



Document Enhancement & Distribution Solution

FormFusion User Guide

Product version 3.10

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FormFusion User Guide - Introduction

FormFusion is a document enhancement and distribution solution that gives organizations complete control over the design and delivery of their output while automating processes and eliminating paper stock. It can be used for Purchase Orders, Mailers, Invoices, Tax Forms, Letter Generation, and more. Users can rearrange data, add images, change the layout, formatting, color and fonts, as well as add information not included in the original output file. FormFusion converts standard application output into more attractive, functional, and efficient electronic documents, and then intelligently distributes them to print, email, database, or imaging systems.

The advantage of FormFusion is shown below by comparing a purchase order printed by your application to the same purchase order printed after being processed by FormFusion.

PO0000123 Page 1
06/18/09

ABC Company
123 ABC Street
Any Town USA 12345

Evisions, Inc
410 Exchange, Suite 250
Irvine, CA 92602

06/18/09

Net 30 Days John Smith

FOB Shipping Point 123 ABC Company

1	3110000000	Tablets, Ruled, 8.5x11	50.00	EA
2	3120000000	Pens, Black, Fine Point	100.00	EA
3	3200000000	Supplies	10.00	EA
4	3210000000	Marker, Whiteboard	10.00	EA
5	3140000000	Tablets, Ruled, 8.5x14	50.00	EA
6	3130000000	Pens, Blue, Fine Point	100.00	EA



PURCHASE ORDER
PO0000123

410 Exchange, Ste. 250 Irvine, CA 92602
 Purchasing: 714-824-4232 Fax: 714-730-2524
 Business Hours: 7:30am - 4:30pm
 Monday-Friday, except holidays

ABN: PO0000123
 Evisions, Inc.
 410 Exchange, Suite 250
 Irvine, CA 92602

PO Date: 06/18/09

ABC Company
 123 ABC Street
 Any Town, USA 12345

Accounts Payable: PO0000123
 Evisions University
 410 Exchange, Suite 250
 Irvine, CA 92602

Buyer	Delivery/PO Expiration Date	Payment Terms	Ship Via
Super Phone	Quote	Conditioning	F.O.B. SHIPPING POINT
John Smith	06/30/09	Net 30	Best Way
888-433-5993			

Item	Quantity	Unit	Description	Unit Price	Extended Price
01	50	EA	3110000000 Tablets, Ruled, 8.5x11	\$1.75	\$87.50
02	100	EA	3120000000 Pens, Black, Fine Point	\$0.98	\$98.00
03	10	EA	3200000000 Supplies	\$10.00	\$100.00
04	10	EA	3210000000 Marker, Whiteboard	\$3.00	\$30.00
05	50	EA	3140000000 Tablets, Ruled, 8.5x14	\$1.75	\$87.50
06	100	EA	3130000000 Pens, Blue, Fine Point	\$0.98	\$98.00

INSTRUCTIONS

(1) NO CHANGES, SUBSTITUTIONS OR ALTERATIONS.
 (2) Notify Buyer if unable to fulfill confirming supplies or services.
 (3) Purchase Order (PO) number must appear on all invoices, shipping labels/papers, correspondence, invoice instructions, etc.
 (4) INVOICES, in duplicate, must be directed to Accounts Payable and conform to PO terms, line items and prices.
 (5) All prices are F.O.B. destination unless otherwise specified.
 (6) PO is subject to the TERMS AND CONDITIONS on reverse side or attached.

Subtotal: \$601.00
 Sales Tax: \$42.59
Purchase Order Total: \$643.59

VENDOR COPY

John Smith
Vice President, Business Services

FormFusion Components

FormFusion Developer allows you to create “templates” that enhance your existing documents with shapes, fonts, images, etc. It also allows you to define how you would like the final output to be delivered. These templates are made up of the following components:

MapForm

MapForm is used to identify blocks of data on the input file and “map” them to FormFusion variables. Developers draw boxes around areas on the input file and assign a variable name to these areas (the mapping process). Once all of the necessary areas on the input file are mapped, these variables can be dragged and dropped onto FormStamp.

You can map both information that appears at the same position on each page of output and also information that moves up or down on successive pages.

Note: The output file from your application is the input file for FormFusion.

CaptureForm

CaptureForm is a component within FormFusion Developer which performs a variety of functions. It can be used to retrieve information not on the input report file from a database (using SQL queries) or for mathematical calculations, inserting or deleting information in your database, