribute can also be applied to a group of text blocks.

### ❖ To change the text color

1. Select text block(s).
2. Click the **Palette button** on the **Format** toolbar to select text color or select **Font** from the **Format** menu to choose color.



## Bullets

Bullets can be applied to text blocks by selecting the Bullet button.

### ❖ To apply bullets to text and edit bullet styles

1. Select the desired text block.
2. Click on the bullet button to enable bullets at each carriage return within the text block.
3. Right click and choose **Bullets** from the context menu to access options for other types of bullets.  
Select a different bullet type if desired.

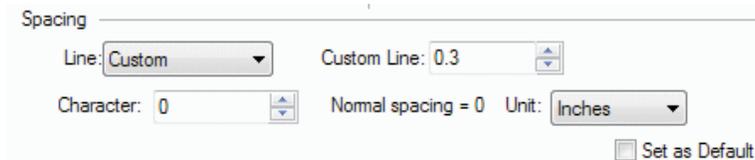
### ❖ To define default bullet settings

1. Access the Preferences menu by selecting **Edit > Preferences** from the top menu bar within VisionDP.
2. Click on the **Bullet Definitions** tab within the **Preferences** menu.
3. Select the radio button below the icon that you wish to be the default bullet character.

## Text Block Spacing

### Line Spacing

Predefined line spacing options include single, 1.5 and double line spacing. The **Custom** option allows other line spacings to be defined in the **Custom Line** edit box.



Spacing section of the General tab of the Text Properties window.

#### ❖ To define line spacing

1. Select text to be formatted.
2. Select **Text** from the **Format** menu, or right click and choose **Format Text** from the context menu.
3. From the **General** tab of the **Properties** window, choose line spacing from the **Line** drop-down.

### Character Spacing

Character spacing controls the width of each character. By defining a character spacing, proportionally spaced fonts will appear fixed pitch.

#### ❖ To define character spacing

1. Select text to be formatted.
2. Select **Text** from the **Format** menu, or right click and choose **Format Text** from the context menu..
3. From the **General** tab of the **Properties** window, specify character spacing (pitch) using the spin arrows or by typing in the **Character** edit box.



The value shown in the **Custom** and **Character** fields are represented in the unit selected in the **Unit** drop-down.

## Alignment

There are seven different alignment options available depending on text direction. The alignment affects the entire text box formatted.

Icon	Alignment
	Left Align Text
	Center Align Text
	Right Align Text
	Justify Text
	Top Align Vertical Text
	Bottom Align Vertical Text
	Center Align Vertical Text



This attribute can be applied to a group of text blocks.

### ❖ To define alignment

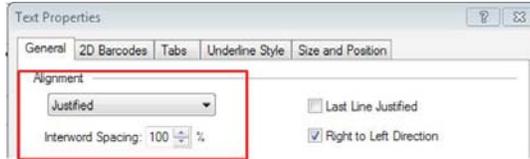
1. Select text block(s).
2. Click appropriate alignment button on the **Text Format** toolbar to apply justification style.

## Interword Spacing

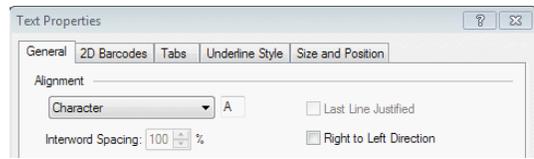
If working with justified text, there is an additional option to modify the width of the space in between the characters in order to adjust the number of words that will fit on each line.

### ❖ To modify text interword spacing

1. Select the text block containing the justified text.
2. Right click, and select **Format Text** from the context menu.
3. Access the **General** tab of the **Text Properties** window.
4. Make sure that the text alignment is set as **Justified**. Select a percentage value for the interword spacing. This is a percentage of the normal interword spacing. To make the spacing smaller, select a number that is less than 100%.



Interword Spacing



Alignment to Character

## Alignment to Character

Characters within a text box can be vertically aligned to the first occurrence of a user-defined character. The characters in each line of text thereafter will line up, forming columns depending on the occurrence of the user defined character to be aligned to.

### ❖ To enable character alignment

1. Right click the text to be aligned and select **Format Text** from the context menu.
2. Access the **General** tab of the **Text Properties** window.
3. Select **Character** from the **Alignment** drop-down menu.
4. Define the single character that will be used for alignment. A period is commonly used to align a column of numbers.
5. Click **OK** to apply the alignment and return to the form.

## Attach to Box/Circle

Text blocks can be attached to boxes and circles. By attaching text to a box or circle, the user simplifies later form modifications. The text block will remain attached during moving and resizing operations. The text cannot be moved out of the box or circle unless it is detached first.



.....  
 This attribute can be applied to a group of text blocks.  
 .....



### ❖ To attach/detach text

1. Select text block.
2. Click **Attach to Box/Circle** on the **Text Format** toolbar to toggle between attached and detached.

## Attach to Artificial Box

Designer is able to automatically create an artificial box to which text, data, or an image can be tied.

### ❖ To tie to an artificial box

1. Select the form element, either text, data or an image, that will be attached to the artificial box.
2. Right click the form element, and select **Format Text**, **Format Data**, or **Format Image** from the context menu.
3. Access the **General** tab of the **Properties** window.
4. Enable the **Attach to Box/Circle** check box.
5. A pop-up box will appear, asking if a box should be created. Click **Yes**.
6. Click **OK**.

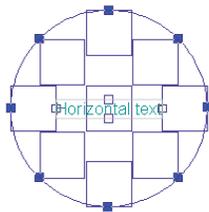
## Positioning Text in Boxes/Circles

Text can be positioned in boxes and circles once they have been attached. The same procedure can be used for repositioning text.

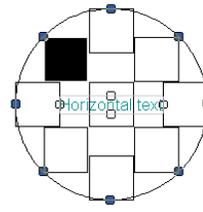


### ❖ To position text in box/circle

1. Select element.
2. Click **Position in Box/Circle** on the **Text Format** toolbar.
3. A matrix will appear showing the nine locations available for positioning.
4. Click the mouse pointer within one of the nine boxes to select a location.



Positioning Matrix for a circle



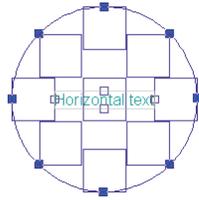
Selected position within Matrix



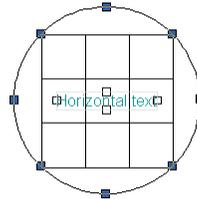
There are nine positions available for positioning: Top-Left, Top-Center, Top-Right, Center-Left, Center-Center, Center-Right, Bottom-Left, Bottom-Center and Bottom-Right.

## Positioning Margins

When positioning within circles, or rounded corner boxes, there are two different types of margins available: squared and rounded.



Positioning Matrix with Rounded Margins



Positioning Matrix with Squared Margins



### ❖ To select positioning margin

- Click **Toggle Text Margins** on the **Text Format** toolbar to toggle between squared and rounded margins.

## Attach Element to Center Page

If there is no box defined, an element can be tied to the center of a page.

### ❖ To attach element to center of page

1. Select the element that will be attached to the center of the page.
2. Go to the **Text Format** toolbar and click the **Attach to Box/Circle** button, or go to the **Format** menu and choose **Tie Object**.

## Breaking Text Blocks

Certain text attributes can only be applied to an entire text block; for example: underlining style, column width, text direction, justification, etc. There are times in which multiple attributes need to be applied to different sections of a text block. In these cases, it is necessary to break a text block into multiple text blocks.

### ❖ To break a text block

1. Double click the text block to open the text block.
2. Highlight the text to be removed from the text block.
3. Click **Cut to Clipboard** from the **Standard** toolbar to remove the text.
4. Click **Text Mode** from the **Drawing** toolbar to invoke text mode.
5. Click left mouse button and drag to draw text region.
6. Click **Paste from Clipboard** from the **Standard** toolbar to paste text.



## Default Text Setting

The default setting is available to set the default attributes of text blocks. There is a default set of attributes for each form element. For text this includes alignment, text direction, spacing, attached status, etc. Setting default text attributes causes future text blocks to have these default attributes.

Set as Default

### ❖ To set attribute defaults

1. **Select Text** from the **Format** menu or click the right mouse key and select **Format** from the context menu.
2. From the **General** tab of the **Text Properties** window, select the desired attributes and check the **Set as Default** button.

## Text Flow

Static or conditional text can be made to flow from one text block to another when the amount of text exceeds the dimensions of the frame in which it is located. Text flow can be implemented before or after a text block has been filled to capacity, but it must first contain some amount of text. Use the **Create New Frame** button, located on the **Data View** toolbar, to define additional, linked frames.

Frames will be linked in sequential order, based off of the frame that is selected when the new linked frame is created. If the original frame is selected, the next box will be numbered 1. If a second linked frame is created, but the original box is still selected, the second box will be numbered 1, and the previous box will be bumped to number 2.

However, if the first linked frame is selected when the second frame is created, the new frame will be numbered 2, and the first one will retain its position as frame 1. This convention makes it possible to easily insert frames into the flow order without having to rearrange what is currently on the page.

### ❖ To apply text flow

1. Select a text box containing text that exceeds the dimension of the frame.
2. Click the **Create New Frame** button.
3. Click the left mouse button to drag a new frame onto the page of the desired proportions.
4. Overflow text will flow into this new frame.
5. Define as many frames as necessary to accommodate and shape the text.



Text contained within linked text boxes can only be edited from the original box. All linked text boxes will appear with a number on the upper left corner. This number denotes which place the box holds in the order of linking. This number will be displayed when the original box is selected.

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# Text Editing

## Editing Text

Text editing can occur from within the text editor. This includes the ability to insert and/or remove characters.

### ❖ To open the editor and edit text

1. Double click on the text block to be modified to invoke the text editor.
2. A cursor will appear to indicate edit mode. Scroll through the text using the keyboard or mouse as necessary to make modifications.
3. Edit text as desired.



There are two edit modes: **Insert** and **Overtyp**e. To invoke **Insert** mode, press the <INSERT> key. Edit mode will be indicated on the far right corner of the ribbon bar located at the bottom of the screen by the **OVR** symbol.

### Edit Commands to scroll through Text (Keyboard)

Command	Keystroke
Scroll up or down a line, or left or right one character	Up, Down, Left and Right arrow keys
Position at the beginning of the current line	<HOME>
Position at the beginning of a text block	<CTRL-PAGEUP>
Position at the end of a text block	<CTRL-PAGEDOWN>
Position on the previous word.	<CTRL-Left Arrow Key>
Position on the next word	<CTRL-Right Arrow Key>

# Text Formatting

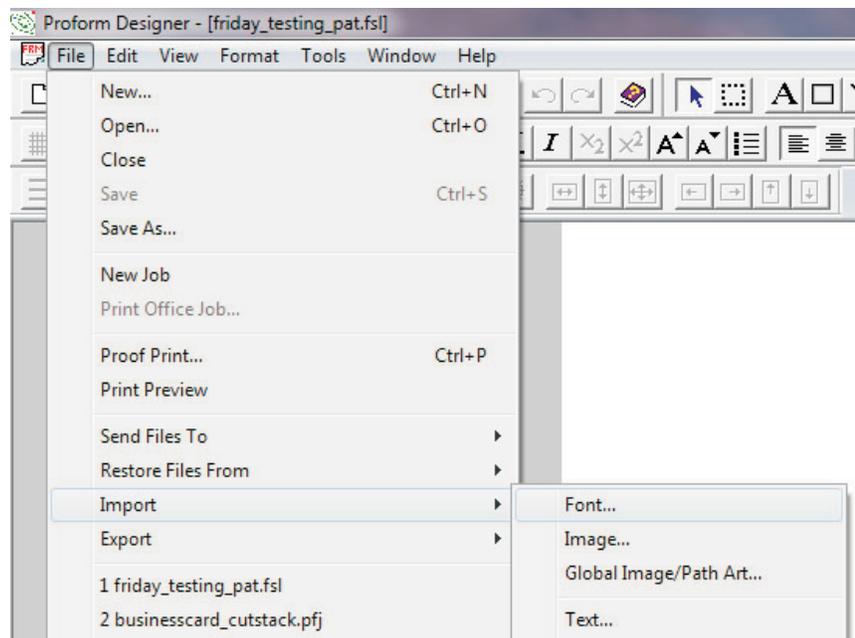
## Working with Fonts

Proform Designer can be used to create bitmapped fonts from scalable typefaces. This will provide an easy and quick expansion to your printer font libraries. Windows TrueType scalable fonts are available for use within Proform Designer.

A bitmap font created from a scalable font in Proform Designer is of high enough quality to not require character cells to be edited (e.g. cleaned up). This depends on the quality of the scalable font, size of the created bitmap font (smaller fonts have less quality), and style and appearance attributes applied to the font. Lytro Software does have a more complete font tool, BitCopy, which provides such editing if necessary. From within the text editor, font changes can be made on a character by character basis.

## Importing Fonts

Existing bitmap fonts can be imported for use within Proform Designer. An imported font will automatically be added to the resource set. The imported font will also be set as the current font in the font list.



### ❖ To import a font

1. Select **Import** from the **File** menu.
2. Select **Font** from the **Import** menu.
3. An open window will appear allowing file selection. Use the **Files of Type** drop-down to choose the desired file type.
4. Select the file to be imported and click **Open**.
5. The **Font** drop-down list will now reflect the newly imported font as the current font.

### Font Selection

The font selection list of the Text Format toolbar will contain a list with access to Windows TrueType, OpenType, PostScript fonts, any bitmap fonts which have been imported, and the fonts that are being used in the active form.

TrueType and imported bitmap fonts can be distinguished in the list by the symbols to the left of the font name.

 "TT graphic" = Windows TrueType font

 "printer graphic" = Local Printer fonts

 "PS graphic" = PostScript fonts

 "OT graphic" = OpenType fonts



Bitmap fonts that are imported will not have a symbol to the left of the font name.

---

Imported fonts may be listed by the font's file name or a family name, as specified in the resource set. Allowing a group of fonts to be listed based on a family name decreases the length of the Typeface list, making it easier to locate fonts. Choosing a font's family name will display all of the available point sizes in the Point Size drop-down menu.



❖ To make a font selection from the toolbar

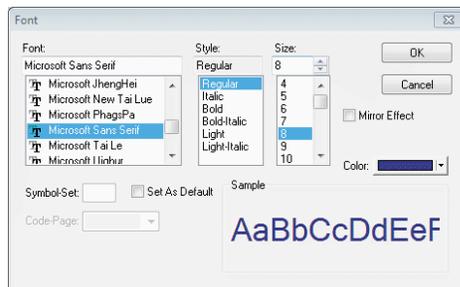
1. Double click on text block to be modified to invoke the text editor.
2. Cursor will appear to indicate edit mode.
3. Using the mouse, highlight the character(s) to be modified.
4. Choose font typeface and point size from the **Text Format** toolbar as follows:
  - Choose typeface from the **Typeface** drop-down.
  - Choose point size from the **Point Size** drop-down.

<OR>

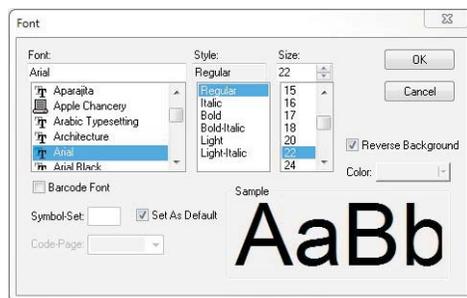
- Press <ALT>< F10> keys together to make font selection from the typefaces and point sizes listed.

❖ To make a font selection from the Format Font window

1. Select **Font** from the **Format** menu.
2. Select **Font**, **Style** and **Point Size** from the respective drop-down lists.



If you are designing forms for a metacode, PCL or XES output driver, there will be an additional option in this window: Reverse Background. Enabling the Reverse Background check box will create a bitmap font made up of white characters on a solid, black background.



## Restrict TrueType Fonts

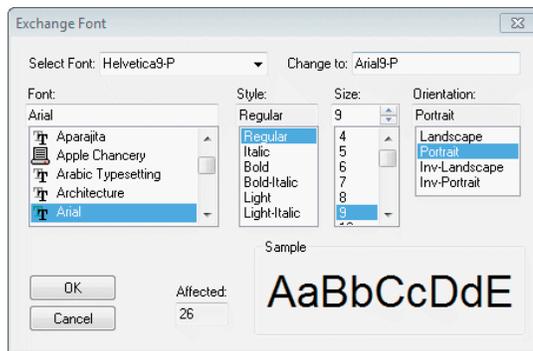
Any TrueType fonts used in a form are converted to the appropriate bitmap font on output. If there is no desire to use TrueType fonts, they can be removed from the font list so that they are not used accidentally. This is done by enabling the **Restrict TrueType Fonts** check box in the **Preferences** window.

### ❖ To set restrict truetype flag

1. Select **Preferences** from the **Edit** menu.
2. From the **Systems** tab, check the **Restrict TrueType Fonts** check box.

## Font Exchange

The font exchange tool allows users to quickly change the font of multiple text blocks in a form. It allows a font substitution of a particular font for another font. For example, in a document in which Arial-12 was used, Tahoma-17 Portrait can be substituted for Arial-12 Portrait. All text referencing Arial-12 would then change to Tahoma-17.



### ❖ To exchange fonts

1. Select **Font Exchange** from the **Tools** menu.
2. Select the font to be exchanged in the **Select Font** drop-down.
3. Choose new font **typeface**, **size**, **style** and **orientation** from the corresponding menus. The font chosen from these menus will now be reflected in the **Change To** edit box.
4. Click **OK** to accept font exchange operation.



The orientation change will only occur if the font being exchanged is the only font used in the text.

## Underlining, Bolding and Italicizing

From within the text editor, style changes can be made on a character-by-character basis. The style changes available include underline, bold and italic.

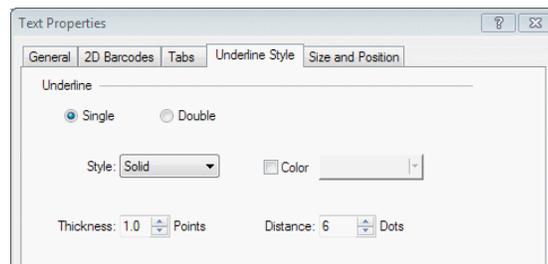
Icon	Style
	Underline
	Bold
	Italic

### ❖ To make a style change

1. Double-click on text block to be modified to invoke the text editor.
2. Cursor will appear to indicate edit mode.
3. Select character(s) to be modified.
4. Click **Bold**, **Underline** and/or **Italic** as desired.

## Underline Style

There is one underline style associated with each text block. If more than one style is required in a single text block, the block must be broken into multiple text blocks as described in detail on page 142. Underline style is further discussed on page 135.



Underline Style tab of the Text Properties window.

## Subscript and Superscript

Subscript or superscript can be applied to text on an individual character basis.



### ❖ To apply subscript or superscript

1. Highlight the character(s) to which you will apply the formatting.
2. Click either the **subscript** or **superscript** button from the **Text Format** toolbar.



## Text Color

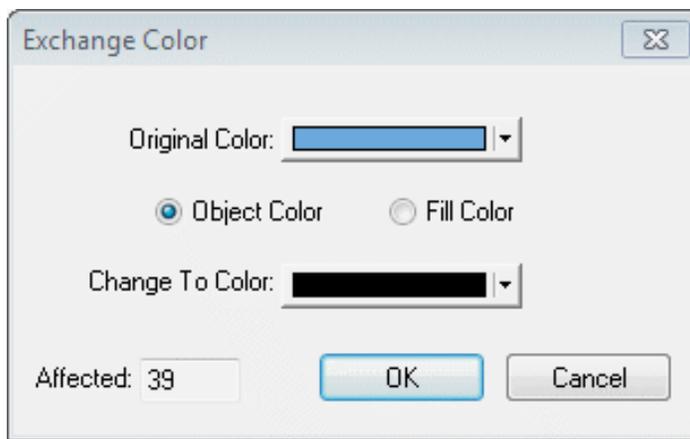
Within the text editor, color changes can be made on a character by character basis.

### ❖ To change the text color

1. Double-click on text block to be modified to invoke the text editor.
2. The cursor will appear to indicate edit mode.
3. Select character(s) to be modified.
4. Click **Palette** on the **Format** toolbar to select text color or select **Font** from the **Format** menu to choose color.

## Color Exchange

The color exchange tool allows users to quickly change the color of multiple items in a form. It allows a color substitution of one color to another. In other words, in a form in which red was used, red can be substituted for blue. All selected items would then change to blue.



### ❖ To perform a color exchange

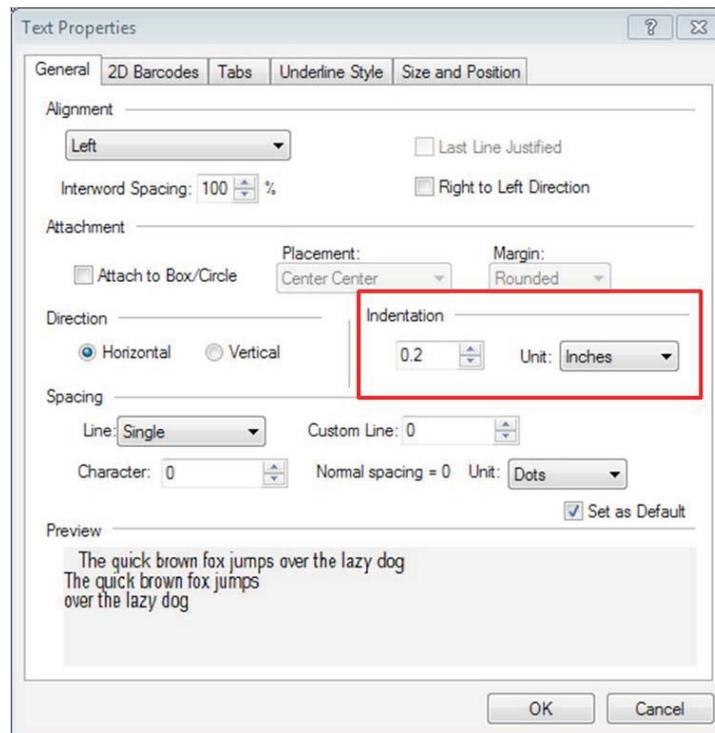
1. Select **Color Exchange** from the **Tools** menu.
2. Select the color to be exchanged in the **Original Color** drop-down.
3. Choose whether you wish to exchange the object color or fill color.
4. Select new color from the **Change To Color** drop-down.
5. Click **OK** to accept color exchange operation.

## Paragraph Indentation

Paragraph indentation may be specified for both data and text. The user may define a specific amount of indentation for the data or text block, including negative indentation.

### ❖ To define paragraph indentation

1. Right click the text to which the indent will be applied, and select **Format Text** from the context menu.
2. Access the **General** tab of the **Text Properties** window.
3. Select the unit in which the indentation will be specified from the **Unit** drop-down in the **Indentation** section of this tab.
4. Enter an indentation amount into the **Indentation** edit box. Entering a negative number will create a hanging indent.



Paragraph Indentation

## Tabbing

Designer's tabbing support allows users to define relative and absolute positioning of tabs. Absolute tabbing allows you to define different length tabs, each based upon the left margin of the text block. Relative tabs will space the sequence at even intervals, as defined in the Tab Every edit box.

### ❖ To define absolute tabs

1. Enter the string of numbers, letters or words that will be separated by tabs onto the form. Do not include spaces between the items that will be separated by tabs: this will cause the tabbing to be off.
2. Right click the text string and select **Format Text** from the context menu.
3. Access the **Tabs** tab of the **Text Properties** window.
4. Choose the tabbing unit from the **Unit** drop-down menu.
5. Enter the distance that the first tab will cover into the **Tab Stop** edit box. Click the **Add** button to add this value to the **Tab Stop** list.
6. Repeat this process to add the additional tab stop values into the list.
7. Click **OK** to save the settings and return to the form.
8. Once the tab stops are set, they must be inserted into the text string. Enable the text editor, and insert the tab stops at the appropriate locations throughout the text string.

### ❖ To define relative tabs

1. Enter the string of numbers, letters or words that will be separated by tabs onto the form. Do not include spaces between the items that will be separated by tabs: this will cause the tabbing to be off.
2. Right click the text string and select **Format Text** from the context menu.
3. Access the **Tabs** tab of the **Text Properties** window.
4. Choose the tabbing unit from the **Unit** drop-down menu.
5. Enter the tab distance into the **Tab Every** edit box.
6. Click **OK** to save the setting and return to the form.
7. Insert the tabs into the text string at the necessary locations.

## Dot Leading

Up to two dot leading sequences can be applied to a text string. Enabling dot leaders disables tabbing.

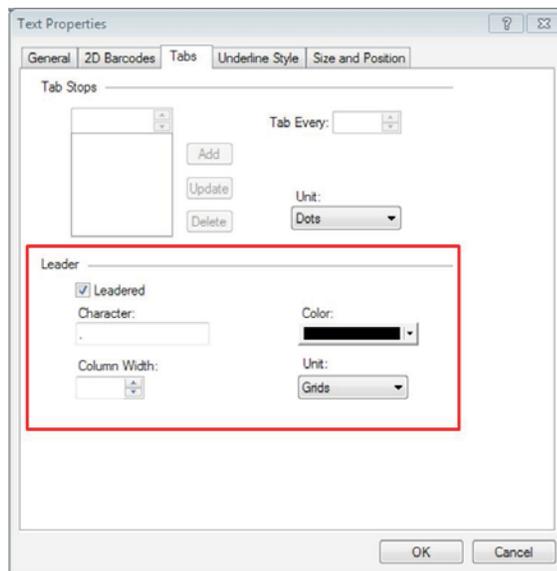


Table..... of..... Contents  
Table of contents..... pg 1

Designer supports double and single dot leading.

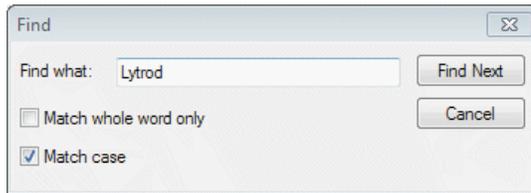
Access the **Tabs** tab from the **Text Properties** window to specify dot leading requirements.

### ❖ To define dot leading

1. Type the string of numbers, letters or words that will be separated by dot leaders onto the form. Do not include spaces between the items that will be separated by leaders: this will cause the spacing to be off.
2. Right click the text string and select **Format Text** from the context menu.
3. Access the **Tabs** tab of the **Text Properties** window.
4. Enable the **Leadered** check box.
5. Type the character(s) that will be used for the leading into the **Character** edit box.
6. Select the unit in which the column width will be defined from the **Unit** drop-down menu.
7. Enter a value into the **Column Width** edit box.
8. Choose a color from the **Color** drop-down menu.
9. Click **OK** to save the leading settings and return to the form.
10. Invoke the text editor, and insert a tab into the text sequence where the dot leading should appear. Up to two dot leaders can be inserted per one line of text.

# Find and Replace

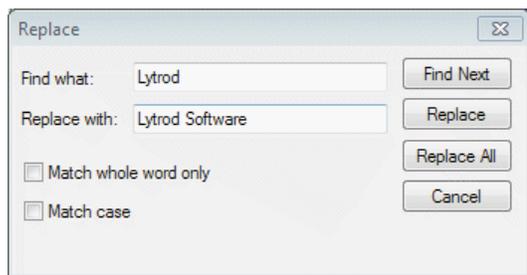
## Find Word or Phrase



### ❖ To find a specific word or phrase

1. Select **Find** from the **Edit** menu.
2. Type the word or phrase to be located in the **Find what** edit box.
3. Click the **Find Next** button.

## Find and Replace Word or Phrase



### ❖ To find and replace a specific word or phrase

1. Select **Replace** from the **Edit** menu.
2. Type the word or phrase to be replaced in the **Find what** edit box.
3. Type the replacement word or phrase in the **Replace with** edit box.
4. Click **Find Next**, **Replace**, or **Replace All** as follows:
  - **Find Next** will search for the text in the **Find what** edit box.
  - **Replace** will search for the text in the **Find what** edit box and replace upon user confirmation of each case.
  - **Replace All** will simply search for the text and replace it in all cases with the replacement text.



To cancel a search in progress, click the CANCEL button.

---

### Match Whole Word Only

To match only whole words during find and replace operations, the match whole word option must be set. If it is not set, matches will be found that contain the word even if within another word.

#### ❖ To set match whole word option

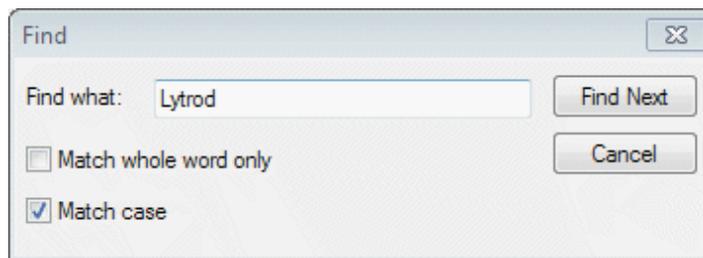
1. Select **Find** or **Replace** from the **Edit** menu.
2. Check **Match Whole Word Only**.
3. Continue with **Find** and **Replace** operation.

### Match Case

To match case during find and replace operations, the match case option must be set. If this option is not set, upper and lower case differences will be ignored during find and replace operations.

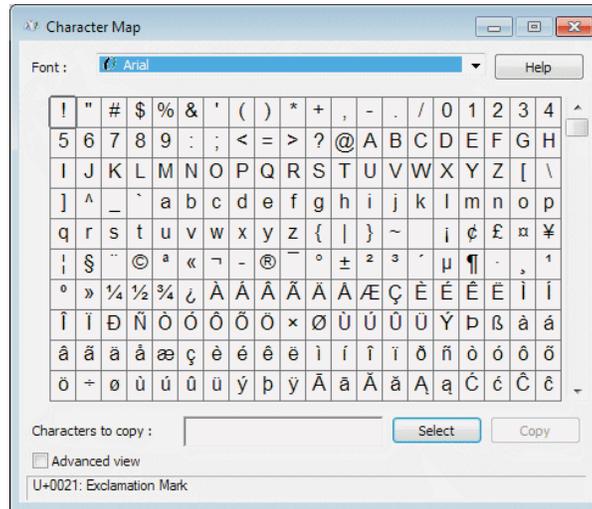
#### ❖ To set match case option

1. Select **Find** or **Replace** from the **Edit** menu.
2. Check the **Match Case** checkbox.
3. Continue with the **Find** and **Replace** operation.



## Character Map

A character map is available and allows you to quickly see which characters are in a specified font. You can insert special characters, international characters, and symbols with the help of the character map. You can also view the character code assigned to a character or symbol in the character map. That character code can later be typed out on the numeric keypad to insert the character or symbol it represents.



Designer uses the Windows tool Charmap.exe to display the character map. If this tool has not been installed, you will need to install this tool from your Windows Installation CD.

## View the Character Map

In order to insert special characters, the user must first view the character map.

### ❖ To view the character map

1. Select **Character Map** from the **Edit** menu.
2. The character map for the current font will be displayed.

## Change Font to be Viewed

### ❖ To change the font being viewed in the character map

1. Select **Character Map** from the **Edit** menu.
2. Select the font to be viewed from the **Font** drop-down menu.

## Insert Special Characters

The main purpose of the character map is to allow quick insertion of special characters and symbols.

### ❖ To insert special characters

1. Select **Character Map** from the **Edit** menu.
2. Choose font from the **Font** drop-down menu.
3. Double click character or select character(s) and press **Select**.
4. Press **Copy** to copy character(s) to the clipboard.
5. Press **Close** to close character map.
6. Select **Paste** from the **Edit** menu to paste the character(s) from the clipboard.



### ❖ To insert special character using character codes

	!	∇	#	∃	%	&	∞	(	)	*	+	,	-	.	/	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
≡	A	B	X	Δ	E	Φ	Γ	H	I	⊗	K	Λ	M	N	O	Π	⊙	P	Σ	T	Υ	ζ	Ω	Ξ	Ψ	Z	[	:	]	⊥	_
	α	β	χ	δ	ε	φ	γ	η	ι	φ	κ	λ	μ	ν	ο	π	θ	ρ	σ	τ	υ	ω	ξ	ψ	ζ	{		}	~	□	
□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
□	Υ	'	≤	/	∞	f	♣	♦	♥	♠	↔	←	↑	→	↓	°	±	"	≥	×	∝	∂	•	÷	≠	≡	≈	...		—	⌋
⌘	⌘	⌘	⌘	⊕	⊖	∩	∪	⊃	⊇	⊆	⊂	⊅	€	⊘	∠	∇	⊗	⊙	™	∏	√	.	¬	∧	∨	↔	←	↑	⇒	↓	
◇	<	⊗	⊙	™	Σ	/		∖																							

Keystroke: Alt+0173

1. Select **Character Map** from the **Edit** menu.
2. Choose font from the **Font** drop-down menu.
3. Highlight the character to be inserted.
4. Note keyboard code listed in the **Keystroke** field.
5. Press **Close** to close character map.
6. Type out keyboard code for character to be inserted; for example Alt+ 0173, on the numeric keypad.

# Importing and Exporting Text

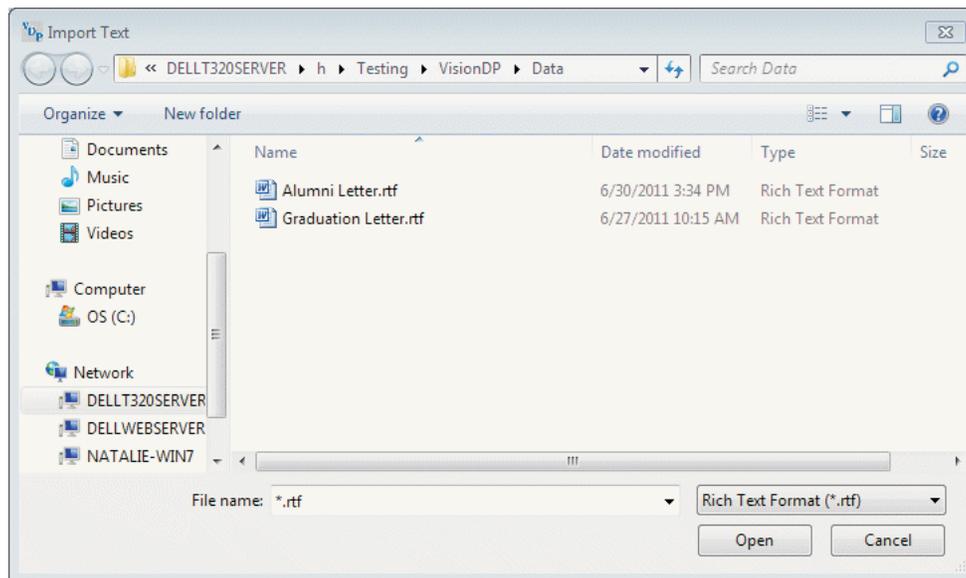
## Importing Text Files

If any formatting has been applied to text in another program, text should be imported as RTF. RTF files will maintain any formatting applied.



### ❖ To import a text file

1. Click **Import Text** from the **Drawing** toolbar.
2. To import a text file from a different folder other than the default, click a different drive in the **Look in** box, or double-click a different folder in the folder list.
3. Select the text file format of text to be imported from **Files of type** drop-down. Available formats include **.TXT** (ASCII Text), **.RTF** (Rich Text Format), and **.DOCX** (Microsoft Word Document).
4. Select the file to be imported and click **Open**.
5. Click the location on the form where text should be inserted.

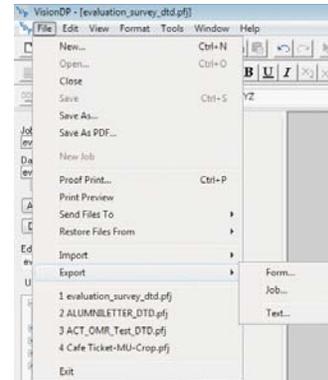


## Exporting Text Files

Text blocks can be exported from Proform Designer.

### ❖ To export a text file

1. Select the text block to be exported.
2. Select **Export** from the **File** menu.
3. Select **Text** from the **Export** menu.
4. To save the text in a different folder other than the default, click a different drive in the **Save in** box, or double-click a different folder in the folder list.
5. To save the document in a new folder, click **Create New Folder**.
6. In the **File name** box, type a file name for text.
7. Select text file format from **Files of type** drop-down. Available formats include **.TXT** (ASCII Text) and **.RTF** (Rich Text Format).
8. Click the **Save** button.



If you would like to export multiple text blocks, join blocks together and then proceed with export operation.

## Spell Checking

A spell checker is available to spell check the text on an individual form basis. It will look for spelling mistakes, capitalization errors, and duplicate words. The user can spell check an individual text block, a group of text blocks, or an entire form. If a text block(s) is not selected, the entire form will be checked when running the spell checker.



### ❖ To run the spell checker

1. Click **Correct Word Spellings** button or select **Spell Checker** from the **Tools** menu.
2. Unknown words will appear in the **Not in Dictionary** field. The user then has several options involving the unknown word. The additional options are all outlined on the following page.
3. Click the **Done** button to end spell checking.

### Change Word

1. Click the **Correct Word Spellings** button or select **Spell Checker** from the **Tools** menu.

2. The unknown word will appear in the **Not in Dictionary** field.
3. Suggested replacements will appear in the **Suggestions** list. The closest match to the unknown word will be placed in the **Change To** field.
4. Change the word to one of the suggested replacements as follows:
  - To change the word to the word in the **Change To** field, click the **Change** button.
  - To change the word to a word in the **Suggestions** list, select the word from the list so that it is defined in the **Change To** field. Click the **Change** button.
5. Change the word if not found in the suggested replace as follows:
  - Click on the **Change To** field, and type in the corrected word.
  - Click on the **Change** button.

### **Ignore Word**

1. Click **Correct Word Spellings** or select **Spell Checker** from the **Tools** menu.
2. The unknown word will appear in the **Not in Dictionary** field.
3. Suggested replacements will appear in the **Suggestions** list. The closest match to the unknown word will be placed in the **Change To** field.
4. Click the **Ignore** button to ignore the unknown word.
5. Click the **Ignore All** button to ignore the unknown word throughout the form.

### **Add Word to Dictionary**

#### **❖ To add a word to the custom dictionary**

1. Click **Correct Word Spellings** or select **Spell Checker** from the **Tools** menu.
2. The unknown word will appear in the **Not in Dictionary** field.
3. Suggested replacements will appear in the **Suggestions** list. The closest match to the unknown word will be placed in the **Change To** field.
4. Click the **Add** button to add the unknown word to the custom dictionary. The Spell Checker will continue looking for misspellings without reporting this word as misspelled again. Words in the custom dictionary can be viewed or edited by clicking the **Options** button and selecting the **Custom Dictionary** tab.

## Spell Checking Options

### Custom Dictionary

#### ❖ To use a custom dictionary

1. Click **Correct Word Spellings** or select **Spell Checker** from the **Tools** menu.
2. Click **Options** to define spell checking options.
3. From the **Spelling Options** dialog, check the **Custom Dictionary** box to activate the custom dictionary.

### Select Language Dictionary

There are ten different language dictionaries currently available, including English, French, UK-English, German, Spanish, Italian, Swedish, Danish, Dutch, and Norwegian.

#### ❖ To select a language dictionary

1. Click **Correct Word Spellings** or select **Spell Checker** from the **Tools** menu.
2. Click **Options** to define spell checking options.
3. From the **Spelling Options** tab, select **Language Dictionary** from the **Language** drop-down.

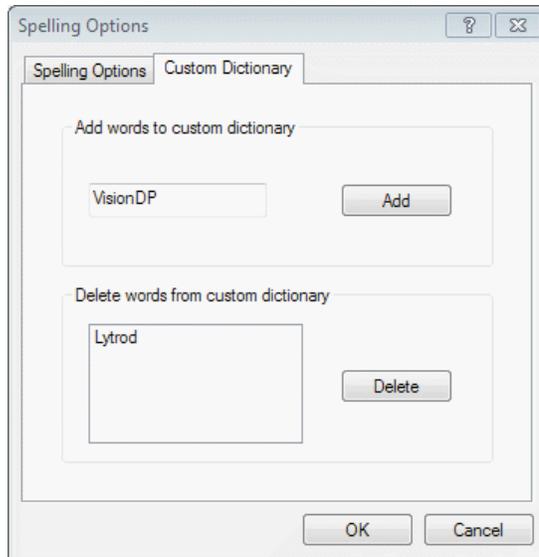
### Ignore Capitalized Words

Many words that begin with a capital letter may be names or places that are not included in a standard spelling dictionary. When using the spell checker, you have the option of bypassing all words that contain a capital letter. This optional setting will save you time in the spell checking text that contains capitalized names whose spelling can be ignored.

#### ❖ To ignore capitalized words

1. Click **Correct Word Spellings** or select **Spell Checker** from the **Tools** menu.
2. Click **Options** to define spell checking options.
3. From the **Spelling Options** tab, check **Ignore Capitalized Words** to ignore all words containing capital letters.

## Modify Custom Dictionary



### ❖ To modify custom dictionary

1. Click **Correct Word Spellings** or select **Spell Checker** from the **Tools** menu.
2. Click **Options** to define spell checking options.
3. From the **Custom Dictionary** tab, the user can add or remove words from the custom dictionary.
  - To **Add** words, type word to be added in the **Add Word** edit box and click the **Add** button.
  - To **Remove** words, select word from the dictionary list and click the **Delete** button.

## Working with Images

**P**roform Designer allows the import of most image formats. File formats supported include Zsoft PC Paintbrush (.pcx), Tagged Image File Format (.tif), JPEG (.jpg), Windows Bitmap (.bmp), Raster PDF uncompressed (.pdf), Adobe Photoshop (.psd), Portable Network Graphics (.png), TARGA (.tga), and TIFF, IOCA, and FAX either uncompressed or compressed using CCITT and having different groups and dimensions. It is also possible to import standard print-format graphics, including IBM Page Segment (.psg), Abbreviated 9700 Graphic Image Xerox Adaptive Format (.img), HP PCL 4/5 Raster Graphic (.pcl), Encapsulated PostScript image file (.eps), and Xerox XES Graphics Window (.imx). Any imported graphic will be converted to the proper print format when a form is saved. These image files are then available in the resource set as default images.

Proform Designer can import images using either RGB or CYMK color values.

### Placing Images on a Form

Images that have already been imported into the current resource set are available from the image drop-down list on the text format toolbar.



#### ❖ To use a previously imported image

1. Click **Image List** drop-down on the toolbar.
2. A list of image files in the resource set will be listed.
3. Select an image.
4. Click the location on the form where the image should be placed.

## Importing Images



Additional images can be imported while a form is open by choosing Import from the File menu. Upon importing an image, the image will automatically be added to the resource set and be displayed in the **Image List** drop-down on the toolbar.

### ❖ To import an image:

1. Click **Import Image** from the **Drawing toolbar** or select **Import** and **Image** from the **File** menu.
2. An open window will appear allowing file selection. Click the **Files of type** drop-down menu to set the file type mask.
3. Select the file to be imported and click the **Open** button.
4. Click on the location where the image should be placed.



X/Y location is indicated on the ribbon bar, located at the bottom of the screen to assist in placing elements in the correct location.



## Selecting Images

In order to manipulate an image, it must first be selected.

It is often difficult to tell if you are positioned properly over a particular form element. Proform Designer's cursor will change to indicate proper positioning. The various cursor shapes indicate the type of element that the cursor is positioned over.



### ❖ To select an image

1. From the **Drawing toolbar**, click **Select Mode**.
2. Position your mouse over the element to be selected and click the left mouse key. The cursor will change according to the current object being selected.



Selected images will be displayed with selection handles. To select overlapping objects, it may be necessary to de-select all objects prior to making selection.



## Moving/Copying Images



### ❖ To move using the mouse

1. Select the image(s) to be moved.
2. Position the mouse over the element(s) and drag element(s) to a new location.



### ❖ To copy using the mouse

1. Select the image(s) to be copied.
2. Position the mouse over the element(s) and drag element(s) to a new location while holding down the <CTRL> key.

### ❖ To position element through the properties window

1. Select the image.
2. Select **Image** from the **Format** menu or click the right mouse button and select **Format Image** from the context menu.
3. From the **Size and Position** tab of the **Properties** window, specify X and Y coordinates of the image origin (Top Left corner).



Images, like text, can be attached to a box/circle. If an image is attached it must be detached before moving. See **Attaching to Box/Circle** on page 205 for more information.



## Resizing Images

### ❖ To resize using the mouse

1. Select the image to be resized.
2. Position the mouse pointer over the appropriate handle and drag to new size.



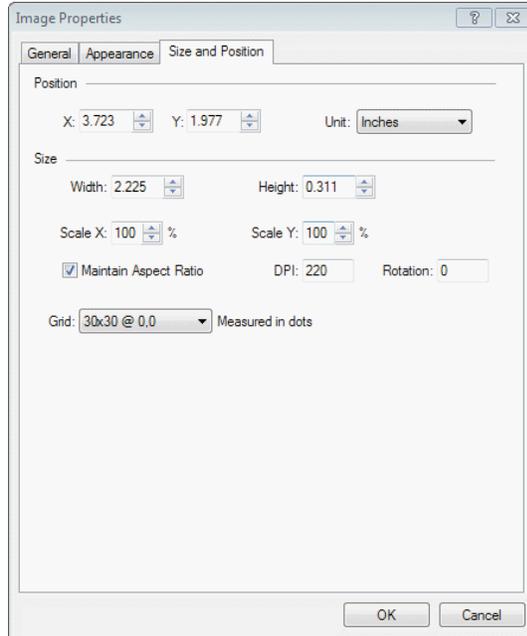
When resizing images, corner handles resize both width and height proportionally. Center handles resize width or height respectively. Holding down the **Alt** key while resizing will preserve the aspect ratio.

### ❖ To resize through the Properties window

1. Select an image.
2. Select **Image** from the **Format** menu or click the right mouse button and select **Format Image** from the context menu.
3. From the **Size and Position** tab of the **Properties** window use the arrow keys to specify width and height.

### ❖ To scale through the Properties window

1. Select an image.
2. Select **Image** from the **Format** menu or click right mouse key and select **Format Image** from the context menu.
3. From the **Size and Position** tab of the **Format** menu use the spin arrows to specify scaling percentages.
4. Check the **Maintain Aspect Ratio** box to scale proportionally.



Size and Position tab of the Properties window

## Cropping Images

After importing an image into Proform Designer, it is possible to crop it to a desired size.

### ❖ To crop an imported image

1. Right click the image and select **Format Image** from the context menu, or select **Image** from the **Format** menu in the menu bar.
2. Access the **Appearance** tab of the **Image Properties** window.
3. Select which unit you would like to use when making the crop specifications: inches, centimeters, dots or grids.
4. Enter the amount that you want to crop from each side of the image into the **Crop From Edge** fields.
5. Click **OK** to apply the crop specifications and return to the form.

## Editing Image Appearance

It is possible to modify the brightness and contrast levels, as well as to sharpen the look of an image.

### ❖ To edit the appearance of an image

1. Right click the image and select **Format Image** from the context menu, or select **Image** from the **Format** menu in the menu bar.
2. Access the **Appearance** tab of the **Image Properties** window.
3. Use the **Brightness**, **Contrast** and **Sharpen** sliders to choose new levels for the selected image, or enter a value into the field to the right of the sliders.
4. Click **OK** to apply the changes and return to the form.

## Image Borders

Image borders can be defined in the Properties window. The border will be automatically resized with the image if the image is resized.

### ❖ To define an image border

1. Select and right click the image to which the border will be applied.
2. Select **Format Image** from the context menu.
3. Access the **General** tab of the **Image Properties** window.
4. Go to the **Border** section, at the bottom of the window.
5. Define a Border **Type**, **Thickness** and **Color**.
6. Click **OK**.

## External File Option

When creating PCL/PS and XES forms, there is an option to include all resources in the form file being created. Typically, the logo/image information is embedded in the form file and an actual stand alone file is not created. To isolate a particular image for the creation of a separate image file, the external file option is available.

### ❖ To create a separate external image file

1. Select a logo/image.
2. Select **Image** from the **Format** menu.
3. Check the **Keep External File** check box in the **General** tab of the **Image Properties** window.

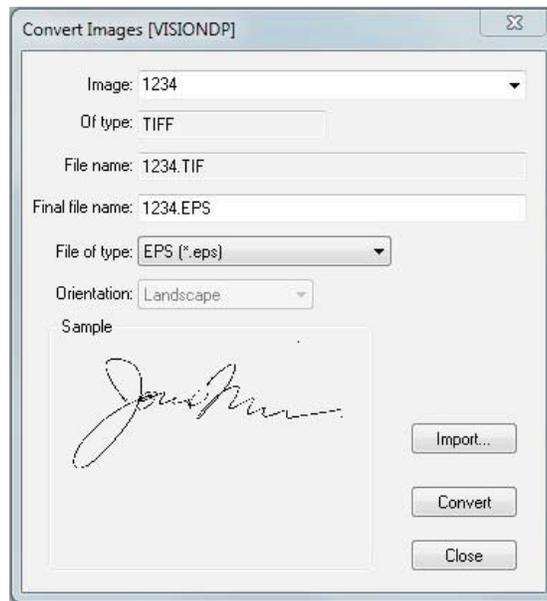


## Image File Type Conversion

The image file type can be changed through the **Convert Images** menu.

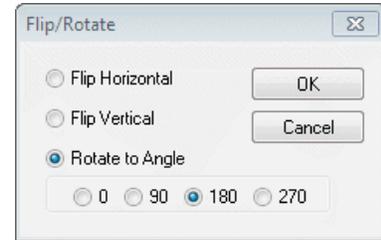
### ❖ To change the image file type

1. With no forms open, select **File>Convert>Images**.
2. Choose an image to be converted from the **Image** drop-down, or import a new image using the **Import** button.
3. The **File Name** and **Final File Name** boxes will be populated with the original image name. To change the image name, do so in the **Final File Name** box.
4. Choose the file type that the image will be converted to using the **File of Type** drop-down.
5. Click **Convert**.
6. A new image will be created based on the defined conversion settings.



## Rotate/Flip Images

Images can be rotated by any user defined angle through the image properties window, or to a pre-defined angle by using the Flip/Rotate window. Images can also be flipped horizontally or vertically.



### ❖ To rotate an image to a pre-defined angle

1. Select an image to be rotated.
2. Select **Rotate** from the **Tools** menu
3. Mark the rotation angle (0,90,180,270) radio button.



### ❖ To flip an image

1. Select image to be flipped.
2. Select **Rotate** from the **Tools** menu
3. Check appropriate flip option (horizontal/vertical).



### ❖ To rotate an image to a user-defined angle

1. Select the image that will be rotated. There are several menus from which you can rotate the image:
  - Right click the image and select **Rotate in Degrees** from the context menu.
  - Right click the image and select **Format Image** from the context menu. Access the **Appearance** tab.
  - Select **Image** from the **Format** menu in the menu bar. Access the **Appearance Tab**.
2. Enter a rotation angle into the **Rotation** field.
3. Click **OK** to apply the rotation and return to the form.

## Working with Multiple Page PDF Files

Designer supports the import of \*.pdf files as an image. A single page of the PDF must be chosen per image (or sometimes form). Once a \*.pdf file has been imported into Designer, it is possible to scroll through the pages and select the desired page. The PDF image will be placed on the form with the same dimensions as the original PDF page. Once the PDF is placed on the form it can be resized and rotated.

Designer will automatically convert \*.pdf images placed on the static form plane to \*.jpg upon output to a VI Compose job. PDF image can be placed in the background plane for view, but not print. PDF images must be converted to \*.tif, \*.jpg, \*.eps prior to import onto the form page if they are to be referenced as a data-driven concatenated image or conditional image.

### ❖ To import a PDF

1. Go to the **Drawing** toolbar and click the **Import Image** button.
2. Choose a PDF file and click **Open**.
3. Left mouse click on the form to place the PDF image. The first page of the PDF will display.

### ❖ To choose a page in the imported PDF image

1. Select a PDF image placed on the form.
2. Right-click and choose **Change Page** from the context menu. The **Extract Image from Multiple Pages** window will appear. It will display the name of the PDF file and the current page number.
3. The **Previous Image** and the **Next Image** buttons can be used to move backward and forward through the pages of the PDF. Or, key in the page number of the PDF in the **Image Number** prompt.
4. After choosing the desired page, click **Close** to close the window. The PDF page selected display on the form.



Multi-page PDFs can be directly imported in a VI job and automatically split into separate form source files (\*.FSL). Refer to **Chapter 8: Creating Jobs and Saving to VI Compose**.

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## Working with Logos

A logo is essentially an image that is stored in a font format. The image is broken into tiles, one tile per character cell, which are used to rebuild the image. Most printers restrict the dimensions of a logo and require that they are only one color. For this reason, the logo format is most appropriate for small, simple images, such as company logos. There are several benefits to the logo format when an image fits this criterion.

Once imported, logo files are handled just as any other image, including the ability to resize and scale. There are several output options based on image size, printer capabilities and the resource set default settings. Images within the logo size limits can be saved as a logo or an image. This is determined by the logo specifications in the resource set.

Some Xerox printers require additional hardware in order to print images. If the selected printer does support the IMG format, images (that meet the logo specifications) can be created as an LGO or IMG. If the IMG format is not supported, images exceeding LGO limits must be saved in the FNT format.

### ❖ To enable logo specification

1. Close all forms.
2. Select **Resource Set** from the **Edit** menu.
3. From the **Images** tab of the **Resource Set** menu, select the desired image.
4. Select **Logo** in the **Convert To** drop-down box.
5. Click the **Yes** button in the **Convert Image to Logo** window.
6. Define the parameters of the logo file.  
Click the **OK** button to accept.



Define Logo Parameters



Once an image has been defined as a logo, the **Properties** window will be labeled **Logo Properties** when working with that logo.

## Color Logos

One advantage to saving an image in logo format is the ability to colorize a logo within a form. When color is applied while designing the form, all colors in the logo are converted to the selected color. For this reason, this is best done with solid logos.

### ❖ To colorize a logo

1. Select image.
2. Select **Image** from the **Format** menu or click right mouse button and select **Format Image** from the context menu.
3. From the **General** tab of the **Properties** window, select the desired color from the **Color** drop-down menu.



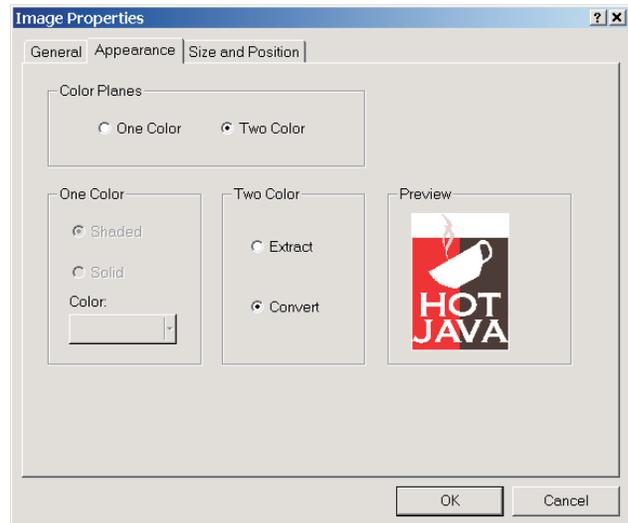
Xerox HighLight Color printers allow for more options when colorizing logos, including support for two-color logos. Please see HighLight Color Images and Logos in this chapter.

## HighLight Color Images

Xerox HighLight Color printers provide support for one color and two color images. One color images are Xerox HighLight Color images comprised of only the HighLight Color or black. Two color Images are Xerox HighLight Color images comprised of a combination of two colors, the HighLight Color and black.

### ❖ To define highlight color images

1. Select image.
2. Select **Image** from the **Format** menu or click the right mouse button and select **Format Image** from the context menu.
3. From the **Appearance** tab of the **Properties** window, select **One-Color** or **Two-Color**.



Additional options in the menu will become available based on this selection.

### ❖ To define one color options

When one color is selected, select the desired color from the **Appearance** drop-down. Additional options include:

- **Shaded** – Images are dithered to create a shading affect. This makes the image appear to use more than one shade of the selected color.
- **Solid** – All colors in the image are converted to the selected color creating a solid, not shaded, affect.

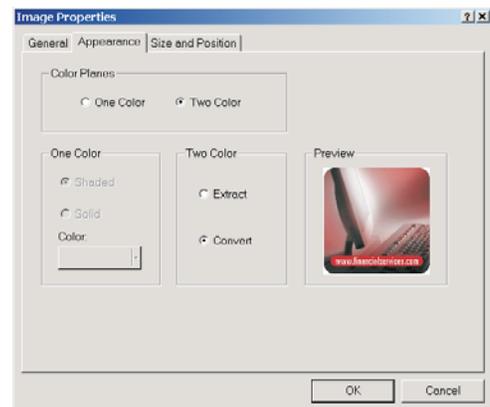


One-color Options in Appearances tab of Image Properties window

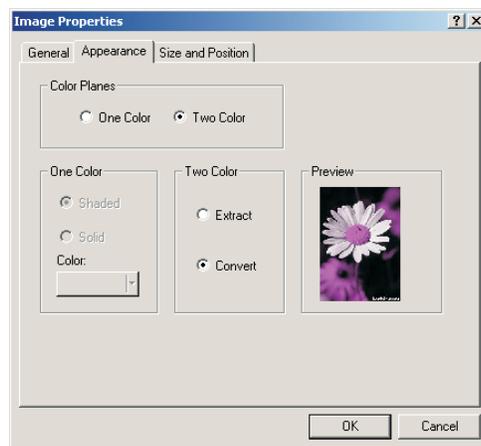
### ❖ To define two-color options

When two color is selected, options include:

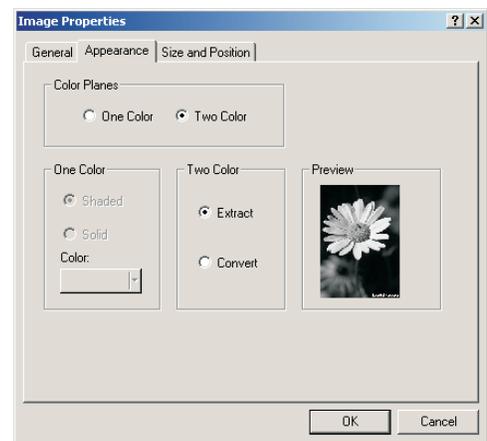
- **Extract** – The dominant color in the image is converted to the HighLight color. All other colors are converted to shades of gray.
- **Convert** – All colors in the image are converted to the HighLight color. Black and shades of gray are maintained.



Two-color Options in Appearance tab of Image Properties window



Convert Color



Extract Color

## Working with Background Images

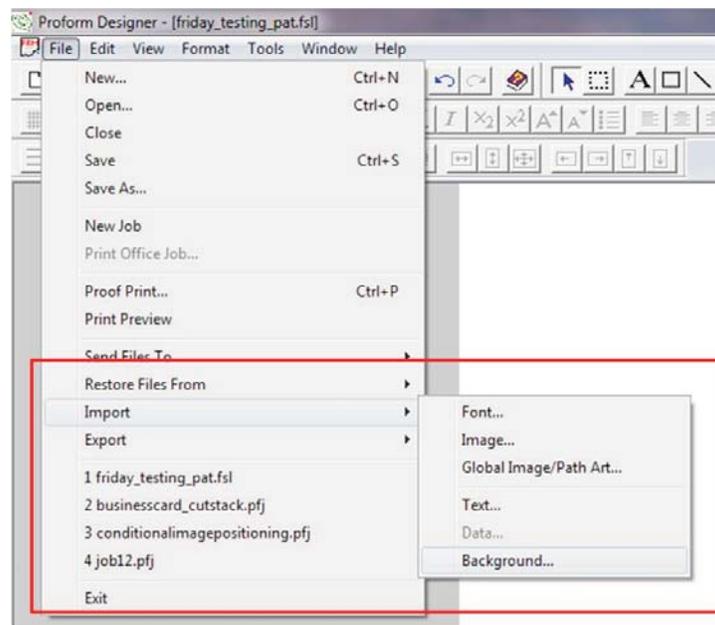
Backgrounds can be imported into Designer to be used as visual aid in the design process. Many times the background images will represent preprinted stock, and will only be viewed on screen and not printed. However, the option always exists to define a background printing image as well, to be printed with the final application. Designer has the ability to import backgrounds from other design packages, such as Quark, PageMaker, InDesign, etc.

### Importing Background Images

Images can either be set to the background plane or initially imported as a background.

#### ❖ To import a background image file

1. Create a new form or open an existing form
2. In the **File** menu, go to **Import** and then select **Background**.
3. In the **Images** directory, choose the appropriate image file to set as a background and click the **Open** button to accept.
4. The image will appear on the form at the origin point (top left).



Import Background Image window Dig-Imp2.eps printing image called

## Setting an Image to the Background Plane

Images already placed on the form can be set to the background plane.

### ❖ To set an image as a background

1. Select the image that is to be added to the background plane.
2. Right-click the mouse and select **Background Plane**.

## Editing Background Images

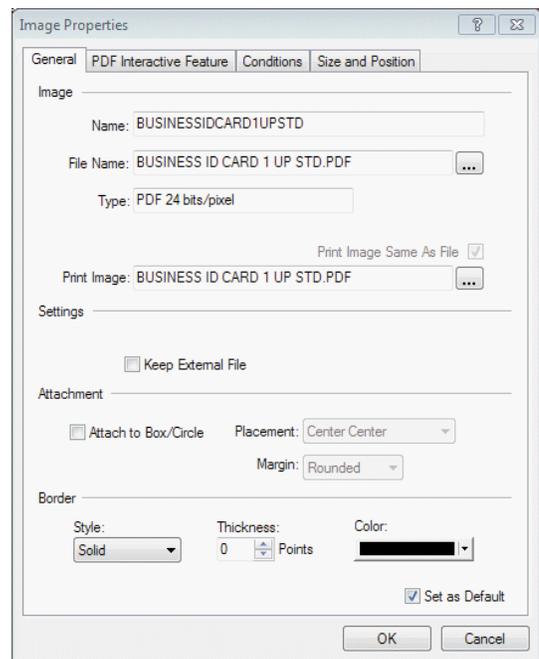
Images placed on the background plane can be selected for modification (moving, resizing, deleting, calling printing image) once the Background Plane option is selected from the Edit menu. Background images selected will then have a special fly-by graphic to distinguish them from non-background images.

Reference a printing image from an image already set to the background plane

Background images can be edited to reference an image file for printing (.EPS or .PS).

### ❖ To reference a printing image

1. Make sure that the **View** menu **Plane** option for **Background** is selected.
2. From the **Edit** menu select the **Background Plane** option.
3. Select the desired background image.
4. Right-click and select **Format Image**.
5. In the **General** tab of the **Image Properties** window, key in the printing image file name in the **Printing Image** edit box or browse for the image file by clicking the ellipses (...). Click the **OK** button to accept.



(Background) Image Properties General tab



It is also possible to create conditional background images and non-multi-up background images. For more information about conditional images and conditional background images, please see Chapter 7: Personalized Documents. For more information about creating non-multi-up background images, please see Chapter 8: Creating Jobs and Saving to VI Compose.



# Personalized Documents

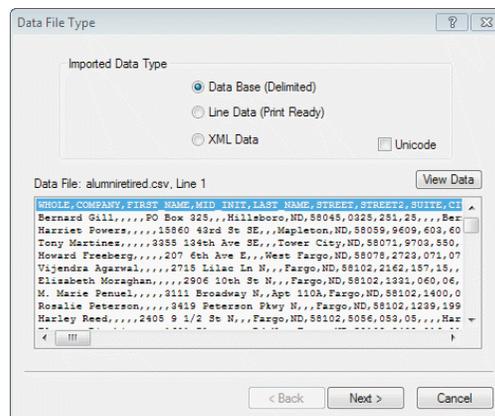
Variable data can be placed and formatted in Proform Designer for VI Compose enabled print devices. VI Compose, also referred to as XGF or FreeFlow Core, is a PostScript merge engine licensed by the Xerox Corporation. VI Compose (Variable-data Intelligent PostScript Printware) is a PostScript-based language designed for creating dynamic documents. Proform Designer eliminates the manual coding of the VI Compose language, which allows data to be interactively set up in conjunction with the document design.



Be sure to check that VI Compose is enabled within your resource set. For more information see Chapter 2 - Resource Sets

## Importing Data

Data can be imported from any ASCII file. The data import function will invoke a wizard that will walk you through the various parameters required to use the data file (the wizard is explained in full in this section). The data file is used by Designer in order to define the variable data scripting file (VI Compose code). It is not necessary (and usually not desired) to have the entire data file imported. A small data file subset is sufficient for the data design layout functions. The entire data file can be incorporated when it is time to print.



Import Data Wizard: Select Data File Type



### ❖ To import a data file

1. Click the **Import Data** button from the **Drawing** toolbar, or go to the **File** menu and choose **Import** and then **Data**.
2. In the **Look in** box, click the drive or folder location that contains the data.
3. Select the file to be imported. Either double-click the file or select a file and click the **Open** button.
4. The **Data Wizard** will assist in defining the data formats.



Only a single data file can be imported.

## Data File Types

Proform Designer accepts line (host-based), delimited (database), and XML data files. Proform Designer will attempt to auto-detect most of the attributes of a data file, but the settings should always be checked for accuracy.

### Data File Type

The preview window allows the data to be previewed in order to assist in the selection of either database, line, or XML data file types. Once the data file type has been selected, click on the **Next** button to continue through the **Import Data Wizard**.

- **Data Base (Delimited)** - Is created from database programs. Each data record is composed of a fixed number of data fields. The data fields are determined by a delimiter, which is a special character that defines one field from the next. The field names of the delimited file must be 127 characters or less. All field names must be regular alphabetic text or alphanumeric (with at least one alphabetic character). It is recommended that the first letter be capitalized, and the remainder of the field name should be lowercase.
- **Line Data (Print Ready)** - Is typically found on the mainframe. Since line data files are flat text files, a record break must be defined. Proform Designer supports fixed length records with either a user defined record length, Printer Carriage Control (PCC) bytes, user defined hex characters, or a user defined text string.

- **XML** - Is a grammatical system for constructing custom mark-up languages. This type of data is organized into a tree structure, and is often used to describe and organize genealogical, mathematical, chemical or business data. Designer treats XML in the same manner as a delimited data file. Each field is defined and will appear in the data drop-down menu after the data file is imported.



Although VI Compose 4.0 and later uses [= name =] as the new field name identifier, \$\$name. must still be used in Designer. The \$ and . characters are accepted in field names in VI Compose.

---

## Create CSV Data Files

The ability to create simple numerical CSV (Comma Separated Value) data is available within your software. This ability is usually used to create data files that are used for numerical counter sequences. For example, when creating a ticketing application where each ticket needs to be uniquely numbered with a consecutive value, but you do not currently have a data file that contains these values.

### ❖ To Create a CSV Data file

1. With no forms open, select the **Edit** button and choose **Create CSV Data...** from the drop-down menu.
2. The **Create Delimited Data File** menu will open.
3. Name your new data file, the \*.csv extension will automatically be added upon output.
4. Define the number of data records to be created.
5. To begin creating field names, start by typing the name of the new field.
  - Initial Value: Define the initial value (beginning value).
  - Increment: Define the increment value. Default value will be "1".
  - Length: Entering a value will create a fixed length value, adding preceding 0's to the initial value.

**For example:** If the Initial value entered was '100' and the Length was defined as '6', the first value in the sequence would be "000100"
6. Click **ADD** to add this new field to the data file.
7. Continue defining fields in the same manner, if desired.
8. Click **Build File** to create your data file. It will automatically be saved in the Data folder that is defined in the current Resource Set.

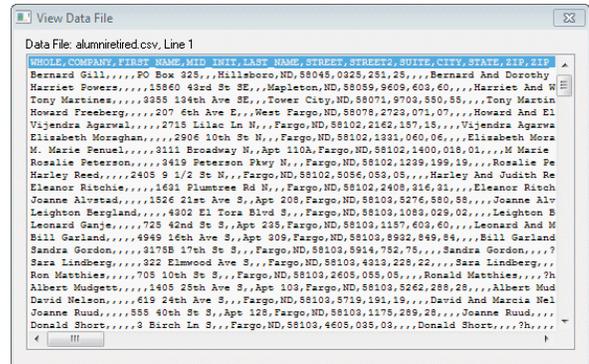
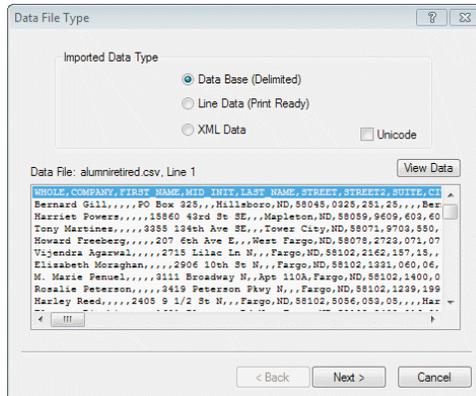
The screenshot shows a dialog box titled "Create Delimited Data File". It contains the following fields and controls:

- File Name: New\_Data\_File (with a browse button)
- Data Records: 200 (with up/down arrows)
- Field Name: Ticket\_Counter
- Initial Value: 1 (with up/down arrows)
- Increment: 2 (with up/down arrows)
- Length: 5 (with up/down arrows)
- A table with columns: Field Name, Initial Value, Increment, Length
- Buttons: Add, Update, Delete, Build File, Cancel

Field Name	Initial Value	Increment	Length
Ticket_Counter	1	2	5

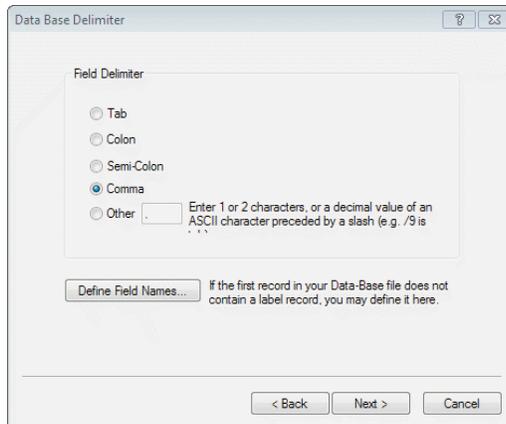
## Importing Database Data

Database data must be further defined by specifying the field delimiter, text qualifier, or maximum record length. By clicking the View Data button from the first window in the Import Data Wizard, it is possible to view the entire data record while it is being imported. This makes it much easier to define the correct data parameters during import.

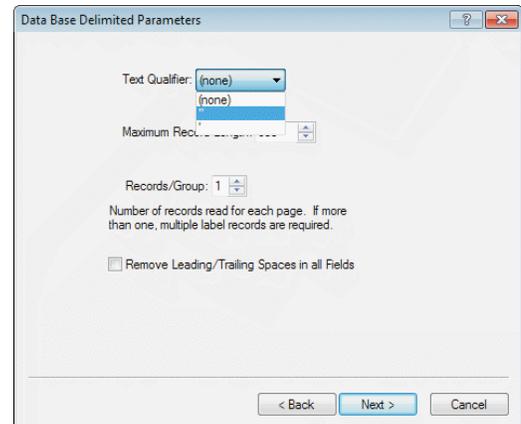


## Field Delimiters

- If the delimiter is a **Tab**, **Colon**, **Semi - Colon**, or **Comma**, then select the appropriate radio button.
- If the delimiter is another character, then that single character should be entered in the **Other** field.
- If the delimiter is a non-printable character, then enter a slash '/' followed by the decimal value of the character in the edit field to the right of the **Other** radio button.



Field Delimiters



Parameters

## Database Delimited Parameters

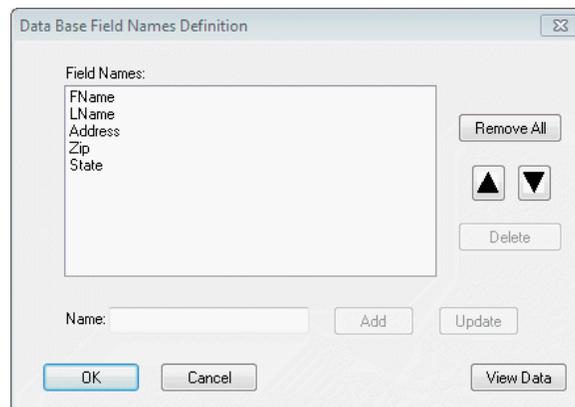
- A **Text Qualifier** is used if any of the data has double or single quotes surrounding it. By selecting a text qualifier, the quotes will not appear when your data is printed. By setting the text qualifier to **(none)**, any quotes in the data will remain intact.
- The **Maximum Record Length** must be set to at least the number of characters of the longest line in your data file.

## Importing Database Data without Field Names

If the delimited data file (e.g. csv) does not contain a header record of Field Names, this data can still be handled by defining the names manually.

### ❖ To define Delimited data Field Names

1. Click the **Import Data** button, or go to the **File** menu and choose **Import** and then **Data**.
2. Select the desired data file.
3. The **Data Wizard** will appear. Select **Data Base (Delimited)** as the data type to be imported. Click **Next**.
4. In the **Data Base Delimiter** menu, select **Comma** as the delimiter.
5. Still in the **Data Base Delimiter** menu, select the **Define Field Names** button.
6. In the **Data Base Field Names Definition** menu:
  - Add each field names by typing the field names one by one, clicking **Add** each time. Field names must be entered in the order that they will appear within the data file. If you are unsure of the correct order, click the **View Data** to see a preview of your data file.
  - Remove field names by selecting the field name in the list and clicking the **Delete** button.
  - To arrange field names that have already been entered, use the **Up** and **Down** arrows.



## Importing Line Data

Because line data files are flat text files, a record break must be defined. Proform Designer supports fixed length record breaks, Printer Carriage Control (PCC) byte record breaks, user defined hex character record breaks, user defined text string record breaks, and search area record breaks. If the page being designed is part of a multi-page job, then further job properties must be defined.

### Define a Record Break Type

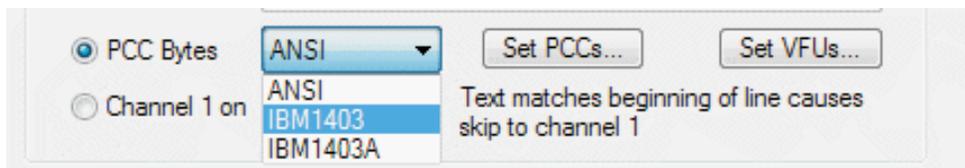
- **Fixed Length** - Records have a fixed **Lines Per Page** value that can be specified to denote the size of the record breaks.
- **ASCII Value** -The record break may be any single character except a null byte.
- **Text String** - A specific string of text reoccurs throughout the data to signal a record change. The text string must be specified in the **Text String** field.
- **PCC Bytes** - The first column is reserved for printer codes such as page breaks, etc. Custom printer controls can be assigned using the VFU (vertical form unit).
- **Channel 1 On** - A text match at the beginning of a line causes a skip to channel 1. This record break is similar in function as a multi-byte PCC, where the PCC column can still be accessed for the document design.
- **Search Area** - a text match found within the designated search area will serve as the record break. This is similar in function to the text string record break. However, applying the search area function will cause Designer to only use the defined text when it is found within the specified Search Area, even if that text is found in other locations on the page. This method is only available once data has been defined and a search area has been created. Then, the record break can be edited.

## Job Properties

- If a multiple page job is being defined, and the same data record will be printed over multiple pages, then you must define a starting record to indicate which page this will be in the job. For example, if you are creating a 4 page job, and this is going to be page 3, then the Starting Record is 3.
- Define the **Record Interval** (typically the number of records for each set). For example, if the job contains 4 pages, then the record interval is 4.

## Working with Printer Carriage Controls (PCC bytes)

PCC bytes can be assigned to a particular channel or to relative skips. Proform Designer supports ANSI, IBM1403, IBM1403A, and user defined PCC bytes.



Predefined (non-modifiable) PCC bytes are as follows: 0 (skip 2 lines), 1 (new page), + (same line), - (skip 3 lines) and space (skip 1 line). These preassigned PCC bytes can not be reassigned.

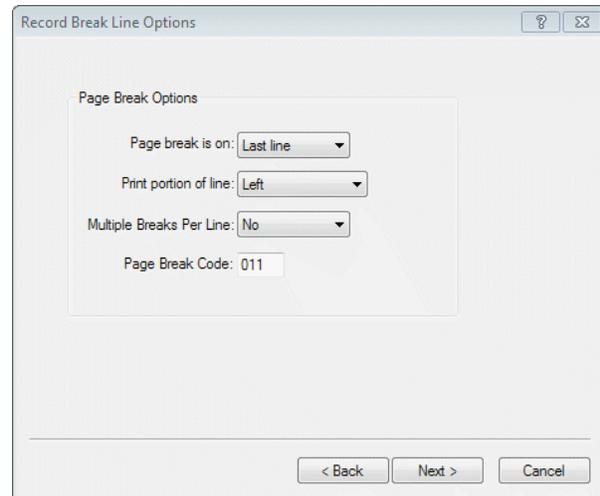


If Channel Assignments are used, then defining line data fields is not allowed. Only a full record can be placed on a page. Formatting of line data fields must be applied using the search area conditions as defined on page 255. Database fields can still be defined and used even if VFUs have been assigned.

## Page Break

If the line data file has an ASCII Value or Text String as the record separator, the **Page Break Options** will need to be defined.

- **Page break is on** - Choose whether the page break is on the first line of a record or the last line of a record.
- **Print portion of line** - Choose which portion of the line contains the page break to print. The options are:
  - **Left if not empty**
  - **Left**
  - **Right**
  - **Entire line**
  - **None**



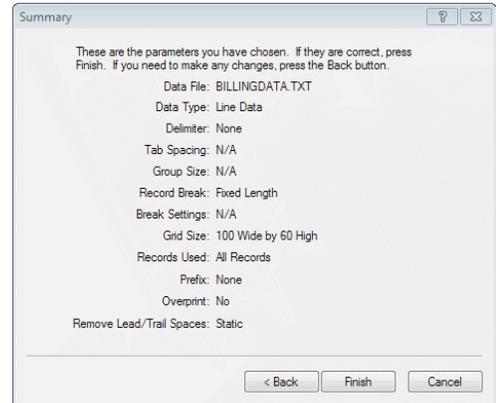
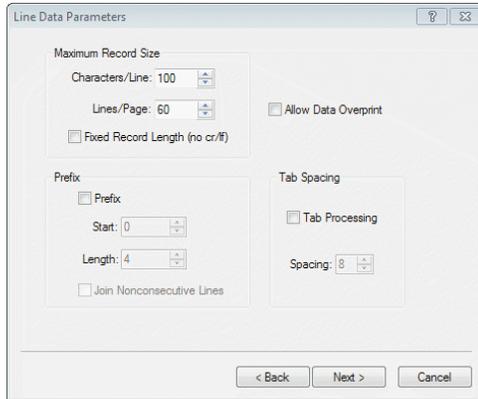
Import Data Wizard: Define Page Break Options

- **Multiple Breaks per Line** - Select either **Yes** or **No** to define whether there will be more than one break per line.
- The **Page Break Code** is generated automatically by the page separator choices made or may be entered manually. This code is used for VI Compose output. (See your VI Compose documentation for its meaning)

## Line Data Parameters

- **Maximum Record Size** should be entered in terms of **Characters Per Line** and **Lines Per Page**. A maximum record size is assumed by Proform Designer. If working with a sample of data rather than a complete data file, or if using Fixed Length as a record separator, it is important to verify these values.
- **Fixed Record Length (no cr/lf)** -Designer supports data files that do not contain carriage returns or line feeds. These files often appear to be a continuous line of data in a text editor. By selecting Fixed Record Length (no cr/lf)when importing line data, Designer will display carriage return/line feeds at the maximum character position. The characters per line must be set accurately.
- **Prefix Data** is data that contains a group of characters in the same column of every line that is used to set formatting and positions. Prefixes are useful for data that has transactional information which does not end on a fixed line number. If prefixes are used in the data file, then check the Prefix box and specify the starting column and length of the prefix.
- The **Data Overprint** option allows interpretation of a carriage return as just a carriage return. If this option is not selected, then a carriage return is interpreted as a carriage return, line feed.

- The **Tab Spacing** option allows the use of fixed increment tabs and the expansion of tabs to spaces in line mode display. The tab interval must be specified.



### Data Definition Summary Window

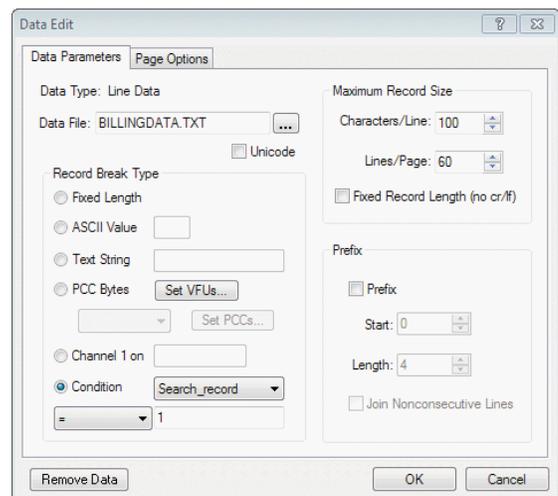
The Summary window provides a list of the parameters given. Changes in parameters can be made by clicking the Back button until the desired window is displayed. The Back button will not affect the other previously set parameters which are saved unless re-entered. Click the Finish button if the information in the Summary window is correct.

### Search Area Record Breaks

Once the data file is imported and a search area is defined (search areas are covered later in this chapter, on page 198) you can edit the record break parameters to create a search area record break.

#### ❖ To define a search area record break

1. You will not be able to define this type of record break during the initial import process. When the wizard asks for a record break, define a text string to serve as a placeholder.
2. Finish defining the data import specifications using the data wizard.
3. Go to the data view window and define a **Search Area**.
4. Go the **Edit** menu and select **Data Settings**.
5. Enable the **Condition** radio button.
6. Select the **Search Area** from the drop-down menu, and enter the search value into the **equals** field.



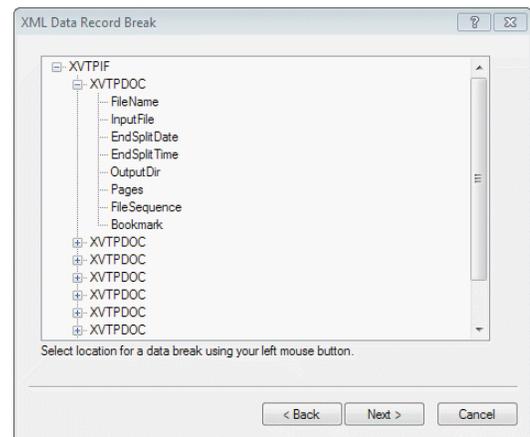
7. The data will now break whenever the defined text is found within the search area.

## Importing XML Data

XML data can be imported into Designer as well. The data wizard will display an outline of the tree, and allow you to select where the data break will occur. Once the data is imported onto the form, it will be displayed in the same data view interface as a delimited data file.

### ❖ To import an xml data file

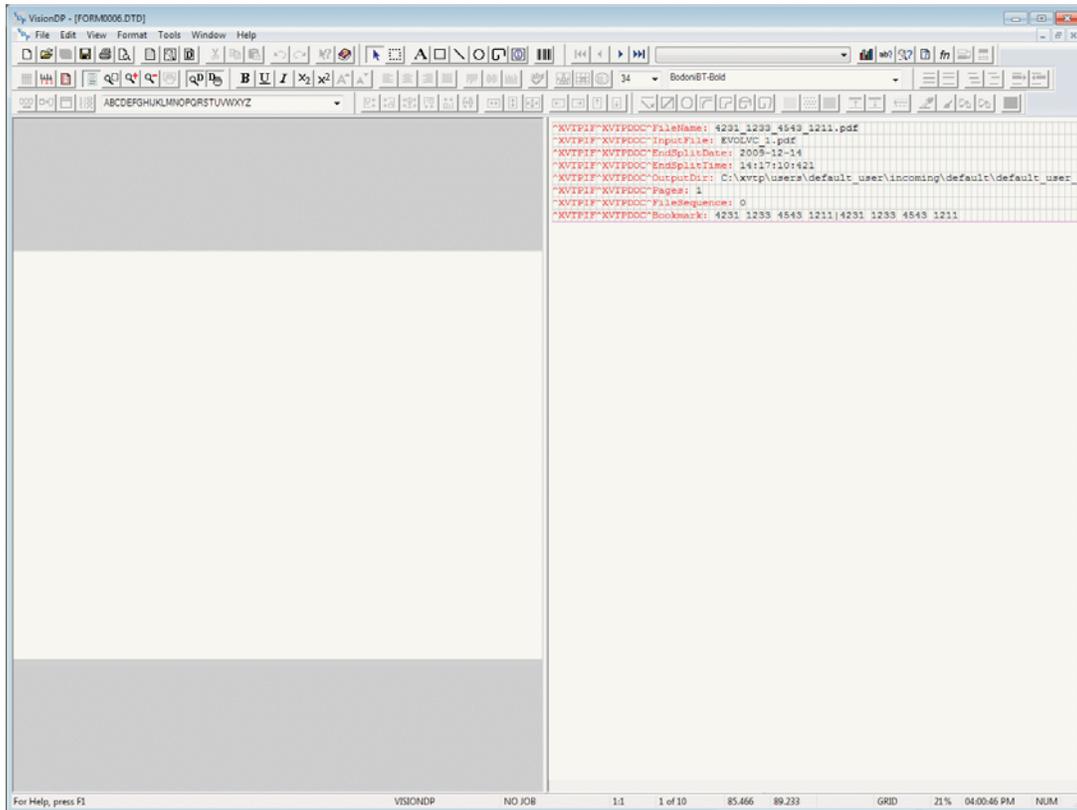
1. Go to the **File** menu and select **Import** and then **Data**.
2. Choose the xml file that you want to import.
3. Select the appropriate record to serve as data break from the **XML Data Record Break** window.
4. Click **Next** to proceed through the data import wizard.
5. The **Summary** window will appear before the data file is imported into the form. This outlines all of the previously defined specifications. Review the definitions for accuracy. If something needs to be modified, click **Back** until the necessary information is displayed. Make changes, and click **Next** to proceed through the remainder of the wizard. When everything is correct, click **Finish** to import the data file.



XML Data Define Record Break

## Working with Delimited or XML Data

Designer displays the current data record of either delimited or XML data in the Data View window on the right side of the screen.



The Data View window can be closed to provide a full-screen view of the form. To open and close the data view window, click the Toggle View Data Window button, located in the View toolbar.

## Delimited Field Definitions

When importing delimited data, the field names are extracted from the first line (or lines) of a data file. The header record is used to identify individual fields of data. For example, if the data record appeared as follows:

Fname	Lname	Street	Secondline	City	State	Zip
Paula	Boyd	123 Aspen Street	Apt 136	Fairview	CT	11234
Chris	McCarthy	345 Oak Drive	Suite 6	Lawndale	CA	94533
Somail	Chopra	c/o American Foods	456 Cottonwood Blvd	Port Charles	IA	11236
April	Lichter	2 Main Street		Fairfield	MA	11237
Joseph	Hodge	7880 Washington St	10th Floor	Port Charles	AZ	86238

Example Delimited Data file with Header

The first record would define the field names: Fname, Lname, Street, Secondline, City, State and Zip.

## XML Field Definitions

When importing an XML data file, the field names will be defined from the data tree. These will then be used as the individual data records when the data file is imported into Proform Designer. Each data record will be displayed on the right side of the screen, as well as in the data drop-down menu, in the same manner

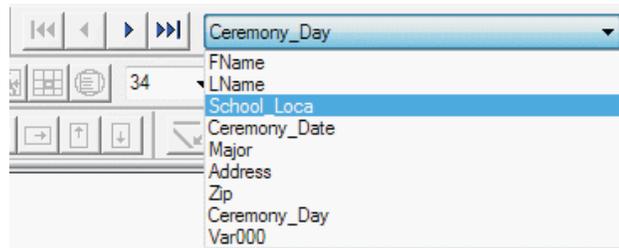
```
- <CustomerInfo>
  - <Customer>
    <USER_ID>10144</USER_ID>
    <USER_TITLE>Mr</USER_TITLE>
    <USER_FIRST>PRAVIN</USER_FIRST>
    <USER_LAST>CHIRAC</USER_LAST>
    <USER_STR>38 Launde Road</USER_STR>
    <USER_POSTCODE>LE2 4HG</USER_POSTCODE>
    <USER_CITY>Leicester</USER_CITY>
    <USER_COUNTRY>GBR</USER_COUNTRY>
    <USER_PHONE>0116 2710581</USER_PHONE>
    <USER_COMPANY>Inishkea Department Store</USER_COMPANY>
    <USER_EMAIL>pravin.chirac@inishkea.com</USER_EMAIL>
  </Customer>
```

as a delimited data file.

## Data Layout

### Data Placement on Form

Placing data onto a static form is the initial step in formatting data. Placement onto the form is done on an individual field basis. Individual data fields can be used multiple times on a single page. All fields in the data file do not need to be used.



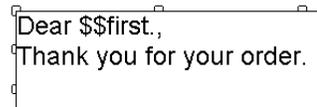
Data Field Drop-Down Menu

#### ❖ To place a data field onto the form

1. Select the field to be placed onto the form from the data drop-down on the **Data View** toolbar.
2. Click the left mouse key at the desired location on the form.

### Combining Text and Data

Data and text can easily be combined in the text editor to take advantage of word-wrapping, alignments and other features.



Inserting Data Fields into Text

#### ❖ To place a data field into a text block

1. Enable the text editor by either creating a new text block or double clicking the left mouse button on an existing text block.
2. Position the cursor where the data field should be entered.
3. Select the field to be entered from the data drop-down menu on the **Data View** toolbar. The field name will be entered into text preceded by \$\$ and with a trailing period. Once the editor is closed, the field name will change to the actual data values.



When formatting a data field be sure to select the entire data field (preceding \$\$ and trailing .), or the format change will not take affect.



When data fields are inserted in a text block, word-wrapping will occur dynamically upon merging the data into the text.

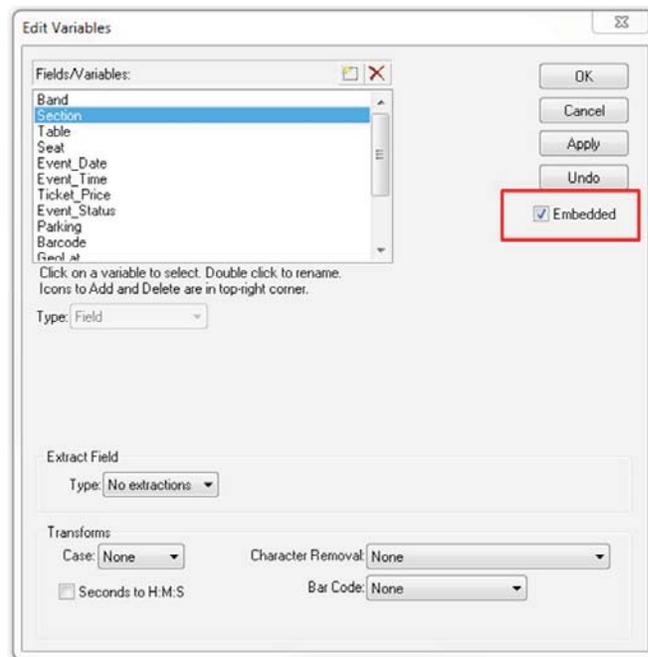
## Embedded Fields

If a data file contains VI Compose fields within VI Compose fields, Proform Designer will evaluate the fields until all have been filled with a data value.

Fname	Lname	Email
Sarah	Jones	\$\$Fname.\$\$Lname@email.com
Bill	Hampton	\$\$Fname.\$\$Lname@email.com
Jack	Black	\$\$Fname.\$\$Lname@email.com

### ❖ To initiate evaluation of embedded fields

1. Right click the data that needs to be evaluated.
2. Select **Format Data** from the context menu.
3. Access the **General** tab of the **Data Properties** window.
4. Enable the **Embedded Fields** check box.
5. Click **OK** to save the setting.



## Viewing Data

By default the data view will be active, meaning that the actual data will be seen on the form rather than the field name. The view can be toggled to view the field names or actual data.

\$\$first. \$\$last.  
\$\$address.  
\$\$city., \$\$state.

Data View Toggled to View Fields

Daniel Bassett  
118 Avenida las Palmas  
Redondo Beach, CA

Data View Toggled to View Data



### ❖ To toggle data view

- Click **View Data** from the **View** toolbar.

Paul Connor  
34408 Via San Juan  
El Segundo, CA

Preview Data Record 3 of 3

Ming Chen  
3148 East Nine Dr.  
El Segundo, CA

Preview Data Record 2 of 3

Daniel Bassett  
118 Avenida las Palmas  
Redondo Beach, CA

Preview Data Record 1 of 3

### ❖ To Preview Data Records

Tools are available to scroll through data records for preview purposes. To scroll through data records click appropriate scroll key to scroll through data as follows:

Key	Action
	Rewind data to the first record
	Scroll backward one record
	Scroll forward one record
	Fast forward data to the last record



In order to preview data records, Data View must be enabled.

## Working with Line Data

Line data is typically found on a mainframe and consists of data that has been formatted to print on a static background. Line data was originally designed to be printed on line printers, which are limited in their formatting capabilities. Page position, in many cases, was limited to vertical paper movement and affective use of “spaces.”

Proform Designer takes advantage of these line data file formats in its WYSIWYG interface. By using cut and paste data placement techniques, data field definitions, and other functions, line data can easily be formatted and integrated into the form design.



In the case of line data, the data drop-down menu will fill-in with “Entire Record” signaling proper importation of the data. In the case of delimited data, the data drop-down menu on the data toolbar will list the field names as explained in the previous section. In either case, user-defined variables will also appear in this drop-down, following the field names.

## View Line Data Window

In this view, a split-screen will appear showing the static form in one window and a record of the line data in the other. The data side of the window will show a grid in the background denoting individual characters.



### ❖ To view line data

1. Click **View Line Data** button from the **View** toolbar.
2. Resize the data window as needed by placing the cursor over the left edge of the window and stretching to a new size. As the data window size increases the form window will decrease.

DATE	NAME	DESCRIPTION	CATEGORY	CHECK#	BALANCE
07-22-04	LOUIS BERTHOUD	CHAL. PAYMENT			0.00
07-22-04	LOUIS BERTHOUD	CONTRIBUTION	001		0.00
07-22-04	LOUIS BERTHOUD	CONTRIBUTION	001		0.00
07-22-04	LOUIS BERTHOUD	CONTRIBUTION	001		0.00

View Line Data Example:

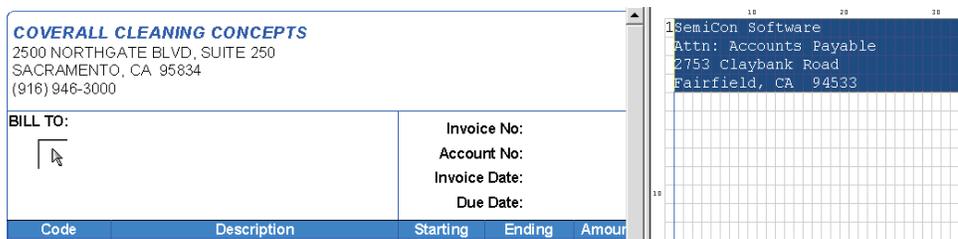


When the entire record cannot be seen due to the size limitations of the data window, then use the scroll bars to navigate the data record. The size of the window and the zoom percentage will be remembered when a form is closed. Line data fields can also be defined so that the data window may be closed and data placed using the data drop-down by field name. See page 194 for more detailed information.

## Line Data Placement

Placing data onto the static form is the initial step to formatting data. There are three ways line data can be placed onto the form.

- **Entire data record placement:** The entire data record can be placed at the origin of the form in its original format. In this case, all of the data would be in the same font and color.
- **Selective data placement:** Placing data onto the form is done by dragging areas of data from the data window to the form window.
- **Named data placement:** Areas of data may be defined as a support type (area, database field, search area, delimited field) and named. The field names may be placed onto the form the same way as with a delimited data file.



### ❖ To place line data

1. Hold down the left mouse key while dragging the mouse over the area of data to be selected. The selected data will appear highlighted.
2. Position the mouse over the selected data region. Hold the left mouse key down while dragging the data to the form side of the window.



The above picture shows the highlighted data and the placement cursor which is highlighted with the arrow.

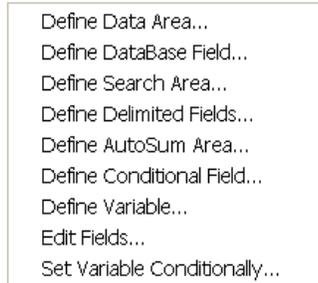
The picture at the left shows the data placed on the form after you release the mouse.

3. The data area will be placed at the top left corner of the data cursor.

## Defining Line Data Areas and Fields

When working with line data, there is an option to set-up areas of line data as “fields” similar to how one would work with a delimited data file. This is helpful when creating a data-intensive document in which the

same piece of data is used in multiple places throughout the document. The user can then close the line data window and continue working with data as they would with a delimited data file.



Defining Fields with Line Data

### ❖ To define line data areas and fields

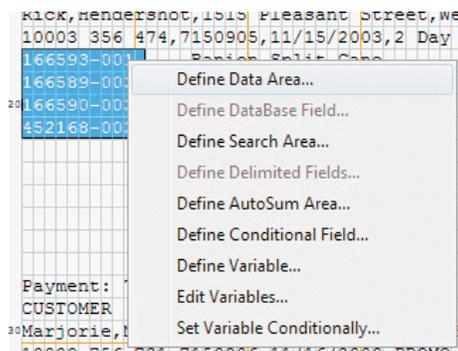
1. Hold left mouse key down while dragging the mouse over the area of data to be selected. The selected data will appear highlighted.
2. Click the right mouse key.
3. Select which type of data field will be defined from the context menu as follows:
  - **Define Data Area** - Used to segment data area (can contain more than one line) for placement
  - **Define Database Field** - Used to define a portion of a single line for conditional processing, data driven graphics, or for placement.
  - **Define Search Area** - Used to define line by line search conditions (defined later in this chapter).
  - **Define Delimited Fields** - Used to extract information out of a single line of data.
  - **Define AutoSum Area** - Used to define rows or columns of data for addition.
  - **Define Conditional Field** - Used to search an area of line data for a condition to be true.
  - **Define Variable** - Used to define custom fields and counters (discussed later in this chapter).
  - **Edit Fields** - Used to edit defined fields

## Data Areas

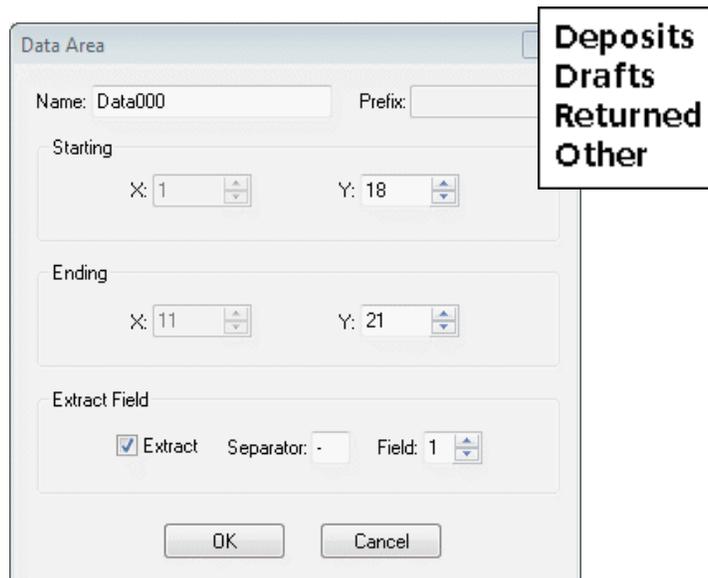
More than one line of data can be defined as a data area. Entire data areas can have a single font style and color defined.

### ❖ To define a data area

1. Highlight the area of data to be defined as a Data Area. Right click on the highlighted data and choose **Define Data Area**.
2. Enter the data area name in the **Name** field.
3. Edit the data area parameters in the **Starting** and **Ending** fields to change the field size (if different than what is drawn in the **Line Data Window**).
4. Define any necessary field extractions.
  - Enable the **Extract** check box.
  - Define a separator. This will be the character that Proform looks for to split one field from another, such as a space or dash.
  - Enter the number of the field that should be separated. If the field contains the name, Jane Jones, and you want to separate Jane from Jones, you would select field number 1. Jones would be field number 2.
  - This feature also allows you to separate fields from columns of data. By creating a multi-line data area and defining a separator and field, you can create a new data area that contains only a portion of the selected section.



Right click on highlighted data and choose:  
Define Data Area



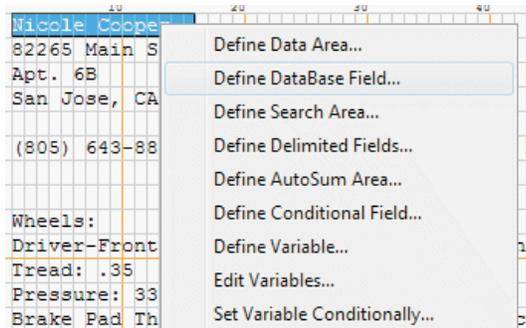
## Defining Database Fields

Only one line of data can be defined as a database field. Line data is defined as a database field for use with conditional text and image functions, custom variable fields, and data driven graph creation.

The defined field name must be 127 characters or less. All field names must be regular alphabetic text or alphanumeric (with at least one alphabetic character).

### ❖ To define a database field

1. Highlight the area of data to be defined as a Database Field. Right click on the highlighted data and choose **Define Database Field**.
2. Enter the data area name in the **Name** field.
3. Edit the **Database Field** contents through the **Starting Column**, **Ending Column** and **Line Number** fields.



The 'Define Database Field' dialog box is shown. It has a title bar with a question mark and a close button. The fields are: Name: Data000, Line Number: 1, Column: Starting: 2, Ending: 16. The 'Extract Field' section has Type: None, X: 0, Length: 1, and a checkbox for 'Remove Lead/Trail Spaces'. The 'Separator' is a comma and the 'Field' is 1. The 'Transforms' section has Character Removal: None, Case: None, Bar Code: None, and a checkbox for 'Seconds to H:M:S'. There are 'OK' and 'Cancel' buttons at the top right.

Define Database Field (from line data) window

## Define Search Area Columns

Search area columns can be defined for line-by-line conditional formatting functions explained later in this chapter.

### ❖ To define a search area

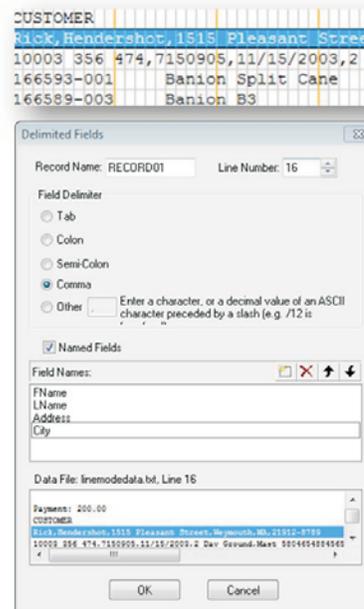
1. Highlight the area of data to be defined as a Search Area. Right click on the highlighted data and choose **Define Search Area**.
1. Enter the search area name in the **Name** field.
2. Edit the columns through the **Start Column** and **End Column** fields. Each row will be searched. The use of the search area is further defined later in this chapter.

## Define Delimited Fields

The define delimited fields feature is used to define fields from a single line contained in a line data file. This is similar to the way that data is defined in a database file. Individual lines in the line data file can be separated by delimiters, and defined into fields like a database file.

### ❖ To Define Delimited Fields

1. With the mouse pointer, select the desired row of line data from the data window.
2. Right click the mouse, and select **Define Delimited Fields** from the context menu.
3. Select the **Field Delimiter** type. The **Field Delimiter** can be a tab, colon, semi-colon, comma, or other specified delimiter.
4. Give the data field a name. **Add** or **Delete** the defined field names as needed.
5. Click the **OK** button to accept the changes.

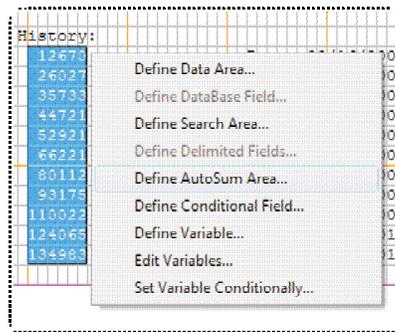


## AutoSum Variable

The AutoSum feature can be used in line data mode to add the contents of selected areas of data and store them as a variable

### ❖ To define AutoSum area

1. Highlight the desired area of line data.
2. Right click to show context menu.
3. Choose **Define AutoSum Area** from the context menu.
4. The **AutoSum Area** window will appear.
5. Define the variable name, and starting and ending coordinates if different from the highlighted area.



If the contents selected for the AutoSum field are not numbers, the job will abort at printing. Commas and dollar signs cannot be included in an area defined for addition, but decimals are allowed.

## Conditional Field Variable

Conditional field variables can be used in line data mode to search a defined area of line data for a condition to be true and then assign that information to a variable. This operates in much the same way as Define Search Area, but in this case a condition can be applied to obtain a value that is stored in a variable.

### ❖ To create a conditional field variable

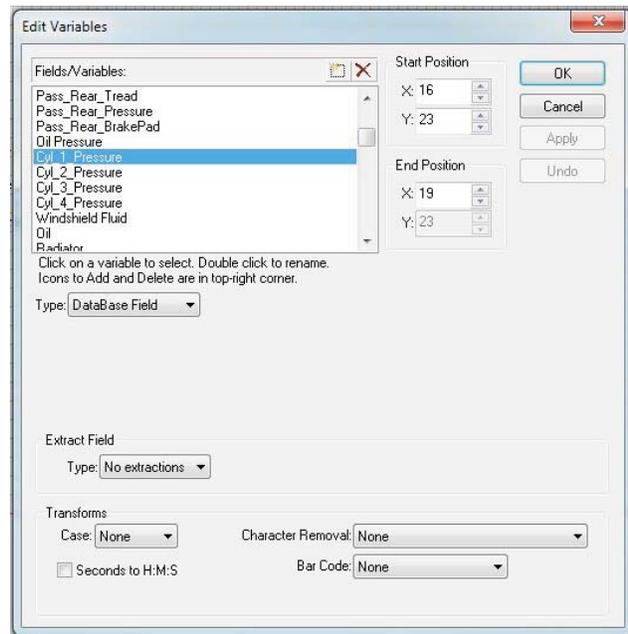
1. Define a **Search Area**.
2. Highlight an area of line data.
3. Right click and select **Define Conditional Field** from the context menu.
4. The **Conditional Field** window will appear.
5. Assign a **Name** to the variable.
6. Verify that the **Start** and **End** column values are correct.
7. Select the **Data Row Offset** value. This is an offset from the row where the condition is first true. For example, a value of -1 will assign the information from the previous row to the variable.
8. Define a condition.
9. Click **OK**.

## Edit Line Data Fields

Once areas of line data have been defined as fields, there is an option to edit the defined fields. The name of the field and the area included in the field can be modified. Data fields can also be deleted if not currently in use in your form.

### ❖ To edit line data fields

1. Click the right mouse key over the line data window.
2. Select **Edit Variables** from the context menu.
3. Select the data field to modify from the list of available fields/variables.
4. To change the name, double click on the Field name and retype the name. Click **OK** to save..
5. To change the area, select the Field from the available Fields/Variables list and modify the **Starting** and **Ending** coordinates.
6. Click the **OK** button.



### ❖ To delete a line data field

1. Click the right mouse key over the line data window.
2. Select **Edit Variables** from the context menu.
3. Select the data field to delete from the list of available Fields/Variables.
4. Click the **Delete** button (red X) in the top right corner of the list.
5. Click the **OK** button

## Formatting Data

Formatting the data can be done once the data has been placed onto the static form. All operations are done by selecting data from the form window and formatting as described.

## Selecting Data Fields

In order to manipulate a data element, it must first be selected. Proform Designer's cursor will change to indicate proper positioning in order to make it easier to select form elements. The various cursor shapes indicate the type of element that the cursor is positioned over.

### ❖ To select data



1. Go to the **Drawing** toolbar and click **Select Mode**.
2. Position your mouse over the data to be selected and click the left mouse key.

---

*Selected data will be displayed with selection handles. To select overlapping objects, it may be necessary to unselect all objects prior to making selection.*

---

## Moving and Copying Data

It may be necessary to relocate a data element or copy a data field to another location once it has been placed onto the form.

### ❖ To move a data element using the mouse

1. Select the data element(s) to be moved.
2. Position the mouse over the data and drag to a new location.

### ❖ To copy a data element using the mouse

1. Select the data element(s) to be copied.
2. Position the mouse over the data and drag to a new location while holding down the <CTRL> key.



When moving and copying using the mouse, grid snap will affect the interval in which the element is moved or copied. Grid Snapping is described in detail on page 96.

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#### ❖ To position data through the properties window

1. Select the data.
  2. Select **Data** from the **Format** menu or click the right mouse button and select **Format Data** from the context menu.
  3. From the **Size and Position** tab of the **Data Properties** menu use the arrow keys to specify position (X and Y coordinate). The X/Y coordinate for data represents the origin or top left corner.
- 



The current unit of measure is shown in the Unit drop-down menu. Units of measure available are grids, inches, centimeters and dots.

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## Deleting Data

#### ❖ To delete data

1. Select the data element(s) to be deleted.
2. Press the <DELETE> key on the keyboard or right-click the mouse and select the **Delete** option.

## Data Rotation

Data elements can be rotated by 90 degree increments.

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Please see Rotate/Flip Images for additional information 169.

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## Font Selection

Multiple data fonts can be specified on each page with one font used for each data element. In the case of delimited data, where multiple data fields are included in a text block, each individual field can be formatted.

#### ❖ To select data font

1. Select the data.
2. Choose font typeface and point size from the **Text Format** toolbar as follows:
  - Choose typeface from the **Typeface** drop-down.
  - Choose point size from the **Point Size** drop-down.

Icon	Style
	Underline
	Bold
	Italic

#### ❖ To apply character styles

1. Select the data.
2. Click the **Bold**, **Underline**, and/or **Italic** buttons as desired.

## Data Color

#### ❖ To change the data color

1. Select the data.
2. Click the **Palette button** on the **Format** toolbar to select text color, or select **Font** from the **Format** menu to choose color.

## Line Spacing

Predefined line spacing options include single, 1.5 and double line spacing. The custom option allows other line spacings to be defined in the Custom Line area.

#### ❖ To define line spacing

1. Select the data to be formatted.
2. Select **Data** from the **Format** menu.
3. From the **General** tab of the **Data Properties** window, choose line spacing from the **Line** drop-down or specify **Custom** line spacing.



The value shown in the Custom field is represented in the unit selected in the Unit drop-down box.

## Attach Data to Box/Circle/Center of Page

Data can be attached to boxes and circles on the static form. By attaching data to a box or circle, the user simplifies later form modifications. This feature can be used to center data directly in the middle of a page, as well. The data will remain attached during moving and resizing operations. The data cannot be moved out of the box or circle unless it is detached first.

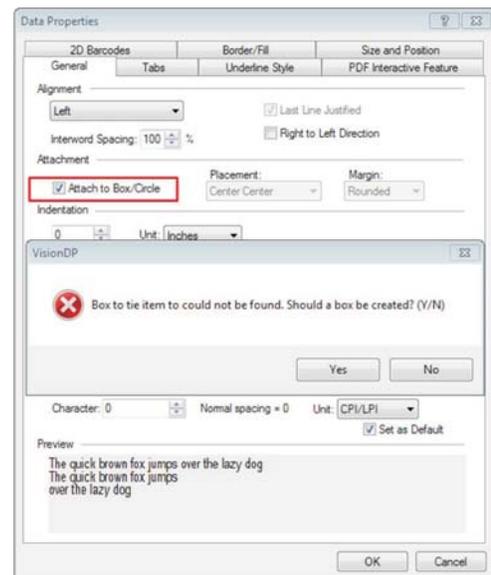


### ❖ To attach/detach data to existing box or circle

1. Draw a box or circle on the form where you want the data to be attached.
2. Select the data.
3. Click the **Attach to Box/Circle** button on the **Text Format** toolbar to toggle between attached and detached.

### ❖ To attach/detach data to an artificial box

1. Place the data in the desired location on the form.
2. Select **Data Object** from the **Format** menu, or right click the data and select **Format Data** from the context menu.
3. Enable the **Attach to Box/Circle** check box, located under the **General** tab of the **Data Properties** window.
4. The following message will appear. Click **Yes** to have Designer create a box for you.
5. Select the placement location and margin specifications from the **Placement** and **Margin** drop-down menus.
6. Click **OK**.



### ❖ To attach data to the center of a page



1. Select the data that you will attach to the page.
2. Either right click the data and select **Tie Object** from the context menu, select **Tie Object** from the **Format** menu, or click the **Attach to Box/Circle** button from the **Text Format** toolbar.
3. If there is no box defined for the data to be attached to, the data will be attached to the center of the page.

## Positioning Data in Boxes/Circles

Data can be positioned in boxes and circles once it has been attached. Data can also be repositioned using the same procedure.



### ❖ To position data in box/circle

1. Select the data.
2. Click the **Position in Box/Circle** button on the **Text Format** toolbar.
3. A matrix will appear showing the nine locations available for positioning.
4. Click the left mouse button in the location where the data will be placed.



There are nine positions available for positioning: Top-Left, Top-Center, Top-Right, Center-Left, Center-Center, Center-Right, Bottom-Left, Bottom-Center and Bottom-Right.

## Positioning Margins

When positioning within circles, or rounded corner boxes, there are two different types of margins available: squared and rounded.



### ❖ To select positioning margin

- Click **Toggle Text Margins** on the **Text Format** toolbar to toggle between squared and rounded margins.



There is a default set of attributes for each data element. For data this includes alignment, line spacing, attached status, etc. Setting default data attributes causes future data elements to have these default attributes.

## Scale to Fit Data in Box

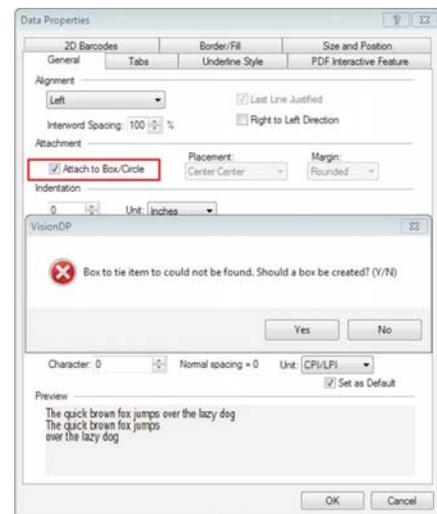
When a data area is attached to a box, this feature allows the data font to be scaled down automatically if the data cannot fit in the box using the defined font size. When this feature is enabled, the data will be placed in the top-left corner of the box and scaled down to fit within the parameters of the box. This feature greatly simplifies the design process for multi-up applications.



Resizing will only occur if the data needs to be reduced in width. If the data exceeds the height of the box, scaling down will not result.

### ❖ To apply a data scale-down

1. Place a data area on the form.
2. Draw a box around the data area. The borders of the box can be set to zero line thickness to make the box invisible.
3. Attach the data area to the box using the **Attach to Box/Circle** button. Or, select the data, right click, and select **Tie Object** from the context menu.
4. Select the data, right click, and select **Format Data** from the context menu.
5. Access the **General** tab of the **Data Properties** window.
6. Enable the **Reduce to Fit in Box** check box.



## Data Border

Data border and fill can be defined in the Border/Fill tab of the Data Properties window. The border style, thickness and color can be selected, corners can be rounded to user defined levels, and fill/shading can be defined.

### ❖ To set a data border

1. Right click in the data area and select **Format Data**.
2. Select the **Border/Fill** tab from the **Data Properties** window.
3. Select desired border and corner styles. Selecting a border style of **None** will create a blue box on the page that will not print.



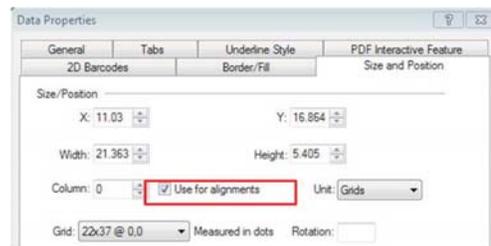
All corners must have the same degree of roundness.

## Data Alignment within a text block

When data is defined within a word-wrapped text block, empty lines are automatically removed, causing non-empty data lines to move up higher in the text block. While this is a common need, sometimes Right or Center alignment of the data block is needed without empty text lines disappearing. In order to use these alignment settings in a text block where word-wrapping is removed, the column width of the data block needs to be defined.

### ❖ Setting a Data Column for use with Alignments

1. Right click on the data block containing the data to be aligned.
2. Select **Format Data**. The **Data Properties** menu will appear.
3. Select the **Size and Position** tab.
4. Select the **Use for alignments** check box. When this checkbox is checked, the **Column** field may be edited with a value depending on the current Unit. When the data block is word-wrapped, the **Use for alignments** checkbox is not shown and the **Column** field shows the width of the column, but is not allowed to be edited. Data alignments are only enabled when this checkbox is checked or when the data block is word-wrapped.



## Show Data as 2D Barcode

Proform Designer allows you to format your data as five different types of 2D barcodes: PDF417, MaxiCode, DataMatrix, Intelligent Mail BarCode and QR Codes.

### 2D PDF417 BarCodes

Designer can be used to create 2D PDF417 BarCodes. PDF417 BarCodes store a large amount of data (around 2000 characters) in a symbol, which can be read and decoded by a 2D scanner. PDF417 BarCodes are an industry standard for encoding data and are supported by every printer. In Designer, data can be dropped onto a form and converted to a 2D BarCode. Compression, error level, row, column and aspect can then be set to user-defined levels.



2D barcode



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Data converted to a 2D BarCode will appear as a shaded data area within Designer, but it will print as a 2D BarCode. If you are using a version of FreeFlow VI Compose prior to 8.0, the PDF417 capability is a separate module (xgf.417) in VI Compose and deactivated by default to decrease the use of system resources. To activate the PDF417 capability, edit the src/xgfdos.run or src/xgfunix.run file by following the path: C:>vide3>xgf>src>xgfdos.run, and uncomment the line by removing the “%” character. This must be done before the PDF417 feature can be used.

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#### ❖ To show data as a 2D BarCode

1. Select data on form.
2. Right click on data and select **Format Data** from the context menu, **or** from the **Format** menu select **Data Object**.
3. From the **Data Properties** dialog box, select the **2D Barcodes** tab.
4. Choose **2D BarCode (PDF417)** from the **Show Data As** drop-down menu.
5. Set the **Compression, Error Level, Rows, Columns and Aspect** as desired.

## Show Data as MaxiCode 2D Barcode

Data can be encoded as a MaxiCode 2D BarCode. MaxiCode is an international standard symbol used for package sorting and tracking, most importantly as the standard shipping barcode for UPS. The symbol consists of two messages: the primary message, which encodes the postal code, country code, and the class of service number and the secondary message, which encodes address data or some other information.

### ❖ To show data as MaxiCode

1. Select data area on form that is to be transformed into a 2D BarCode.
2. Right click on data and select **Format Data** from the context menu, or from the **Format** menu select **Data Object**.
3. From the **Data Properties** window, select the **2D Barcodes** tab.
4. Choose **MaxiCode** from the **Show Data As** drop-down menu.
5. In the **MaxiCode Options** area, select a **Mode** form the drop-down menu. The seven modes have the following functions:



**Mode 0** - The primary message is a Structured Carrier Message and the secondary encodes up to 84 uppercase characters, numeric or punctuation.

**Mode 1**- The primary and secondary messages together encode up to 93 uppercase characters, numeric or punctuation.



The functionality of Modes 0 and 1 has been taken over by Modes 2 and 3. Modes 0 and 1 should only be used by existing MaxiCode users with only Mode 0 and 1 capability.

**Mode 2 (US Carrier)**- The primary message encodes numeric postal codes up to nine digits in length, and the secondary message encodes up to 84 characters.

**Mode 3 (International Carrier)**- The primary message encodes alpha-numeric postal codes up to six digits long, and the secondary message encodes up to 84 characters.

**Mode 4 (Standard Symbol)**- The primary and secondary messages combined can be used to encode up to 93 characters. This useful for encoding information for applications other than shipping.

**Mode 5 (Secure Symbol)**- The primary and secondary messages combined encode up to 77 characters with more error correction than Mode 4.

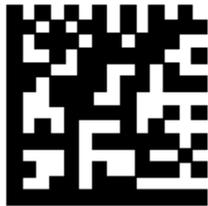
**Mode 6 (Reader Program)**- The primary and secondary messages combined encode up to 93 characters for the purpose of programming barcode readers.

## DataMatrix

DataMatrix is a two-dimensional barcode that can store from one to about 2,000 characters. The square symbol can range from .001 inch per side up to 14 inches per side, and about 500 characters can be encoded in a 1 inch square. DataMatrix is often used to encode product and serial information and to identify items during manufacturing.

### ❖ To show data as a DataMatrix BarCode

1. Select the data on the form to which the **DataMatrix** barcode will be applied.
2. Right click the data and select **Format Data** from the context menu, or from the **Format** menu select **Data Object**.
3. From the **Data Properties** window, select the **2D Barcodes** tab.
4. Choose **DataMatrix** from the **Show Data As** drop-down menu.
5. Enable the **Square Symbol** check box to create a square barcode. If you leave the box unchecked, a rectangular barcode will be created.
6. Use the **Scale %** box to adjust the size of the BarCode.
7. Click **OK** to apply the specification.



## Intelligent Mail BarCode

The USPS Intelligent Mail barcode is the next generation barcode used by the U.S. Postal Service, replacing PostNet barcoding. It consists of a field placed on the page containing tracking data, as well as the zip code (routing code) information defined within the 2-D Barcode dialog box. The tracking data must have 20 digits of information, defined as: 2 digit Barcode Identifier, 3 digit Service Type Identifier, 6 digit Mailer Identifier, and a 9 digit Serial Number. The zip code is supported in the following formats: (1) empty, (2) 5 digit ZIP code, (3) 9 digit ZIP+4 code, or (4) 11 digit ZIP+4 + 2 digit DPC.

### ❖ To show data as a Intelligent Mail BarCode

1. Select the data on the form to which the Intelligent Mail Barcode will be applied.
2. Right click on the data and select **Format Data** from the **context** menu, or from the **Format** menu select **Data Object**.
3. Access the **2D BarCodes** tab on the **Data Properties** menu.
4. Choose **Intelligent Mail BarCode** from the **Show Data As** drop-down menu.
5. Define **Routing Code** and **Alignment options** from their drop-down menus in the **Intelligent Mail BarCode** Options. In the case of 31 digits, click on **Routing-Code is last 11 digits of Tracking-Code**. Otherwise, use the drop-down menu to select the select the zip code data field.
6. Click **OK** to apply the specifications.



## QR Codes

QR Codes are two-dimensional barcodes that store more information than traditional barcodes and can include URLs or PURLs that are accessed quickly using a webcam or camera phone with a QR Code Reader application. Designer provides easy to use templates to create variable QR Codes. These templates include: Web Site, Bookmark, Phone Call, Send SMS, Send Email, vCard, Geographical Coordinates, meCard and Calendar Event.

### ❖ To create a QR Code

1. Select data on the form.
2. Right click the data, and select **Format Data** from the **context** menu.
3. Access the **2D BarCodes** tab of the **Data Properties** menu.
4. Choose **QR Code** from the **Show Data As** drop-down menu.
5. Click on the **QR Code Templates** button and choose a template from the drop-down menu. Enter information in the appropriate fields as necessary.
  - **Web Site:** Add a website.
  - **Bookmark:** Add a website that will be bookmarked for later reference.
  - **Phone Call:** Enter a phone number to initiate a phone call.
  - **Send SMS:** Enter a phone number and a message to be sent through Text message.
  - **Send Email:** Enter an email address along with a subject and message to be sent through email.
  - **vCard:** Enter business card information.
  - **Geographical Coordinates:** Enter geographical coordinates to initiate Google Maps.
  - **meCard:** Enter personal information.
  - **Calendar:** Enter Subject and Date/Time for an event.
6. In the **QR Code Options** section, define (Optional):
  - **Scale:** Define the size of the QR code by %.
  - **Version:** Specify version of QR Code (1-40)
  - **Error Correction:** Highest, Least, Medium, Medium-High
  - **Mask Pattern:** Specify which mask patterns to be used (1-8 available).
7. Click **OK** to apply the specifications.



## Data Flow

A data area (e.g. a frame) can be made to transfer data from one frame to another. When data is too large to fit in the frame, the excess will dynamically flow into the next defined frame. One or more frames can be attached to the primary data area, and all linked frames will be displayed with a number in the top left corner to show the order in which they are linked. Using this feature, data can be made to form columns or to wrap around an image.

### ❖ To activate data flow



1. Select the area of data that will flow into the next frame.
2. Click the **Create New Frame** button.
3. Click the left mouse button and drag to create a new frame of the desired size and position for the data to flow into.
4. Release the mouse to conclude the drawing of the frame.

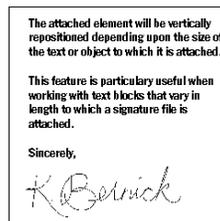
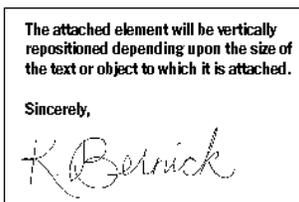
## Relative Form Object Placement



Form items can vertically float to accommodate differently sized images and data blocks to which they are attached. Element 1 must be a variable image or data/text block.

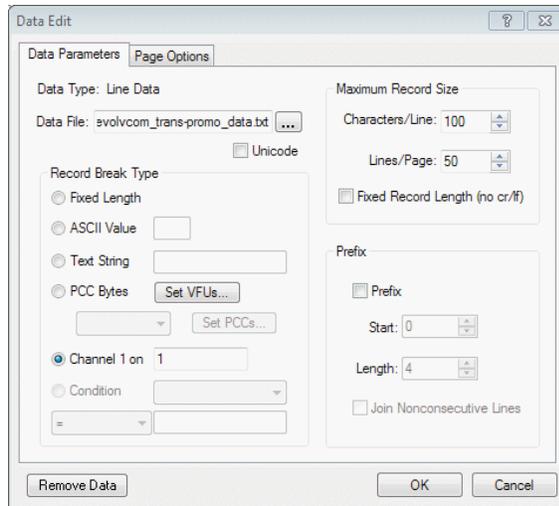
### ❖ To attach a relative form item

1. Select the item, such as a conditional text block or a conditional or data-driven image, to which the relative item will be attached.
2. Click the **Attach Relative Item** button.
3. Select the item that will be attached as a **Relative Form Item**.
4. Notice that a purple number will appear in the top left corner of the attached items. This number denotes the order in which the items are attached.
5. Multiple relative form items can be attached, either one at a time or by selecting the group, naming a master object, and clicking the **Attach Relative Item** button. The selected items will be relatively attached to the master item.



## Edit Data File

The Edit Data window allows the ability to change the attributes of the data file that was initially imported into the form or to re-import a new data file without deleting or changing the defined fields already implemented. There are two sets of data windows, one is for line data and the other one is for database data.



### Edit Line Data Parameters

#### ❖ To set data parameters

1. Select **Data Settings** from the **Edit** menu to open the **Data Edit** window.
2. Select the **Data Parameters** tab on the **Data Edit** window.
3. To import a new data file click the ellipsis button (...) adjacent to the **Data File** field, and select a new data file from the **Choose Data File** window.
4. Edit the record separator by selecting either **Fixed Length**, **ASCII Value** (enter a character, or a decimal value of an ASCII character preceded by a slash (e.g. /62)), **Text String** (enter text in the adjacent box), or **PCC Bytes** (specify VFUs for user specified channel assignment).
5. To change the maximum record size edit the **Characters Per Line** and **Lines Per Page** fields.
6. Check or uncheck the **Prefix** check box as desired. When the prefix box is checked the **Start** and **Length** of the prefix must be specified.



---

When changing data files, all aspects of the new data file are expected to be the same as the original data. If they are not, re-import a data file through the Import Data toolbar button.

---

### ❖ To edit the page break

1. Select **Data Settings** from the **Edit** menu and then open the **Data Edit** window.
2. Open the **Page Options** tab of the **Data Edit** menu.
3. If working with an **ASCII Value** or **Text String** as the record separator, set the **Page Break** options as follows:
  - **Page break is on** -Choose whether page break is on first line of record or last line of record.
  - **Print portion of line** -Choose whether to print information left of page break, right of page break, entire line or none.
  - **End Portion of Page Break Line** - Choose whether to ignore multiple page breaks per line or to start a new page with each page break.
  - The **Page Break Code** is generated automatically by the page separator choices made or may be entered manually. This code is used for VI Compose Output. See your VI Compose documentation for further information.
4. Set the **Starting Record** of the data file to be displayed in Proform Designer.
5. Set the **Record Interval** in which the records will skip.
6. Set the **Tab Spacing** option as desired. **Tab Spacing** allows the use of fixed increment tabs and the expansion of tabs to spaces in line mode display. The increment of spaces for each tab must be specified.
7. Click the **OK** button to accept the changes.

## Edit Delimited Data Parameters

### ❖ To edit delimited data file parameters

1. Go to the **Edit** menu and select **Data Settings**.
2. To select a new data file click the **ellipsis** button (...) adjacent to the **Data File** field. Select the new file from the **Choose Data File** window.
3. To change the field delimiter, enter a character or a decimal value of an ASCII character preceded by a slash (e.g. /62) in the **Delimiter** field.



When changing data files, all aspects of the new data file are expected to be the same as the original data. If it is not, re-import a data file through the **Import Data** toolbar button.

4. Edit the **Text Qualifier** from the drop-down menu.
5. To edit the **Maximum Record Length**, enter a new value.
6. Click the **OK** button to accept the changes.

**Data Parameters**

Data Type: Delimited Data Base

Data File: lytrod\_he\_alumni\_wine.csv ... Remove Data

Delimiter: Enter a character, or a decimal value of an ASCII character preceded by a slash (e.g. /9 is tab)

Text Qualifier: "

Maximum Record Length: 500

Records/Group: 1 Number of records read for each page. If more than one, multiple label records are required.

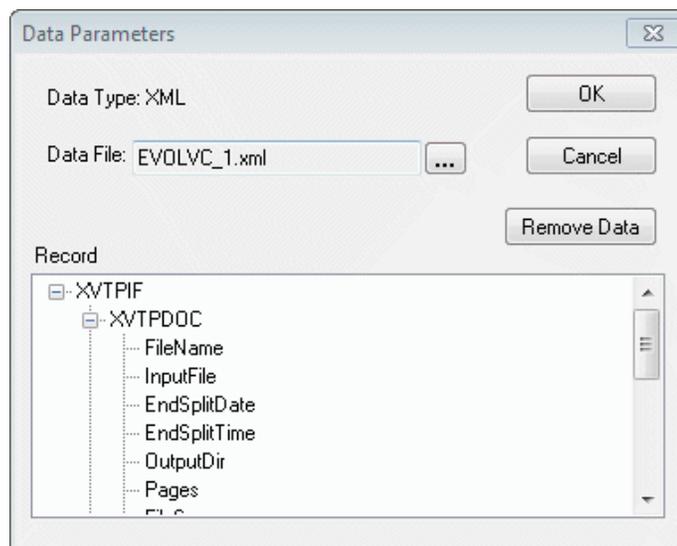
Remove Leading/Trailing Spaces in all Fields

File Info... OK Cancel

## Edit XML Data Parameters

### ❖ To edit XML data parameters

1. Go to the **Edit** menu and select **Data Settings**.
2. The **Data Parameters** window will appear.
3. If necessary, use the **Data File** ellipses (...) button to browse for a new data file.
4. If necessary, select a new record break from the XML data tree.
5. Click **OK**.

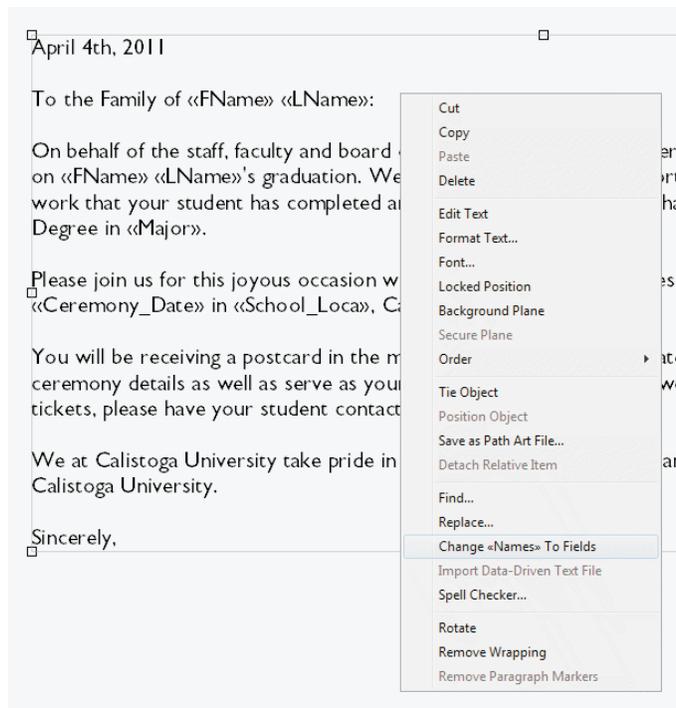


## Microsoft Mail Merge

Microsoft Word mail merge documents can be instantly converted to VI Compose using the Change «Names» to Fields function.

### ❖ To convert «Names» to VI Compose fields

1. Import the data file.
2. Import the document in a .TXT, .RTF, or .DOCX format.
3. Right-click and select **Change «Names» to Fields** from the context menu.



All «Names» will be converted to the Designer field name format (\$\$names.) in the selected data block.

## Conditional Logic

Designer supports complex conditional logic functions, and allows users to create conditional text, images, form objects (lines, circles, boxes and paths) and background images. Conditional text and images are created by drawing a conditional area onto the form and then defining the necessary conditions. Conditional form objects and background images are created by drawing the static image onto the form or importing the background image, and then applying conditions to those elements.

“If” logic is used to create conditions, and text, images or form objects are defined as a result. If a condition is met, the result is displayed. “Else” logic, nested conditions and AND/OR conditions can also be used to further drive conditional logic.

## Conditional Text and Images

### Creating Conditional Text or Graphic Areas

A conditional text or graphic area must be drawn to specify the placement and size of the text or graphic on the form.

#### ❖ To draw a conditional text area



1. Select the **Conditional Text** button.
2. Click the left mouse button and drag the mouse to draw the text field box.
3. The **Format Image** window will appear. Access the **Conditions** tab.
4. Define a text condition.

#### ❖ To draw a conditional image area



1. Select the **Conditional Image** button.
2. Click the left mouse button and drag the mouse to draw the area of the graphic.
3. The **Format Image** window will appear. Access the **Conditions** tab.
4. Define an image condition.

## Conditional Background Images

Conditional background images are created in a slightly different manner than a regular conditional image. You must first import the background image onto the form, and then define the conditions from within the Image Properties window.

### ❖ To create a conditional background image

1. Import one of the images that will be used as a conditional background image onto the form. If you would like to use a low resolution image for viewing and a high resolution image for printing, define those images now.
2. Right click the image. You will have to enable background mode from the **Edit** menu in order to select the background image.
3. Select **Format Image** from the context menu.
4. The **Image Properties** window will appear. Access the **Conditions** tab.
5. Define the necessary conditions and click **OK** to save the conditions and return to the form.



Conditional background images cannot be resized once they are on the form. All background images must be the correct size before they are imported.

---

## Conditional Form Objects - Lines, Boxes, Circles, Paths

A conditional form object must first be drawn on the form. Conditions can then be specified through the Line, Box, Circle or Path window.

### ❖ To create a conditional form object

1. Draw a form object (box, circle, line or paths).
2. Right click the form object, and select **Format Box, Circle, Line or Path** from the context menu.
3. Access the **Conditions** tab.
4. Click **Add** to begin creating conditions.
5. Click the **Format** button to define thickness, color, or box roundness.
5. When all conditions are created, click **OK** to save the tree and return to the form.

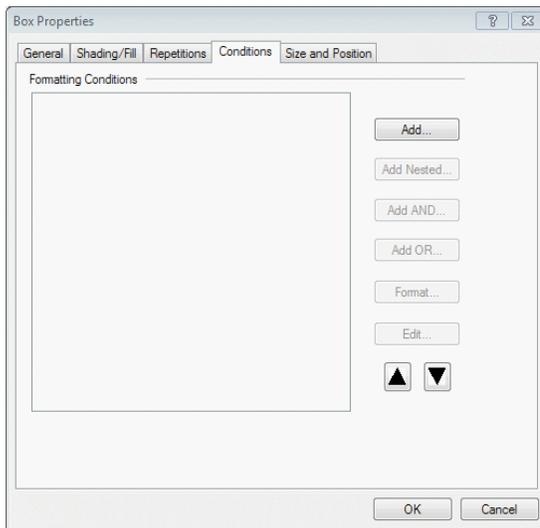


Detailed instructions for creating conditional logic are defined in the following pages.

---

## Building Conditional Logic

A conditional statement must be formulated by a true or false statement, resulting in a designated output, based upon that condition.

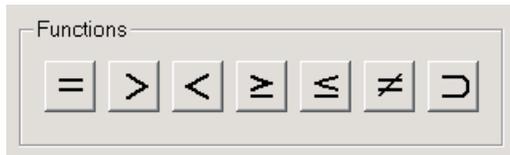


Format Data Conditions window

### ❖ To add conditional logic statements

1. Click the **Add** button to open the **Add Condition** window.
2. Select from the **Field** drop-down if applicable. This conditional variable classification drop-down menu allows variables to be sorted as either **Field**, **Variable**, **VI Compose Variable**, **Page Overflow** (line mode only) or **Job Conditions**. Selecting one of these classifications from the menu predefines only those variables of the specified classification in the **If:** drop-down menu.
  - **Field:** The variable field names defined in the data record.
  - **Variable:** Customized variable fields (concatenated, incrementing, etc.)
  - **System Variable:** One of the built-in System variables pre-defined in the drop-down menu. (These variables will only be available in the drop-down menu if the **Include System Keywords in Field List** is checked on the **Data** tab of the **Preferences** window.)
  - **Page Overflow (line mode only):** This can be used for line mode applications (like a billing statement) where a data record can flow for a variable number of pages before the next record break.
  - **Job Conditions:** Job conditions can be set in order to apply special formatting at the end of sets or at the end of the entire job.
3. Choose to create either an **If** or an **If Not** statement by enabling the appropriate radio button.

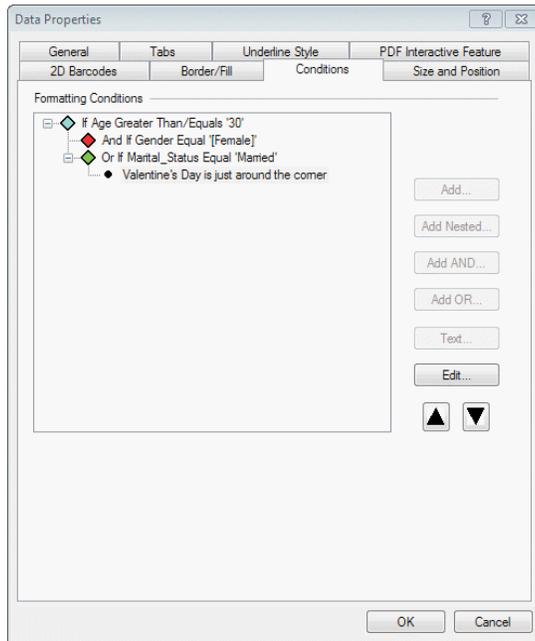
4. Choose a field from the **If/If Not** edit box.
5. Choose a function (=, >, <, ≥, ≤, not equal to, contains).
6. Choose a field or enter a value into the drop-down menu to set the condition.
7. Specify whether the variable that sets the condition is a **Number**, **Text**, or **Logical**.
8. Click the **OK** button to accept.



Key	Function
	equal to
	greater than
	less than
	greater than or equal to
	less than or equal to
	not equal to
	contains

## AND/OR Conditions

AND/OR conditions can be used as a simplified alternative to nested conditions. The AND condition is the equivalent of a simple nested condition, and the OR condition is the equivalent of an else-if statement.



### ❖ To add AND or OR condition

1. After adding the primary condition in the **Conditions** tab of the **Data Properties** window, click the **Add AND** or **Add OR** button to open the **Add Condition** window. The order of the **AND/OR** conditions is important to the logic, since they will be evaluated in sequential order.
2. In the **Add Condition** window, set the condition by selecting whether to create an **If** or an **If Not** statement and choosing a **field**, **function**, and **variable** value. For a complete description of what each variable is specifically for, please see page 222.
3. Choose number or text for the variable type.
4. Click **OK** to accept the conditions.



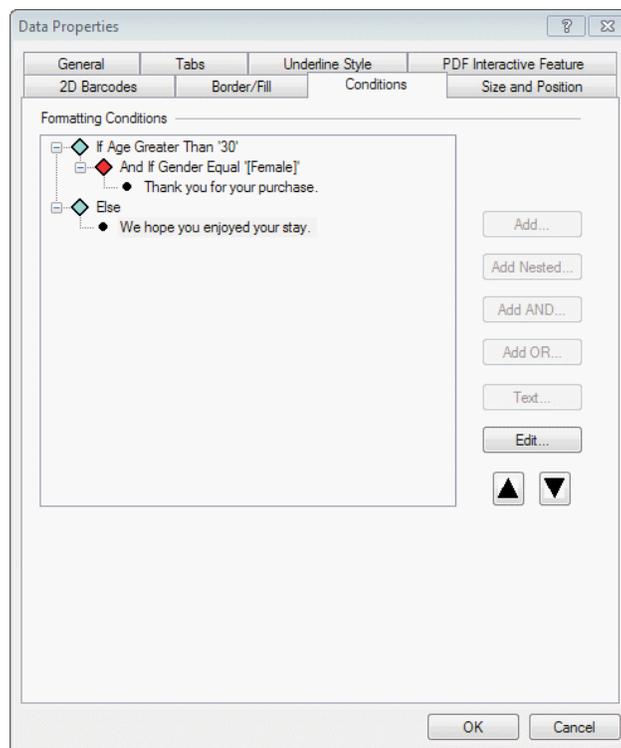
To aid in the design process, AND conditions will always be displayed with a red diamond, and OR conditions will always be displayed with a green diamond.

## Nested Conditions

Nested conditions are used in circumstances where a condition is set after a primary condition. This primary (parent) condition can have nested conditions (children) that will be evaluated when the primary condition is true.

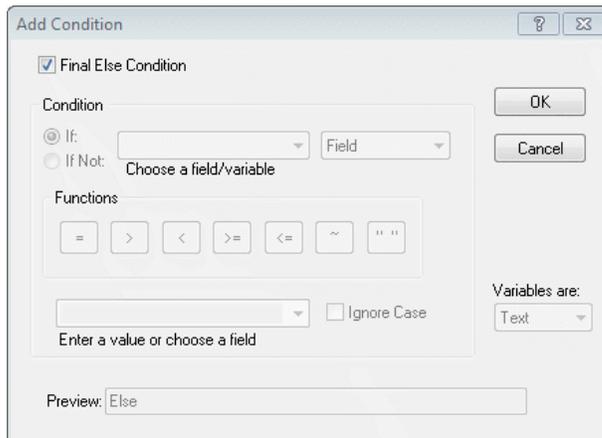
### ❖ To add a nested condition

1. After adding the primary condition in the **Conditions** tab of the **Data Properties** window, click the **Add Nested Condition** button to open the **Add Condition** window.
2. In the **Add Condition** window, set the condition by selecting whether to create an **If** or an **If Not** statement and choosing a **field**, **function**, and **variable** value.
3. Choose number or text for the variable type.
4. Click **OK** to accept the conditions.



## Final Else Conditions

Setting the Final Else condition allows text or images to appear when the prior conditions set are not met. Without a final else condition, nothing displays if all conditions are not met.



### ❖ To add an else or nested else condition

1. Select a statement on the conditional tree in the **Conditions** tab of the **Properties** window.
2. Click the **Add Condition** button.
3. Select the **Final Else** check box at the top of the window.
4. Click **OK** to accept.

## Editing Conditional Statements

Once defined, conditional statements can easily be edited.

### ❖ To edit a conditional statement

1. Right click the conditional image and select **Format Image** from the context menu.
2. Select the conditional statement from the Conditions Tree.
3. Click the **Edit** button.
4. Edit the statement and click **OK** to save the changes.



Use the up and down arrows located at the bottom right of the Properties window to shift conditions around within a condition tree.

---

## Copying and Pasting Condition Trees

It is possible to copy an entire condition tree and paste it into another location on the form. This is a great time-saving feature, and also reduces the amount of error that could occur when trying to duplicate a condition tree exactly.

### ❖ To copy and paste an entire condition tree

1. Select the conditional area on the form.
2. Right click and select **Copy** from the context menu.
3. Select a data field, or a conditional image/data field.
4. Right click again and select **Paste** from the context menu.
5. The currently displayed conditional element will be copied. Move it to where you want it on the form. It will be an exact duplicate of the original.

## Displaying Conditions

You can display all the conditions currently defined on a page in the View Conditions window.

### ❖ To view conditions

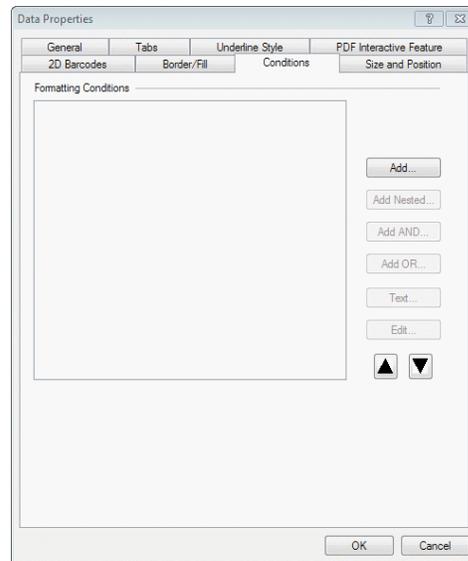
1. Go to the **View** menu and select **Data Conditions**.
2. The **View Conditions** window will appear. All the conditions used on the page will be listed here.

## Adding Text to a Conditional Statement

Text can be added to logic statements from the Data Properties window. The text will only appear if the logic statement is true. Text can also be imported from other applications, such as MS Word, to be used in the conditional statements.

### ❖ To create a conditional text block

1. Create a conditional statement to specify when the text will appear.
2. Highlight the conditional statement to which you will add the conditional text.
3. Click the **Text** button.
4. Type in the text, import text, and insert database fields as necessary.
5. Click **OK** to save the conditional text.



Text imported into the conditional text window will replace any pre-existing text. It is recommended to import the text file first, then add any additional text or database fields.

## Format Text

Font formatting can be applied to conditional text. The font type, style, point size, color and underline can be specified. The entire text block can be changed, or just a particular portion selected and specially formatted.

### ❖ To format the conditional text

1. Right click on the conditional text block and select **Format Data Condition**.
2. Highlight the area of the text that you want to format.
3. Use the text formatting buttons at the top of the conditional text window to format the text.
4. Click **OK** to save the formatting and return to the form.

## Conditional Text Mail Merge

Conditional text that has been imported from a Word document can be mail merged within a conditional text block.

### ❖ To perform a conditional text mail merge

1. Create a conditional statement.
2. Import a **.txt** or **.rtf** mail merge document into the **Conditional Text** window by clicking the **Import Text** button.
3. Highlight the text within the **Conditional Text** window.
4. Click the **Change Names to Fields** button.

## Editing Conditional Text

Conditional text can be quickly edited on screen using the text editor. The changes made on screen will be reflected in the text displayed in the Conditional Text window as well. Only the conditional text that is currently displayed can be edited from the screen. To edit the other conditional text, scroll through the data and edit each as it is displayed, or open up the Conditional Text window and make necessary edits from within that menu.

### ❖ To edit conditional text on screen

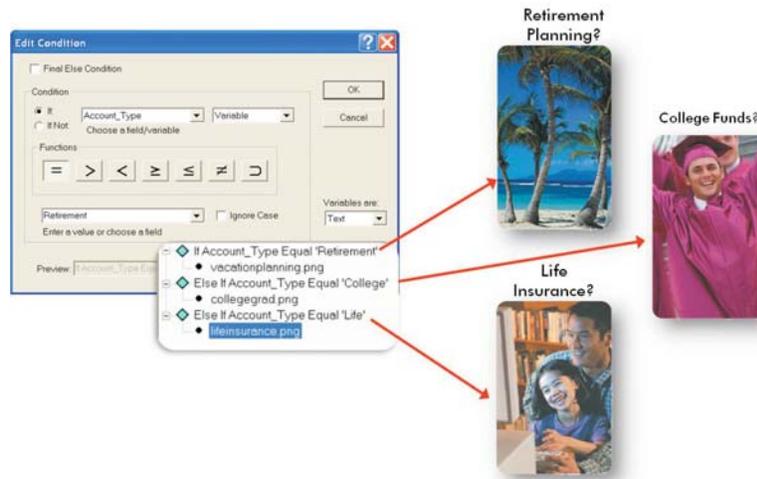
1. Double click the conditional text that is displayed on the form, or right click and select **Edit Text** from the context menu. This will open up the text editor.
2. Make necessary text edits.
3. Exit out of the text editor by clicking elsewhere on the form.
4. Click **Save** to save the changes.

### ❖ To edit conditional text using the conditional text window

1. Right click the conditional text box.
2. Go to the **Conditions** tab.
3. Expand the conditional statement that you want to edit.
4. Select the conditional text.
5. Click the **Edit** button.
6. Make necessary edits to the conditional text and click **OK**.
7. Click **OK** again to save the edits and return to the form.

## Adding an Image to a Conditional Statement

Conditional images can be imported through the **Image Properties** window.



### ❖ To add an image to the conditional logic

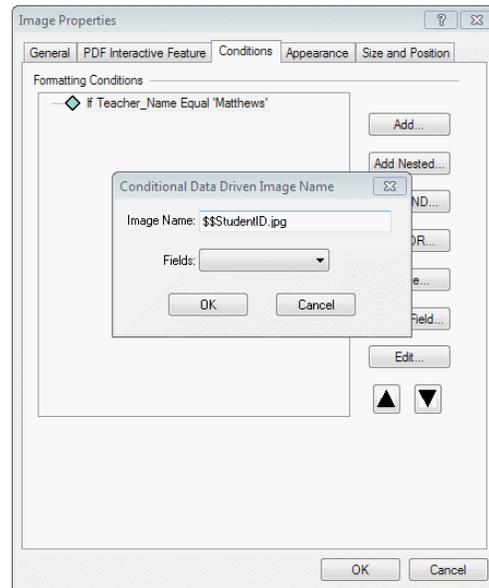
1. Create a conditional statement.
2. Click the **Image** button from the **Image Properties** window.
3. Select the image file that will be used for on screen viewing. Specifying a lower resolution image for on screen viewing will improve Proform Designer's response time when scrolling through data.
4. Click the ellipses next to the **Printing Image** field.
5. Locate the image that will be used for printing. This is where the high resolution .eps image should be specified.
6. Click **Open** to select each image.
7. The image selections will be listed under the qualifying condition in the condition tree.



It is not required to select both a viewing and a printing image. If there is only one version of the image and you would like to use it for viewing and printing, then there is no need to specify a particular printing image. It is more efficient, however, if you are working with large image files, to specify a low res .jpg for viewing and a high res .eps for printing.

## Conditional Data Driven Images

Conditional data driven images can be defined in the Image Properties window. The **Conditional Data Driven Image Name** window allows the concatenation of a field name with an image extension, which results in a conditional image that will appear based upon a field definition in the data.



### ❖ To create a conditional data driven image

1. After defining a conditional image statement, click the **Image Field** button.
2. Select the field that contains the data-driven images.
3. Type in the file extension if the data file does not already contain the file extension. Make sure that the concatenated field is formatted to read **\$\$data..extension**. There must be a complete file extension and a complete VI Compose field included for the conditional data driven image to work.
4. Click **OK** to return to the form.



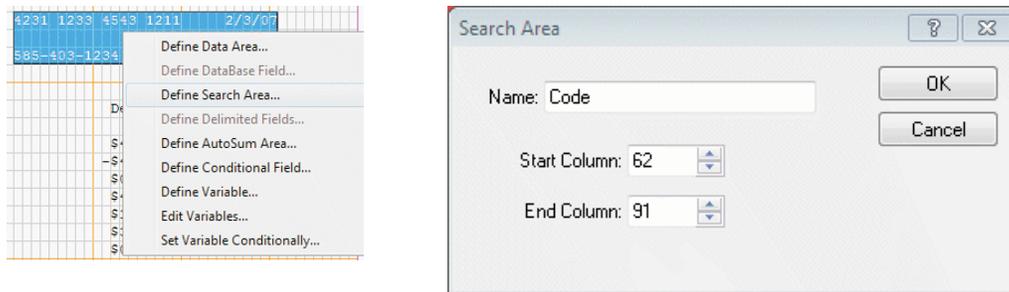
Data-driven images must be manually imported into a job or placed in the C:\XGFC\IMGLIB folder if sending a single form to VI Compose.

## Search Areas and Conditional Line Data Formatting

A line data area that has been placed onto the form can be conditionally formatted. The condition will affect the entire line of data where the condition is found true. The line of data can be conditionally formatted to undergo both font and color changes.

### Defining Search Area Fields

A Search Area Field must be defined before a line by line conditional statement can be created. The Search Area Field defines the columns that will be evaluated in the conditional statement. Proform Designer will use the column(s) defined by the Search Area Field to evaluate the conditional logic statement. If the conditional logic statement is true, then the entire line of data containing the condition will be affected. The Search Area Field will not be displayed in the data drop-down menu on the data view toolbar since it is only



used for setting line by line search conditions.

#### ❖ To define a search area field

1. Select the starting and ending column of data in the line data view window, located on the right side of the screen.
2. Multiple lines can be selected, but despite row selections all lines in the data record will be searched. Only the column values are used.
3. Enter the **Search Area** field name and verify or change the starting or ending column values.
4. Click **OK** to accept.

## Applying a Search Area Condition

Line by line formatting can be applied by using the Search Area Field and conditional logic. The search area field must be specified after the If condition. The second value/field can not be a search area field name.

### ❖ To apply a search area condition for line by line formatting

1. Define a **Search Area Field**.
2. Place line data onto form.
3. Select the data that has been placed onto the form, right click, and select **Format Data** from the context menu.
4. Access the **Set Conditions** tab, and click **Add**.
5. The **Add Condition** window will appear.
6. Choose a field to begin the **If** statement. Only fields set as **Search Area Fields** will be displayed in this drop-down menu.
7. Select the function: =, <, >, etc.
8. Enter a value or database field to search for. Click **OK** to save the statement.
9. Add **AND** and **OR** conditions as necessary to properly define the condition.
10. Click the **Format** button. This will cause the Set Conditional Font window to appear.
11. Choose how the data line will be displayed when the condition is met.
12. If you would like the data to always be displayed in the same font as defined in the preceding condition, enable the **Use Current Font** check box.
13. If you want the line on which the search condition is found true to not print, enable the **Do Not Print** check box. This will cause the line to not print, and the following lines to be shifted up so that there is no blank space.
14. Click **OK** to save the conditional formatting.

## Custom Variable Fields

Proform Designer allows the user to create variable fields, based off of information in the data record. These variable fields can be used to perform concatenations, calculations and transforms and to create conditional variables.

### Concatenated Fields

Concatenated fields are made up of text and/or data fields, and may contain multiple data fields. One use of the concatenated field is to call data-driven images from the VI Compose/imglib directory. Use the image's suffix (either .tif or .jpg) and the field name that contains the image names in the data file, to create one variable field that, when placed on the form, will cause the defined image to appear. See more about data-driven images on the following page.

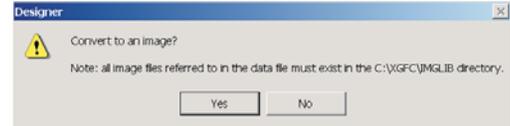
#### ❖ To create a concatenated field

1. Import a delimited data file, or, if using line data, define database fields.
2. Select **Field Settings** and choose **Define Variable** from the **Edit** menu.
3. Select **Concatenated Field** from the **Type** drop-down menu.
4. Name the field. This name will be listed in the data drop-down menu.
5. Add the desired data fields by selecting them from the **Field** drop-down menu.
6. Add any necessary text.
7. Define extractions and transforms if desired. The following pages outline in detail how to perform these functions.
8. Click **OK** to return to the form.

The screenshot shows the 'Define Variable' dialog box. The 'Name' field is 'Full\_Name'. The 'Type' is 'Concatenated Field'. The 'Contents' field contains '\$\$Pname.\$\$Lname.'. The 'Field' dropdown is set to 'Lname'. The 'Extract Field' section has 'Type' set to 'None', 'X' set to 0, and 'Length' set to 1. The 'Transforms' section has 'Character Removal' set to 'None', 'Case' set to 'None', and 'Bar Code' set to 'None'. There are 'OK' and 'Cancel' buttons at the top right.

## Data-Driven Images

If the data file contains the name of a tiff or jpeg image, this data can be dropped onto the page and treated as an image. If the data file contains just a partial name, you can use the concatenated variable field to add on the missing part of the name, generally the suffix. Once the image name field is placed onto the form, Proform will query the user as to whether the field is an image name or just a regular data field. Answer that it is an image name and the image will be shown.



	A	B	C	D	E
1	FName	LName	Id	Lot	Status
2	Paula	Boyd	20333096	A	YOUTH
3	Chris	McCarthy	30338491	A	ADULT
4	Singh	Chopra	50239944	B	YOUTH
5	April	Lichter	30462159	C	ADULT
6	Joseph	Hodge	22356664	D	YOUTH
7	Jennifer	Chen	33125028	A	ADULT
8	Leslie	Mugenast	14525158	B	ADULT

Name: MemberIdImage

Type: Concatenated Field

Contents: \$\$ Id . jpg

## Incrementing Variable

The Incrementing Variable function (counter) counts the data records, using a user defined increment, and displays an optional prefix and suffix along with the numeric value of the incrementing variable.

This function can be used to generate page numbers as well. The prefix "Page" could be set with a defined increment of "1" to display one page number on the form per data record.

### ❖ To create an incrementing numeric variable

1. From the **Edit** menu, select **Field Settings** and choose **Define Variable**. If using line data, it is also possible to right click the data and choose **Define Variable Field** from the context menu.
2. Create a **Name** for the variable field.
3. Select **Incrementing Variable** from the **Type** drop-down menu.
4. In the **Start** box, indicate which number to start the count with.
5. Define the **Increment** by which the counter will increase.
6. Add the desired **Prefix** and/or **Suffix**.
7. Define **Transforms** as necessary.
8. Click **OK**.

## Incrementing Text Variable

The Incrementing Text Variable function will count each data record using a set increment and then add zeroes to the left of the variable number to create a number with a defined character length. This is useful when creating serial numbers based upon a record count and starting numeric value. A prefix or suffix can also be added to the variable. The added prefix or suffix will not be recognized as part of the defined record length and will not affect the variable or preceding zero values.

### ❖ To create an incrementing text variable

1. Import a delimited file or define a database field from a line data file.
2. From the **Edit** menu, select **Field Settings** and choose **Define Variable**.
3. Enter a name for the new variable field. This name will appear in the data drop-down menu.
4. Choose **Incrementing Text Variable** from the **Type** drop-down menu.
5. In the **Start** box, specify the number with which the counting will begin.
6. Define the increment by which the numbers will progress.
7. Add the desired **Prefix** and/or **Suffix** if necessary.
8. Specify the character **length** of the desired counter. If you choose a length of 3, and the counting begins with the number 1, your counter will look like 001, 002, 003...100, 101 etc.
9. Define transforms as necessary.
10. Click **OK**.

The screenshot shows the 'Define Variable' dialog box. The 'Name' field is 'Text'. The 'Type' is 'Incrementing Text Variable'. The 'Start' is 100, 'Increment' is 2, and 'Length' is 6. The 'Prefix' and 'Suffix' fields are empty. The 'Extract Field' section has 'Type' set to 'None', 'X' set to 0, and 'Length' set to 1. The 'Remove Lead/Trail Spaces' checkbox is unchecked. The 'Separator' field is empty, and the 'Field' is set to 1. The 'Transforms' section has 'Character Removal' set to 'None', 'Case' set to 'None', and 'Bar Code' set to 'None'. The 'Seconds to H:M:S' checkbox is unchecked.

## Variable

The Variable function allows new fields to be created from information already existing in the data file. This function can be used to apply case and barcode transforms, as well as to extract portions of pre-defined fields.

### ❖ To create a variable

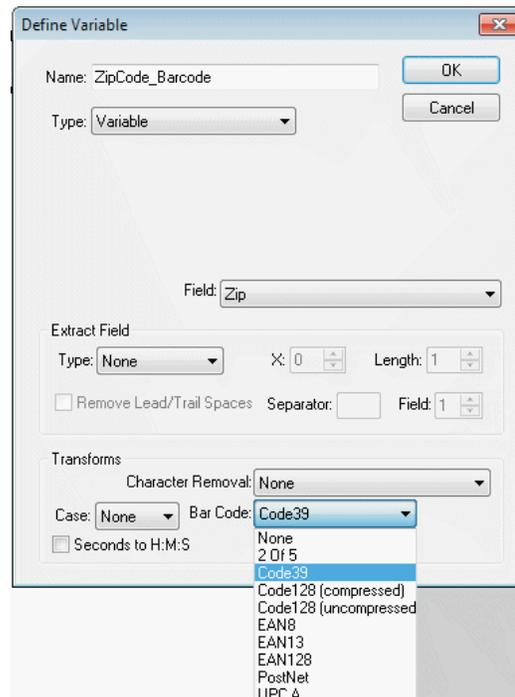
1. Import a delimited data file or define a database field from a line data file.
2. From the **Edit** menu, select **Field Settings** and choose **Define Variable**.
3. Select a name for the variable.
4. Choose **Variable** from the **Type** drop-down menu.
5. Select which pre-existing field will be modified to create the new variable. Select this field from the **Field** drop-down menu.
6. If performing a data extraction, define the type of extraction (by length or by separator). If by length, define the beginning position and the length. If by separator, define the character that will serve as the separator and which field will be separated.
  - For example, you have a name field that is made up of a person's first and last name:  
Jimmy Smith
  - You want to extract the first name to make a field called Fname, containing only the name "Jimmy".
  - You set the separator as the space (actually use the space bar and type a space into the separator field), and, since you want the first portion of the name, you set the field to be 1. If you were to want the part that comes after the separator, "Smith", the field would be 2.
7. If performing a case transform (upper, title, or lower case), select which case you desire from the **Case** drop down menu.
8. If performing a barcode transform, select the barcode type from the **Barcode** drop-down menu.
9. Click **OK** to save the new variable and return to the form. The new variable will now be listed in the data drop-down menu.

## Barcode Transforms

The following barcode transforms are available and can be performed by creating a new variable: 2OF5, CODE39, CODE128, EAN128, EAN8, EAN13, POSTNET, UPCA.

### ❖ To perform a barcode transform

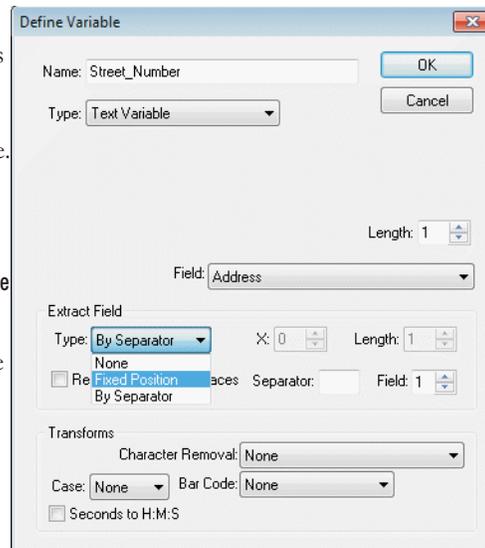
1. From the **Edit** menu, select **Field Settings** and choose **Define Variable**.
2. Name the new variable.
3. Select **Variable** from the **Type** drop-down menu.
4. Select the field to be transformed from the **Field** drop-down menu.
5. Choose the desired barcode type from the **Barcode** drop-down menu.
6. Click **OK** to save the variable and return to the form.
7. You must apply a barcode font to the variable in order for the barcode to actually be displayed.  
Proform Designer includes a WASP barcode library, so you will have access to these fonts. Drop the data field onto the form, and select the barcode font from the font drop-down menu.
8. A place-holder barcode will be displayed for viewing purposes. The actual barcode will be rendered upon output.



## Text Variable

The purpose of defining a Text Variable is to convert a variable recognized as binary (numeric or decimal) into a variable recognized as textual. Defined Calculation Variables using only decimal values (no text) and binary System Variables (some of the pre-defined variables built into the VI Compose language) can be used to create a Text Variable. Though other fields can be selected in the **Field** drop-down menu (containing text and are non-decimal/binary), the proper application of this function is achieved only with a predefined binary variable (Calculation value or **System Variable** not seen as text).

Numeric decimal variables offer a 32 bit limit to the variable string and can be utilized with a PostScript Function to produce highly accurate calculations. Converting a decimal binary value into a text variable will limit the variable string to 7 digits and simple textual (small numbers) calculations (not as precise).



### ❖ To create a text variable

1. Import a delimited or XML data file, or define a database field from a line data file.
2. From the **Edit** menu, select **Field Settings** and **Define Variable Field**.
3. Establish a **name** for the variable field.
4. Under **Type**, specify **Text Variable**.
5. Go to the **Field** drop-down menu and select either a pre-defined Calculation variable or a binary System Variable.
6. Specify the **Length** of characters.
7. Click **OK** to accept.



When defining a Text variable, a maximum text length must be defined. Text Variable content exceeding the maximum length may halt the print job with errors.



The following System Variables are recognized as Binary: **FRLEFT, FRCOUNT, LSP, VDISP, HDISP, SVPOS, SHPOS, RPLEFT, RPCOUNT, PPCOUNT, LPICOUNT, LPCOUNT, CPCOUNT, COLW, PGCOUNT, DTCOUNT**.

## Calculation Variable

The calculation variable allows a variety of functions to be assigned to a variable. Math, text and boolean functions can be added to data fields to create the calculation variable. A formula editor is available to apply VI Compose, PostScript, or calculator functions to fields or variables. Once a Calculation Variable is created, it becomes available to use multiple times on the form.

### Math

- +, -, \*, /, unary + -, ()
- Number is [<sign>]<number>, ([...] indicated optional)
- Real Number is [<sign>]<number>.<number>
- [<sign>] indicates optional + or -

### Text

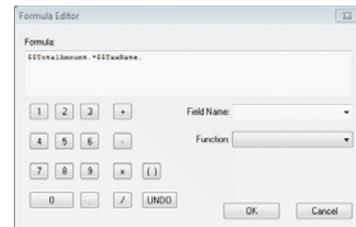
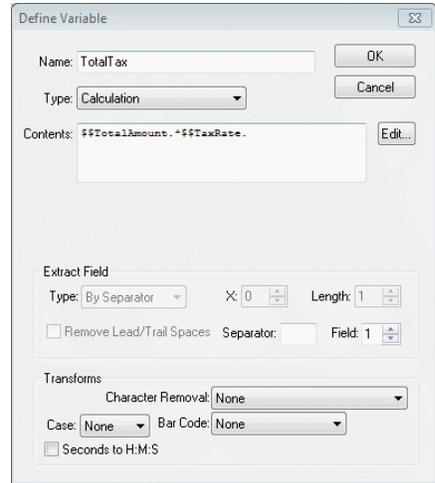
+ (concatenation)  
'text'

### Boolean

>, >=, <, <=, =, != (not equal)  
false, true

### ❖ To create a calculation variable

1. Select **Field Settings** from the **Edit** menu. Choose **Define Variable**.
2. Enter a name in the **Name** edit box.
3. Select **Calculation** from the **Type** drop-down menu.
4. Click the **Edit** button. The **Formula Editor** will appear. All database fields previously imported or defined will be available in the **Field** drop-down menu.
  - If a different field name is to be used, select a **Field Name** from the drop-down menu. Highlight the **Field Name** in the **Formula** area.
  - Select the desired **Function** from the drop-down menu. The syntax will appear in the **Formula:** edit box.
  - Click **OK** to return to the **Define Variable** window.
5. Additional **Transforms** can be applied if necessary.
6. Click **OK**.

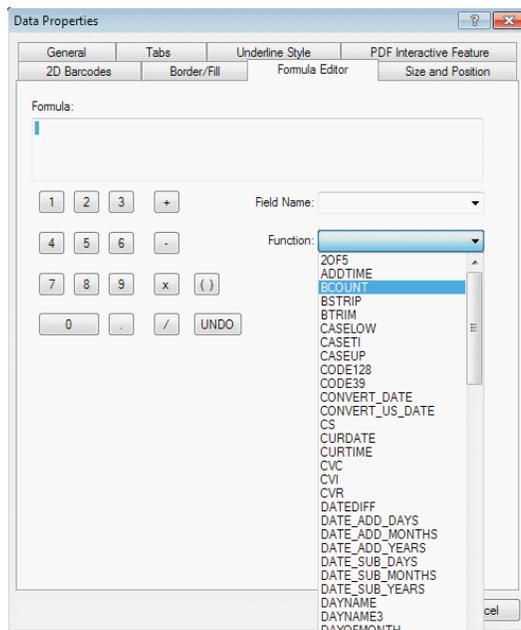


## Data Functions

Designer's Formula Editor provides the user with access to 21 System transforms/functions and 18 PostScript functions, each having 0, 1, or 2 parameters. These VI Compose and PostScript functions can be applied to data during the design process. The Formula Editor is useful for applying functions to data for one time use. Data that has had transforms/functions applied through the Formula Editor will not be available for later use within the Field Name drop-down menu.

### ❖ To implement data functions

1. On a form that contains a data file, click the **Data Formula** button on the **Data View** toolbar.
2. Click the left mouse button and drag a box where the data is to be placed.
3. The **Data Properties** window will appear, displaying the **Formula Editor** tab. The variable field defined in the data field drop-down menu will already be listed in the **Field Name** drop-down menu and the **Formula** edit box.
4. If a different field name is to be used, select a **Field Name** from the drop-down menu. Highlight the **Field Name** in the formula area.
5. Select the desired **Function** from the drop-down menu. The syntax will appear in the **Formula** edit box.
6. Click **OK** to return to the form. The data will be placed onto the form.



## Conditional Variable

The Conditional Variable function allows users to create a custom variable that is true only when a specified condition in the data field is met, and is false otherwise.

For example, a user might create a conditional variable called **CommonName**. **CommonName** would be 'true' if a person's last name was Jones or Smith. Therefore, if the last name was not Jones or Smith, **CommonName** would be 'false' and would not be used.

### ❖ To create a conditional variable

1. Go to the **Edit** menu and select **Field Settings**. Choose **Define Variable**.
2. Enter a name for the conditional variable in the **Name** field.
3. Select **Conditional Variable** from the **Type** drop-down menu.
4. Click the **Edit** button to open the **Conditions** window.
5. Click **Add** to access the **Add Condition** window.
6. Create the condition and click **OK** to save. Add **AND/OR** conditions as necessary.
7. Click **OK** to save the defined conditions and return to the **Define Variable** window.
8. The condition will be displayed in the **Condition** area.
9. Click **OK** to save.

The screenshot shows the 'Define Variable' dialog box with the following details:

- Name:** Select\_City
- Type:** Conditional Variable
- Condition:** {State,=,'CA',T}{City,=,'Berkeley',T,1}...
- Buttons:** OK, Cancel, Edit...
- Extract Field:** Type: None, X: 0, Length: 1, Remove Lead/Tail Spaces: , Separator: , Field: 1
- Transforms:** Character Removal: None, Case: None, Bar Code: None, Seconds to H:M:S:

## System Functions

### BarCode Transforms:

2OF5, CODE39, CODE128, EAN128, EAN8, EAN13, POSTNET, UPCA

These transforms prepare data for properly displaying a barcode, by determining transforms, checksums, start and end sequences.

#### 2OF5(*data*)

2OF5 is to be used with an Interleaved 2 of 5 barcode font. Cannot accept space or alphabetic characters.

Example: 2OF5(\$BarcodeData.)

If BarcodeData contains 123456 the results of this transform would be —“ÉÝ~

#### CODE39(*data*)

CODE39 is to be used with a Code-39 barcode font. Only alphabetic and numeric characters are acceptable in the input data.

Example: CODE39(\$BarcodeData.)

If BarcodeData contains 123456 the results of this transform would be `123456~

#### CODE128(*data*)

#### EAN128(*data*)

CODE128 and EAN128 are to be used with a Code-128 barcode font. Accepts characters in the full ASCII range (0..127) in its input data. Uses code-set C when possible to compress sequence of digits.

Example: CODE128(\$BarcodeData.)

If BarcodeData contains 123456 the results of this transform would be é-CY¬ê

#### EAN8(*data*)

#### EAN13(*data*)

EAN8 and EAN13 are to be used with an EAN barcode font. EAN8 accepts only 7 digit character sequences, and EAN13 accepts only 12 digit character sequences as its input data.

Example: EAN8(\$BarcodeData.)

If BarcodeData contains 1234567 the results of this transform would be \_~1234IFGHA\*\_

#### POSTNET(*data*)

POSTNET is to be used with a PostNet barcode font. Accepts only 5, 9 or 11 digits, or 10 or 12 characters with a dash character in the 6<sup>th</sup> position, as its input data.

Example: POSTNET(\$BarcodeData.)

If BarcodeData contains 12345-6789 the results of this transform would be \*1234567895\*

#### **UPCA(data)**

UPCA is to be used with a UPC version A barcode font. Accepts only 11 digit numbers in its input data.

Example: UPCA(\$BarcodeData.)

If BarcodeData contains 12345678901 the results of this transform would be ~v23456IHJABM\*-

#### **Case Transforms:**

CASEUP, CASELOW, CASETITLE

These transforms change the letter case of the input data to these functions, returning the transformed text.

#### **CASEUP(data)**

CASEUP will convert every lower case character in the input data to upper case, without modifying any non-alphabetic character.

Example: CASEUP(\$FullName.)

If FullName contains 'John Smith' the results of this transform would be 'JOHN SMITH'

#### **CASELOW(data)**

CASELOW will convert every upper case character in the input data to lower case, without modifying any non-alphabetic character.

Example: CASELOW(\$FullName.)

If FullName contains 'JOHN SMITH' the results of this transform would be 'john smith'

#### **CASETITLE(data)**

CASETITLE will convert the first alphabetic character (and every first alphabetic character after a space) to an upper case character, and all other upper case characters to lower case in the input data, without modifying any non-alphabetic character.

Example: CASETITLE(\$FullName.)

If FullName contains 'JOHN SMITH' the results of this transform would be 'John Smith'

## Data Transforms/Functions :

**ARABIC, BCOUNT, BSTRIP, BTRIM, CS, CVI, CVS, Extract, FORMAT, HMS, Maximum, Minimum, QSTRIP, Quotient, REPLACE, Remainder, ROUND**

### **ARABIC(data,option)**

*ARABIC* will reverse the text and attempt merging of adjacent characters. Supports the Arabic and Hebrew languages which display text in a right to left format.

*option* is one of the following:

- 0 base function
- 1 switch to a different font for non-Arabic characters
- 2 substitute European digits for Hindi digits

Example: ARABIC(\$\$Paragraph1.,0)

If Paragraph1 contains ‘Our company is proud to announce our latest product’ the results of this transform would be ‘tcurorp tsetal ruo ecnuonna ot duorp si ynarpmoc ruO’

### **BCOUNT(data)**

*BCOUNT* will determine the number of space characters in the input data, returning an integer number.

Example: BCOUNT(\$\$Paragraph1.)

If Paragraph1 contains ‘Our company is proud to announce our latest product’ the results of this function would be the value 8

### **BSTRIP(data)**

*BSTRIP* will remove any leading and trailing space characters from input data.

Example: BSTRIP(\$\$Data1.)

If Data1 contains ‘The winning entry belongs to: John Smith’ the results of this transform would be ‘The winning entry belongs to: John Smith’

### **BTRIM(data)**

*BTRIM* will remove any leading, trailing and any duplicate space characters from input data.

Example: BTRIM(\$\$Data1.)

If Data1 contains ‘The winning entry belongs to: John Smith’ the results of this transform would be ‘The winning entry belongs to: John Smith’

**CS(data1,data2)**

*CS* will merge two text fields into a single text field. *data1* and *data2* can be either data fields or quoted text.

Example: CS(\$ZipCode, '-0109')

If *ZipCode* contains '94533' the results of this function would be '94533-0109'

**CVI(data)**

*CVI* will convert the text field into an integer value.

Example: CVI(\$ZipCode.)

If *ZipCode* contains the text '94533' the results of this function would be the number 94533

**CVR(data)**

*CVR* will convert the text field into a real number.

Example: CVR(\$TotalPrice.)

If *TotalPrice* contains the text '1234.56' the results of this function would be the number 1234.56

**Extract(text,position,length)      Extract(text,position,delimiter)**

*Extract* will extract characters from a text based on position and length of the substring, or by field number position (starting with 0) and a single character delimiter search, returning a subset of the original text parameter.

Example: Extract(\$DataLine.,3,',')

If *DataLine* contains 'John,Smith,123 Main Street,New York,NY,00200' the results of this function would be 'New York'

**FORMAT(number,control)**

*FORMAT* will format a number into a text based on a control string.

*control* is text that can be defined with:

- negative sign shown only if number is negative.
- + positive sign shown only if number is positive.
- @ represents a formatting placeholder.
- # represents a digit that is kept as it, or is filled with 0s if digit did not exist.
- , thousand separator (not shown with leading 0s represented with @).
- . decimal delimiter.

Any other character in the control text will be shown.

Example: FORMAT(\$TotalValue., '\$-@,@@@,@@@#.##')

If *TotalValue* contains the value 12345.67 the results of this function would be '\$ 12,345.67'

**HMS(number)**

*HMS* will convert time defined in seconds to a format of HH:MM:SS (24 hour), where HH is a value of 0 to 23, MM is a value of 0 to 59, and SS is a value of 0 to 59.

Example: HMS( $\$TimeInSeconds$ .)

If  $TimeInSeconds$  contains 12345 the results of this transform would be '3:25:45'

**Maximum(number1,number2)**

*Maximum* will determine the larger of two numbers. Either of the two parameters may be an integer, real, variable or text number.

Example: Maximum( $\$Qty1$ ., $\$Qty2$ .)

If  $Qty1$  contains 12345 and  $Qty2$  contains 12432 the results of this function would be 12432

**Minimum(number1,number2)**

*Minimum* will determine the smaller of two numbers. Either of the two parameters may be an integer, real, variable or text number.

Example: Minimum( $\$Qty1$ ., $\$Qty2$ .)

If  $Qty1$  contains 12345 and  $Qty2$  contains 12432 the results of this function would be 12345

**QSTRIP(data)**

*QSTRIP* will remove the first and last characters from the text.

Example: QSTRIP( $\$QuotedName$ .)

If  $QuotedName$  contains "'John Smith'" the results of this transform would be 'John Smith'

**Quotient(number1,number2)**

*Quotient* will divide number1 by number2, where either parameter can be an integer, real, variable or a text number.

Example: Quotient( $\$Qty1$ .,4)

If  $Qty1$  contains '12345' the results of this function would be 3086.25

**REPLACE(data,find,replace)**

*REPLACE* will search the data parameter for any number of occurrences of the find parameter and replace each one with the replace parameter.

Example: REPLACE( $\$SSN$ .,'-','')

If  $SSN$  contains '123-45-6789' the results of this function would be '123456789'

**Remainder(number1,number2)**

*Remainder* will determine the remainder of dividing the number1 parameter from the number2 parameter. Either of the two parameters can be an integer, real, variable or a text number.

Example: Remainder(\$Qty1.,4)

If Qty1 contains '12345' the results of this function would be 1

### **ROUND(number,position)**

*ROUND* will round the real number parameter to the nearest digit at a given position to the left (negative position) or right (positive position) of the decimal point.

Example: ROUND(\$Number.,2)

If Number contains '12345.6789' the results of this function would be '12345.68'



System functions are listed in the Function drop-down menu in uppercase letters.



BarCode and Case Functions take a single DataBase/Variable parameter (e.g. UPCA(\$product.))

## **PostScript Functions**

### **Math**

abs	absolute value (ex. abs(\$total.))
atan	arc tangent (ex. atan(\$x.))
ceiling	least whole value $\geq$ parameter (ex. ceiling(\$amount.))
cos	cosine (ex. cos(\$x.))
floor	greatest whole value $\leq$ parameter (ex. floor(\$balance.))
ln	natural logarithm (base e) (ex. ln(\$y.))
log	common logarithm (base 10) (ex. log(\$z.))
mod	remainder of parameter1 / parameter2 (ex. mod(\$due., \$payment.))
rand	random number generator (no parameters) (ex. rand())

round	convert real number to whole by rounding (ex. round(\$\$r.))
sin	sine (ex. sin(\$\$t.))
sqrt	square root (ex. sqrt(\$\$s.))
truncate	truncates toward zero by removing fractional part (ex. truncate(\$\$income.))

### Logical Functions

and	bitwise and of parameter1 and parameter2 (ex. and(\$\$logic., 255))
not	bitwise complement of parameter (ex. not(\$\$logic.))
or	bitwise or of parameter1 and parameter2 (ex. or(\$\$logic., 255))
xor	bitwise exclusive or of parameter1 and parameter2 (ex. xor(\$\$logic., 255))
bitshift	shift parameter1 left by parameter2 bits (ex. bitshift(\$\$logic., 2))

### String Functions

length	determines the number of characters in a string
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PostScript Functions are listed in the **Function** menu in lowercase letters

## System Variables

System variables are predefined variables built into the VI Compose language. System variables provide information about a form, Job, the VI Compose software, or printer details such as time and date. System variables can be used in a variety of ways in Designer. The variables are available in the Field drop down menus within the Variable, Text Variable, Calculation Variable and Concatenated Variable windows. They can be used to populate the second field when creating conditional logic statements. They can also be typed directly onto a form as a System field (Ex. \$\$BACK.), where they will be converted to a number, boolean value (e.g. "false") or a text string. System variables fall into several categories: boolean, numeric, text, time, or date. When building conditional logic statements, if a System Variable is selected, the type will be automatically selected from the **Variables are:** drop down menu. If the variable is boolean, Variables are: Logical will be selected, and "true" and "false" will be added to the drop down menu.

### Line Mode Only

YINIT	YINIT is a numeric variable that provides the current vertical position as defined by SETGRID. This variable will produce a numeric value representing vertical position measured in the current form unit. If used in conditional logic statements, this variable is applicable to Image and Data Conditions.
LNCOUNT	LNCOUNT is a numeric variable that gives the number of lines of data on the current record. The variable will produce a numeric value representing a number of lines.
GRIDSKIP	GRIDSKIP is a new built-in boolean variable to determine how a page break occurred in line mode. It is true if the lines-per-page (as defined by SETGRID) was exceeded, or false otherwise (PCC, SETPBRK, or SETSKIP condition has occurred).

### Database Mode Only

FRLEFT	FRLEFT is a numeric variable used for text or data flow. It gives the amount of vertical space from the current print position to the bottom of the current frame on the stack. The variable will produce a numeric value in the units being used.
FRCOUNT	FRCOUNT is a numeric variable that provides the current frame number.

### Line and Database Modes

LSP	LSP provides information about the line spacing of data. If used in conditional logic statements, this variable can only be used for Data Conditions, and the value be an number in dots.
XGFVER	XGFVER provides a string that displays the release number of the version of the VI Compose software, e.g. 3.0 or 4.0. The release number cannot be abbreviated.
VDISP	VDISP is a numeric variable that gives the displacement between a saved print position and the current position. This is used when, for example, a form contains paragraphs of variable lengths and a box will be inserted between them. VDISP provides the displacement between the current vertical position, where the second paragraph will begin and print position, where the first paragraph ended. VDISP produces a numeric value representing a number of form units between these two positions.
HDISP	HDISP is the same as VDISP, except that it deals with horizontal rather than vertical position.

<b>SVPOS</b>	SVPOS is a numeric variable that provides the vertical print position for a form element that is determined by the saved print position of some other element. The variable produces a numeric value representing a number of units between these two positions.
<b>SHPOS</b>	SHPOS is a numeric variable that provides the horizontal print position for a form element that is determined by the saved print position of some other element. The variable produces a numeric value representing a number of units between these two positions.
<b>RPLEFT</b>	RPLEFT is a numeric variable used when repeating a portion of a page, a page, or a sequence of pages that determines the number of times the procedure will occur, i.e. the number of repetitions plus the first iteration. The variable produces an integer representing the number of times a procedure will occur. This could be used, for example, as a job condition in a job where pages are being repeated.
<b>RPCOUNT</b>	RPCOUNT is a numeric variable that provides the current iteration (beginning with 1) of a procedure that is being repeated. The variable will produce a numeric value representing an iteration. This variable can be used in a condition to customize one or more pages in a series of repetitions or for a variety of other purposes.
<b>PPCOUNT</b>	PPCOUNT is a numeric variable that provides the number of the physical page in a job. The variable will produce an integer representing a page number.
<b>PGCOUNT</b>	PGCOUNT is numeric variable that provides a virtual page number for each data record.
<b>LPICOUNT</b>	LPICOUNT is a numeric variable that represents one of the logical pages on a multi-up page. If this variable is used to produce an action, this action will be applied to the logical page, not the physical page. The variable will produce an integer representing a logical page number (1-the number of rows times columns defined in the multi-up section of the Job Options. Note: This can be used in conjunction with Z-Sort only in Database Mode.
<b>DTCOUNT</b>	DTCOUNT is a numeric variable that provides a data record number.
<b>LPCOUNT</b>	LPCOUNT is a numeric variable representing the number of the current logical page number in a multi-up job. Note: LPCOUNT begins from 0. The variable will produce a an integer representing a logical page number (1 - the number of rows times columns defined in the multi-up section of the Job Options.)
<b>BACK</b>	BACK is a boolean variable that can be used to create conditions based on whether the current page is on the front or back side of a physical page in a duplexed job. The variable will produce a value that is either "true" or "false."
<b>CPCOUNT</b>	CPCOUNT is a numeric variable that provides the current number of a copy (the logical number of a page within cycle). E.g., if there are two forms, and Form A is being repeated in the job but the second is not, the copy number of Form B is 3. The variable will produce an integer representing the copy number.
<b>COLW</b>	COLW is a numeric variable that stores the column width of a form element. The variable produces a number in the current unit.
<b>PDFDEVICE</b>	PDFDEVICE is a boolean variable. If the device being used to print the job produces PDFs, PDFDEVICE can be used to conditionally yield printed documents, PDF documents, or both. The value to be compared to must either be the text "true" or "false."
<b>PAGEH</b>	PAGEH provides the height of the current logical page.

PAGEW	PAGEW provides the width of the current logical page.
SHEETH	SHEETH provides the height of the current physical page.
SHEETW	SHEETW provides the width of the current physical page.

### Time and Date Variables

Time and Date Variables refer to the current time/date when the Job initializes on the printer's internal clock.

D_DD	D_DD is the day of the current month in a two digit format. Ex. 21.
D_DOY	D_DOY is the day of year represented as a number between 1 and 365.
D_DWL	D_DWL is the day of the week written out in full. Ex. Friday.
D_DWS	D_DWS is the day of the week abbreviated to three letters. Ex. Fri.
D_MO	D_MO is the number representing a month. Ex. 9 for September.
D_MOL	D_MOL is the name of a month written out in full. Ex. December.
D_MOS	D_MOS is the name of the month abbreviated to three letters. Ex. Sep
D_YY	D_YY is the year abbreviated to 1 or two digits (leading zeros are omitted). Ex. 3 for 2003
D_YYYY	D_YYYY is the full year. Ex. 2003
T_HH	T_HH is the current hour in the 24 hour clock format. Ex. 13 for one o'clock pm.
T_HH2	T_HH2 is the current hour abbreviated to 1 or two digits (leading zeros are omitted). Ex. 1 for one o'clock
T_MM	T_MM is the current minute. Ex. 35.
T_SS	T_SS is the current second. Ex. 6.
T_TZN	T_TZN is a text variable representing the time zone. Ex. Pacific Daylight Time or Central Standard Time.



System Variable Keywords are accessible in the field list if enabled through the Preferences window (Edit menu / Preferences / Data tab).

## Data Driven Graphs

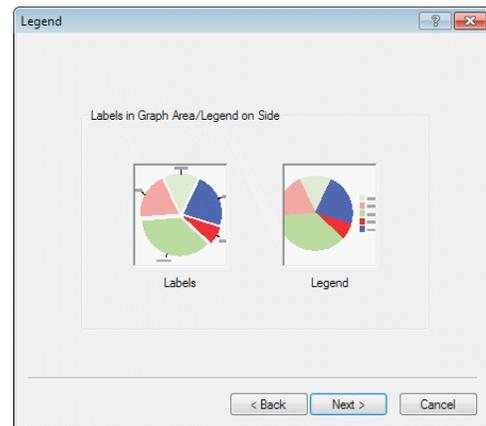
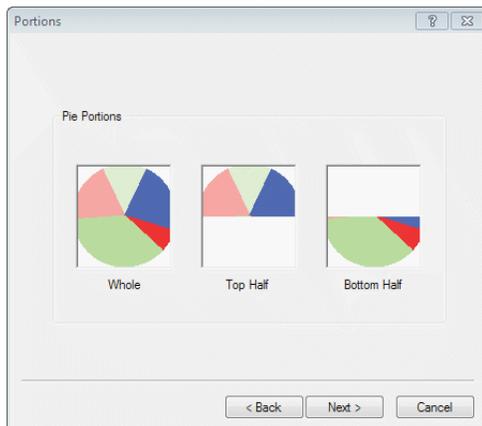
The Data Driven Graphs wizard helps you to create a graph using values in a data file. Proform Designer will place a representation of the graph on the page for visual purposes, but the actual graph will not be rendered until VI Compose output.

If using a line data file, the data fields must be predefined. VI Compose also requires that there is an additional blank line under the data.

### ❖ To create a data-driven graph



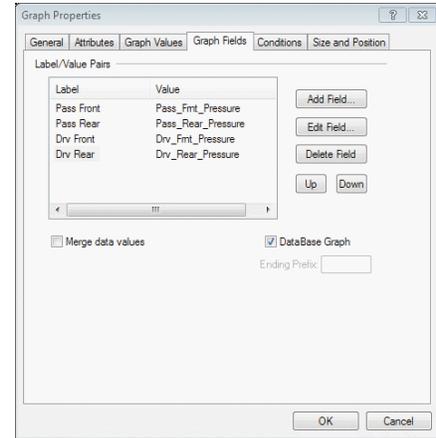
1. Click the data-driven graph icon on the **Standard** toolbar, or go to the **Edit** menu, select **Draw Mode** and choose **Graph Draw**.
2. Draw the graph outline. A graphic representation will display in the area that the actual graph will occupy upon output of the VI Compose form.
3. Once the **Data Driven Graph** wizard is displayed, select a **Graph Type** of either **Curve**, **Bar**, **Pareto**, **Radar** or **Pie**. If you select **Pie**, you will then have the option to choose whether you will create the **whole pie**, the **top half**, or the **bottom half**.



4. Continue through the wizard to make additional graph appearance selections. If you select **Labels**, the labels will appear on the graph itself. If you select **Legend**, the labels will be color coded and displayed to the right of the graph.
5. Select either a **2D** graph or a **3D** graph.
6. Define **Graph Fields** by clicking the **Add Field** button and defining a label and value. Enable the **Stacked Bar Chart** check box to create a stacked bar.
7. Fields can be deleted by clicking the **Delete Field** button. Several fields can be added, and the order that

they are presented in rearranged, by using the **Up** or **Down** buttons. Graphs created with line data records can only use defined fields that are created with one line each.

8. The **Summary** window presents all of the define graph information. If the information needs to be edited, use the **Back** button to scroll through the Graph Wizard and make appropriate changes.
9. Click the **Finish** button in the **Summary** window to accept the parameters and return to the form.



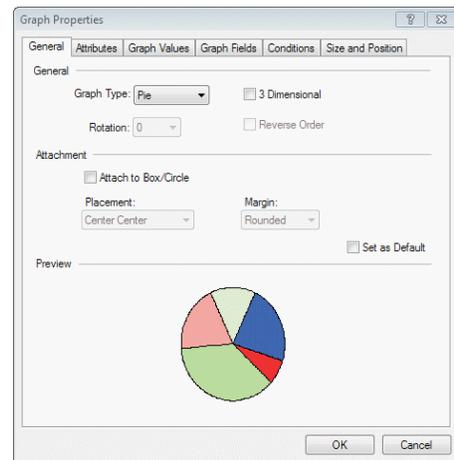
## Format Graph

After creating a graph with the graph wizard, you can add additional attributes or edit changes in the Graph Properties window. First, select the graph and right click to select Format Graph, or go to the Format menu and select Data Object.

### General Graph Style

#### ❖ To format graph style

1. Right click the graph and select **Format Graph** from the context menu.
2. Access the **General** tab. Form this tab, multiple specifications can be made that will determine the final look of the graph.
  - **Graph Type:** Select the graph type (bar, curve or pie) from this drop-down menu.
  - **3 Dimensional:** Enabling this check box will produce a 3 dimensional graph. Un-check the box to produce a 2 dimensional graph.
  - **Rotation:** The graph can be rotated to any 90 degree angle.
  - **Reverse Order:** Enabling the Reverse Order check box will cause the graph labels and values to be listed from right to left and top to bottom along the X and Y axis. Un-checking this box will cause the labels and values to be listed in traditional left to right and bottom to top order.
  - **Attach to Box/Circle:** Graphs can be attached to boxes and circles. Enable the Attach to Box/Circle check box. If this box is enabled and there is no box or circle currently defined on the page to which the graph can be attached, Designer will ask if one should be created. Click Yes and designer will create a zero line box and attach the graph to it.
  - **Placement:** Select from the Placement drop-down menu where you want the graph placed within the box or circle that it is attached to.



- **Margin:** The Margin drop-down menu allows you to choose between square or rounded margins. If attaching the graph to a circle, selecting the rounded margin option will provide more placement options for the graph within the circle.
- **Set a Default:** If you want Proform Designer to default to these parameters every time a graph is created, enable the Set as Default check box.

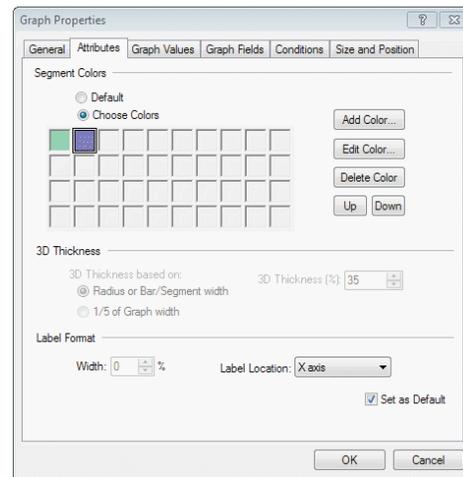
3. Click **OK** to apply the settings and return to the form.

## Graph Attributes

The Graph Attributes tab of the Graph Properties window provides further graph formatting options. Select graph segment colors, 3D thickness, label width, label location, and if these parameters should serve as graph defaults.

### ❖ To define segment colors

1. Enable either the **Default** radio button or the **Choose Colors** radio button.
  - **Default:** Proform Designer will supply the colors for the graph segments based upon default settings.
  - **Choose Colors:** The user specifies which colors will be used for the graph segments.
2. If you will use the default colors, there is no more color definition necessary. If you will choose the segment colors, click the **Add Color** Button. The **Color Selection** window will appear.
3. Select a color from the display, type in a specific **RGB** or **CMYK** value, or select a Pantone color from the **Pantone** drop-down menu.
4. Proform Designer also has the ability to pick up a color from anywhere on the screen and use that color in the segment definitions. Left click the **Select** button, and drag the eyedropper tool to the on-screen color that you would like to use. Let go of the mouse to select the color.
5. Click **OK** to save the segment color definition. Repeat this process until all necessary colors are defined.



### ❖ To edit segment colors

1. Select the defined color that you wish to edit.
2. Click the **Edit Color** button in the **Segment Colors** area.
3. The **Color Selection** menu will appear. Choose a new color and click **OK** to replace the old color with the new color.

### ❖ To delete a segment color

1. Select the defined color that you want to delete.
2. Click the **Delete Color** button.
3. The color will be deleted from the **Segment Colors** area.

❖ **To move a color up or down in the color order**

1. Select the color that will be moved to a different position.
2. Use the up and down buttons to position the color in a new place in the line-up.

❖ **To specify the 3D thickness of the graph**

1. Select whether the thickness will be based upon the **Radius or Bar/Segment** width or **1/5 of Graph Width**.

3D Thickness 

---

3D Thickness based on:

Radius or Bar/Segment width      3D Thickness (%):

1/5 of Graph width

2. Define a **3D Thickness** percentage, based on the above settings.

❖ **To specify the label location and width**

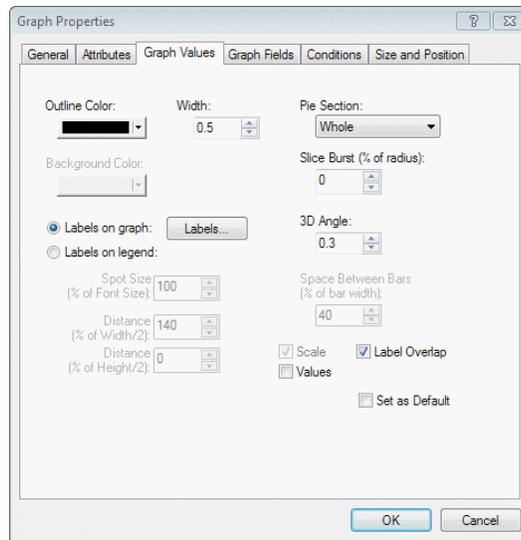
1. Specify a width percentage.
2. Choose a **Label Location** from the drop-down menu: no label, X axis, end of bars.

## Graph Values

### ❖ To format graph values

1. Open the **Graph Properties** window.
2. Select the **Graph Values** tab.

- **Outline Color and Line Width:** Choose an outline color from the drop-down menu and enter the width of the line in the Width edit box.
- **Background Color:** Choose a background color from the Background Color drop-down menu.
- **Labels on Legend:** Enter the spot size percentage based on the font size of the graph, and enter the Distance of the spots from the graph in the percentage value based on one half of the graph width.
- **Display the Scale or Values on the Graph:** The **Scale** check box is selected by default. Uncheck this box to disable the x-axis scale of the graph and check the **Value** box to display the values of the segments on the graph.
- **Format a Pie Graph:** The Pie Section drop-down menu provides a choice between a whole pie, the top half, or the bottom half, to be used in the design of a pie chart.
- **Slice Burst:** Determine the distance between each pie segment. The value entered will be based on a percentage of the radius.
- **Labels on Graph:** Enables label formatting for a pie chart. The formatting options are presented in the Pie Labels window that is accessed by clicking the Labels button.
- **Label Offset:** This value determines the distance of the labels from the pie.
- **Label Dash Width:** Determines the dash line width. The color of the dash line can be changed by selecting a color from the Label Dash Color drop-down palette.
- **Space Between Bars:** Enter the Space Between Bars as a percentage of the bar width.
- **Format:** Choose a format from one of the available selections in the drop-down menu or define a custom format. For more information, see the definition of **FORMAT** as described in the System Transforms section on page 244.
- **Set as Default:** Enable this check box to instruct Proform Designer to use the current settings in the future when creating graphs.



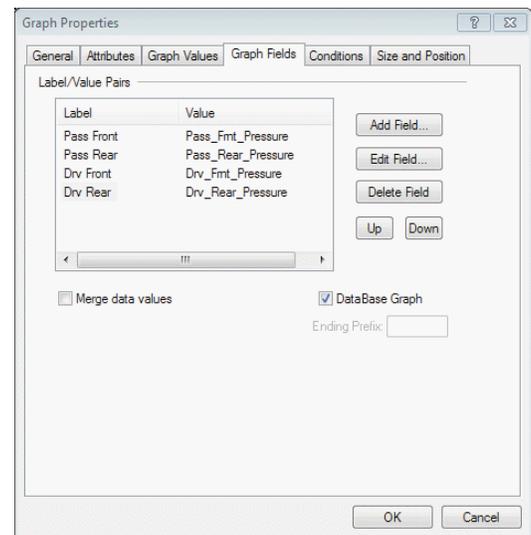
## Graph Fields

### ❖ To add graph fields

1. Open the **Graph Properties** window. Select the **Graph Fields** tab.
2. Click **Add Field**.
3. The **Graph Fields** window will appear. Select a **Label** and **Value** from the drop-down menus.
4. Click **OK**.

### ❖ To edit graph fields

1. Select the graph field to be edited.
2. Click the **Edit Field** button.
3. Make necessary edits from the **Graph Field** window.
4. Click **OK**.



## Merge Data Values

If you want to bundle together two or more data fields into one, label the fields with the same name and select the **Merge Data Values** box. The accumulated totals of all the combined fields will appear as one field.

### ❖ To merge data values

1. Check **Merge Data Values**.
2. Click **OK** to accept.

## Size and Position

You can specify an exact location for the graph to be placed on the form, as well as an exact size, through the **Size and Position** tab.



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# Creating Jobs and Saving to VI Compose

**P**roform Designer can create single page VI Compose jobs as well as multi-page VI Compose jobs. When saving a document to VI Compose, several files are created. The .FSL form file, .JDT, .XJT and/or .DBM files will be saved in the FORMS directory specified in the resource set. In the specified VI Compose output folder, automatically named XGFC upon installation, another copy of the .JDT (\\jdtlib), .XJT and .DBM (\\formlib) will be created. The form to be loaded to the printer will be saved as a .FRM in the \\formlib directory. The .JOB, .INI, .PFA (bitmapped fonts), .PFB (PostScript fonts) and data files with the appropriate printer header will be added to the \\misib directory. The image files will output to the \\imglib. All data-driven images will need to be copied into the \\imglib manually, or listed in the Additional Resources folder when building the job.

## Saving a Single Form to VI Compose

Single forms can be saved to VI Compose without having to take the additional step of building a job. All necessary resources will be created automatically and placed in the appropriate directory within the XGFC folder.

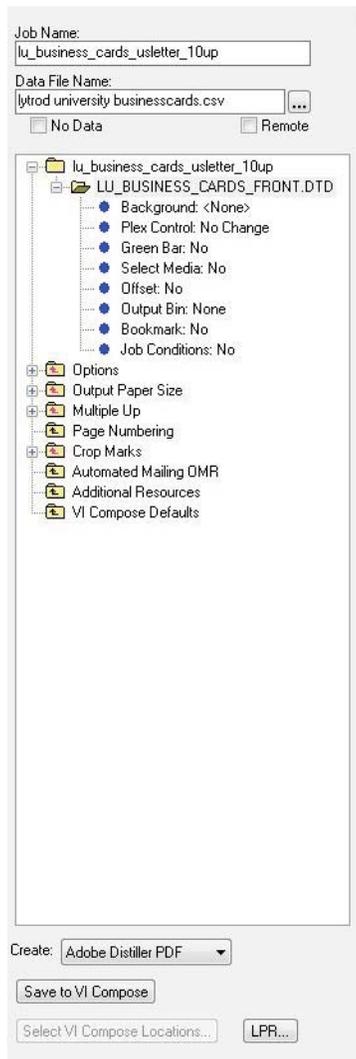
### ❖ To save a single form to VI Compose

1. From the open form, select **Save As** from the **File** menu.
2. Choose **Xerox VI Compose Form (\*.frm, \*.dbm)** from the **Save as type** drop-down menu.
3. Click **Save**.
4. Proform Designer will automatically save the form to VI Compose and place all resources in the appropriate directories.

## Creating VI Compose Jobs

Designer can create VI Compose jobs for multiple page variable documents. Creating a VI Compose job is useful and necessary when you have multiple forms that need to be combined together in a variety of configurations and contained in one job.

The Job Menu is organized into a tree structure. The tree structure can be expanded to reveal forms contained in the job, as well as all specified job parameters. Each job option is listed next to a blue circle. To change the setting of each option, double click the option. The job menu drop-downs will re-populate depending upon the option selected. You will know which option you are editing because the circle next to an active option will be yellow.



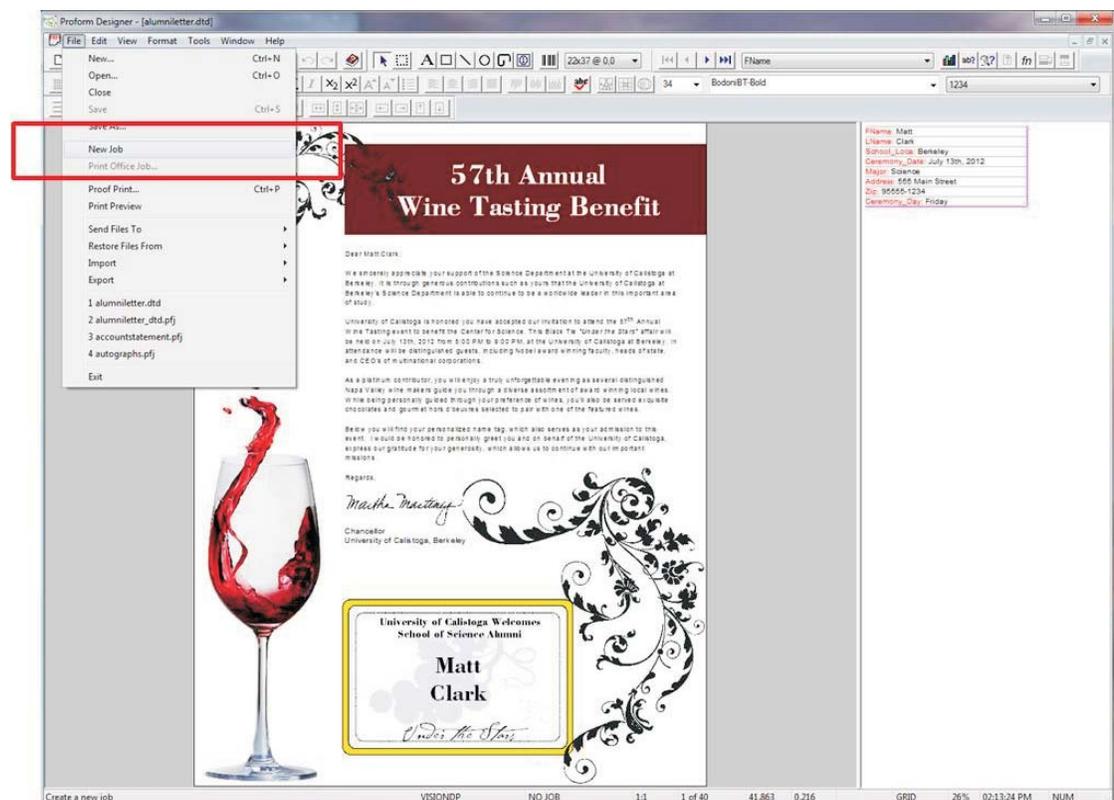
## Creating a New Job

### Name the Job

The first step in the job creation process is to define a new job and give it a name.

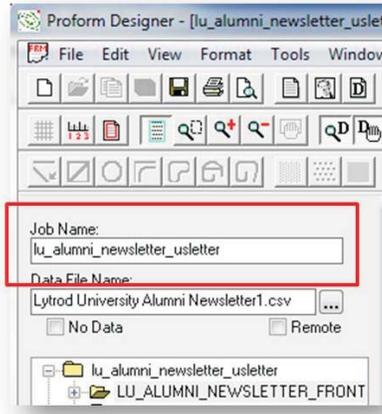
#### ❖ To create a new job based off a form

1. Open the form that will appear first in the job sequence.
2. Go to the **File** menu and select **New Job**.



3. The **Job Menu** will appear on the left hand side of your screen.

4. Enter a **Name** for the job into the **Job Name** field. Notice that the information entered into this field is also reflected in the name of the job folder in the tree structure below.



## Specify a Data File

The data file that is currently imported into the form will automatically be defined in the **Data File Name** field. If this is not the data file that you want to use when printing, you will need to define a different data file to be contained in the job.

### ❖ Specify a data file for printing

1. Click the ellipses next to the **Data File Name** field.
2. Browse to locate the needed data file.
3. Highlight the file and click **Open**.
4. The new data file will be displayed in the **Data File Name** field.

### Remote Data File

When saving a job to VI Compose, it is now possible to use a data file that is not stored at the printer. This feature is particularly useful for very large data files since they can be selected from anywhere on the network or your computer and will not consume space at the printer. When using a remote data file however, the data file will not be included in the container.

### ❖ To use a remote data file

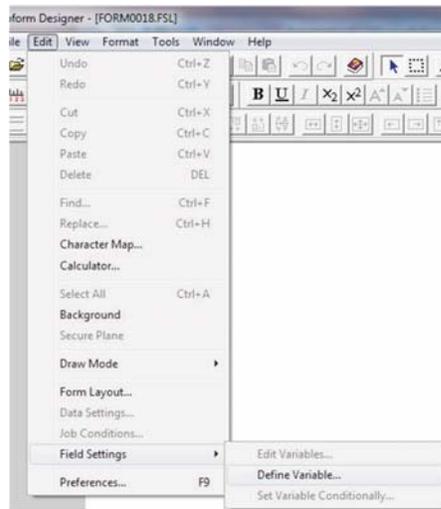
1. Define a job by selecting **New Job** from the **File** menu of an open form, or open a previously created **.pfj** file. To open a **.pfj**, go to the **File** menu and select **Open**. The list of **.pfj** files will be provided.
2. Enable the **Remote Data** file check box.
3. Use the **Data File Name** ellipses to browse for the desired data file.

## No Data

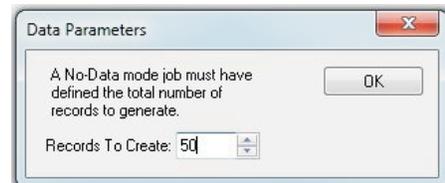
If you are creating a VI Compose job that does not use data, such as a lottery ticket that simply uses a counter, you must first define a number of records to be created within your "No Data" form. In order to create a Job, your form must have either a data file imported, or "No Data" settings defined.

### ❖ How to define "No Data" mode within your form in order to create a Job

1. With your single form open, select **Edit** and then choose **Field Settings**, and then choose **Define Variable**.



2. The **Data Parameters** menu will appear. Select the number of records you would like to create and click **OK**.
3. You can now create a job by going to **File** and then selecting **New Job**.



## Creating a Job using the Template Manager

Many pre-defined Templates are available for Labels, Cards (business and postcards), Letters and PDF documents. Templates are separated by general categories, and once the template is selected from a list, you will be guided through various menus showing which Multi-Up settings, Paper and Form Sizes, Cut Marks, and images to be used as backgrounds are pre-selected. Any of these settings may be changed along the way. If changed, the last menu gives you the option to save overwrite the existing template, or create a new one..

### ❖ To create a job using a Template

1. Templates can be accessed three different ways:
  - Select **File**, and then choose **Template Design**.
  - Select the **Start Template Wizard** button from the Standard toolbar.
  - Select the **Template** button from the Welcome Menu.



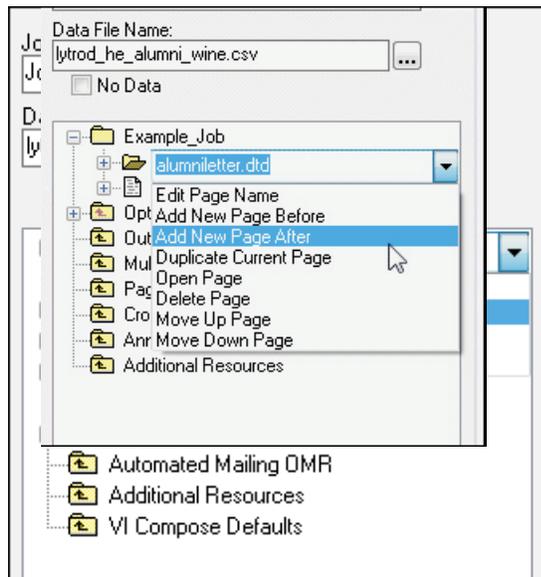
2. The **Choose Template** menu will appear. Use the **Template Type** drop-down menu to select the type of templates you would like to display. Selecting a specific paper size using the **Paper Size** drop-down will narrow down the list of supported templates.
3. Select the desired template, or click **Custom Template** and click **Next**. The following menu will display the default settings that have been defined for the template. If desired, these settings can be changed before continuing onto the next menu.
4. The **Template Identify Pages** menu has drop-downs that allow you to choose existing forms to be used within the template. If no forms are chosen, new forms will be created.
5. Once all the settings have been reviewed, click **Finish**. If any settings have been altered from the default settings and you would like to keep them for later use within the template, click the **Save Template** button to either save the current template or create a new one.
6. The **Import Data** menu will appear. Browse and select the desired data file to be used, or select the **No-Data** button if creating a simple application that does not require a data file. Continue through the Data Import Wizard to define the data settings.
7. Once the all settings have been defined, the project will open with a blank form(s) and is ready for images and data to be placed onto the design.

## Job Sets

After creating a job, it is possible to establish job sets as part of that job. Job sets contain lists of pages to be named as separate sets within a job, all of which must use the same data file. Creating job sets is a highly flexible and efficient way of building and managing complicated variable data documents. Once defined, job sets can be manipulated using job conditions to create highly sophisticated VI Compose jobs.

### ❖ To create a job set

1. After creating a job, double click on the job folder, listed within the job tree (This will usually be the first folder). A drop-down menu will appear, select **Add Job Set**.



2. The **Job Set Name** menu will appear prompting you to name your new job set. Once named, press **OK**.
3. A confirmation menu will appear asking if you'd like to create this new Job Set, click **Yes**.
4. You may now continue creating additional job sets, or adding new/existing forms to your job sets. Instructions on adding forms can be found on the next page.

## Managing Forms

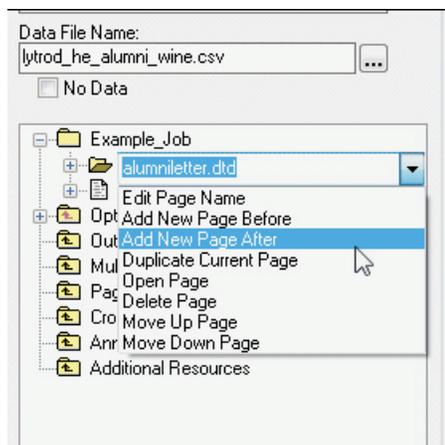
An unlimited number of forms can be added to a job or job set. The form that was open when you created the job will already be contained in the job tree.

### Adding Existing Forms

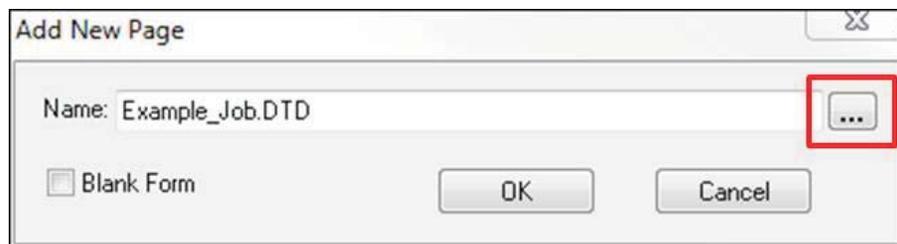
Forms that have already been created can be added to a job or job set.

#### ❖ To add an existing form to a job

1. Double click on the job folder that contains the existing form. From the drop-down menu, select **Add New Page**.



2. The **Add New Page** menu will appear. Click on the browse button to browse for the existing .fsl/.dtd.



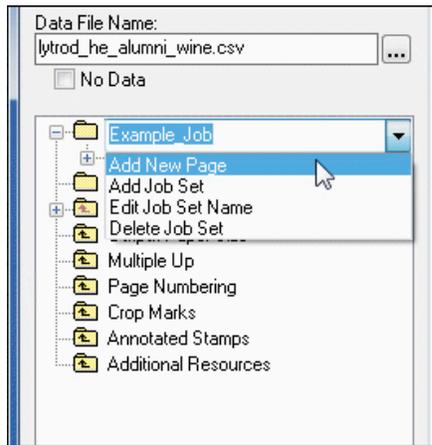
3. Once a .fsl/.dtd file is selected, click **OK** and it will be added to the project.

## Adding New Forms

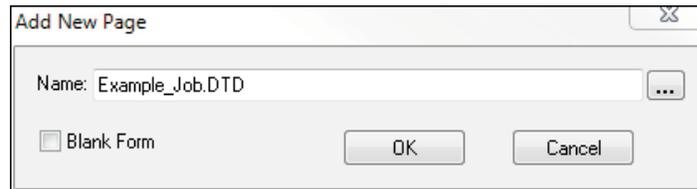
New, blank forms can also be added to a job. A new form must use the same data file as the rest of the forms in the job, and the data file that is included in the job tree will automatically be used on the form as well. Once the new form is added you can add images, text and form elements as necessary.

### ❖ To add a new form

1. Double click on the job folder that you would like to add a new form to.
2. From the drop-down menu, select **Add New Page**.



3. The **Add New Page** menu will appear. Name the new .fsl/.dtd file and click **OK**.



4. The new page will be added to the job.



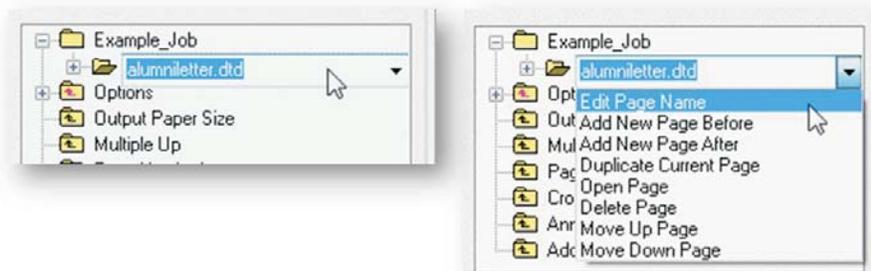
Selecting the Blank Form check box will create a blank uneditable form that will act as a placeholder. Blank forms can be used for multi-page duplex applications.

## Changing File Names

Pages that have been added to a project can have their file names changed within the job tree.

### ❖ To change a page name

1. Double click on the page to which the name change will be applied.
2. The file name can be changed by either typing the new name into the edit box, or using the drop-down menu to select **Edit Page Name**.



3. If **Edit Page Name** is selected, an edit menu will appear where you can update the file name.

## Removing Pages

Pages can be removed from the project.

### ❖ To remove pages from the project

1. Double click on the page that is to be removed.
2. Select **Delete** from the drop-down menu.

## Ordering Forms in a Project

Pages can be reordered once they've been added to a job.

### ❖ To reorder pages in a project

1. Double click on the page to moved.
2. From the drop down menu, you may either select **Move Page Up**, or **Move Page Down**.

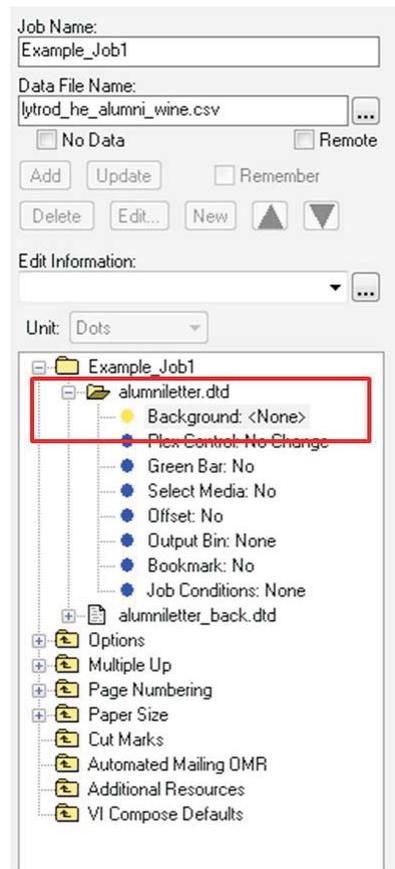
## Defining Form Options

Once a form has been added to a job, additional options, such as job conditions, can be defined. These options will only affect the form on which they are defined, and may be used to modify the behavior of a job on a form by form basis. For example, use the Plex Control to define one form to print simplex, while the rest of the job is printed duplex.

### Add Background

Backgrounds can be added to forms or can be called in without a form (a blank sheet). A background may be an image or page created outside of Proform Designer. It is possible to define a background for each form that is listed in the job tree by dropping down the information that is contained within each individual form folder and selecting the **Background** option.

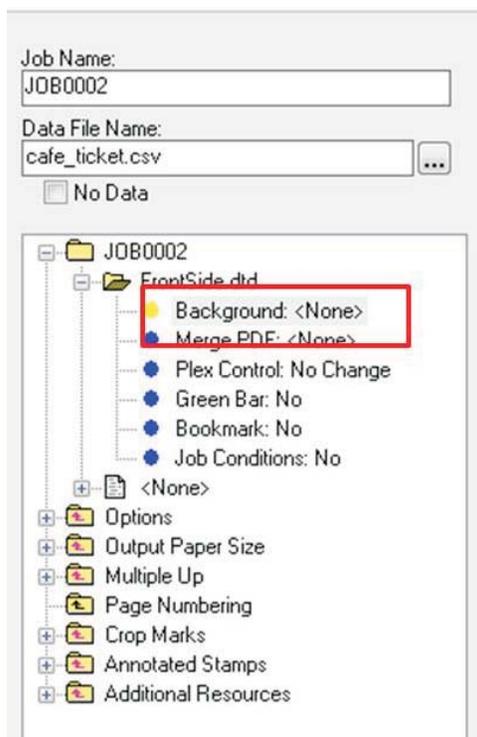
- **X Origin:** Define the X location for the top, left corner of the image.
- **Y Origin:** Define the Y location for the top, left corner of the image.
- **Orientation:** Define the orientation of the background image. Choose from Landscape, Portrait, Inverse Landscape and Inverse Portrait. This information is critical so that Proform Designer will place the background image in the correct location on the form.



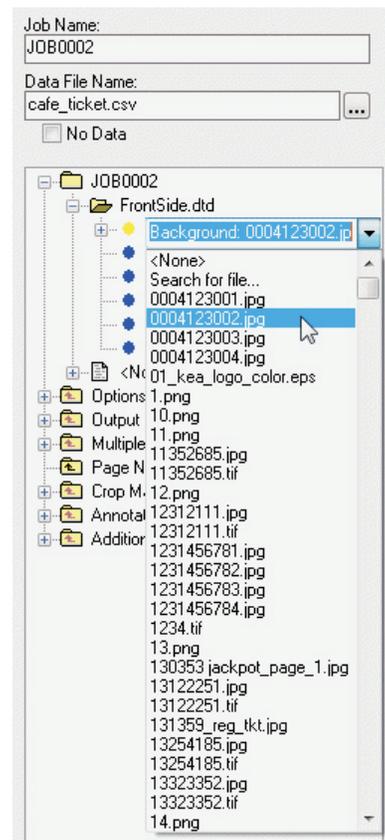
Expand the form folder to reveal the additional options.

### ❖ To add a background

1. Double click on the form folder for which a background will be defined, this will expand additional options.
2. Double click on the **Background** option. If you have not previously defined a background for this form, it will be listed as **<None>**.
3. The drop-down menu will be populated with a list of images. Choose the appropriate image to serve as the background for the form, or click the browse button to browse elsewhere for an image.
4. Once selected, the image file will be listed in your job tree and appear on your design.



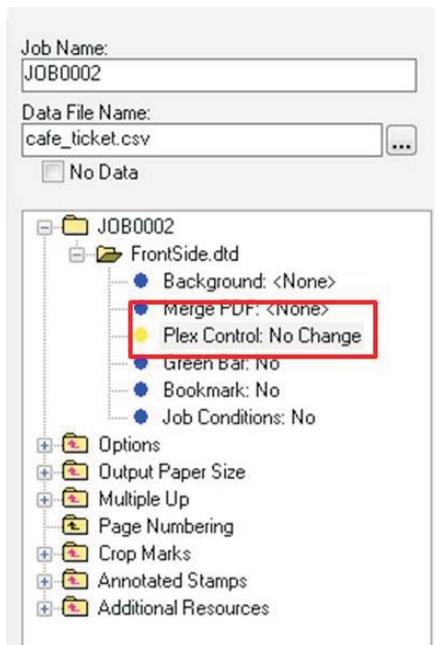
Select the Background Option



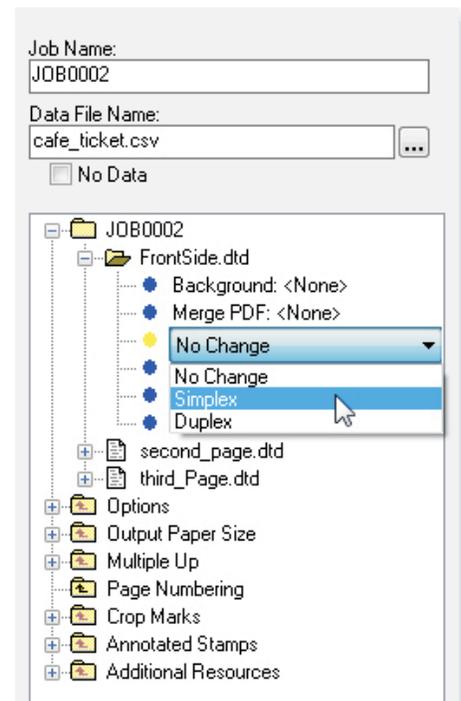
Select a Background Image from the drop-down menu.

## Plex Control

Defining a Plex control for a particular form will override the Plex control that is set for the job as a whole. This allows you, for example, to print a simplex form in the middle of a duplex job. Set the Plex control for the form by enabling the Plex Control option and choosing either simplex or duplex from the drop-down menu. Note that the Page Format for the job must be set to duplex in order for these options to be available.



Select the Plex Control option.

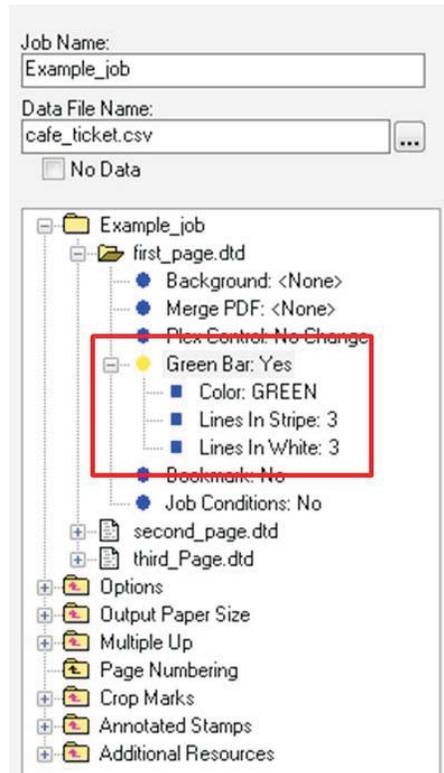


Select either simplex or duplex from the Edit Information drop-down menu.

## Green Bar

Applying this feature will cause alternating white and colored stripes to be printed on the form. This can make it easier to read forms that contain many lines of data, such as financial statements. Define the Green Bar function by double clicking on the option and selecting **Yes** from the drop-down menu. This will enable the feature and provide a list of additional Green Bar options that can be defined..

- **Color:** This will define the stripe color. Select an option from the drop-down menu.
- **Lines in Stripe:** Choose how many lines will appear in the stripe. Enter the number into the Edit Box.
- **Lines in White:** Choose how many lines will appear in the white. Enter the number into the Edit Box.



## Select Media

This option makes it possible to specify that certain forms will be printed on special media. To enable additional options, double click on the **Select Media** option and select **Yes** from the drop down menu. Additional media options will now be able to be defined.

To edit any of the sub options within the Select Media folder, double click to enable the applicable drop-down menu and edit boxes.

- **Type:** Select a pre-defined paper type from the drop-down menu, or enter a custom type. Custom paper types will be recognized as long as they are defined in the same manner at the printer.
- **Color:** Select a pre-defined paper color from the drop-down menu, or enter a custom color. Custom colors will be recognized as long as they are defined in the same manner at the printer.
- **Weight:** Select a pre-defined weight from the drop-down menu, or enter a custom weight. Custom weights will be recognized as long as they are defined in the same manner at the printer.
- **Front Coating:** Select a pre-defined front coating from the drop-down menu, or enter a custom description. Custom coatings will be recognized as long as they are defined in the same manner at the printer.
- **Back Coating:** Select a pre-defined back coating from the drop-down menu, or enter a custom description. Custom coatings will be recognized as long as they are defined in the same manner at the printer.

## Offset

Enabling the Offset feature will cause the printed pages of each set to be shifted in the output bin. In order for this feature to work properly, Set Delimiting must also be activated from the Options folder. Defining an offset from a form will cause the offset to begin only once that form has been called, and will continue until Designer reaches the end of the set.

### ❖ To enable offset

1. Double click on the **Offset** option.
2. Select **Yes** from the drop-down menu.

## Output Bin

Individual forms can be sent to output bins that are different from where the bulk of the job is sent. Defining an output bin from a form will only affect that form and not the entire job. Enable the Output Bin option and select a pre-defined output bin from the drop-down menu, or enter a custom output bin.

### ❖ To define an output bin

1. Double click on the **Output Bin** option within the Job Tree.
2. Select from **Top Tray, High Capacity Stacker, Face-Up Tray**.

## Bookmark

If you will be using VI eCompose (VIPO) bookmark feature, you must tell Designer on which form that bookmark will be located. Define the bookmark within the job tree. Only one bookmark can be defined per job.

### ❖ To define a Bookmarked Page

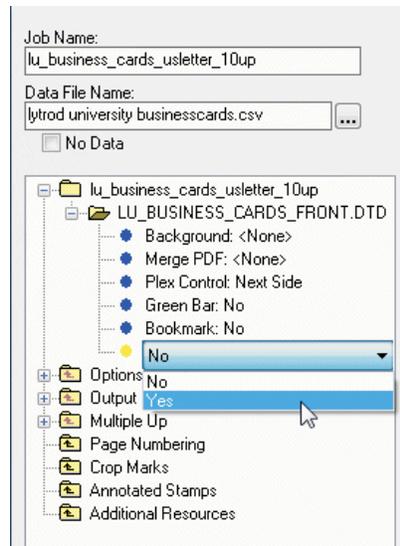
1. Go to the **Job Menu** and expand the form to which you will add the bookmark.
2. Double click on the **Bookmark** node and select **Yes** to specify that there is a bookmark on the form.

## Job Conditions

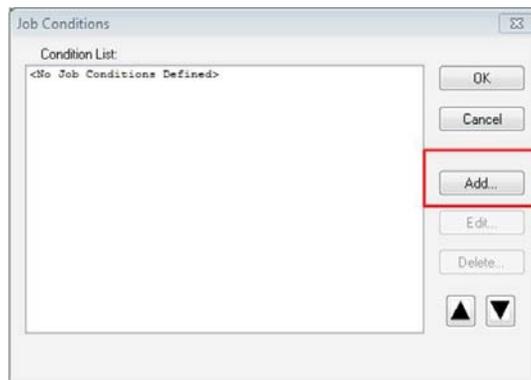
Multiple conditions can be defined on each page of a job. A job condition is created in much the same way as a conditional text or image statement. Job conditions, however, require actions to be defined, rather than text or images. Actions determine how the job is printed and can be used to control things such as the sequence of forms and the use of job sets.

### ❖ To define job conditions

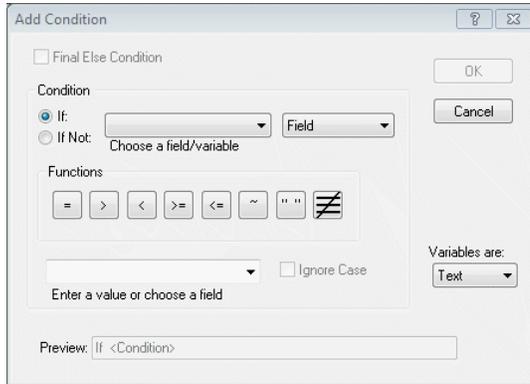
1. Expand the form folder from which the **Job Condition** will be defined.
2. Double click on the Job Conditions option and select Yes from the drop-down menu to enable more options.



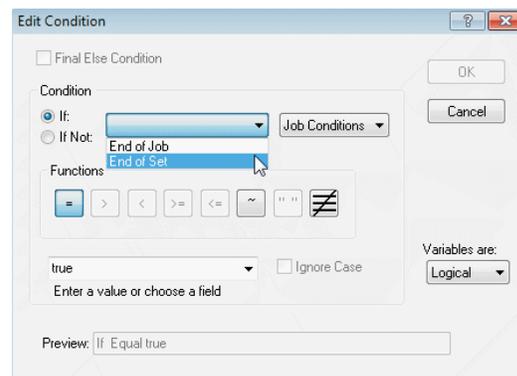
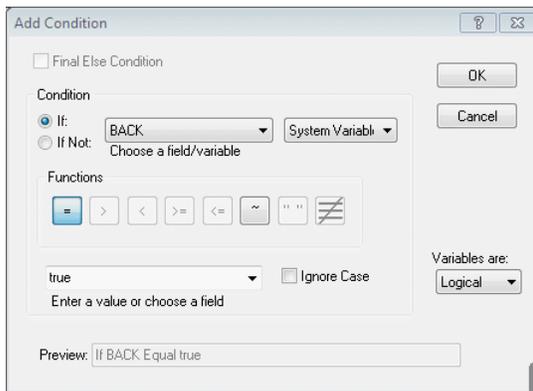
3. The **Job Condition** window will appear. Click **Add** to start defining conditions.



4. The **Add Condition** window will appear. It is from this window that the conditions can be defined.



5. Conditions are added in the same manner used when specifying conditional logic statements. Specify the **Field/Variable** that the condition will be based off of, the **Function**, and value that the condition is being compared to. Once the condition is defined, click **OK**.



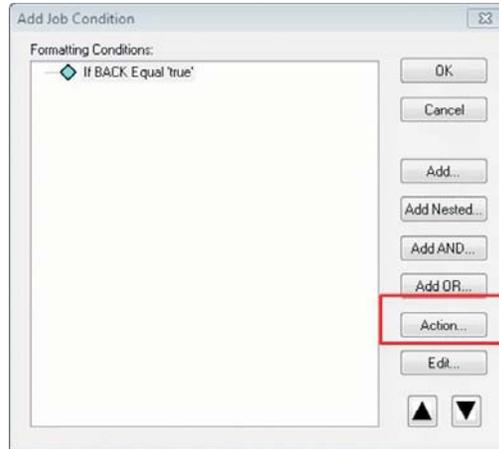
In addition, there is a variable type called Job Conditions. The job conditions variable includes **End of Set** and **End of Job**.

- **End of Set:** Define special formatting to occur at the end of each set.
- **End of Job:** Define special formatting to occur at the end of each job.



Job Conditions have an additional function, **changed**, that is not available with data conditions. This function is used to test if the contents of a field have changed from those of the previous data record.

6. Specify **Job Condition Actions** by clicking the **Action** button after the **Job Condition** has been defined. The following Action options are listed below.



## Additional Pages

If job conditions are set that require extra pages to be inserted, such as Insert Form or Replace Form, the form that will be called will be stored in the Additional Pages folder. This folder will automatically be created when a job condition that requires an additional form is defined. The additional forms will be automatically added to and deleted from this folder as necessary. Users are not able to manually include or delete forms from this folder.

## Job Condition Actions

Once job conditions have been established, various actions can be defined to direct what happens when the conditions are met. Actions can be used to control the sequence and number of forms in a job, as well as job sets and the use of the data record. The function of each available action is defined below.

### Form Actions:

**Next Form:** This is the default setting. The current form will be printed, and then the next form defined in the job will be printed.

**Replace Form:** The Replace Form Action will replace the form on which this condition is set with another form specified in the Forms drop-down menu.

**Repeat Form:** This action will print the form on which it is defined for the number of times specified in the Repeat Count drop-down menu, then continue to print the next forms in the job. The Repeat condition will not be reevaluated on the repeated forms. All other conditions, however, will be evaluated on all repeat forms.

**Skip to Form:** This action will skip to another form within the same job set, as designated in the Form drop-down menu. It will not print the current form.

**Insert Form:** This action can be used to insert any desired form into the series of forms in the job set. The form, however, must use the same data file. After the inserted form prints, the current forms in the job will continue to print.

**Escape From Job Set:** This action will end printing after the current form and resume printing from the beginning of the job set, automatically advancing the data record. This is a convenient way to create subsets within a job set or to eliminate forms conditionally from within a job set.

**Restart Job Set:** This action can be used to skip out of the current data record at any point during printing and move on to the next data record. The job set will restart without printing the current form. This is similar to the Escape from Job Set action, yet the Escape from Job Set action will print the form on which the condition is located. The data record will be advanced automatically.

**Ignore Data Record:** This action will exclude an entire data record from printing, and the job will proceed to print the next data record. The job set will not be restarted.

**New Job Set:** This action provides a means of moving from one job set to another. If more than one job set has been established, the New Job Set action can be used to manipulate the flow of the sets. (The only other way to manipulate multiple job sets is to use the Insert Job Set action) New Job Set can be used at any point in the job set. The form on which the condition is set will not print, and the job set specified in the Job Set field will begin to print.

**Insert Job Set:** This action will print the entire contents of a specified job set before the form on which this condition is set. For example, if the condition is met on form 5, Job Set 2 will print after form 4, and then Job Set 1 will continue to print. This is very useful in cases where more than one form is to be inserted into a job set. If only one form is to be added, it is best to use the Insert Form action. Insert Job Set can only be used with one level of insertion. A job set can't be inserted into a second job set, which will in turn be inserted into the third job set.

#### **Control Actions:**

The following Control Actions can also be applied from within the Job Condition Action window.

**Advance Page To:** Choose from Next Side, Back Side, or Front Side. Next Side will print the current page on the next physical page. Front Side will print the current page on the next front of a new sheet. Back Side will print the current page on the next available back side of a sheet. This feature is only available if duplexing is enabled.

**Advance Data Record:** If this box is enabled, every page will use a different data record. Advancing the data record is the default setting for applications using database or xml data, whereas holding the data record is the default setting for applications using line mode data.

**Delimit Set:** Enabling this box will insert commands defining the end of a set.

**Job Set:** Allows list of pages to be named as separate sets within a job, if these sets will use a single data record.

**Repeat Count:** If Repeat Form is defined as the form action, the Repeat Count option will be enabled. Repeat Count allows the user to define how many times the form will be repeated.

**Page Format:** Define if the action will include a page format change. Choose between No Change, Simplex, Duplex, or Tumble Duplex.

**Orientation:** Choose from No Change, Landscape, Inverse landscape, Portrait, or Inverse Portrait.

**Binding:** Select from No Change, Off, or On.

**Stapling:** Select from No Change, Off or On.

**Select Media:** When this box is enabled, the paper type, color, weight and coating can be defined.

**Slip Sheet:** When this box is enabled, it is possible to select one of the forms in the job to serve as a slip sheet. Define a paper type, color and weight.

**Output Bin Control:** Jogging can be controlled (select from No Change, Off, or On) to offset pages and the output bin can be defined.

**Change Variable:** Enabling the Change Variable check box makes it possible to replace the value of a variable with another. Select the variable that will be replaced from the Change Variable drop-down menu, and either select a replacement variable or enter a replacement value into the To Value drop-down menu.

## Ordering Forms in a Job

The order that the forms appear in a job can be easily edited one at a time.

### ❖ To change the order of forms in a job

1. Double click on the form that needs to be moved.
2. Using the drop-down menu, select either **Move Up Page** or **Move Down Page** to move the form.

## Delete a Form from a Job

### ❖ To delete a form from a job

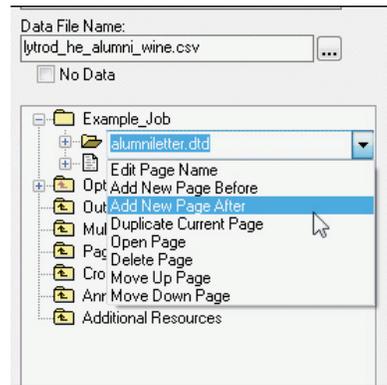
1. Double click on the form to be deleted.
2. Using the drop-down menu, select **Delete Page**.

## Multi-page PDF

Multi-page PDFs can be directly imported into a job for immediate PDF splitting to a VI Compose compatible TIFF format. Once the PDF is split into separate design pages, variable data can be applied to each page in the job build interface.

### ❖ To import a multi-page PDF into a job

1. Create a New form and import a data file (or create a variable to work in No Data Mode).
2. Go to the **File** menu and choose **New Job**.
3. Within the job tree, double click on the existing form.
4. Select **Add Page After** from the drop-down menu
5. The **Add New Page** menu will appear, select the browse button to browse for the desired PDF and click **OK** to add the selected PDF to the job.
5. This will create new editable forms for each page of the PDF.



If there is no need for any additional pages in your job aside from the ones created when importing your multi-page PDF, then the initial page that was created can be deleted.

## Options

There is a selection of job options available from within the **Options** folder in the job tree. Double click the options folder to expand its contents and reveal the list of job options. Job options effect the entire job unless a form option and/or job condition is applied to a particular page.

### ❖ To define job options

1. Select the option for which you would like to make a specification.
2. The drop-down menu will be automatically populated with options, depending upon the selection. Choose from the drop-down list which selection you would like to use.
3. The options are defined as follows:
  - **Page Format:** This option describes how the forms will be printed. Choose from simplex, duplex, or tumble-duplex.
  - **Output Bin:** Enter a user-defined output bin, or choose from top tray, high capacity stacker, or face-up tray.
  - **External Finisher:** This option is only available for environments where external finishing devices are used. Entering the name of the external finisher as defined on the DocuSP printer into the External Finisher field will disable the output bin, staple, bind, and offset job options.
  - **Staple:** This option allows you to specify if and how the application will be stapled. Choose from SingleLandscape, SinglePortrait, DualLandscape, DualPortrait, RightLandscape, RightPortrait, or RightDualPortrait.
  - **Bind:** Specify if and where the application will be bound. Choose from RightPortrait or LeftPortrait.
  - **Abort on Missing Resources:** Proform Designer can behave in two different ways when coming across missing resources: abort or no display. By choosing Abort on Missing Resources, the job will be stopped if resources are missing. By choosing No Display on Missing Resources, the job will still be processed, but the missing resources will not be displayed.
  - **Advance Record:** The data record can be advanced at job or page break. This option must be enabled for jobs using line mode data if page conditions are being used.
  - **Collate:** Select yes if you want the pages to be collated as they print.
  - **Precache Images:** Choosing to precache images will send all the images to the printer ahead of the job, where they will be cached. This may greatly increase your printing speeds on printers supporting PRECACHE.
  - **Booklet:** Select Booklet if the application you are creating is a booklet.
  - **Set Delimiting:** This option enables staple, bind, collate and offset to occur at the end of each set.
  - **Offset Job:** Sorts printer output for easy separating, handling, or stapling. Note that this feature is available based upon printer capabilities.
  - **Maximum Pages in Job Cycle:** Usually set automatically and determined by the number of forms.
  - **Multi-Plex Tolerance:** If it is necessary to switch between simplex and duplex within a single print job, specify the number of consecutive pages that can occur before switching modes.

- **Demographics:** Choose how the VI Compose files will be handled. Choose Save and Print if you want to print the job immediately, or Save if you just want to create the VI Compose resources now and will print later.

## Output Paper Size

The output paper size defines the physical size of the substrate the application will print on. This differs from the paper size of the form when Multi-up is defined. The Output Paper Size should be defined prior to enabling Multi-Up options.

### ❖ To update paper size

1. Double click the **Output Paper Size** folder and select **Yes** to enable more options.
2. By default, the Output Paper Size will be defined with the same dimensions as the form size. To change this, double click on the two options within the Output Paper Size folder to change the **Orientation** and **Size** dimensions. The paper size can be chosen from a pre-defined list in the drop-down menu, or if Custom is selected, custom values can be entered.

## Multiple-Up Jobs

Multi-up forms contain two or more logical pages on a single page and are a useful way of creating postcards, labels, lists, or any application when there is a need to have multiple pages, records of data, or a single data record printed multiple times, on a single page. Simplex, duplex, and tumble-duplex multi-up jobs can be created using line, delimited and XML data files. The VI Compose Z-Sort capability makes it possible to match data records on the front and back sides of a multi-up application, and is available in both delimited and XML data modes.

### ❖ To create multi-up jobs

1. Double click the **Multiple Up** folder and select **Yes** from the drop-down menu to enable additional options.
2. Edit the sub-options in the multi-up folder by double clicking on each node to change the settings, or double click on the Multi-Up folder and select **Edit Multi-Up Settings** to display an easy-to-use Edit menu.



3. A list will appear, containing the following options:

1	5
2	6
3	7
4	8

Column Priority

1	2
3	4
5	6
7	8

Row Priority

1	5
2	
3	9
4	

Custom Priority

**Repeat Direction:** Choose from rows, columns, or custom. Selecting custom will allow the user to define the exact (x, y) location, as well as the rotation, of each form on the multi-up page. This makes it possible to specify a dutch cut layout in order to utilize leftover space on the paper.

**Rows:** Specify how many rows will be on each multi-up page.

**Columns:** Specify how many columns will be on each multi-up page.

**Data Repeat:** Specify how many times, if any, the data record should be repeated on one page.

**Offset-X:** If necessary, enter an offset value. This will shift the application along the X-axis.

**Offset-Y:** If necessary, enter an offset value. This will shift the application along the Y-axis.

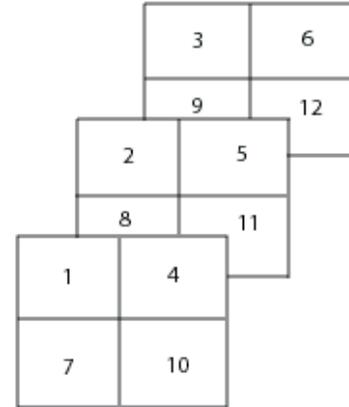
**Z-sort:** To enable z-sort (to be used when the data on the back of a multi-up application needs to match the front) enter a stack size number. A z-sort with a value of '0' will denote no z-sort.

**Background:** This option allows you to select a non-multi-up background to be printed behind a multi-up application. This is an excellent way to implement crop marks.

## Z-Sort

Z-sort can be used for two different functions that can work independently or in conjunction with one another. When z-sort is enabled, it can be used to match record locations on duplexed forms. Z-sort will perform the caching that is necessary to place the data record on the back of the form to match that which is on the front. Z-sort can also be used to create stacks so that the job can be cut and placed into piles, while the original order of the data file is preserved. This unique function requires that the user set the stack size to the number of forms that will be placed in each stack.

The stack size is displayed as a numeric value next to the Z-Sort option. This value will, by default, be set to '0' before any z-sort functions are defined. A stack size of '0' cannot exist. By defining a realistic stack size, you also enable the z-sort option.



### ❖ To create a multi-up job using z-sort

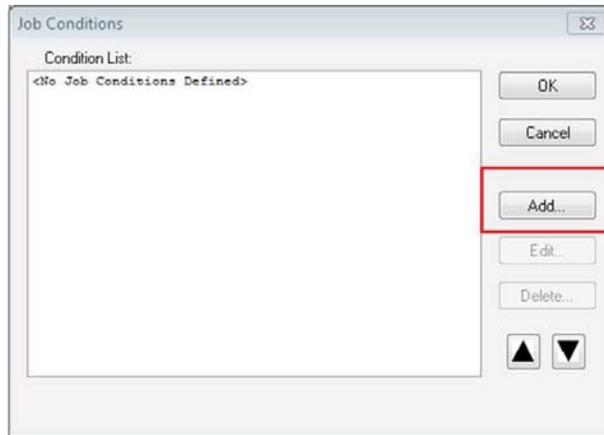
1. Create a job, adding only the form that will be used for the front of the application.
2. If multi-up has not yet been enabled, double click on the multi-up folder and select **Yes** from the drop-down menu.
3. Select the Z-Sort node and double click and choose **Yes** to enable additional option.
4. The **Z-Sort** option will now be populated with additional options: **stack size**, **shorten last stack** and **slipsheet form**.
  - **Shorten Last Stack:** Enabling **Yes** for this option will allow the last stack to consist of fewer forms than what is defined as the stack size. This prevents the last stack from being filled with blank pages to compensate for an uneven number of data records.  
Selecting **No** for this option will make the last stack the same size as all the other stacks, filling in with blank pages what is not filled with forms.
  - **Slipsheet Form:** Choose a form to be used as the slipsheet. You may choose a form from the drop-down list, manually enter a form name, or click the ellipses button to browse in other locations for the desired form.
  - **Slipsheet Media:** Choose the type of media on which the slipsheet will be printed. Either select a pre-defined type from the drop-down menu, or manually enter a user-defined type.



To finish setting up the multi-up, z-sort job, you must define a page condition that will call in the appropriate form for the back of the application. Follow the directions below to implement the necessary page condition.

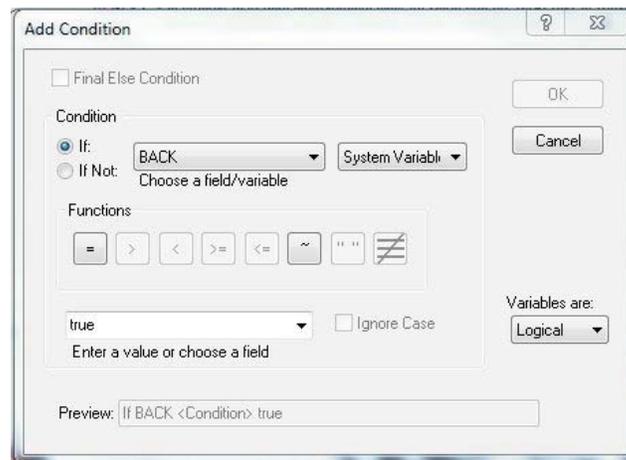
❖ **To create a z-sort job condition**

1. Click the + next to the form folder to expand and display its contents.
2. Select the **Job Condition** option.
3. Click the **Add** button.
4. The **Job Conditions** window will appear. Click the **Add** button to start adding conditions.



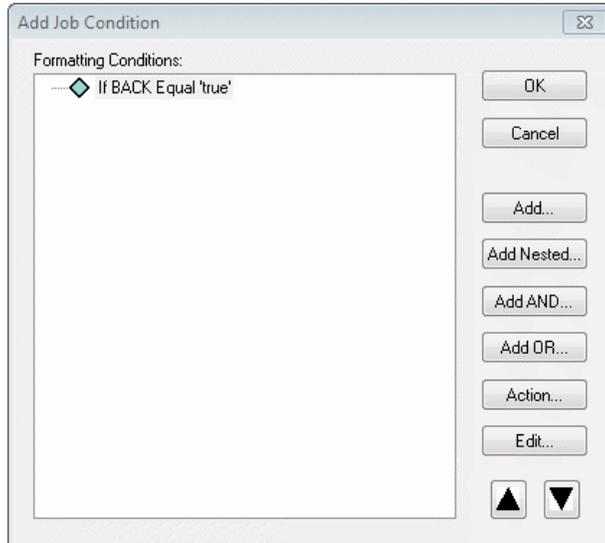
5. The **Add Condition** window will appear. Define the following condition:

**If System Variable BACK = true**

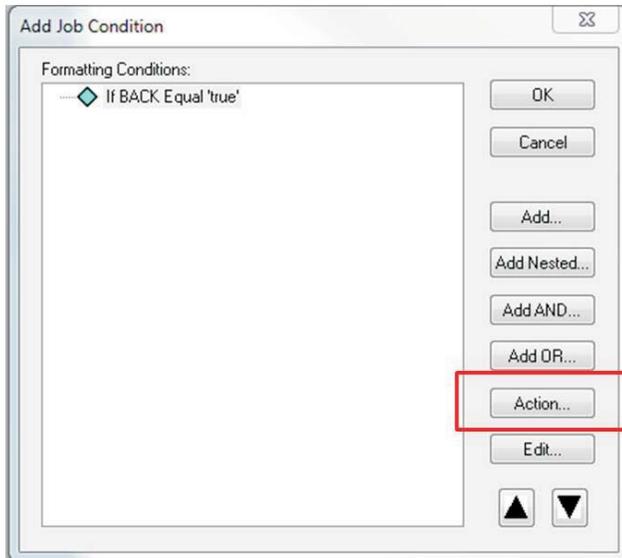


Change the drop-down menu to the right to "System Variable" first, and then change the left drop-down to "Back". Lastly, use the drop-down on the bottom of the menu to choose "true".

6. Click **OK**. You will be returned to the **Add Job Condition** window. The condition that you just defined will be listed here.



7. To define the action that will take place when the condition is met, click the **Action** button.



8. The **Job Condition Action** window will appear. Select **Replace Form** from the **Form Action** drop-down menu.

9. Use the ellipses '...' button to browse for the desired form.

The screenshot shows the 'Job Condition Action' dialog box. It has a title bar with a close button. The main area contains several controls: 'Form Action' is a dropdown menu set to 'Replace Form'; 'Form' is a text field with a file path and an ellipsis button; 'Advance Page to' has radio buttons for 'Next Side' (selected), 'Front Side', and 'Back Side'; 'Job Set' is a dropdown menu; 'Repeat Count' is a text field with a dropdown arrow; 'Advance Data Record' and 'Skip Data Record' are checkboxes; 'Page Format' and 'Orientation' are dropdown menus both set to 'No Change'; 'Slip Sheet' has a checkbox and a 'Form' dropdown menu; 'Merge PDF File' is a text field with a dropdown arrow and an ellipsis button; 'Change Variable' is a checkbox with a dropdown menu and a 'To Value' dropdown menu. At the bottom are 'OK' and 'Cancel' buttons.

10. Click **OK** in the **Job Condition Action** window, the **Add Job Condition** box, and the **Job Conditions** box to save the new condition.

11. The new job condition will be listed in the job tree.



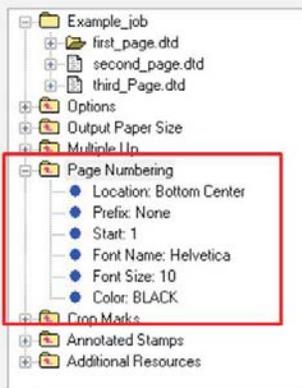
**Include System Keywords**, located in the **Data** tab of the **Preferences** menu, must be checked in order for **System Variable** to be an option in the **Add Condition** menu. This option will be enabled by default upon installation.

## Page Numbering

You can choose to include a page number on applications. VisionDP allows you to select from four different locations for that page number: bottom center, bottom right, top center, or top right.

### ❖ To apply a page number

1. Double click the **Page Numbering** folder and select **Yes** from the drop-down menu to enable more options.



2. Double click on any of the options listed within the Page Numbering folder to define settings other than the default.

## Additional Resources

Data-driven images and externally referenced fonts are not automatically included when Proform Designer generates VI Compose resource files. Adding these images and fonts will ensure that the project and container contains all the needed resources.

### ❖ To add additional resources

1. Go to the **Job Tree** and select the **Additional Resources** folder.
2. The drop-down menu will be automatically populated with the list of images that are contained in the **Images** folder of the current resource set. Either make a selection from this list, or click the ellipses button to browse in other locations.



Vector based images (\*.eps) often reference external font files (\*.pfb, etc.). Unless the external fonts are used in the design of the document elsewhere or otherwise specified as an Additional Resource, Designer will produce fonts (\*.pfa bitmap fonts) rather than reference PostScript Type 1 (\*.pfb) scalable printer fonts. All PostScript Type 1 fonts should be imported into the Windows Control Panel and Proform Designer Resource Set prior to using them.

## Line Mode Banner Support

Designer supports one or more pages of Banner data within a job. Banner data can be ignored, printed, or formatted. Banner data is usually used to separate jobs at printing.

### ❖ To define banner support

1. Select the **Banner** option from the **Job Menu** and double click to expand its contents. If there has been no banner data previously defined, the contents will be displayed as **None**.
2. Select the **Banner** option. Click **Add** to specify that there is banner data associated with the job and to create a list of banner data options.
3. Select an option. The **Edit Information** menu will become available to define and change the specifications associated with each of those options. The following options will be available:
  - **Banner Pages:** Key in a number to define how many banner pages will be included.
  - **Print:** Select Yes or No to define whether the banner data will be printed or not.
  - **Jog On Next Page:** Select Yes or No.
  - **Output Bin:** Key in an output bin.
  - **Media:** Selecting Yes will populate the Media folder with additional options of Paper, Color, and Weight. These can be defined as well, to further customize the banner data.
  - **Slip-Sheet:** Selecting Yes will enable further options by which to define the slipsheet: form, paper, color, and weight.

## Creating Print Job Files

To create the necessary VI Compose printing files, click the **Save to VI Compose** button, located at the bottom of the Job Menu. This will produce a .pfj job file, along with all the necessary VI Compose resources. These resources will be stored in the appropriate subdirectories, as specified in the Locations tab of the resource set, located within the XGFC folder.

### ❖ To create VI Compose job files

1. Define the necessary job parameters as outlined in the previous section.
2. Select the type of VI Compose files to be created from the **Create** drop-down menu:
  - **VI Compose Job:** Creating a VI Compose Job will save all the VI Compose files in the subdirectories of the XGFC folder.
  - **VI Compose Project:** Creating a VI Compose Project will save all of the VI Compose files in the project folder, located in the XGFC directory.
  - **VI Compose Container:** Creating a VI Compose Container will also save all of the VI Compose files in the project folder, but will also create a \*.vpc file. The \*.vpc file contains all of the resources associated with the job in a compressed format.
  - **FreeFlow VI eCompose (VIPO):** Selecting this option will automatically launch the VI Compose files to the FreeFlow VI eCompose (VIPO).
  - **Adobe Distiller PDF:** Selecting this option will automatically launch the VI Compose files to VI Compose enabled Adobe Distiller.
  - **FreeFlow VI Designer (IDE):** Auto-launches the FF VI Designer to screen view VI Compose output results.
  - **FreeFlow VI Explorer:** Auto-launches the FF VI Explorer to screen view VI Compose output results.
  - **Click & Print:** Creates a VI Compose Container and submits job to a predefined FreeFlow Print Server hot folder.
3. Click the **Save to VI Compose** button.
4. All the resources will be output to the appropriate destination according to the selection made in the **Create** drop-down menu.



For more information on setting up the auto-launch features, please refer to **Chapter 10: Set Up Auto-Launch**.

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## Editing Jobs

Once a job is created it can be edited.

### ❖ To edit a job

1. Open the **.pfj** file of the job to be edited. This file is stored in the **Data** folder, within Proform Designer.
2. Make any necessary changes to the job in the **Job Tree**.
3. Click the **Save to VI Compose** button to output the new files.

## Submit Data File via LPR

LPR (Line Printer Remote) is a printer protocol that establishes connections between printers and workstations over a network. When a job is saved to VI Compose, Designer creates all the VI Compose resource templates that are to be stored on the print device. These resources can be submitted automatically by mapping the networked print device through the Locations tab of the resource set, or by sending the files to the printer through FTP. Once the VI Compose resources are at the print device, VI Compose requires the data file to be sent via LPR. Designer further supports this workflow by providing the LPR capability within the Designer interface rather than requiring a manual submission through a DOS command, greatly simplifying the process.

### ❖ To submit a data file via LPR

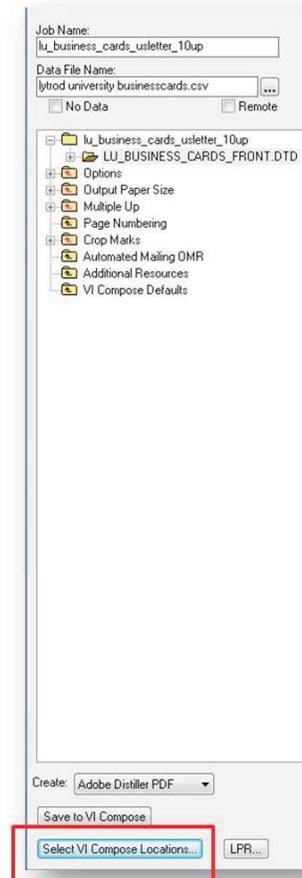
1. Click the LPR button, located at the bottom of the **Job Menu**.
2. The **Submit Data File to Printer via LPR** window will appear.
3. Select a printer from the **Printer** drop-down menu.
4. Click the ellipses button (...), next to the **Data File** field. Browse to locate the desired data file. The sample data file that was used to design the job will be placed here by default.
5. Select a data file from the **Choose Data File** window.
6. Select or enter a **Printer Queue**, if one is defined at the printer.
7. **Precede with INI File** will be checked by default. When this check box is enabled, Designer will insert the INI file into the data file, and printing will automatically start.
8. Click **Submit** to send the data file.

## Select VI Compose Locations

If you have more than one VI Compose Printer defined within the current resource set, you can use the Select VI Compose Locations button to specify to which printer the job will be sent.

### ❖ To select a VI Compose location

1. Click the **Select VI Compose Locations** button.
2. The **Select VI Compose Output Locations** window will appear.
3. Enable/disable the appropriate locations by checking the boxes to the left of the location to which you want the output to be sent.
4. Click **OK**. The job will be sent to only the enabled locations.



## Manage Job Source File Resources

All job source files are saved by default in the locations mapped in the Resource Set.

- Form (job source \*.pfl, form sources \*.fsl / \*.dtd)
- Font (PostScript Type 1 \*.pfb and other bitmap fonts)
- Images
- Data

Individual job source files, for just one job, can also be archived in a single directory or \*.zip file. Most of the files required to open the job will be included except fonts and data-driven images that were not added as Additional Resources to the job. Windows TrueType fonts and PostScript Type 1 display files (\*.pfm) will not be included.

### Copy Single Job Source to Folder

#### ❖ To Send Job Files to Folder

1. Create a directory to house the job files (using Windows Explorer, etc.).
2. Launch Lytrod Designer and create a New Job or Open a job (\*.pfl).
3. Go to the **File** menu, choose **Send To** and **Folder**.
4. Browse for the folder created in step #1 and click **Open** to send the job source files to the directory.

### Zip a Single Job Source (Send To Archive)

#### ❖ To ZIP Job Source Files

1. Create a New Job or Open a job (\*.pfl).
2. Go to the **File** menu, choose **Send To** and **Archive**.
3. Click **OK** to create zip file of job in the \Proform Designer\archive directory displayed. A \*.zip file with the job name will be created in the \archive folder.



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## Creating OMR Forms

**O**MR forms are special forms that allow high speed capturing of hand input data. These forms are distinguishable by the bubble shapes that are used to capture information; therefore, they are frequently referred to as bubble forms or scannable forms. This type of form is commonly used in standardized testing, surveys, payroll data collection, and other applications where a limited number of responses are required.

OMR is an acronym for Optical Mark Reader. Optical Mark Readers are LED scanning devices that interpret the black marks strategically placed on a page. The OMR scanner initially detects a tracking bar placed on the edge of a sheet and is then triggered to scan that row for black marks. These black marks must be placed exactly in relation to the tracking bars as dictated by the density (even placement of the LEDs) of the scanning device. In order to get the user to place the marks at the exact position, a circle/oval/rectangle/square is drawn precisely where the scanner will look for a mark.

A total of three OMR modes are supported in Lytrod Software::

- (1) Character, which is the normal type of OMR
- (2) Binary Decimal
- (3) Binary Litho

By default, Character OMR will be automatically enabled. Binary Decimal and Binary Litho modes can be enabled through the Preferences menu.

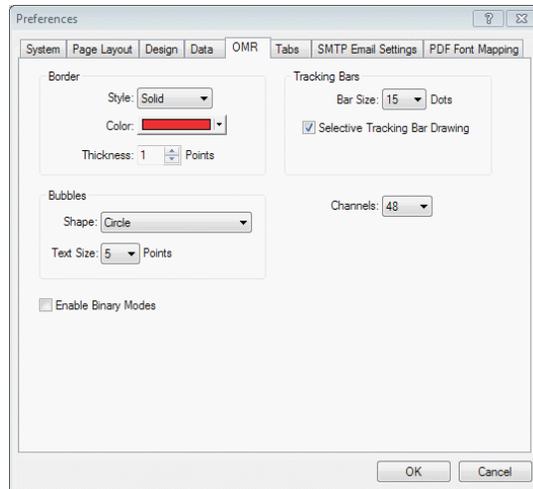


It is optimum if the bubbles, and the text within the bubbles, are designed in a color other than black. If OMR elements are placed on a monochrome form, the text within the bubbles is not drawn. If it were, it would cause scanning problems since the black toner would appear to the scanner to be a filled in mark in the middle of each bubble.

---



## OMR Form Setup



## Scanner Type

Proform Designer supports two types of OMR scanners: 40 channel and 48 channel. Typically, 40 channel scanners are used outside of the United States, and 48 channel scanners are used primarily within the United States. It is important to identify the type of scanner that will be used in order to create the OMR form properly.

### ❖ To select a scanner type

1. Select **Form Layout** from the **Edit** menu.
2. Access the **OMR Settings** tab.
3. Mark the appropriate radio button to indicate the scanner type.

### ❖ To set default scanner type

1. Select **Preferences** from the **Edit** menu.
2. Access the **OMR** tab.
3. Select the default scanner type, either 40 or 48 channel, from the **Channel** drop-down.

## Tracking Mark Placement



Portrait Page  
Tracking Bars on Left



Portrait Page  
Tracking Bars on Right



Landscape Page  
Tracking Bars on Top



Landscape Page  
Tracking Bars on Bottom

Tracking bars are used to notify the scanner that responses lie in a particular row/column. Their placement is critical in creating a scannable form. Proform Designer will automatically place tracking bars at the correct distance relative to the edge of the paper and spaced at the column/rows per inch specified. Designer also assures that the tracking bars that are placed on the form are accurately aligned with the responses.

### ❖ To define tracking bars

1. Select **Form Layout** from the **Edit** menu.
2. From the **OMR Settings** tab, select the desired tracking bar location. (left/right for portrait forms, or top/bottom for landscape forms)
3. Choose **columns per inch** or **rows per inch** based on form orientation, from the respective drop-down menus. Support for 5, 6, or 8 columns/rows per inch is available (along long edge of paper).



This sets the default spacing for the form. Spacing can be different for each set of responses as long as all of the responses associated with the individual tracking bar use the same spacing. Specific response spacing is done in the OMR Response Properties window. Tracking bar spacing will automatically be adjusted, based on the response spacing.

### Tracking Bar Size

The default tracking bar size is 15. This size is measured in dots (300/inch) and refers to the thickness of the tracking mark. Users can modify this size in order to increase the scanning area of each scan row. This helps to insure that the form is able to be scanned.

### ❖ To set default tracking bar size

1. Select **Preferences** from the **Edit** menu.
2. Open the **OMR** tab.
3. From the **Tracking Bar Size** drop-down, choose one of the predefined sizes.

### Selective Tracking Bars

Tracking bars are not necessary for rows/columns that do not contain responses to be scanned. The Selective Tracking Bars option automatically places tracking marks in relation to responses on the page and updates them as responses are moved or deleted, etc. Individual tracking bars can also be turned off and on as desired with the mouse.

### ❖ To enable selective tracking bars

1. Select **Preferences** from the **Edit** menu.
2. From the **OMR** tab of the **Preferences** window, click **Selective Tracking Bar Drawing**.



# Working with OMR Elements

## Drawing Response Blocks

The main element of the OMR form is the response block. These blocks are defined using the OMR response drawing tool.

### ❖ To draw response blocks



1. From the **Drawing** toolbar, click **OMR Response** to enable OMR response draw mode.
2. Position the mouse where the response block should begin and press the left mouse key to begin drawing.
3. Drag to draw the response block and release to mouse key to end drawing.



More precise positioning and sizing can be accomplished in the size and position tab of the OMR Properties window. The OMR response block will snap to the closest OMR grid position as the box is drawn.

### ❖ To select an OMR response



1. From the Drawing toolbar, click **Select Mode**.
2. Position the mouse over the element to be selected and click the left mouse button. The cursor will change according to the object being selected.



Selected items will be displayed with selection handles. To select overlapping objects, it may be necessary to de-select all objects prior to making the selection.

## Response Spacing

### ❖ To specify response spacing

1. Select the responses to be formatted.
2. Select **OMR** from the **Format** menu.
3. From the **Size and Position** tab, choose the spacing in either LPI or CPI, as applicable.

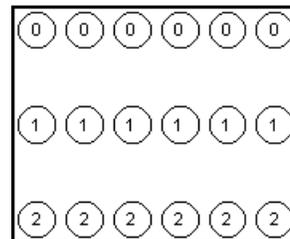


Only certain spacing options are available, based upon the orientation of the form. This helps to maintain compliance with the OMR specifications set in the OMR Properties window. For example, on a portrait form, the CPI of a response block cannot be modified.

### ❖ To skip rows/columns

1. Select the responses to be formatted.
2. Select **OMR** from the **Format** menu.
3. From the **General** tab of the **OMR Properties** window, select spacing by specifying the number of rows/columns to be skipped between each scan row/column.

Row/Column Skip \_\_\_\_\_  
Column: 0  Row: 2



## Response Formatting

### Response Shape

#### ❖ To change response shape

1. Select the responses to be formatted.
2. Click **Response Shape** from the **OMR** toolbar to toggle through shape options.

Response shapes include circles, horizontal/vertical ovals, horizontal/vertical rectangles, horizontal/vertical rounded rectangles, and square boxes. To improve scanner detection, response shapes will be limited based on form orientation and default OMR LPI/CPI.

#### Response Shapes

---



Circle (not available in 8 LPI/CPI)

---



Horizontal Oval (portrait page only)

---



Vertical Oval (landscape page only)

---



Rounded Horizontal Rectangle (portrait page only)

---



Rounded Vertical Rectangle (landscape page only)

---



Horizontal Rectangle (portrait page only)

---



Vertical Rectangle (landscape page only)

---



Square (not available in 8 LPI/CPI)

---

## Response Shape and Text Defaults

The screenshot shows the 'Bubble default section of OMR Preferences tab'. It includes a 'Type' label, a 'Shape:' dropdown menu set to 'Horizontal Rounded Box', a 'Sequence:' dropdown menu set to 'ABCDEFGHIJKLMNOPQRSTUVWXYZ', a checkbox for '2 Characters In Bubble' which is unchecked, a 'Color:' dropdown menu set to red, and a 'Remember' checkbox which is unchecked.

Bubble default section of OMR Preferences tab.

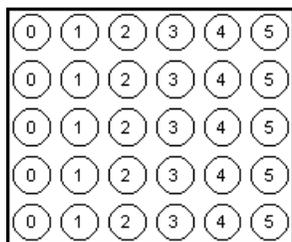
### ❖ To set default response shape

1. Select **Preferences** from the **Edit** menu.
2. From the **OMR** tab, select the desired bubble shape from the **Shape** drop-down menu.

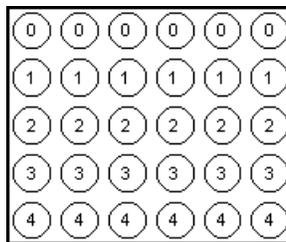
### ❖ To set default response text size

1. Select **Preferences** from the **Edit** menu.
2. From the **OMR** tab, select text size in points from the drop-down menu.

## Response Direction



Horizontal Response



Vertical Response

### ❖ To change response direction

1. Select the responses to be formatted.
2. Click **Response Direction** from the **OMR** toolbar to toggle between horizontal/vertical responses.

## Response Sequence

Support for common response sequences, as well as user defined sequences, is available.

### ❖ To select predefined response sequences



1. Select the responses to be formatted.
2. Open the **Sequence** drop-down from the **OMR** toolbar and select a response sequence.

### Pre-Defined Response Sequences

A-Z	Uppercase Alphabet
a-z	Lowercase Alphabet
0-9	Numeric
A-Z, 0-9	Uppercase Alphabet followed by Numeric
a-z, 0-9	Lowercase Alphabet followed by Numeric
TF	True/False
YN	Yes/No

### ❖ To define custom response sequences

1. Select the response to be formatted.
2. Choose **OMR** from the **Format** menu.
3. Access the **General** tab of the **OMR Properties** window and type the desired OMR sequence into the **Sequence** edit box. For temporary or blank responses, use the space bar. The length of the response sequence is not limited to the size of the edit box. The edit box can scroll left to right to handle more text than is visible.



The custom sequence tool can be used to create responses in reverse order. For example, a response sequence of 9876543210 can be defined instead of the standard 0123456789.

### ❖ To place a special character in a custom response sequence

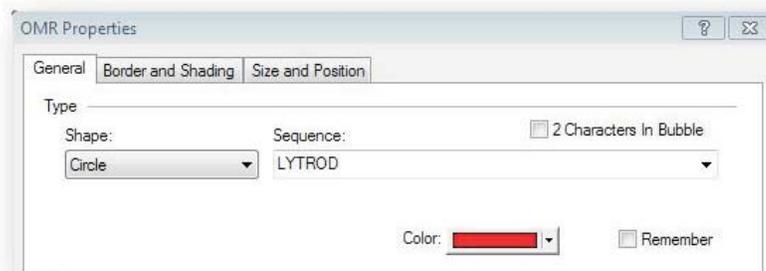
1. Select **Character Map** from the **Edit** menu.
2. Select the font that is being used for the OMR sequence. You want the special character's font to be the same font that is already being used on the form.
3. Choose the special character by highlighting the character and clicking **Select**, or by double clicking on the special character.
4. Click **Copy** to copy the special character to the clipboard.
5. Close the **Character Map** window by clicking **Close**.
6. Select the OMR form.
7. Select **OMR** from the **Format** menu.
8. From the **General** tab, place the cursor in the **Sequence** edit box and paste the special character by typing **<Ctrl>** and **V** at the same time.

### Persistent OMR Sequences

A commonly used custom OMR sequence can be saved for later use. This saved sequence will appear in the Sequence drop-down menu when future OMR forms are defined.

### ❖ To save a custom OMR sequence

1. Right click the desired **OMR** form, and select **Format OMR** from the context menu.
2. Access the **General** tab of the **OMR Properties** window.
3. Define the custom sequence.
4. Click **Remember**.
5. The custom sequence will be saved in the **Sequence** drop-down menu for future selection.



## Two Character Bubbles

OMR forms can contain 2 different characters within each bubble. The top drop-down menu allows the user to select the characters that will be contained within the bubble. The bottom drop-down menu tells Designer which single character will be represented by the double characters in the bubbles.

For example:

A user defines the double character sequence to read A B C D E F and so on. Each bubble would contain two characters: a letter and a space. However, when pre-slugging data, such as a name, Designer will slug for single letters, as specified in the data file. By defining which single character to look for, Designer will be able to recognize that the pre-slug for the letter S will go in the bubble that contains the S and the space.

Type \_\_\_\_\_

Shape:  Sequence:  2 Characters In Bubble

Slug Character Sequence:

The sequence in the second menu is identical to the sequence in the first menu, minus the extra space characters.

### ❖ To define two character OMR sequences

1. Right click the OMR block that you wish to format.
2. Select **Format OMR** from the context menu.
3. Access the **General** tab of the **OMR Properties** window.
4. Enable the **2 Characters in Bubble** check box. This will cause the second sequence drop-down menu to appear.
5. From the first drop-down menu, select the sequence of letters and/or numbers that you want to appear in the bubbles.
6. From the second drop-down menu, select the single character series that will be defined by the double characters.

## Response Numbering

### Initiating Response Numbering

#### ❖ To activate response numbering

1. Select the responses to be formatted.
2. Click **Numbered** from the **OMR** toolbar to number response rows/columns.

Responses \_\_\_\_\_

**Numbered**    Start: 1       Interval: 1       Trailer:

**Written Response Box**

**Title Box**    Title:

### Numbering Interval

When numbering OMR responses, the default number interval is 1. The user can specify any number interval to be used when numbering.

#### ❖ To set numbering interval

1. Select the responses to be formatted.
2. Select **OMR** from the **Format** menu.
3. From the general tab, specify the interval in the **Interval** edit box or by using the spin arrows.

1	3	5	7
A	A	A	A
B	B	B	B
C	C	C	C
D	D	D	D

Numbered responses  
skipping every other  
number.

## Starting Number

When numbering OMR responses, the default starting number of the sequence will be 1. However, the user can specify any starting number. This is particularly helpful in situations where there are columns of continuing responses.

### ❖ To set starting number for response numbering

1. Select the response to be formatted.
2. Select **OMR** from the **Format** menu.
3. From the **General** tab, specify the start number in the **Start** edit box, or by using the spin arrows.

## Trailer

Trailers are available when numbering responses. Trailers can be defined as a character(s) that will follow the numbers. Common trailers include periods "1." and parenthesis "1)".

### ❖ To set trailer

1. Select the responses.
2. Choose **OMR** from the **Format** menu.
3. From the **General** tab, define the trailer character(s) in the **Trailer** edit box.

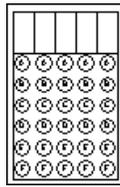
1)	2)	3)	4)
A	A	A	A
B	B	B	B
C	C	C	C
D	D	D	D

## Written Response Boxes

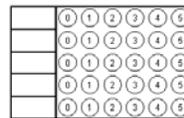
Written response boxes are a unique feature that allows for a space on the OMR form in which answers can be written. The written response box will be indicated to the scanner by a corresponding OMR mark. Any formatting applied to the OMR border will also be applied to the written response box.

### ❖ To draw written response boxes

1. Select the responses to be boxed.
2. Click **Written Response Boxes** from the **OMR** toolbar to toggle boxes on and off.



Vertical Response

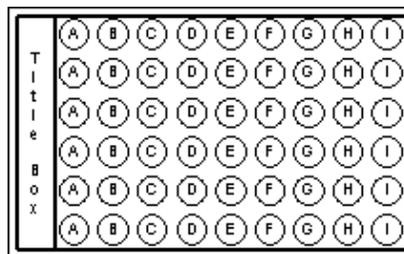
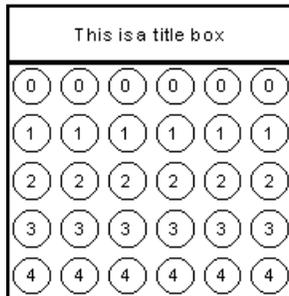


Horizontal Response Block with Written Response

## Response Title

### ❖ To create a response title

1. Select the responses to which a title should be added.
2. Select **OMR** from the **Format** menu.
3. From the **General** tab, type the title text into the **Title** edit box.
4. Add a box around the title by checking **Title Box**. It is not necessary to have a box around the text.



Change the font of the title by selecting the title and choosing **Font** from the **Format** menu.

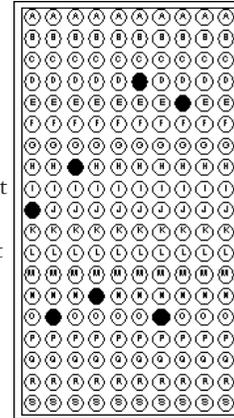
## OMR Pre-Slugging

### ❖ To pre-slug an OMR response

1. Select the response to be pre-slugged.
2. Select **OMR** from the **Format** menu.
3. From the **General** tab, type the characters to be pre-slugged into the **Pre-Slug** edit box. For empty or blank responses, use the space bar. The length of the pre-slug is not limited to the size of the edit box. The edit box can scroll left to right to handle more text than is visible.

Pre-Slug \_\_\_\_\_

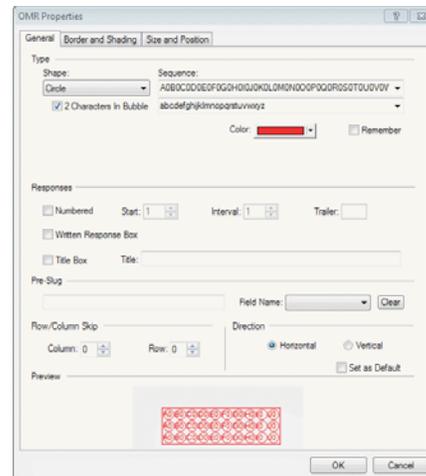
Field Name:



A pre-slugged OMR form

### ❖ To create a variable for pre-slugging

1. Select **Define Variable** from the **Field Settings** cascading menu on the **Edit** menu.
2. Select **Variable** from the **Type** drop-down menu.
3. Name the variable.
4. Select the field name to be pre-slugged from the **Field** drop-down menu.
5. In the **Transforms** area, select **Upper** or **Lower** from the **Case** drop-down menu, depending upon if the OMR form that is being designed uses all uppercase or lowercase letters.
6. Click **OK**.
7. Follow steps 1-3 of the pre-slugging procedure, selecting the variable name chosen in step 3 in the **Field Name** drop-down menu.



If the field name used for pre-slugging is not in the same case as the OMR bubble sequence, one or the other should be edited so that both cases are identical. A variable field can be created to apply a case transform to the field name in order to change the case of the data field.

### ❖ To enter special characters into the pre-slug edit box

1. Select **Character Map** from the **Edit** menu.
2. Select the same font that is being used for the OMR response.
3. Choose a special character by clicking **Select** or by double clicking on the special character.
4. Click **Copy** to copy the special character to the clipboard.
5. Close the character map window by clicking **Close**.
6. Select the response to be pre-slugged.
7. Select **OMR** from the **Format** menu.
8. From the **General** tab, place the cursor in the pre-slug edit box and paste the special character by typing **<Ctrl>** and **V** at the same time.



Special characters also need to be placed in the response sequence if not already there. See page 307 for detailed information on response sequences.

---

## Data Driven Pre-Slugging

Database fields can be used for data-driven, pre-slugged responses in Designer. This allows information like names, addresses, etc. to be automatically pre-filled on each OMR form. This eliminates the need for the user to slug this information manually. Any data field or variable can be used. Designer is also aware of bubble shape and direction, and supports response box and column/row skip.

### ❖ To create data-driven pre-slugged responses

1. Select the OMR element.
2. Select **OMR** from the **Format** menu, or right click and select **Format OMR** from the context menu.
3. From the **General** tab of the **OMR Properties** window, select the database name from the **Field Name** drop-down menu in the **Pre-Slug** area.



A data field must be imported for this feature to be used.

---

## Response Border

The response border is simply a box drawn around one area of responses. There are a variety of formatting options available for the response border.

### Thickness/Style

Border thicknesses are represented in points from 0-14. Three border styles are available: solid, dotted and broken.

#### ❖ To change thickness/style

1. Select the boxed responses to be formatted.



2. To change the border thickness, click the appropriate border thickness button: **Increase Border Thickness** or **Decrease Border Thickness**.
3. Click the **Change Border Style** button from the **Format** toolbar to switch between the available line styles.

### Color

The border color can also be changed independently of the color of the OMR response box.

#### ❖ To change border color

1. Select the boxed responses.



2. Select **OMR** from the **Format** menu.
3. From the **Border and Shading** tab, select a color from the border color drop-down menu.
4. Color changes will affect both the OMR response block and the OMR border.

#### ❖ To change border and response color

1. Select the boxed response(s).
2. To change the border color, click **Palette** from the **Format** toolbar.
3. Select the appropriate color.

## Rounded Corners

Rounded Corners can be applied to one or all of the border corners. The amount of roundness can also be controlled.

### ❖ To round corners

1. Select the response(s).
2. Click **Round/Square Corner** on the **Format** toolbar.
3. To specify a particular corner to be rounded, click the left mouse button on the corner handle while holding the <Shift> key. The corner will then be selected.
4. Click **Round/Square Corner** on the **Format** toolbar.



To specify the amount of rounding, select **Object** from the **Format** menu. From the **General Attributes** tab, select a roundness choice from the **Roundness** drop-down menu.

Rounded Corners

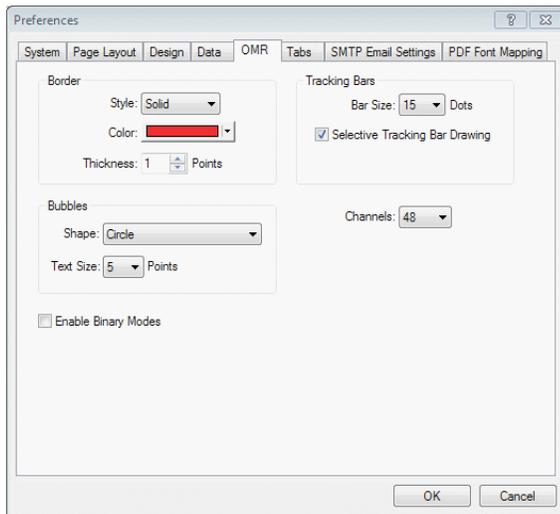
Top-Left       Top-Right

Bottom-Left       Bottom-Right

Roundness: Medium ▼ Or Enter Custom Radius in Dots

## Default Border Settings

A default style, color and thickness of OMR responses and their borders can be set. The defaults are set to solid style, red color, and 1 pt. thickness.



OMR Tab of the Preferences window

### ❖ To change the default settings

1. Select **Preferences** from the **Edit** menu.
2. Open the **OMR** tab.
3. Choose border **Style**, **Color**, and **Thickness** from their respective drop-down menus.

## Response Shading

### ❖ To shade response



1. Select responses to shade.
2. Click the desired shading button on the **Format** toolbar to apply shading.

### ❖ To specify shading pattern

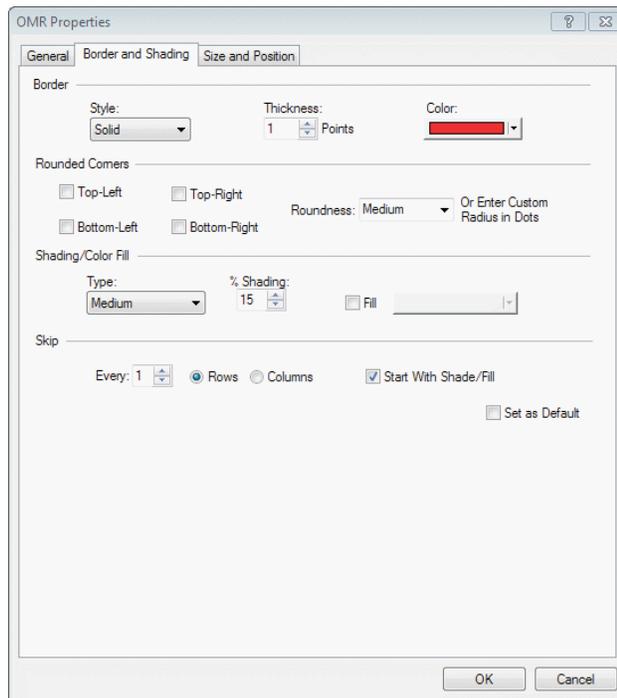
1. Select responses to shade.
2. Select **OMR** from the **Format** menu.
3. From the **Border and Shading** tab, select shading type from the drop-down menu.

❖ **To specify fill**

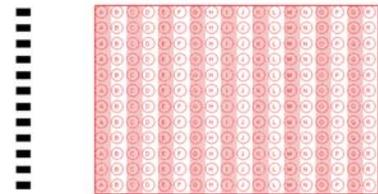
1. Select responses to fill.
2. Select **OMR** from the **Format** menu.
3. From the **Border and Shading** tab, select color from the **Fill** drop-down menu.

❖ **To specify rows/columns to be filled or shaded**

1. Select responses to shade.
2. Select **OMR** from the **Format** menu.
3. From the **Border and Shading** tab, select rows or columns to specify which will be shaded.
4. Define the number of rows or columns to be skipped in the **Skip Every** box.
5. Check **Start with Shade/Fill** to shade/fill the first row/column.



Border and Shading tab of the OMR Properties window



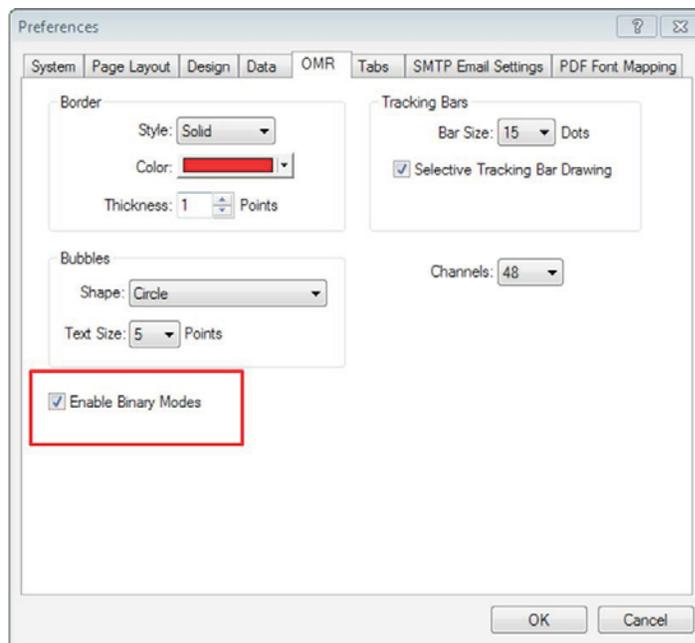
Every other shading

## Binary OMR

By default, Character OMR is enabled. If the user wishes to enable Binary OMR modes, which includes Binary Decimal and Binary Litho, they must first be enabled through the Preferences menu prior to drawing the OMR elements on the form.

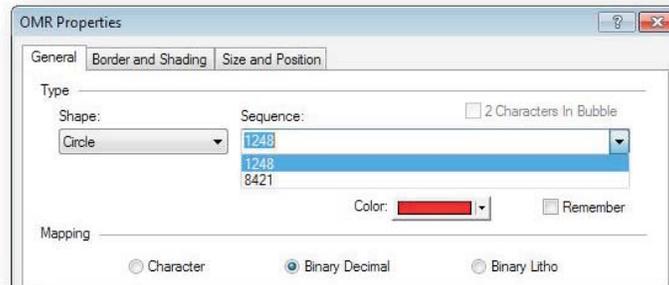
### ❖ To enable Binary OMR

1. From the **Edit** menu, select **Preferences**.
2. Select the **OMR** tab within the **Preferences** menu.
3. Select the **Enable Binary OMR** check box.

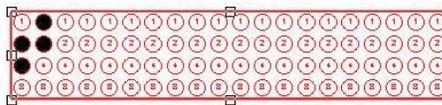


❖ **To draw Binary OMR elements**

1. Select the OMR draw button and draw the OMR box on the form.
2. Right click and choose Format OMR.
3. The **OMR Properties** window will appear. On the **General** tab, there will be a **Mapping** area where you can choose which type of OMR you would like to enable: **Character**, **Binary Decimal**, or **Binary Litho**.



Binary Litho is a 1-dimensional representation of a number, with each bubble having a value of 2 to the power of n. Being 1-dimensional, it is limited to 1 row if the direction is horizontal, or 1 column if having a vertical direction. The first bubble starts on the left or top side, having an initial position value of n being 0, and increments with each bubble to its right or below. The first bubble from the left side has a value of 1 if filled and 0 if not, while the second bubble has a value of 2 if filled and 0 if not, and the third bubble has a value of 4 or 0, etc. This is shown in the top OMR in the following image.



Both OMRs in this image are representing a value of 63. The bottom OMR in the image is Binary Decimal, a 2-dimensional OMR representation. When the direction is horizontal, there must be 4 rows, or when the direction is vertical, there is a requirement to have 4 columns. Each column can encode a single digit, with bubble values of 1, 2, 4 and 8, from top to bottom. While the total value if all bubbles are filled can be 15, it is assumed the slugging of the bubbles will not exceed a value of 9.

Binary OMRs are limited to a total number of 32 columns or rows since the size of an integer is 32 bits.



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## Set Up Auto-Launch

**D**esigner can auto-launch to a variety of VI Compose enabled devices. This chapter outlines how to properly configure those devices so that the auto-launch feature can be used successfully.

### PDF Proofing with Adobe Distiller

Designer can use a VI Compose enabled Adobe Distiller to automatically output jobs to PDF. When saving a job, simply select **Adobe Distiller PDF**, and Designer will create the PDF automatically. In order to take advantage of this feature, VI Compose must be installed on the workstation and a file used by Distiller must be edited to recognize VI Compose. With only a VI Compose evaluation license, you will be able to print between 10 and 150 PDF pages, depending upon which version of Distiller and VI Compose you are using.

After VI Compose is installed and the proper files are edited, it will be possible to output a PDF directly from the Job mode of Designer.



Loading FreeFlow VI Compose and editing the Adobe start up file is not necessary if FreeFlow VI eCompose (VIPO) is loaded on the local system.



FreeFlow VI Designer cannot be licensed and installed on the local system prior to installing the FreeFlow VI Compose and enabling Adobe Distiller to PDF proof VI Compose jobs.

---

## Install Adobe Distiller and VI Compose

### ❖ To set up a VI Compose enabled Adobe Distiller

1. Install Adobe Distiller.
2. Install the FreeFlow VI Compose on the same PC. A license for VI Compose is not necessary. VI Compose will run in demo mode on the workstation. This will automatically create XGF and XGFC folders on the C: or otherwise specified drive.
3. Open the Adobe Distiller Startup file in **Notepad**. The location and file name will vary depending on the version of Distiller installed.

Adobe Distiller 5.0	C:\Program Files\Adobe\Acrobat 5.0\Distllr\Startup\example.ps
Adobe Distiller 6.0	C:\Program Files\Adobe\Acrobat 6.0\Distllr\Data\distinit.ps
Adobe Distiller 7.0	C:\Program Files\Adobe\Acrobat 7.0\Distllr\Data\distinit.ps
Adobe Distiller 8.1	C:\Program Files\Adobe\Acrobat 8.0\Acrobat\Data\distinit.ps
Adobe Distiller 9.0	C:\Program Files\Adobe\Acrobat 9.0\Acrobat\Data\distinit.ps
Adobe Distiller X	C:\Program Files\Adobe\Acrobat 10.0\Acrobat\distinit.ps
Adobe Distiller DC	C:\Program Files\Adobe\Acrobat DC\Acrobat\distinit.ps

4. Key in the following lines at the end of the file:  
(Loading VIPP from C:\xgf...) print flush  
(C:\xgf\src\xgfdos) run
5. Save the file and close it.
6. Reboot your PC so these changes can take effect.

## Setting Up Click & Print

VI Compose queues and hot folder(s) should be set up at your FreeFlow Print Server prior to submitting a print job from Proform Designer.

1. Set Up VI Compose Queue(s) at the FreeFlow Print Server
  - Deploy
  - Deploy and Print
  - Print and Delete
2. Set Up queue(s) with hot folder(s)
3. Map network drive on workstation

For more information on FreeFlow Print Server queue and hot folder settings, please refer to the FreeFlow Print Server documentation or contact your Xerox representative.



DocuSP Print Job Submission Option



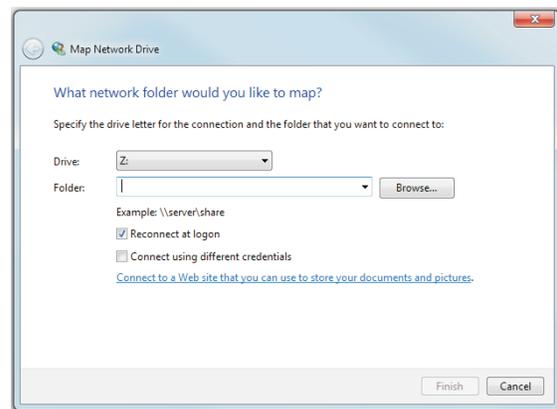
It is recommended that short queue names be defined if planning to map the drive through the Windows network.

## Mapping the FreeFlow Print Server hot folder network drive

The DocuSP hot folder should be mapped as a network drive through the workstation to access the DocuSP Print job submission feature.

### ❖ To Map the hot folder

1. Go to My Computer and right-click.
2. Select Map Network Drive.
3. key in the IP address of the print engine and queue name.  
(example:  
//100.100.100.197/hotfoldername)



# Set Up Office Printers

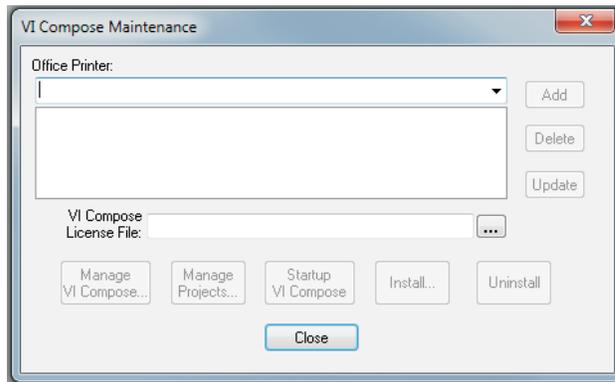
## The VI Compose Maintenance Window

The VI Compose Maintenance window, accessible from the File menu when no forms are open, serves as the control center for VI Compose on the office printer. Use this menu to install VI Compose, uninstall VI Compose, set tray specifications and manage the current VI Compose projects that are stored on the printer. Any specifications made within this menu will be retained for further use.

### Select a Printer

#### ❖ To select a printer

1. With no forms open, from the **File** menu, select **VI Compose Maintenance**.
2. Select which printer you wish to use from the **Office Printer** drop-down menu. Do not click **Add** yet.



### Select a VI Compose License File

#### ❖ To select a VI Compose license file

1. Click the **VI Compose License File** ellipses. Browse to find the appropriate **VI Compose License File**.
2. Click **Open**.
3. From the **VI Compose Maintenance** window, click **Add**. The chosen printer and license file will be added simultaneously to the list of selected office printers. You may repeat this process multiple times if you wish to enable multiple office printers.

## If You Don't Have a VI Compose License

### ❖ To Operate VI Compose in Demo Mode

1. From the **Office Printer** drop-down menu, select which printer you wish to use.
2. Click **Add**. An alert will pop up, stating that a "License file must be associated with printer before adding to list; Use evaluation license instead?"
3. Click **Yes** to choose the evaluation license.



Up to 20 pages will print in using VI Compose evaluation mode (demo mode).

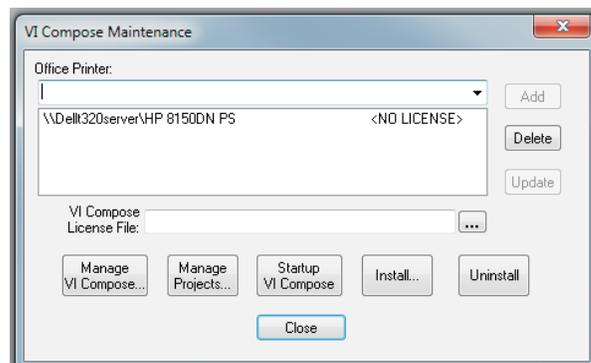
---

## Install VI Compose

After you have specified a printer and license file, VI Compose can be installed.

### ❖ To install VI Compose on the printer

1. After the printer and VI Compose license are selected, the buttons at the bottom of the **VI Compose Maintenance** window will be enabled.
2. Click the **Install...** button.



3. The **VI Compose Installation** window will appear. If you wish to have VI Compose active on the printer every time it is turned on, make sure that the **VI Compose Active on Startup** check box is enabled. If you wish to manually activate VI Compose when it is needed, do not enable this check box.
4. Click **Install**. This will install VI Compose on the selected office printer(s). Each printer that has just had VI Compose installed on it will print a VI Compose confirmation page so that you will know VI Compose has been successfully installed.

## Startup VI Compose

If you do not want VI Compose to be active on the printer every time it is started, you may choose to submit it manually. A manual submission will activate VI Compose only for the amount of time that the printer is turned on. After the printer is powered down and restarted, VI Compose will no longer be active and will have to be submitted again for use.

### ❖ To manually activate VI Compose

1. Select the printer and license file and install VI Compose, leaving the **VI Compose Active on Startup** box unchecked.
2. Click the **Startup VI Compose** button. An alert will pop up, notifying you: "**VI Compose startup sent to printer.**"
3. That printer is now VI Compose enabled but will not remain that way after it is powered down.

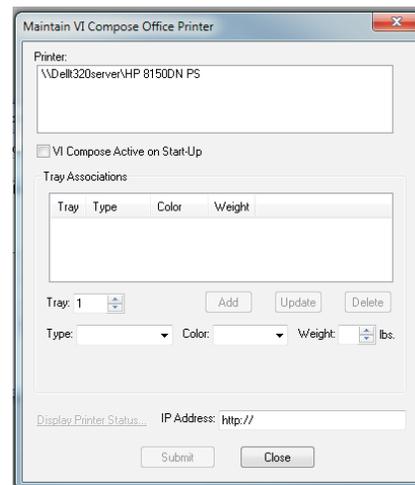
## Uninstall VI Compose

### ❖ To uninstall VI Compose from a printer

1. Make sure that only the printer from which you want to uninstall VI Compose is added to the **Office Printer** drop-down menu.
2. Select the **Uninstall** button. An alert will pop up, notifying you that the VI Compose files have been deleted from the printer.

## Manage VI Compose

This button provides a menu from which you can specify tray settings, check the status of the printer, and access the VI Compose Active on Startup check box. The tray settings, however, are not permanent and will only be active until the printer is powered down.



## Specify Tray settings

You can make tray setting specifications for your networked printers either in the Maintain VI Compose Office Printer window or through your web browser. Sometimes a printer will not accept the tray setting specifications when made in the window. If this happens, use the browser option.

### ❖ To specify tray settings in the Maintain VI Compose Office Printer window

1. Click the **Manage VI Compose** button. The **Maintain VI Compose Office Printer** window will appear.
2. Specify which tray will contain what type of paper, if specialty paper is being used.
3. Uncheck or check the **VI Compose Active on Startup** check box if necessary.
4. Click **Submit** to implement changes.

### ❖ To specify tray setting through the web browser

1. Enter the printer's IP address into the **IP Address** line.
2. Click the **Display Printer Status** link.
3. This will connect you to the networked printer's informational page. It will look similar to the following:
4. Make the necessary tray specifications from this page.



To find a printer's IP Address, access the Start menu and select Settings: open the Printers option. A list of your networked printers will appear in the Printers window. Locate the printer in question from the list, highlight it, and right click. Select Properties from the context menu and access the Ports tab of the new window. The IP address of the printer is listed here.

---

## Check Printer Status

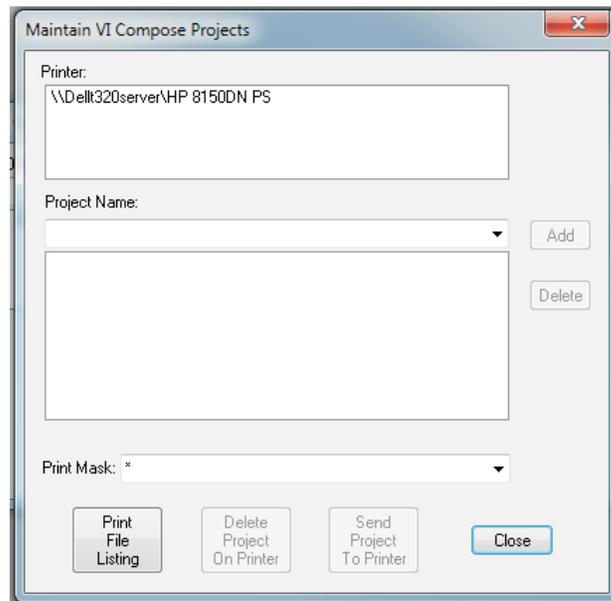
The Maintain VI Compose Office Printer window also allows you to easily check on the status of a print job.

### ❖ To check printer status

1. Click the **Manage VI Compose** button to access the **Maintain VI Compose Office Printer** window.
2. Type the printer's IP address into the **IP Address** line.
3. Click the **Display Printer Status** link.
4. This will open a web browser containing the printer's specific information.
5. You can check the status of the printer from this page.

## Manage Projects

This button provides the ability to delete projects from the printer, to send projects to the printer, and to print a list of files on the printer.



#### ❖ To print a file list

1. Click the **Manage Projects** button. The **Maintain VI Compose Projects** window will appear.
2. From the **Print Mask** drop-down menu, select which project files you would like to print. If you would like to print a list of all the files, select the "\*" option.
3. Click the **Print File Listing** button.

#### ❖ To delete a project on the printer

1. From the **Project Name** drop-down menu, select which project you wish to delete. This is a list of all the projects currently in your projects folder. If you delete a project from the printer you will no longer be able to just send the data if you want to print that project again.
2. Click **Add** to add it to the list.
3. Repeat this process until all projects that you wish to delete are listed.
4. Click the **Delete Project on Printer** button.

#### ❖ To send a project to the printer

Perhaps a company sends out a bill once a month. It is usually printed on the same form, but the billing information is certainly different each time. Every once in a while the form must be updated as well. After the form is updated, the company can send the new form files to the printer, and not actually print the forms yet. This will enable them to, when it is time to print out the bill again, submit only the data to the printer, since the new form files will already be stored there.

1. Select a project from the **Project Name** drop-down list.
2. Click **Add** to add that project to the list.
3. Repeat this process to add all the forms that you wish to send to the printer.
4. Click the **Send Project to Printer** button. A list of all the files just sent to the printer will automatically be printed.



Any action performed within the VI Compose Maintenance window will affect all printers included in the printer list. If you do not want a certain printer to be affected, you must first delete it from the list.

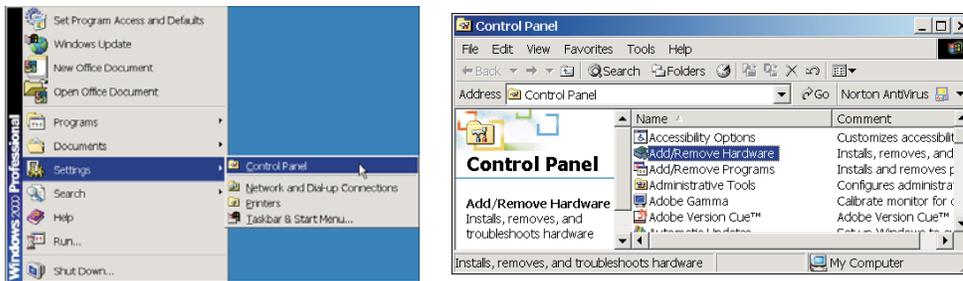
---

# Set Up the FreeFlow VI eCompose

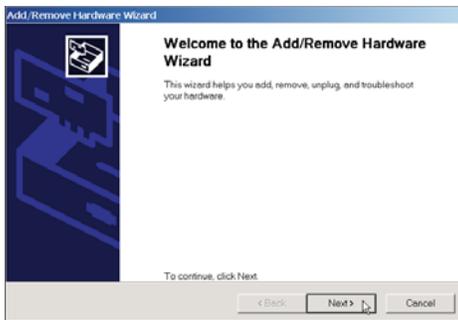
In order to successfully auto-launch to the FF VI eCompose, you must have a static IP address. If you do not have a static IP address, you can establish one by enabling the Microsoft Loopback Adapter. If you already have a static IP address then there is not need to enable the Loopback Adapter..

## Enabling the Microsoft Loopback Adapter

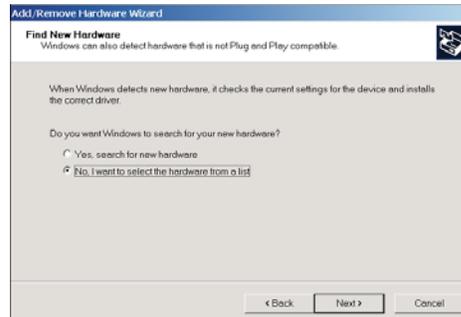
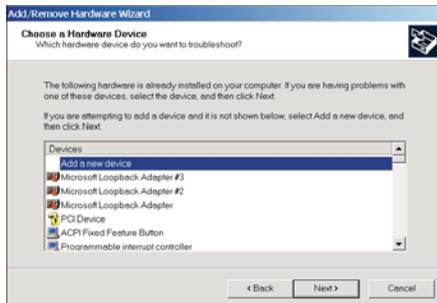
1. Go to the **Control Panel**.
2. Open the **Add/Remove Hardware** option.



3. Click the **Next** button to proceed through the wizard.

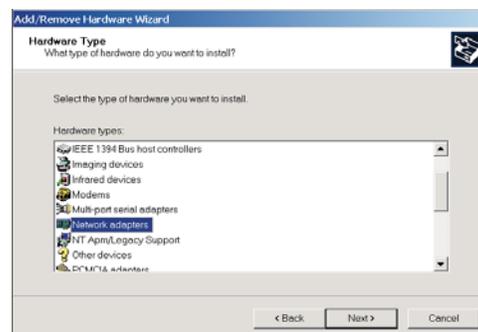
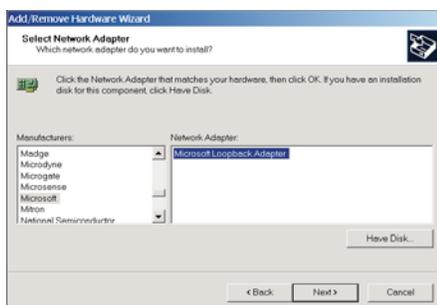


4. Scroll through the **Devices** list and select **Add a New Device**.
5. Click the **Next** button.
6. Choose the **"No, I want to select the hardware from a list"** option.



7. Click the **Next** button.

8. Select **Network Adapters** from the **Hardware Types** list.



9. Click the **Next** button.

10. Go to the **Manufacturers** list and choose **Microsoft**.

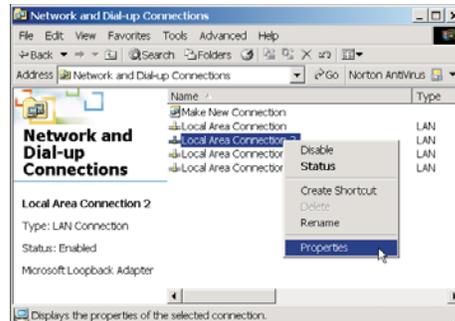
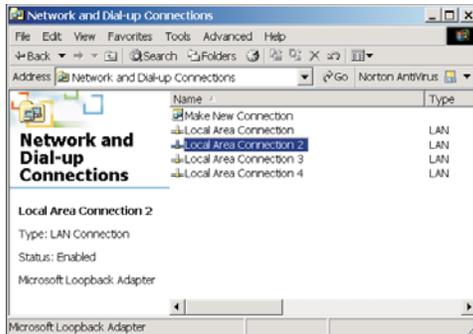
11. Select the **Microsoft Loopback Adapter** option.

12. Click the **Next** button.

13. Click the **Next** button again, and then the **Finish** button.

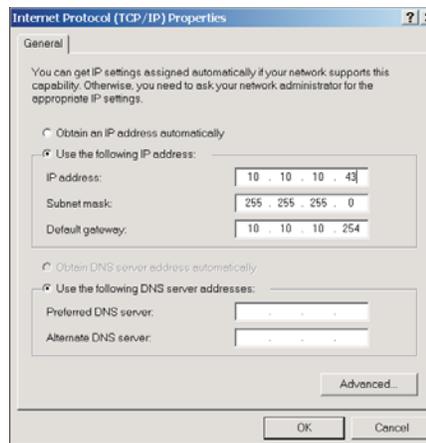
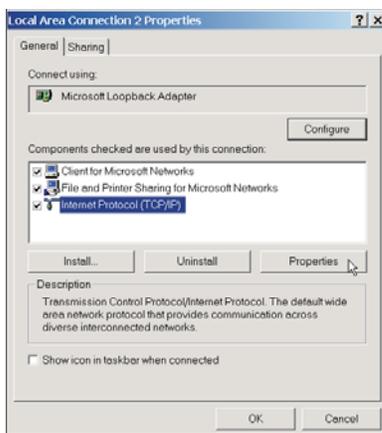
14. Return to the **Control Panel**, and open the **Network and Dial-up Connections** option.

15. Select the **Loopback Adapter** connection. When a connection is selected, the connection type will be displayed on the left side of the window. Use this to tell which one is the loopback adapter.



16. Right click the loopback connection, and select **Properties**.

17. Select the **Internet Protocol (TCP/IP)** and click the **Properties** button.



18. Choose the "Use the following IP address" option.

19 Enter your **IP Address**, **Subnet Mask** and **Default Gateway**. To find these, go to **Start:Programs:Accessories:Command Prompt**. Enter `ipconfig` and press the **Enter** key.

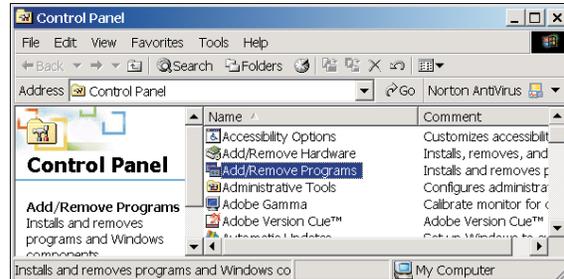
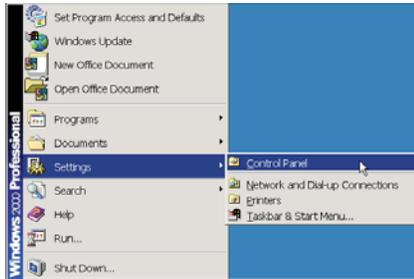
20. Click **OK**. If a warning appears, select **Yes**.

21. Click **OK** to save the loopback adapter settings and close the window.

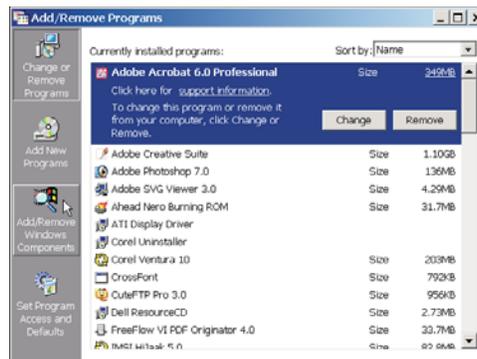
22. You now have a static IP address. You must use this static IP address when editing the host file as described in the next section.

## Set up FreeFlow VI eCompose (VIPO) for Auto-Launch

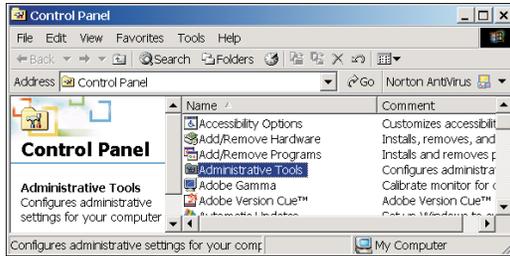
1. Install VI eCompose.
2. Go to the **Start** menu and select **Control Panel**.



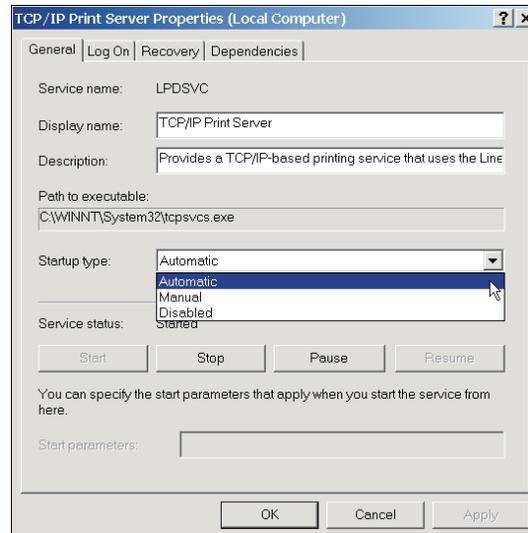
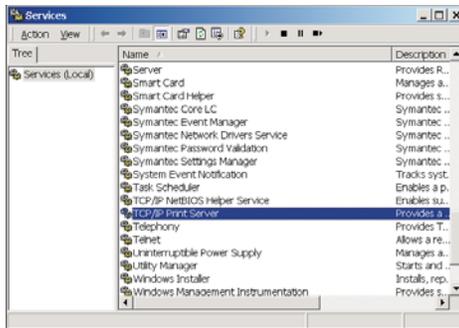
3. Double click the **Add/Remove Programs** option.
4. Click the **Add/Remove Windows Components** button, located on the left side of the screen.



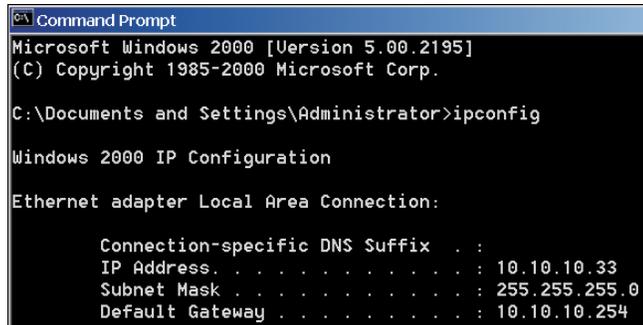
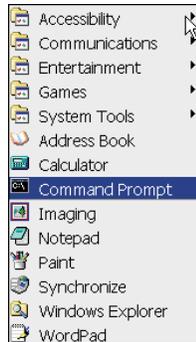
5. Enable the **Other Network and File Print Services** check box.
6. Click **Next** to install.
7. Click **Finish**.
8. Return to the **Control Panel**.
9. Double click to open the **Administrative Tools** option.



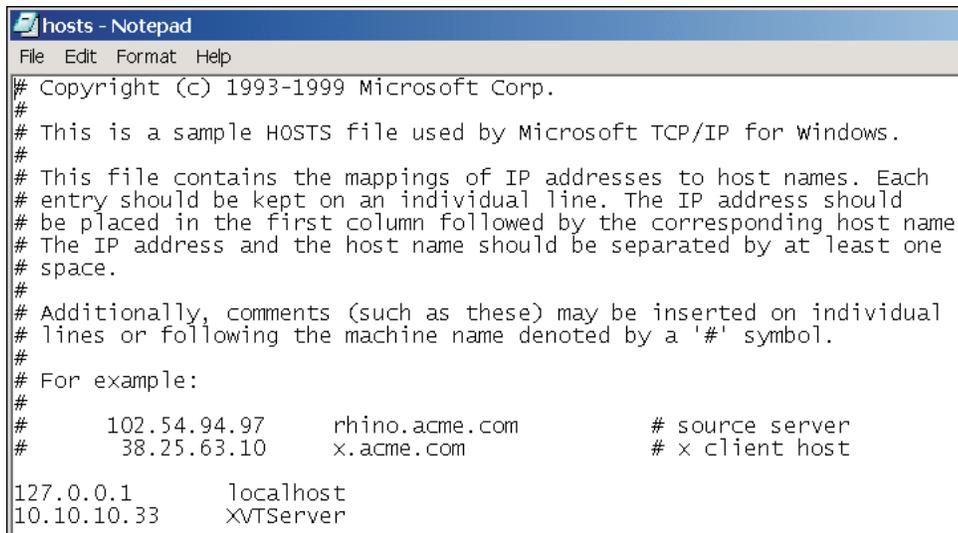
10. Double click the **Services** option.
11. Scroll to locate the **TCP/IP Print Server** listing. Make sure that **Started** is listed in the **Status** column.
12. Highlight the **TCP/IP Print Server** listing. Right click and select **Properties** from the context menu.



13. Change the **Startup Type** to **Automatic**.
14. Click **OK**.
15. If you have created a static IP address via a loopback adapter, please skip steps 16-18. You will use this IP Address when editing in the host file in step 21.
16. Go to **Start: Programs: Accessories: Command Prompt**.

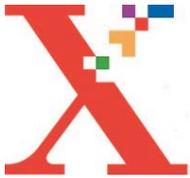


17. Type **ipconfig** into the command prompt, and click **Enter**. This will return the computer's **IP Address**.
18. Write down the **IP Address**, and close the **Command Prompt** window.
19. If you are using Windows 98, ME, or XP, go to **C:\Windows\system32\drivers\etc**.  
If you are using Windows NT or 2000, go to **C:\WINNT\system32\drivers\etc**.
20. Open the **hosts** file with **WordPad** or **Notepad**.
21. At the bottom of the file, enter the **IP Address**, insert a tab, and type **XVTServer**.



22. **Save** the file, and close the window.
23. The **VI eCompose** is now properly configured to auto-launch from Proform Designer.

## Xerox FreeFlow VI Design Pro



Xerox FreeFlow VI Design Pro (formerly named FreeFlow VI Designer) is a VI Compose development environment that can be purchased from Xerox. Designer produced jobs can be loaded to the VI Design Pro for viewing and/or editing if the user knows the VI Compose coding language. VI Design Pro must be installed on your system in order to take advantage of the auto-launch feature with Proform Designer. .

# FreeFlow VI eCompose

**D**esigner supports a PDF workflow with the auto-launch of VI Compose files directly to the VI eCompose, formerly known as VIPO. Use the Designer interface to create bookmarks to split PDFs for archiving or reference purposes, or define custom fields and automate email. Once all the specifications are set, choose VI eCompose from the create drop-down menu and click the Save to VI Compose button.

Before jobs can be auto-launched, the VI eCompose must be properly configured. If you have not done this already, please review Chapter 10: Set Up Auto-Launch for complete instructions.

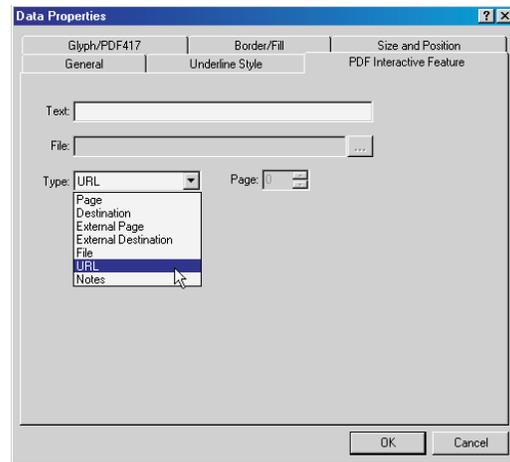
## PDF Interactive Features

Designer supports VI Compose PDF Interactive Features (PIF) commands that can be used to create interactive features such as links or notes when a VI Compose job is converted to a PDF document. There are seven different interactive features available with the following functions:

<b>Page:</b>	Creates a link to another page in the same document.
<b>Destination:</b>	Creates a link to a named destination (either an alphanumeric string or a page number).
<b>External Page:</b>	Creates a link to a page in another PDF document.
<b>External Destination:</b>	Creates a link to a named destination in another PDF document (either an alphanumeric string or page number).
<b>File:</b>	Creates a link to a non-PDF document.
<b>URL:</b>	Creates a link to an internet/intranet site or document. These links can then be viewed as html in a browser, or as additional PDF pages of the same PDF document.
<b>Notes:</b>	Creates a pop-up window with a note.

### ❖ To set PDF interactive features

1. Right click on a data area and select **Format Data** from the context menu.
2. The **Data Properties** window will appear.
3. Select the **PDF Interactive Feature** tab.
4. Select the desired link type from the **Type** drop-down menu.
5. Enter text into the **Text** field.
6. Click the ellipses (...) to browse for a file if using the **External Page**, **External Destination**, or **File** option. This field is not applicable for other PIF types.
7. Select page number if applicable.



## Create and Submit a Bookmarked Job

Proform Designer can be used to create the proper commands to set up bookmarks within the VI eCompose produced PDF document. Bookmarks cause the PDF document to be split into smaller portions according to a user-defined field. Whenever the contents of the designated field change, the PDF will be split. Use the Job Tree to define on which page the bookmark will occur. Only one bookmark may be defined per job.

### ❖ To define the bookmark

1. Either create or open the job that will be sent to the **VI eCompose**.
2. Go to the **Edit** menu and select **Form Layout**.
3. The **Form Layout** window will appear.
4. Access the **VTP Setup** tab.
5. Make sure that the **Split PDF** check box is enabled.
6. By default, the Bookmark Delimiter will be set to a colon (:). If you would like it to be something else, enter that value into the **Bookmark Delimited** field. The Bookmark Delimiter will be used as the separating character between split PDFs in the resulting list.
7. Go to the **Bookmark Field** drop-down menu. Select the **Field** that will be used as the bookmark.
8. Select the color and style in which each PDF's name will appear.
9. Go the **Output Filename** drop-down menu. Select the **Field** that will serve as the title for each of the split PDFs.
10. Click **OK**.

Form Layout

Form Setup | Paper Size | Grid Settings | Margins | OMR Settings | VTP Setup

Bookmark Delimiter:   Automate Email  Split PDF

Bookmark Field:  Color:  Style:

Output Filename:  Clear

	Field Name	Field Contents	
1	<input type="text"/>	<input type="text"/>	Clear
2	<input type="text"/>	<input type="text"/>	Clear
3	<input type="text"/>	<input type="text"/>	Clear
4	<input type="text"/>	<input type="text"/>	Clear
5	<input type="text"/>	<input type="text"/>	Clear
6	<input type="text"/>	<input type="text"/>	Clear
7	<input type="text"/>	<input type="text"/>	Clear
8	<input type="text"/>	<input type="text"/>	Clear

OK Cancel



After defining the bookmark parameters in the Form Layout window of one page in a job, the bookmark must then be enabled for the form page in the job tree. The bookmark parameters of only one form page per job will be recognized.

#### ❖ To set the bookmark on a page

1. Go to the **Job Tree**.
2. Expand the **Form** folder of the form on which the bookmark will be set.
3. Select the **Bookmark** option.
4. Go to the **Edit Information** drop-down menu and select **Yes**.
5. Click the **Update** button.
6. The PDF will be split whenever the contents of the designated field change on this bookmarked form.

## Create an Automated Email Job

Proform Designer can also be used to set up VI eCompose automated email.

### ❖ To set up automated email

1. Open or create the job that will be used in the automated email.
2. Go to the **Edit** menu and select **Form Layout**.
3. Access the **VTP Setup** tab.
4. Enable the **Automated Email** check box.
5. Go to the **Bookmark Field** drop-down menu and select the field that will denote a split in the PDF.
6. Notice that Designer has automatically populated the first four **Field Name** fields with **ToEmail**, **From**, **Subject** and **Contents**.
7. Use the **Field Contents** drop-down menus to specify which data fields will be used to populate the **ToEmail**, **From**, **Subject** and **Contents** fields. If necessary, additional data fields can be created using the Concatenated Field function.
8. Click **OK**.

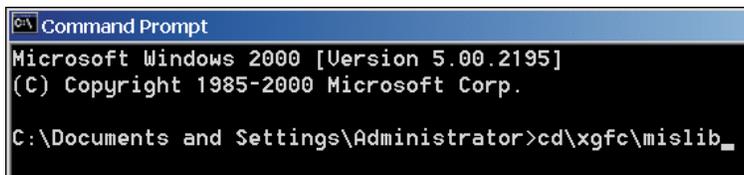
The screenshot shows the 'Form Layout' dialog box with the 'VTP Setup' tab selected. The 'Automate Email' checkbox is checked. The 'Bookmark Field' is set to 'LName' with a color of blue and a bold style. The 'Output Filename' is also 'LName'. Below this is a table for mapping field names to contents.

	Field Name	Field Contents	
1	ToEmail	Email	Clear
2	From	Company	Clear
3	Subject	Subject	Clear
4	Contents	Contents	Clear
5			Clear
6			Clear
7			Clear
8			Clear

## Troubleshoot the Auto-Launch

If the auto-launch from Proform Designer does not work, there are several things that you can do to troubleshoot the problem. Proform Designer auto-launches via LPR. By issuing the LPR command manually, you can view any errors that are generated and remedy the problem.

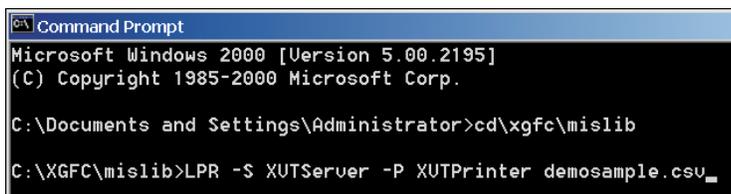
1. Go to **Start: Programs: Accessories: Command Prompt**.
2. Type `cd\XGFC\mislib`. Press the **Enter** key.



```
Command Prompt
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.

C:\Documents and Settings\Administrator>cd\XGFC\mislib_
```

3. Type `LPR -S XUTServer -P XUTPrinter -o | demosample.csv`. Press the **Enter** key.



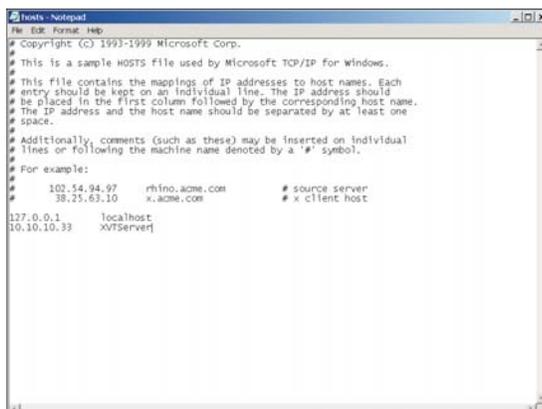
```
Command Prompt
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.

C:\Documents and Settings\Administrator>cd\XGFC\mislib
C:\XGFC\mislib>LPR -S XUTServer -P XUTPrinter demosample.csv_
```

4. There are several error messages that may appear. Locate your error message from the list below and proceed accordingly.

Error: host server is unknown

You have not edited the host file correctly; likely there is a capitalization error. Repeat steps 19-21 of the **Set up the VI eCompose for Auto-Launch** section. Save the file and resubmit the auto-launch job.



```
hosts - Notepad
File Edit Format Help
# Copyright (C) 1993-1999 Microsoft Corp.
#
# This is a sample HOSTS file used by Microsoft TCP/IP for Windows.
#
# This file contains the mappings of IP addresses to host names. Each
# entry should be kept on an individual line. The IP address should
# be placed in the first column followed by the corresponding host name.
# The IP address and the host name should be separated by at least one
# space.
#
# Additionally, comments (such as these) may be inserted on individual
# lines or following the machine name denoted by a '#' symbol.
#
# For example:
#
# 102.54.94.97 rhino.acme.com # source server
# 38.25.63.10 x.acme.com # x client host

127.0.0.1 localhost
10.10.10.33 XUTServer
```

Error: print server did not accept request. Job aborted.

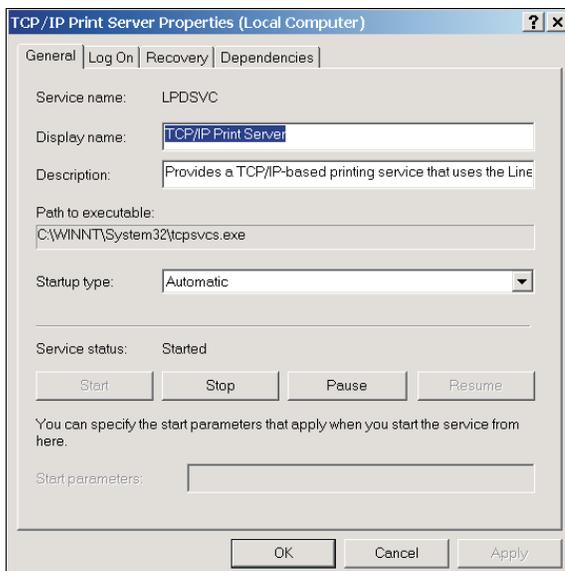
Either the VI eCompose is not installed, or you have renamed it.

Go to **Start: Control Panel: Printers**. Make sure that **XVTPrinter** is in the list. If you have renamed it, change it back to XVTPrinter. If it is not installed then you must install it.

Name	Documents	Status
Add Printer		
Adobe PDF	0	Ready
HP LaserJet 8100 Se...	0	Ready
Phaser 6200DP on ...	0	Ready
Xerox DocuPrint N3...	0	Ready
Xerox Phaser 7750G...	0	Ready
XVTPrinter	0	Ready

Error: print server unreachable or specified printer does not exist.

Repeat steps 8-14 of the **Set up the VI eCompose for Auto-Launch** section. It is likely that you have not started your TCP/IP Print Server.



---

# OMR Tips and Tricks

**T**he successful creation of OMR forms relies upon several factors. Alignment of OMR elements is critical to the scannability of the forms and must be within the tight specifications outlined. Printers and scanners also play their own role in the process. There are important recommendations in this appendix in reference to creating OMR forms. Everything from the paper printed on to printer hardware will contribute to your success.

## Form Alignment

Alignment issues have been a major focus of Proform Designer. Procedures are in place to ensure the proper placement of the critical OMR elements from the tracking bars to the OMR responses themselves. However, it is best to perform a second manual check before placing a form into production to verify proper alignment.

Plastic overlays are available upon request from Lytrod Software, Inc. Often times, the scanner manufacturer will provide these overlays as well. The purpose of the overlays is to assist in determining proper alignment.

## Alignment Checklist

1. Line up plastic overlay with form.
2. Check alignment of Tracking Bars in relation to the scannable form elements (Form Identification Marks (FIMs) and Responses).
  - Form Identification Marks should be both horizontally and vertically centered by scan row and column.
  - Tracking Bars should be vertically centered in responses.
  - Tracking Bars should be proper distance from the edge of the paper.



Individual objects cannot and should not be moved. They are placed in relation to each other and controlled by Proform Designer. If you believe there is improper alignment of tracking bars and/or Form Identification Marks to responses, please contact Lytrod Software, Inc.

---

## Xerox Printer Registration (4850 and 4890)

Xerox has taken several steps toward maintaining printer registration for applications such as OMR that require tight specifications. The following guidelines will help ensure that printer registration variation remains within specification (+/- .85mm).

### Printer Registration Setup

1. Set registration per addition 3-2 in the 4800F Service Manual. Use a sample of XREG11 and fold it in half. The center line of the form should fall on the folded crease.
2. Verify that there is no skew in the paper path. Use RAP OF 1 located in the last section of the Status Indicator RAP section of the Service Manual as needed. Use a duplex sample of XREG11. Hold it up to the light to verify that the centerline from the first side overlays the centerline of the second side.
3. Print approximately 50 samples of XREG11. Evaluate the copies to determine the two extremes of variation. Use these two extremes as a reference to centerline the final registration adjustment.
4. Verify there are no problems related to the paper feed trays. Run samples of XREG11 from each tray to verify they all print the same. It is also recommended to verify that the paper handling drive gears and idlers are in good conditions.

## Hardware Recommendations

It has been determined that several paper handling reliability improvement parts will help ensure that the paper registration remains in specification as long as possible.

- 600K54000 Knurled Registration Transport Scuffer Shaft Assy (handles card stock better and has been reported to help improve registration). Verify that the registration edge guide is square per install instructions, then skew adjustment can be made.
- 600K53910 Registration Transport Belts (finger tabs and belt have been hardened for longer life).
- 600K59250 Recitation Transport Edge Guide (ceramic dowels provide the guiding surface which do not cut easily. If for some reason they do cut, they can easily be rotated to provide a new surface).
- 48K42250 Duplex Clutch Assy - Improved Reliability.
- 22K40650 Improved Duplex Scuffer Assy (drive shaft is bearing driven vs bushing driven).
- 30K39911 Duplex magnetic skis (provide the correct tension for paper movement on the vertical transport which mates to the registration transport).
  - 30K47340 Tray 1 magnetic skis.
  - 30K39901 Tray 2 magnetic skis.



For maximum reliability effectiveness, it is recommended that the Lead Printer Operator attend ACT Training.

---

## Ongoing Xerox Service Requirements

- Registration should be checked and verified side to side and top to bottom.
- Skew should be checked and verified.
- Image Density (top to bottom) should be uniform.
- Internal Test Form is within specification.
- Any adjustments or parts replacements related to paper handling require re-evaluating registration and skew specifications.

## Customer Checks

- Ensure form is center lined. Sample 25 prints of the form to be used. Pick out the two samples that vary from the centerline the most in each direction.
- If variation (float) from the specification (+/- .85mm) is noticed, use the alignment command (adjustX/adjustY on NPS), when possible, to re-center the form/data until service can rectify the problem.

# Scanner Specifications

## Scanner Service

Prior to running test forms through scanner, verify that the scanner has been properly serviced by the manufacturer.

## Verify Printer Accuracy

Print 1000 to 1500 of internal test form to determine reject rate at the scanner due to inability to detect one or more alignment marks and the validity of the scanned data. If the results of this test are not satisfactory, re-check form alignment, printer alignment and scanner service records.

# Paper Recommendations

## Type of Paper

- Paper weight of 24 lb. is recommended for all OMR forms.
- Brightness should be as high as possible with a target brightness of 87.

## Handling & Storage

This application can be affected by paper edge defects such as bent corners, damaged edges and other similar defects. Changes in humidity and temperature can affect the natural curl and size of the paper which can also affect printing and scanning registration.

---

# System Limitations

## Form Output Limitations

Proform Designer creates a print format upon form output. Various output formats are available, each having unique limitations. These limitations affect the operation of Proform Designer in some cases and restricts features that would produce commands not compatible with destination format. Proform Designer bases these restrictions on the printer information specified in the Resource Set.

### OGL - AFP Source to be compiled with IBM Host-Based Compiler

#### Lines and Boxes

Line and box borders between 0 and 45 pixels may be defined. Shadings EXTRA LIGHT, LIGHT, MEDIUM, HEAVY, EXTRA HEAVY and percentage shadings are available.

#### Text

The following text functions are not supported with an OGL compiler.

- Control of text pitch is not supported.
- Certain text alignments when text is tied to a box is not supported (i.e. Text tied to top-left corner of box must have a LEFT alignment, while text tied to the top-right corner of a box must have a RIGHT alignment).

#### Color

OGL does not support color.

#### OMR

Since OGL does not support color, OMR functionality is also not supported.

### Xerox XES Output

#### Fonts

The Xerox 4045CP and 2700II XES printers are unable to print more than one font orientation per page. Proform Designer correctly handles multiple font orientation on a page when the printer is a printer other than the two named above.

Most of these printers are restricted to 22 fonts on a page. The exceptions are the 2700 which supports 17 fonts per page, and the 4235 and 4700 which support 32 fonts per page. These numbers are maximums; the restriction usually exists in the amount of memory available on the printer.

### Lines

Dotted and Broken lines from thicknesses Hairline to 3 are drawn using fonts provided with Proform Designer. Lines greater than a thickness or 3 are drawn using a graphic image for each line. While the line length is precise, Xerox printers have limits to the number of graphics allowed on a page, as well as the amount of memory available for graphics in the printer. The number of graphic windows allowed are as follows:

Printer Model	# Graphic Windows
4045, 4197, 4010, 4030, 4213	128
2700, 3700	16
4235, 4700	256

### Shadings

All shadings are implemented for XES printers.

### Paper Size

Printer Model	Maximum Paper Size
2700, 4045, 4197, 4010, 4030, 4213	8.5" X 14"
3700, 4700, 4235	11" X 17"

### Color

Color is supported on Xerox 4700 printers. No limitations in color usage.

## PCL Output

### LaserJet Page Area

The page is defined by the page orientation and the size of the paper. Within the physical page size, there are other limitations that define the printable page area. These page area limitations are explained below.

PCL printers do not permit printing from one edge of the paper to the other. The feeding and trailing edges have a 60 dot (1/5") non-printable area. Although form elements can be placed in this non-printable area, they will be truncated within these boundaries. Proform Designer will move elements placed within the non-printable area to an area inside the printable area (if possible).

On landscape pages, the non-printable areas are defined as 60 dots from the left edge of the page and 60 dots from the right edge of the page. On portrait pages, the non-printable areas are defined as 60 dots from the top of the page and 60 dots from the bottom of the page.

Another printer limitation is the physical drum width. The printer's drum width is 8". Since the feeding edge of the page is 8.5", 0.5" is unable to be addressed for printing (50 dots (1/6") on the left side, and 100 dots (1/3") on the right). If this area is addressed, the form element will not be printed. Proform Designer will attempt to place form objects that are located in the non-addressable area as much as possible onto the addressable page area.

The non-addressable page areas are defined as follows. For landscape pages, the non-addressable areas are 50 dots (1/6") from the top of the page and 100 dots (1/3") from the bottom of the page. On portrait pages, the non-addressable areas are 50 dots from the left edge of the page and 100 dots from the right edge of the page.

## **Fonts**

Fonts of different orientations on a page are supported on Laserjet Series III and newer printers. Scalable fonts are also supported on these printers. Proform Designer assumes all PCL printers are Series III or newer.

## **Lines**

Dotted and Broken lines from thicknesses Hairline to 3 are drawn using a font. Lines greater than a thickness of 3 are drawn using a graphic image for each line. While line length is precise, this approach uses significant amounts of internal printer memory and the size of the form file is greatly increased.

## **Color**

Color support is defined for Hewlett-Packard PCL (HighLight Color) and (Color). Only PCL5C printers support color.

# **PostScript Output**

## **Print Margins**

PostScript is available on many printers, sometimes as the native mode of the printer and other times as an alternate printer control language. Some of these printers cannot print to all areas of the paper. Proform Designer is aware of these margin areas when defined in the Resource Set.

## **Shading Limitations**

Proform Designer provides support only for percentage shadings (EXTRA LIGHT, LIGHT, MEDIUM, HEAVY EXTRA HEAVY, BLACK, percentage).

## Opaque Shadings and Graphic Images

When percentage shading (gray fill) or graphics are laid onto a form, all objects laying at the same position are cleared (i.e. White filled). Proform Designer tries to minimize the side affects of this operation by ordering the laying of shades and images onto the page. All shades are first placed onto the page, ordered from light to dark, followed by all images. After all shadings and graphics are placed, the lines, text, and logos are placed. In most cases, this should result in the desired affect. If not, try to minimize the amount and/or placement of shadings and graphics on the form.

## Color

Full color is supported on PostScript color printers.

## MetaCode Output

### Paper Size

Printer Model	Paper Size
9700/9790/8700/8790	USLETTER, B4, A4
4050/4450/4090/4650/4850/4890	USLETTER, USLEGAL, B5, A4
3700/4235	USLETTER, USLEGAL, 11 X 17, A3, A4, B4, B5
4135/4635	USLETTER, USLEGAL, 11 X 17, 14 X 17, A3, A4, B4, B5

### Shading Limitations

Proform Designer provides support only for a limited range of shadings (LIGHT, MEDIUM, HEAVY, BLACK).

## Color

HighLight color is supported on Xerox HighLight color printers (4850 and 4890). Color is limited to solid colors (color of toner) in all form objects, except for object fills.

# Reference Information

## FDL Grid Formats

### FDL Grid Formats for Xerox Printers - US Letter

ID	CPI	LPI	Columns	Lines	Orientation	Origin (Y,X)
FMT1	13.6	8.1	132	66	LANDSCAPE	(.18,.66)
FMT2	15	8.1	150	66	LANDSCAPE	(.18,.50)
FMT3	13.6	10.7	132	88	LANDSCAPE	(.14,.66)
FMT4	15	10.7	150	88	LANDSCAPE	(.14,.50)
FMT5	10	6	100	49	LANDSCAPE	(.17,.50)
FMT6	13.6	8.1	100	80	PORTRAIT	(.57,.58)
FMT7	12	6	90	60	PORTRAIT	(.50,.50)
FMT8	10	6	75	60	PORTRAIT	(.50,.50)
FMT9	20	10	200	80	LANDSCAPE	(.25,.25)
FMT10	17.6	12.5	132	132	PORTRAIT	(.22,.51)
FMT11	20	12.5	150	132	PORTRAIT	(.22,.50)
FMT12	13.6	8.1	172	66	LANDSCAPE	(.18,.66)
FMT13	13.6	8.1	100	104	PORTRAIT	(.57,.58)

### FDL Grid Formats for Xerox Printers - A4 Paper

ID	CPI	LPI	Columns	Lines	Orientation	Origin (Y,X)
FMT1A	12.5	8.3	161	68	LANDSCAPE	(.18,.57)
FMT2A	14.3	8.3	183	68	LANDSCAPE	(.18,.60)
FMT3A	12.5	11.1	161	90	LANDSCAPE	(.18,.57)
FMT4A	14.3	11.1	183	90	LANDSCAPE	(.18,.60)
FMT5A	10	6.1	123	49	LANDSCAPE	(.22,.85)
FMT6A	13.6	8.1	103	99	PORTRAIT	(.91,.46)
FMT7A	12	6	91	74	PORTRAIT	(.85,.39)
FMT8A	10	6	77	74	PORTRAIT	(.85,.39)
FMT9A	20	10	246	82	LANDSCAPE	(.14,.85)
FMT10A	17.6	12.5	136	161	PORTRAIT	(.57,.39)
FMT11A	20	12.5	155	161	PORTRAIT	(.57,.39)

## LaserJet Grid Format

ID	CPI	LPI	Columns	Lines	Orientation	Origin (Y,X)
FMT1	10	6	106	45	LANDSCAPE	(.5,.2)
FMT2	12	6	127	45	LANDSCAPE	(.5,.2)
FMT3	16.666	6	176	45	LANDSCAPE	(.5,.2)
FMT4	10	8	106	60	LANDSCAPE	(.5,.2)
FMT5	12	8	127	60	LANDSCAPE	(.5,.2)
FMT6	16.666	8	176	60	LANDSCAPE	(.5,.2)
FMT7	12	6	98	60	PORTRAIT	(.5,.17)
FMT8	16.666	6	136	60	PORTRAIT	(.5,.17)
FMT9	10	6	82	60	PORTRAIT	(.5,.17)
FMT10	10	8	82	80	PORTRAIT	(.5,.17)
FMT11	12	8	98	80	PORTRAIT	(.5,.17)
FMT12	16.666	8	136	80	PORTRAIT	(.5,.17)

## Standard Grid Format

ID	CPI	LPI	Columns	Lines	Orientation	Origin (Y,X)
FMT1	13.635	8.57	132	66	LANDSCAPE	(.40,.66)
FMT2	15	8.57	145	66	LANDSCAPE	(.40,.66)
FMT3	12	6	116	46	LANDSCAPE	(.40,.66)
FMT4	12.5	9.375	121	72	LANDSCAPE	(.40,.66)
FMT5	10	6	96	46	LANDSCAPE	(.40,.66)
FMT6	12.5	8.57	121	66	LANDSCAPE	(.40,.66)
FMT7	13.635	8.57	105	82	PORTRAIT	(.66,.40)
FMT8	12	6	92	58	PORTRAIT	(.66,.40)
FMT9	10	6	77	58	PORTRAIT	(.66,.40)
FMT10	12.5	9.375	96	90	PORTRAIT	(.66,.40)
FMT11	12.5	8.57	96	82	PORTRAIT	(.66,.40)
FMT12	15	8.57	115	82	PORTRAIT	(.66,.40)

# Form Storage in Printer

## VI Compose Forms

Proform Designer is set-up to save VI Compose files in the directories as defined by VI Compose conventions. This is very convenient if you are using the VI Design Pro as a preview and editing tool since the files are all in the directories that the VI Design Pro is expecting. In the Resource Set, you define the location of the VI Compose directory. See page 58 for details.

PostScript forms are saved in the FORMLIB; fonts in the MISLIB; DBMs in the FORMLIB; JDTS in JDTLIB; data in the MISLIB and the job ticket (to assist in job start) in the MISLIB directory. These files need to be copied to the same directories on the printer. Typically this is done through an FTP function on the network. The job ticket file should be pre-appended to the data file before being sent to the printer.

## XES Forms

Forms merging on XES printers is done in two different ways, depending on the printer model. On Xerox 3700, 4235 and 4700 printers, forms are stored on the printer's disk drive. On all other Xerox printers, the forms are stored in the printer's memory (temporary merge page store).

In the following data sequences, `<ESC>` refers to the ASCII escape character (decimal 27 or hexadecimal 1B). If a UDK command is issued at the start of the data stream, `<ESC>` may be substituted for this character. The format of the UDK command is: `=UDK=<c>` where `<c>` is a printable ASCII character. `<CR>` refers to the line ending sequence the printer is expecting.

When the form is in the merge page store, an `<ESC>ze` command sequence is issued at the start of the variable data stream to start merging. All pages printed from this point forward will also have the form printed on it. To terminate the forms merging, issue a `<ESC>zd` command sequence.

The 3700, 4235 and 4700 printers can handle one to four forms merging on the same page. The printer must be told which forms to merge. For each form to merge on a page, two escape sequences are to be called out. The `<ESC>+<n><form-name><CR>` sequence assigns the form name to a number (`<n>`) between 0 and 3 (See your Xerox documentation for further information on this command). After this command, the sequence `<ESC>zb<n>` starts the `<n>`th form merging onto the page. In terminating forms merging, the user can control each individual form or all forms merging. The sequence `<ESC>zh4` stops all forms merging, while `<ESC>zh<n>` stops an individual form, where `<n>` is a number between 0 and 3.

## PCL Forms

Proform Designer is designed to take advantage of a capability in the PCL level 4 and 5 escape languages to allow one or multiple forms (named macros in LaserJet terminology) to be stored in the printer's memory. This feature provides for multi-page forms to be cycled without the necessity of downloading the

form for each page printed. A unique macro ID can be assigned. To invoke form merging, a different method is suggested depending on single page forms, or multiple page forms (i.e. a different form for multiple pages). For single page forms, the macro should be overlaid (automatic overlaying). Once the overlay is enabled, every page will automatically print the form along with the variable data until the overlay is disabled. For multiple page forms, a macro should be called for each page. Called macros will merge the form with the variable data only a page at a time. The variable data stream will therefore retain control over which form to invoke for each page.

Before instructing the printer to start variable data merge, a few setup commands must be sent. The printer must be instructed about the page orientation, paper source and page size. These commands cannot be embedded into the macro definition because the printer will not allow them. They also cannot be embedded into the form preceding the macro definition because of the possibility of multiple page forms, or downloading of a macro for later use causing a change in printer operation.

In the following printer setup escape sequences, ESC should be replaced by the escape character in the ASCII character set, and # should be replaced by a numeric parameter. All three escape commands are optional only if your printer defaults to the expected results. The three commands should be sent to the printer in the order described here and must immediately precede the macro invoking command each time it's issued. The first printer setup command is the **page orientation** command, which may be one of the following:

ESC&l0O	Portrait orientation (escape,ampersand,lower-case L,zero,upper-case O)
ESC&l1O	Landscape orientation (escape,ampersand,lower-case L,1,upper-case O)
ESC&l2O	Inv-Portrait orientation (escape,ampersand,lower-case L,2,upper-case O)
ESC&l3O	Inv-Landscape orientation (escape,ampersand,lower-case L,3,upper-case O)

The second printer setup command is the **paper source** command. This command is only necessary if an alternate paper source is required other than the default internal paper tray. This command appears as follows:

ESC&l#H	Paper source (escape,ampersand,lower-case L,user-specified parameter, upper-case H). The # parameter is a number greater than 0. See your printer's documentation.
---------	--

The third printer setup command is different if your printer is (1) HP LaserJet Plus or LaserJet 500 compatible, or (2) LaserJet II, LaserJet 2000, LaserJet III, 4, 5, 6 or compatible. For type (2) printers, a **page size** command is issued. For type (1) printers, a sequence of commands centered around a **page length** command is issued as these printers do not accept the page size command. The page size command appears as follows:

ESC&l#A	Page size (escape,ampersand,lower-case L,user-specified parameter, upper-case A). See your printer's documentation for valid numeric parameters to replace the # character.
---------	---

For the LaserJet Plus and LaserJet 500 printers, the **page length** command consists of a sequence of commands depending on the page orientation and the paper size. If the form is a landscape legal size paper, some tricks must be done to select this combination. Instead of selecting a landscape orientation in the first printer setup command, you should select a portrait orientation. This is necessary because the page height, which is used to select the paper size, is the same for letter and legal size paper in landscape mode, but not in portrait orientation. By first defining the page orientation as portrait, selecting the page length (84 lines)

and then defining the page orientation as landscape, the printer is tricked into selecting the proper page size. For all other combinations of page orientation and paper size, tricks are not necessary.

The page length command is based on line spacing. In order to guarantee the proper line spacing, it must be defined before defining the page length. This is accomplished with the **line spacing** command as follows:

ESC&l6D Line spacing (escape,ampersand,lower-case L,6,upper-case D). Specifies the line spacing to be 6 lines per inch.

After the line spacing, the **page length** command can be defined as follows:

ESC&l#P Page length (escape, ampersand, lower-case L, user-specified parameter, upper-case P). The numeric parameter # can be replaced by a value in the table below:

PAPER SIZE	PORTRAIT	LANDSCAPE
Letter	66	51
Legal	84	(see text above)
A4	70	49
B5	60	43
Executive	63	43

See your printer's documentation for paper sizes not listed here.

In the following macro invocation escape sequence examples, ESC should be replaced by the escape character, and # should be replaced by the macro ID number. The escape sequence to be issued at the start of the variable data stream to **enable macro overlaying** is as follows:

ESC&f#y4X Automatic macro overlay (escape, ampersand, lower-case F, user-specified parameter, lower-case Y, 4, upper-case X). Every page will have this form until disabled.

The escape sequence to be issued at the end of the variable data stream to **disable macro overlaying** is as follows:

ESC&f#y5X Disable automatic macro overlay (escape, ampersand, lower-case F, user-specified parameter, lower-case Y, 5, upper-case X).

To **call** a macro, the following escape sequence should be sent with the variable data:

ESC&f#y3X Call macro overlay (escape, ampersand, lower-case F, user-specified parameter, lower-case Y, 3, upper-case X). Only current page will print with this form.

Note: A macro downloaded to the printer is always placed in permanent memory. In order for the macro to be deleted, either the printer can be powered down, or a **delete permanent macro** command should be issued to the printer. This escape sequence is as follows:

ESC&f#y8X Delete macro specified by macro ID # (escape,ampersand,lower-case F,user-specified parameter,lower-case Y,8,upper-case X). The # should be replaced with the macro ID.

Implemented using the provided ESCAPE utility as follows:

ESCAPE \E&f#y8X>PRN:     The # should be replaced with the macro ID. The ESCAPE utility replaces \e or \E with an escape character.

## PostScript Forms

Proform Designer is designed to take advantage of a capability in PostScript level 2 (emulated in level 1) to allow one or multiple forms to be stored in the printer's memory. This feature provides for multi-page forms to be cycled without the necessity of downloading the form for each page printed, as well as printing multiple forms on each page.

When Proform Designer is instructed to produce a form, the internal form name is assigned. The PostScript commands for this form are encased in a procedure body which must be invoked on each page printed. To invoke form merging, a suggested method of placing the PostScript form is by adding the following commands to the end of the form file:

```
0 0 translate formname EF showpage
```

The two zeros at the start indicate the X and Y offset to place the form (specified in points ( $\frac{1}{72}$ ")). The *formname* should be replaced with the appropriate form name (note: spelling must be exact, upper and lower case letters are different). To place multiple forms on a page, a separate sequence is needed (except for the showpage command, which should only occur once per page) with the offsets specifying locations for each form placed on the page. It should be noted that for multiple forms per page, the X and Y offsets affect further forms positioning. After the first form placed, further offsets are based from the last offset position.

Each page printed would need this sequence issued along with any variable data to be merged onto the page. The last command issued on the page should be a showpage. The file must be terminated with the PostScript end-of-job character (decimal 4). The PSCOPY utility is provided to add this character to the file, if you are unable to place this character into the file through your text-editor. No characters can exist in the form file after the end-of-job character.

## Specialty Imaging

**P**roform Designer offers advanced variable capabilities that deter fraud by creating distinctive inimitable protective areas on documents. Specialty Imaging technology allows both numeric and textual variables that make documents safer by creating hard to duplicate features. Implemented via Xerox's VI Suite, Xerox licensed fonts and Lytrod Software Proform Designer; specialty imaging uses unique algorithms without special inks or post processing to add non-duplicable variable information for secure documents. With five different variable capabilities to choose from, Specialty Imaging offers a variety of formatting choices that can add security to personalized documents.



## Specialty Imaging Security Capabilities

Proform Designer offers five specialty imaging capabilities, each offering a different aspect of security.

<b>MicroText</b>	Security added through next to invisible text. MicroText prints text so tiny that it can only be read under a magnifying glass. Any attempt to duplicate the text (copiers, scanners, graphic arts software) produces a blurred, illegible representation.
<b>Correlation Text</b>	Protect sensitive variable text by creating content that is invisible unless superimposed by a “decoder” transparency. Correlation text hides confidential information that can be quickly and safely viewed when necessary. The Two Layer Correlation Text overprints two separate variable messages that can be viewed using a special double layer transparency.
<b>GlossMark® Text</b>	Enhance document text such that the content is not visible in a straight-on view, but becomes visible as gloss under inclined illumination. The effects of GlossMark® Text cannot be reproduced with even the best copiers and scanners.
<b>Fluorescent Effect</b>	Create a variable whose content is virtually invisible under normal light. Variable information printed with Proform Designer Fluorescent Effect can only be seen under ultraviolet light.
<b>Infrared Effect</b>	The Infrared Effect hides variable information so that it is only viewable using infrared equipment. A shaded colored box is visible to the eye in normal light. The Two Layer Infrared Effect allows print providers to print two layers of variable text using overprint. Only one layer of text is visible at a time. One layer is visible only in normal viewing light, and the other layer is visible only with infrared equipment.

## Implementing Specialty Imaging

- Have the most current Proform Designer software and Xerox FreeFlow VI Compose.
- If applicable, obtain the Specialty Imaging fonts from Xerox Corporation and place them in the Proform Designer\Fonts directory on your workstation (not your DFE).
- Run the Proform Designer **Help** menu, **Internet Software Update**.
- **Edit** the Proform Designer **Resource Set**.
- Edit the **xgfdos.run** file on workstation (PDF proofing) and **xgfunix.run** file on the DFE to enable SI printing.
- Print the sample SI color palette included with Proform Designer on the recommended paper stock (Xerox Digital Color Supreme Gloss Paper).

### Install Xerox FreeFlow VI Specialty Imaging Fonts

Although the Xerox FreeFlow™ VI Compose Reference Manual directs you to install the Specialty Imaging fonts onto the FreeFlow Print Server, Proform Designer users should **not** install these fonts onto the printer. Instead, save the font files on the local drive of the system Proform Designer is installed on. It is recommended that these fonts are placed in the Fonts directory mapped by the Resource Set Locations tab. Proform Designer will access the specific fonts needed for each application and incorporate those fonts into the VI Compose job files (project folder, container) for the printer. Accessing the fonts in this manner saves print engine memory and download time.

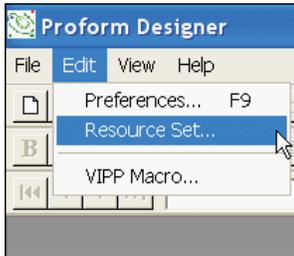


Editing the Resource Set to enable Specialty Imaging capabilities will allow Proform Designer to access the appropriate fonts as needed.

---

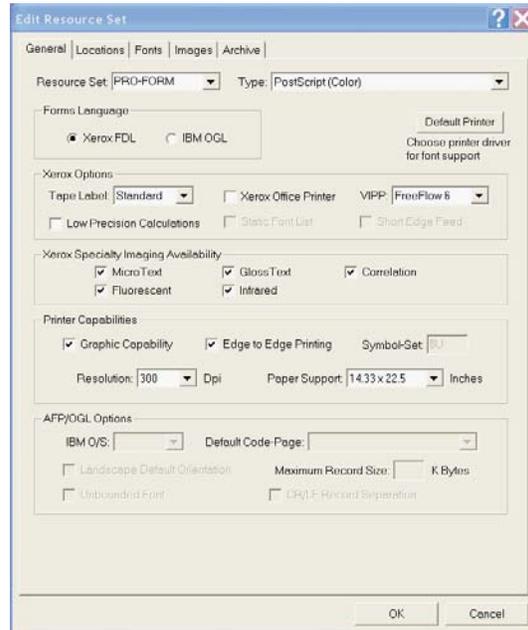
## Enabling SI in the Resource Set

Once you have obtained a Specialty Imaging font (if applicable) you must then enable the specialty imaging capability in the Proform Designer Resource Set(s).



### ❖ To Enable Specialty Imaging in the Resource Set

1. Launch Proform Designer.
2. Prior to opening any source files (\*.DTD, \*.FSL, or \*.PFJ), go to the **Edit** menu and select **Resource Set**.
3. Access the **General** tab, go to the **VI Compose** drop-down menu and select **FreeFlow 8.0** or above.
4. Go to the **Xerox Specialty Imaging Availability** section in the General tab, and select one or more Specialty Imaging capability.



For MicroText, Correlation Text, GlossMark® Text selections:

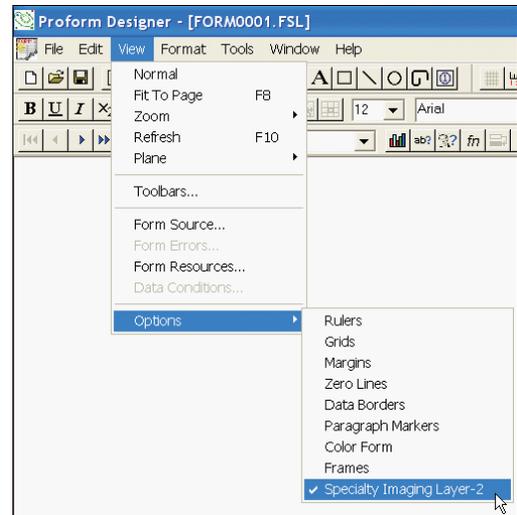
5. If prompted, direct the browser to the location of the Specialty Imaging fonts purchased previously. It is recommended that these font files are stored on the local hard drive of the system Proform Designer is installed on.

## Viewing the second layer of a Specialty Imaging Effect in Proform Designer

CorrelationText, FluorescentMark Effect and Infrared Effect offer 2 layers of imbedded variable security. Options can be set in the Proform Designer interface to view this second layer.

### ❖ To View Layer 2

1. Go to the **View** menu.
2. Go to **Options**.
3. Select **Specialty Imaging Layer-2**.



## Set Up PDF Proofing for SI

If you have set up your workstation to PDF proof your documents from Proform Designer, you will need to enable the demo VI Compose license to PDF proof SI documents.



Adobe Distiller will not be able to emulate many of the SI features (with an exception to MicroText), but can provide an adequate representation of the overall document design.

### ❖ To enable SI PDF proofing

1. Follow the steps in **Chapter 10: Set Up Auto-Launch** to enable **PDF Proofing with Adobe Distiller**.
2. Open Windows Explorer and browse the workstation for `\xgf\src\xgfdos.run`.
3. Open the `xgfdos.run` file in Notepad.
4. Delete the % before the following line: `%(/usr/xgf/src/vippEE.spi) run % run VI Specialty Imaging Module`  
Completed example: `(/usr/xgf/src/vippEE.spi) run % run VI Specialty Imaging Module`
5. Save the file and close.



This same edit should also be made to the `xgfdos.run` file for FreeFlow VI Suite using the Windows operating system, such as the Xerox FreeFlow VI Designer, which may be used for designing VI Compose applications. Understand that although the FF VI Designer can be used to code the specialty imaging feature, the effect (with the exception of MicroText) will only be seen on the printed output. Edit the following line in `xgfdos.run` by removing the first %: `%(c:\xgf\src\vippEE.spi) run % run VI Specialty Imaging Module`

## Setting Up the Printer for SI

Specialty Imaging capabilities are supported on Xerox printers on all DFE controllers with a licensed FreeFlow VI Compose. By default, the Specialty Imaging capability is disabled, but can be enabled by editing the `xgfunix.run` file.

### ❖ To Enable the FreeFlow VI Compose Specialty Imaging module

- Edit the `/usr/xgf/src/xgfunix.run` file and delete the `%` to uncomment this line:

```
%(/usr/xgf/src/vippEE.spi) run    % run VI Specialty Imaging Module
```



When you upgrade the FreeFlow VI Compose software on the DFE, you must edit the `/usr/xgf/src/xgfunix.run` file again in order to continue to run Specialty Imaging print jobs.

### SPI files

There are three \*.spi files: `vippDT.spi`, `vippEE.spi`, and `vippLN.spi`. Only one \*.spi file can be enabled at a time. Because each file provides a different look and feel you may need to experiment by enabling a different \*.spi file. Simply rename the files and make one active. Restart VI Compose after making such a change. The \*.spi files will only effect the Fluorescent Specialty Imaging feature.

### DFE Color Settings and Queues

The set up for your DFE controller is of paramount importance when using Specialty Imaging. If the queue is not set up for VI Compose or the appropriate color settings are not implemented, your application may not print correctly. For more information about configuring your DFE, refer to the DFE and FreeFlow VI Compose documentation.

## Printing the color palette sample sheet

Lytro Software provides sample print files that displays each of the SI capabilities. Please contact Lytro Software (email: [support@lytro.com](mailto:support@lytro.com), or phone: +1-707-422-9221) and/or go to the Lytro Software website ([www.lytro.com](http://www.lytro.com)) to obtain the appropriate print files.

## Paper Recommendation

It is recommended that high gloss paper is used to print GlossMark® Text, Fluorescent Effect, Infrared Effect, and Correlation Text; such as Xerox Digital Color Supreme Gloss, coated on one side, Color Copier/Color Laser paper (example US Letter size Xerox product number: 3R11430).

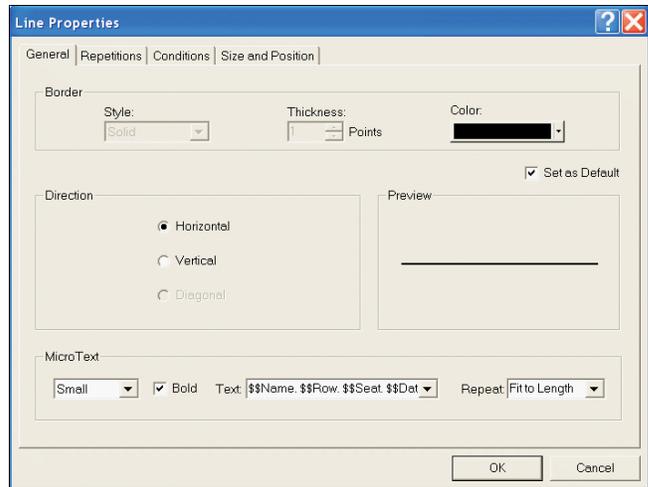
## Designing SI Documents

The use of any of the following Specialty Imaging capabilities will increase the security of your documents. Combining two or more of these features on your documents significantly increases security. Don't over do it. Being subtle is the key.

### MicroText

The Proform Designer MicroText feature transforms drawn lines into undersized text that can only be read clearly under magnification.

This feature is supported on Monochrome, HighLight Color and full Color DocuSP FreeFlow VI engines with the purchase of Xerox FreeFlow VI Specialty Imaging MicroText fonts.



MicroText Static Text and/or Data

#### ❖ To Apply MicroText™

1. Create or open a variable document you wish to add MicroText to.
2. Select the **Line Draw** button from the Drawing toolbar.
3. Draw a Line on the form where you would like the MicroText to be placed.
4. Select the **Select Arrow** from the Drawing toolbar, right-click on the selected line object, and select **Format Line** from the context menu. The **Line Properties** window should appear.
5. Go to the bottom of the **General** tab to the **MicroText** section and select the desired text size from the left-most drop-down menu (choose from **Small**, **Medium**, or **Large**). Once this is selected, the **Bold**, **Text** and **Repeat** (repetition) options will become enabled.
6. Go to the **Text** drop-down menu and select a data field, or key in multiple data fields and/or a combination of data fields and static text.
7. Check **Bold** if applicable.



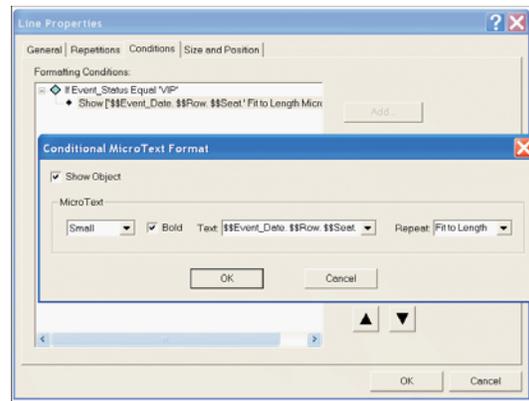
Magnification may be required to see the MicroText.

8. Go to the **Repeat** drop-down menu and select the number of times to repeat the content or select Fit to Length.
9. Click **OK** to accept all changes to the Line Properties window.

## Conditional MicroText

### ❖ To Drive MicroText with Conditional Logic

1. Create or open a variable form document you wish to add MicroText to.
2. Select the **Line Draw** button from the Drawing toolbar.
3. Draw a Line on the form where you would like the MicroText to be placed.
4. Select the **Select Arrow** from the Drawing toolbar, right-click on the selected line object, and select **Format Line** from the context menu. The **Line Properties** window should appear.

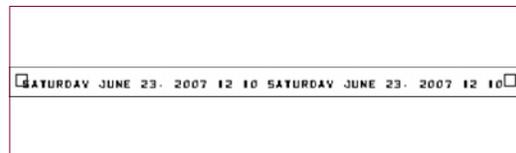


Conditionally Driven MicroText

5. Go to the bottom of the **General** tab to the **MicroText** section and select the desired text size from the left-most drop-down menu (choose from **Small**, **Medium**, or **Large**). This step will eventually enable MicroText formatting for conditional logic.

6. Go to the **Conditions** tab and click the **Add** button to start the creation of a conditional statement.
7. Once the conditional statement is complete, click the **Format** button.
8. Check **Show Object**.

9. To enable MicroText, select the desired text size from the left-most drop-down menu. You will then be allowed to select Bold, Text and Repeat (repetition).



MicroText Fit to Length magnified representation

10. Go to the **Text** drop-down menu and select a data field, or key in multiple data fields and/or a combination of data fields and static text.
11. Check **Bold** if applicable.
12. Go to the **Repeat** drop-down menu and select the number of times to repeat the content or select Fit to Length.
13. Click **OK** to accept all changes in the Line Properties window once all conditional formatting is complete.

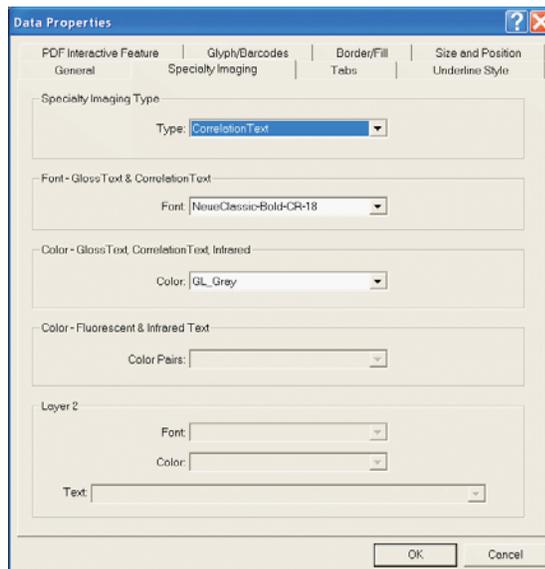
## Correlation Text

The Proform Designer Correlation Text feature allows Variable Data, Conditional Data and Static Text blocks to be transformed into a shaded box area containing hidden text that is viewable only if superimposed by a “decoder” transparency. The size of the Correlation Text box adapts to the length of the variable text for each data item.

This Specialty Imaging feature is supported on Monochrome, HighLight Color and full Color DocuSP FreeFlow VI engines with the purchase of Xerox FreeFlow VI Specialty Imaging Correlation Text fonts.

### ❖ To Apply Correlation Text Formatting to Data and/or Static Text

1. Create or open a variable document you wish to add Correlation Text to.
2. Create or select a data or text object, right-click and choose Format... from the context menu. The object's Property window should appear.
3. Go to the **Specialty Imaging** tab.
4. Go to the **Specialty Imaging** area, **Type** drop-down menu and select **Correlation Text**.
5. Select the desired Correlation Text font from the **Font** drop-down menu. The font name describes the size and style (normal, bold, italic and bold italic).
6. Go to the **Color - GlossText & Correlation Text** area **Color** drop-down menu and select a background shade color for the Correlation Text box. The previously selected font and length of the variable information will determine the printed width/height of the background shade color box.
7. Click **OK** to accept all changes to the Properties window.



## Conditional Correlation Text

### ❖ To Drive Correlation Text with Conditional Logic

1. Create or open a variable data document you wish to add Correlation Text to.
2. Select the **Conditional Text** button located in the Data View Toolbar and draw a condition text block on the form page. The Data Properties, Conditions tab will automatically open.
3. Create all conditional statements and text actions in the Conditions tab then go to the **Specialty Imaging** tab.
4. Go to the **Specialty Imaging** area, **Type** drop-down menu and select **Correlation Text**.
5. Select the desired Correlation Text font from the **Font** drop-down menu. The font name describes the size and style (normal, bold, italic and bold italic).
6. Go to the **Color - GlossText & Correlation Text** area **Color** drop-down menu and select a background shade color for the Correlation Text box. The previously selected font and length of the variable information will determine the printed width/height of the background shade color box.
7. Click **OK** to accept all changes to the Properties window.

The image shows a worksheet titled "Student Worksheet 69: Basic Math Integer Subtraction; Range (-99) to (+99)". It lists 18 subtraction problems. A grey transparency box is placed over the right side of the page, revealing the answers to the first 10 problems. The answers are: -115, 119, 19, 142, 15, 115, 45, -31, -32, and -94. Below the problems, there is a small text block: "The variable design and 'hidden text' were created using Lytrod Software Proform Designer SI and Xerox's Specialty Imaging VIPP Technology. To learn more about how to secure documents against fraudulent duplication and digital editing, please visit [www.lytrod.com/SI](http://www.lytrod.com/SI)".

**Student Worksheet 69: Basic Math**  
**Integer Subtraction; Range (-99) to (+99)**

1)  $(-66) - (+49) =$   
2)  $(+59) - (-60) =$   
3)  $(+2) - (-17) =$   
4)  $(+89) - (-53) =$   
5)  $(-80) - (-95) =$   
6)  $(+76) - (-39) =$   
7)  $(+44) - (-1) =$   
8)  $(-44) - (-13) =$   
9)  $(+43) - (+75) =$   
10)  $(-45) - (+49) =$   
11)  $(+29) - (-64) =$   
12)  $(+36) - (+27) =$   
13)  $(+48) - (+74) =$   
14)  $(-66) - (-82) =$   
15)  $(+30) - (+23) =$   
16)  $(-70) - (-99) =$   
17)  $(-33) - (-29) =$   
18)  $(-1) - (+57) =$

Place decoder transparency over this column to reveal answer key.

-115  
119  
19  
142  
15  
115  
45  
-31  
-32  
-94

The variable design and "hidden text" were created using Lytrod Software Proform Designer SI and Xerox's Specialty Imaging VIPP Technology. To learn more about how to secure documents against fraudulent duplication and digital editing, please visit [www.lytrod.com/SI](http://www.lytrod.com/SI)

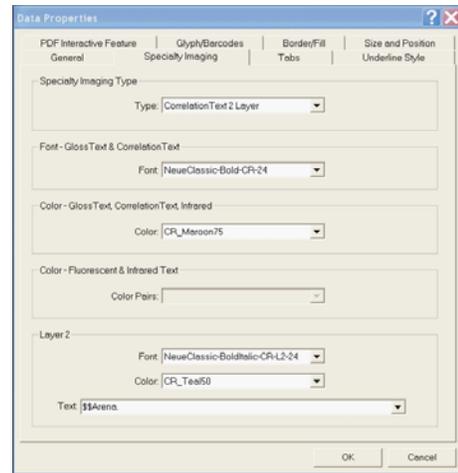
Once printed, a transparency is used to see the hidden text.

## Double Correlation Text

The Double Correlation Text feature hides two variable messages in the same shaded box area. Both sides of the "decoder" transparency are used to see each of the messages. On one side, the transparency will display one message, but flip the transparency over and a different message can appear. The size of the Correlation Text box adapts to the length of the variable text for each data item.

### ❖ To apply Double Correlation Text formatting to data and/or static text

1. Create or open a variable document you wish to add Correlation Text to.
2. Create or select a data or text object, right-click and choose Format... from the context menu. The object's Property window should appear.
3. Go to the **Specialty Imaging** tab.
4. Go to the **Specialty Imaging** area, **Type** drop-down menu and select **Correlation Text 2 Layer**.
5. Go to the **Font - GlossText & CorrelationText** area and select the desired Correlation Text™ font from the **Font** drop-down menu. The font name describes the size and style (normal, bold, italic and bold italic).
6. Go to the **Color - GlossText, CorrelationText, Infrared** area **Color** drop-down menu and select a background color for the Correlation Text box.
  - This background color will eventually blend with the color chosen for the second Correlation Text layer. The numbers to the far right of the color name (50, 75, 100) represent the percentage of color saturation applied to the area for the particular color chosen.
  - Choosing 100% color saturation may sometimes make the message unreadable depending upon the color combination chosen. It is best to print the Lytrod Software Proform Designer color palette or run a test print of the desired color combinations/percentages.
7. Go to the **Layer 2** area and select a font from the **Font** drop-down menu. This will be the font used in the second Correlation message.
8. Go to the **Layer 2** area and select a color and saturation percentage from the **Color** drop-down menu. This box color will blend with the first Correlation Text layer box color.
9. Go to the **Text** enter box drop-down and key in text or select a data field. This will be the contents of the second Correlation message.
  - Note that the largest point size of the previously selected fonts and length of the variable information will determine the printed width/height of the background shade color box.



2 Layer Correlation Text with color saturation options

10. Click **OK** to accept all changes to the Properties window.



The numbers to the far right of the color name (50, 75, 100) represent the percentage of color saturation applied to the area for the particular color chosen. Choosing 100% color saturation may sometimes make the message unreadable depending upon the color combination chosen. It is best to print the Lytrod Software Proform Designer color palette or run a test print of the desired color combinations/percentages.

## Conditional Double Correlation Text

The first Correlation layer text or data message can be driven by rules (conditional logic). The second Correlation message is not rule-based, though variable text and static text is still supported.

### ❖ To drive Double Correlation Text™ with Conditional Logic

1. Create or open a variable data document you wish to add Correlation Text to.
2. Select the **Conditional Text** button located in the Data View Toolbar and draw a condition text block on the form page. The Data Properties, Conditions tab will automatically open.
3. Create all conditional statements and text actions in the Conditions tab then go to the **Specialty Imaging** tab.
4. Go to the **Specialty Imaging** area, **Type** drop-down menu and select **Correlation Text 2 Layer**.
5. Go to the **Font - GlossText & CorrelationText** area and select the desired Correlation Text™ font from the **Font** drop-down menu. The font name describes the size and style (normal, bold, italic and bold italic).
6. Go to the **Color - GlossText, CorrelationText, Infrared** area **Color** drop-down menu and select a background color for the Correlation Text box.
  - This background color will eventually blend with the color chosen for the second Correlation Text layer. The numbers to the far right of the color name (50, 75, 100) represent the percentage of color saturation applied to the area for the particular color chosen.
  - Choosing 100% color saturation may sometimes make the message unreadable depending upon the color combination chosen. It is best to print the Lytrod Software Proform Designer color palette or run a test print of the desired color combinations.
7. Go to the **Layer 2** area and select a font from the **Font** drop-down menu. This will be the font used in the second Correlation message.
8. Go to the **Layer 2** area and select a color and saturation percentage from the **Color** drop-down menu. This box color will blend with the first Correlation Text layer box color.
9. Go to the **Text** enter box drop-down and key in text or select a data field. This will be the contents of the second Correlation message.

- Note that the largest point size of the previously selected fonts and length of the variable information will determine the printed width/height of the background shade color box.

10. Click **OK** to accept all changes to the Properties window.

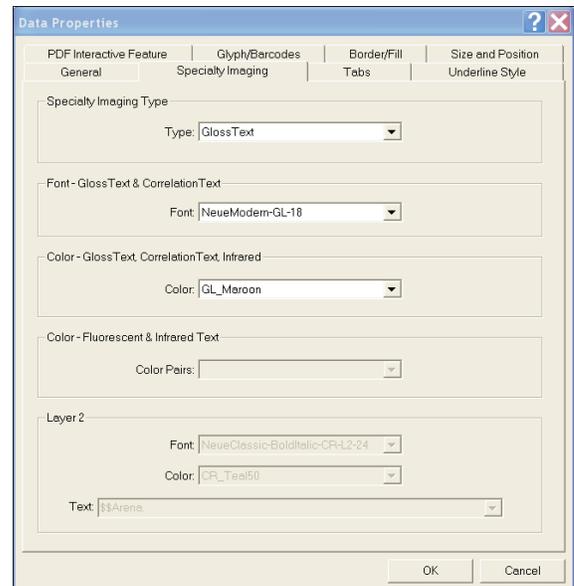
## GlossMark® Text

The Proform Designer GlossMark® Text feature creates a color filled box containing static text, variable data, or conditional data that is viewable under inclined illumination. The size of the GlossMark® Text box adapts to the length of the variable text for each individual data item.

This feature is supported on full color Xerox DocuSP FreeFlow VI engines with the purchase of Xerox FreeFlow VI GlossMark® Text fonts.

### ❖ To Apply GlossText® formatting to Data and/or Static Text

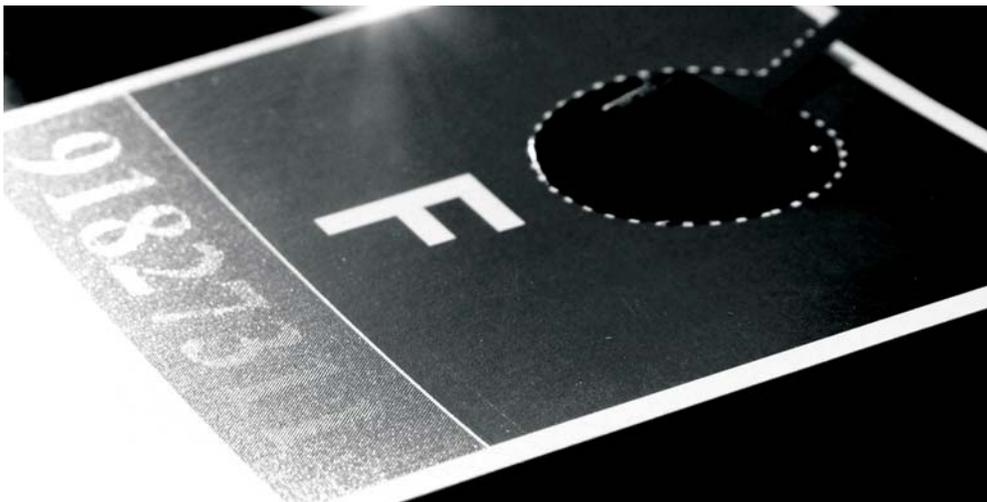
1. Create or open a variable data document you wish to add GlossMark® Text to.
2. Create or select a data or text object, right-click and choose Format... from the context menu. The object's Property window should appear.
3. Go to the **Specialty Imaging** tab.
4. Go to the **Specialty Imaging Type** area, **Type** drop-down menu and select **GlossText**.
5. Go to the **Font - GlossText & CorrelationText** area and select the desired GlossMark® Text font from the **Font** drop-down menu. The font name describes the size and style (normal, bold, italic and bold italic).
6. Go to the **Color - GlossText, Correlation Text, Infrared** area **Color** drop-down menu and select a background fill color for the GlossMark® Text box. The font previously selected and length of the variable information determines the width/height of the background fill color.
7. Click **OK** to accept all changes to the Properties window.



## Conditional GlossMark® Text

### ❖ To Drive GlossMark® Text with Conditional Logic

1. Create or open a variable data document you wish to add GlossMark® Text to.
2. Select the **Conditional Text** button located in the Data View Toolbar and draw a condition text block on the form page. The Data Properties, Conditions tab will automatically open.
3. Create all conditional statements and text actions in the Conditions tab, then go to the **Specialty Imaging** tab.
4. Go to the **Specialty Imaging Type** area, **Type** drop-down menu and select **GlossText**.
5. Go to the **Font - GlossText & CorrelationText** area and select the desired GlossMark® Text font from the **Font** drop-down menu. The font name describes the size and style (normal, bold, italic and bold italic).
6. Go to the **Color - GlossText, Correlation Text, Infrared** area **Color** drop-down menu and select a background fill color for the GlossMark® Text box. The font previously selected and length of the variable information determines the width/height of the background fill color.
7. Click **OK** to accept all changes to the Properties window.



Move the paper to see the GlossText shimmer into sight

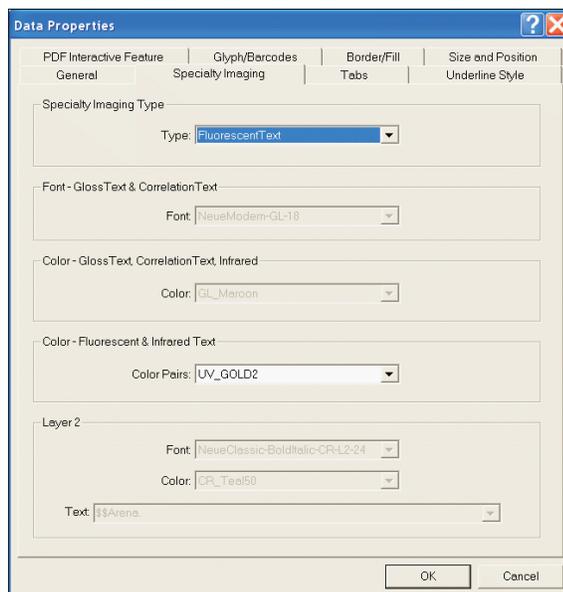
## Fluorescent Effect

The Proform Designer Fluorescent Effect feature allows Variable Data, Conditional Data and Static Text blocks to be transformed into color filled boxes that contain invisible text, which can only be viewed under ultraviolet light. The Fluorescent Effect feature is unique from the other Specialty Imaging capabilities in that it does not require the purchase of a Xerox Corporation® licensed font; it works with any font available to Proform Designer (TrueType, PostScript Type 1, etc.). Furthermore, the Fluorescent Effect box area can be stretched to any desired size and will resize to fit the length of a variable.

This feature is supported on full color Xerox FreeFlow VI enabled engines.

### ❖ To Apply to Fluorescent Effect Formatting to Data and/or Static Text

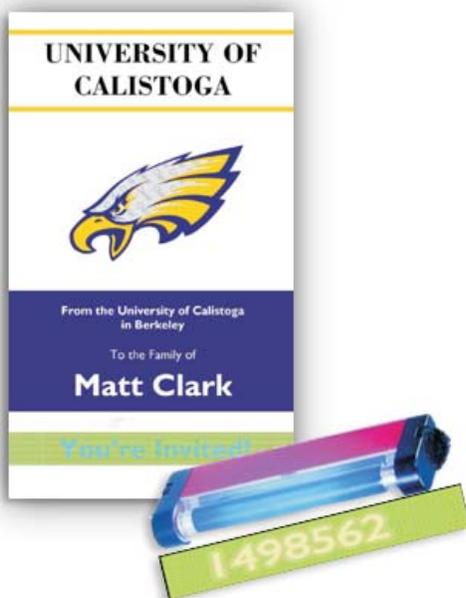
1. Create or open a variable data document you wish to add Fluorescent Effect to.
2. Create or select a data or text object, right-click and choose Format... from the context menu. The object's Property window should appear.
3. Go to the **Specialty Imaging** tab.
4. Go to the **Specialty Imaging Type** area, **Type** drop-down menu and select **FluorescentText**.
5. Go to the **Color - Fluorescent & Infrared Text** area, **Color Pairs** drop-down menu and select a color.
6. Click **OK** to accept all changes to the Properties window.
7. Resize the text block to the desired size of the color fill box.



## Conditional Fluorescent Effect

### ❖ To Drive Fluorescent Effect with Conditional Logic

1. Create or open a variable data document you wish to add Fluorescent Effect to.
2. Select the **Conditional Text** button located in the Data View Toolbar and draw a condition text block on the form page. The Data Properties, Conditions tab will automatically open.
3. Create all conditional statements and text actions in the Conditions tab, and then go to the **Specialty Imaging** tab.
4. Go to the **Specialty Imaging Type** area, **Type** drop-down menu and select **FluorescentText**.
5. Go to the **Color - Fluorescent & Infrared Text** area, **Color Pairs** drop-down menu and select a color.
6. Click **OK** to accept all changes to the Properties window.
7. Resize the text block to the desired size of the color fill box.



A blacklight is used to view the printed Fluorescent Effect.

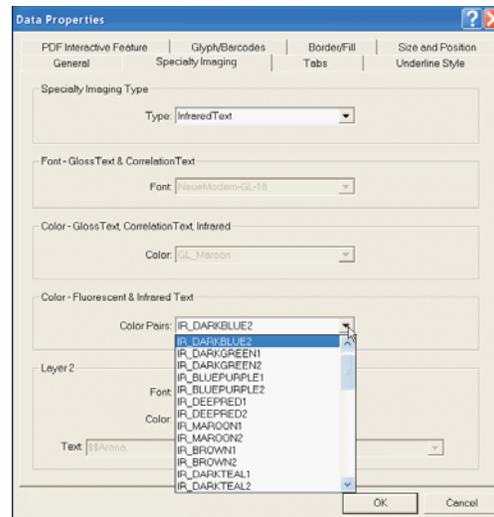
## Infrared Effect

Data and text messages can be hidden within a shaded area. The message will be visible only to infrared equipment.

This feature is supported on full color Xerox FreeFlow VI enabled engines.

### ❖ To apply the Infrared Effect to data and/or static text

1. Create or open a variable data document you wish to add the Infrared Effect to.
2. Create or select a data or text object, right-click and choose Format... from the context menu. The object's Property window should appear.
3. Go to the **Specialty Imaging** tab.
4. Go to the **Specialty Imaging Type** area, **Type** drop-down menu and select **InfraredText**.
5. Go to the **Color - Fluorescent & Infrared Text** section **Color Pairs** drop-down menu and select a color.
6. Click **OK** to accept all changes to the Properties window.



## Conditional Infrared Effect

### ❖ To drive the Infrared Effect with Conditional Logic

1. Create or open a variable data document you wish to add the Infrared Effect to.
2. Select the **Conditional Text** button located in the Data View Toolbar and draw a condition text block on the form page. The Data Properties, Conditions tab will automatically open.
3. Create all conditional statements and text actions in the Conditions tab, and then go to the **Specialty Imaging** tab.
4. Go to the **Specialty Imaging Type** area, **Type** drop-down menu and select **InfraredText**.
5. Go to the **Color - Fluorescent & Infrared Text** section **Color Pairs** drop-down menu and select a color for the shaded area.
6. Click **OK** to accept all changes to the Properties window.

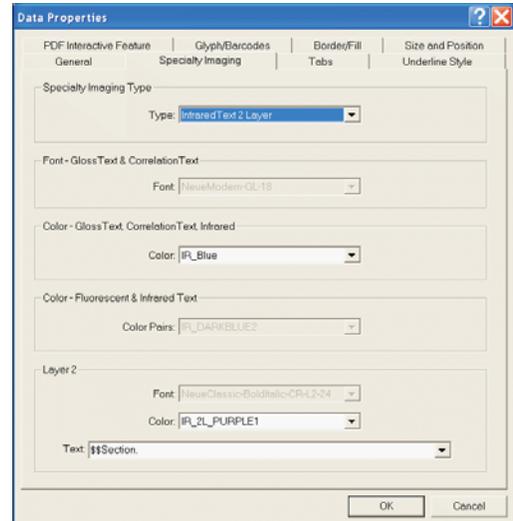
## Double Layer Infrared Effect

The double layer Infrared Effect prints one data/text message that will be visible to the eye, while encrypting a different data/text message that will be visible only with infrared equipment.

This feature is supported on full color Xerox FreeFlow VI enabled engines.

### ❖ To apply the Double Infrared Effect to data and/or static text

1. Create or open a variable data document you wish to add the Infrared Effect to.
2. Create or select a data or text object. This will be the hidden infrared object.
3. Right-click and choose **Format...** from the context menu. The object's Property window should appear.
4. Go to the **Specialty Imaging** tab.
5. Go to the **Specialty Imaging** area, **Type** drop-down menu and select **InfraredText 2 Layer**.
6. Go to the **Color - GlossText, CorrelationText, Infrared** area **Color** drop-down menu and select a color. This will be the font color of the viewable data and/or text.
7. Go to the **Layer 2** area and select a color from the **Color** drop-down menu. This will be the background color of the shaded box that will surround the viewable text.
8. Go to the **Layer 2** area, **Text** enter box drop-down and select a data field/key in text and data field names. This will be the contents of the infrared message. The font will display as black only with infrared equipment.
9. Click **OK** to accept all changes to the Properties window.



## Conditional Double Layer Infrared Effect

### ❖ To drive the Double Infrared Effect with Conditional Logic

1. Create or open a variable data document you wish to add the Infrared Effect to.
2. Select the **Conditional Text** button located in the Data View Toolbar and draw a condition text block on the form page. The Data Properties, Conditions tab will automatically open.
3. Create all conditional statements and text actions in the Conditions tab, and then go to the **Specialty Imaging** tab.
4. Go to the **Specialty Imaging Type** drop-down menu and select **InfraredText 2 Layer**.
5. Go to the **Color - GlossText, CorrelationText, Infrared** area **Color** drop-down menu and select a color. This will be the font color of the viewable data and/or text.
6. Go to the **Layer 2** area and select a color from the **Color** drop-down menu. This will be the background color of the shaded box that will surround the viewable text.
7. Go to the **Layer 2** area, **Text** enter box drop-down and select a data field/key in text and data field names. This will be the contents of the infrared message. The font will display as black only with infrared equipment.
8. Click **OK** to accept all changes to the Properties window.

## Specialty Imaging Printing

Once the printer set up for Specialty Imaging is complete (referenced earlier in this Appendix), SI documents generated from Proform Designer are printed like any other VI Compose job. For more information on printing VI Compose jobs, refer to **Chapter 8: Creating Jobs and Saving to VI Compose**.

Be sure to use the recommended Xerox Digital Color Supreme Gloss, coated on one side, Color Copier/Color Laser paper for GlossMark® Text, Fluorescent Effect, Infrared Effect, and Correlation Text.



## Clear Dry Ink

The Xerox Color 800/1000 Presses offer an option to print a light gloss coating with Clear Dry Ink (CDI). Proform Designer allows you to easily design documents that have this clear coating applied to text and objects in both static and variable environments. While flooding the entire application may be a desirable effect in some instances, Proform Designer allows the application of Clear Dry Ink to select areas on your form. This enables you to make certain areas, whether they are text or objects, stand out by having a glossy coating.

Create background designs and visually enhancing effects using Clear Dry Ink with Lytrod Software's user friendly drawing tools such as Box, Circle and Line Draw.

By using the Path Draw tool, portions of images or logos can be enhanced by tracing or outlining the desired areas and then filling the "path" with the Clear Dry Ink.



## Enabling Clear Dry Ink

Clear Dry Ink can be applied to ANY element on the form, it is as simple as changing one option in the Color Selection window. Clear Dry Ink can be used to outline or fill elements on your form. The glossy coating can be applied as is (no coloring, just Clear Dry Ink) or on top of an existing color setting.



Clear Dry Ink is most visible when used alone or over light/pastel colors.

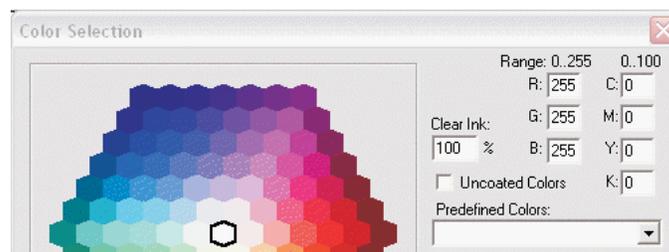


To enable the Color Settings to be defined as only Clear Dry Ink (no color, just a clear gloss coating) make sure 100% white is selected and 100% Clear Dry Ink is selected. This will not print a white color, but instead tells the software to ONLY print CDI.

## Text

### ❖ To apply Clear Dry Ink to Static/Variable Text

1. Select the desired static/variable text block that the Clear Dry Ink will be applied to. If you wish to only have select text within the text block to appear with Clear Dry Ink, highlight the desired text within the text block.
2. Right click and choose **Font** from the context menu.
3. From the **Font** window, select the color drop-down menu.
4. Choose the button on the bottom of the **Color** drop-down menu that says **Other**.
5. The **Color Selection** window will appear.
6. Select the desired text color from the color wheel, input CMYK/RGB values, or use the color selector.
7. Enter the desired percentage of Clear Dry Ink to be applied to the text in the **Clear Ink %** input box.
8. Click **OK** to accept defined settings in the **Color Selection** window.
9. Click **OK** to accept defined settings in the **Font** window.



## Form Elements

Drawn form elements such as paths, lines, boxes and circles can be outlined or "filled" with Clear Dry Ink.

### ❖ To Outline drawn elements with Clear Dry Ink

1. Select the desired form element.
2. Right click and select **Format** from the **Context** menu.
3. The **Properties** window will appear. From the **General** tab, select the **Color** drop-down menu.
4. Choose the button on the bottom of the **Color** drop-down menu that says **Other**.
5. The **Color Selection** window will appear.
6. Select the desired outline color from the color wheel, input CMYK/RGB values, or use the color selector.
7. Enter the desired percentage of Clear Dry Ink to be applied to the element outline in the **Clear Ink %** input box.
8. Click **OK** to accept defined settings in the **Color Selection** window.
9. Input the desired border **Style/Thickness** and click **OK** to accept defined settings.

### ❖ To Fill drawn elements with Clear Dry Ink

1. Select the desired form element.
2. Right click and select **Format** from the **Context** menu.
3. The **Properties** window will appear. From the **Shading/Fill** tab, check the **Fill** box to enable the Color Fill options.
4. Select the **Color** drop-down menu and choose the button on the bottom of the menu that says **Other**.
5. The **Color Selection** window will appear.
6. Select the desired fill color from the color wheel, input CMYK/RGB values, or use the color selector.
7. Enter the desired percentage of Clear Dry Ink to be applied to the filled element in the **Clear Ink %** input box.
8. Click **OK** to accept defined settings in the **Color Selection** window.
9. Click **OK** to accept defined settings in the **Properties** window.

## Paths

The Path Draw tool is useful when accenting applications with Clear Dry Ink. The Path Draw tool can be used to draw or trace individual shapes or elements on the form to be filled with Clear Dry Ink. In order for the paths to be "filled" with Clear Dry Ink, they must be closed. This means both ends of the path must be touching to ensure the fill option is enabled.

### ❖ To draw a path and fill using Clear Dry Ink

1. Click on the **Path Draw** tool to begin drawing your path.
2. Draw the desired path by clicking on the form to create different points along the path.
3. When finished, with the drawn path selected, click on the **Close/Open Path** button to ensure the path is closed.
4. Right click on the path and choose the **Format Path** option from the **Context** menu.
5. The **Path Properties** window will appear opened to the **General** tab.
6. If your path was properly closed, the **Fill** option should be available to select. If the Fill checkbox is "grayed-out" it means your path needs to be closed before you continue. Check the **Fill** checkbox to enable the Path Fill color options.
7. Select the **Color** drop-down menu and choose the button on the bottom of the menu that says **Other**.
8. The **Color Selection** window will appear.
9. Select the desired fill color from the color wheel, input CMYK/RGB values, or use the color selector.
10. Enter the desired percentage of Clear Dry Ink to be applied to the filled path in the **Clear Ink %** input box.
11. Click **OK** to accept defined settings in the **Color Selection** window.
12. Click **OK** to accept defined settings in the **Properties** window.



# Icon Quick Reference

## Standard Tool Bar



Icon	Function
	New Form
	Open Form
	Create New Resource Set
	Save
	Proof Print
	Preview Form
	Import Text
	Import Image File
	Import Data
	Cut



Copy



Paste



Undo



Redo



What's This



Help

## Text Format Tool Bar



Icon	Function
	Bold
	Underline
	Italic
	Subscript
	Superscript
	Left Align Text



Center Align Text

---



Right Align Text

---



Justify Text

---



Top Align Text

---



Center Align Text

---



Bottom Align Text

---



Correct Word Spellings

---



Attach to Box/Circle

---



Position Object to Box/Circle

---



Toggle Text Margin

---



Pre-defined Point Sizes

---



Pre-defined Typefaces

---



Pre-defined Images

---

## View Toolbar



Icon	Function
	Grids
	Rulers
	Margins
	Fit Page to Screen
	Enlarge Drawn Area
	Magnify Area 25%
	Demagnify Area 25%
	Pan Mode
	View Data
	View Line Data

## Object Format Toolbar



Icon	Function
	Toggle Line Direction
	Toggle Diagonal Line
	Toggle Circle Segment
	Round/Square Corner
	Close/Open Path
	Add New Point
	Continue Path from end
	Add Light Shading
	Add Medium Shading
	Add Heavy Shading
	Increase Border Thickness
	Decrease Border Thickness
	Change Border Style



Change Border Color



Change Text Image Color



Change Fill Color



Palette

## Grouping Toolbar



Icon

Function



Left Align Group Items



Right Align Group Items



Center Align Group Items



Top Align Group Items



Bottom Align Group Items



Vertical Center Align Items



Make Same Width



Make Same Height



Make Same Size



Stretch Left Group Items



Stretch Right Group Items



Stretch Top Group Items



Stretch Bottom Group Items

## Repetition Toolbar



Icon

Function



Even Repetitions



Exact Repetitions



Staggered Repetitions



Random Repetitions



Break Repetition



Join Into Repetition

## Drawing Toolbar



Icon	Function
	Select Mode
	Select Group Mode
	Text Draw
	Box Draw
	Line Draw
	Circle Draw
	Path Draw
	OMR Bubbles
	Current Grids

## OMR Toolbar



Icon	Function
	Response Direction
	Response Shape
	Written Response Box
	Number OMR
	Pre-defined OMR Sequences

## Data View Toolbar



Icon	Function
	Rewind Data
	Data Backwards
	Data Forwards
	Fast Forward Data
	Select Field Name
	Data Driven Graph



Conditional Text

---



Conditional Image

---



Create New Frame

---



Attach Relative Object

---



Data Formula

---



Edit Job Conditions

---

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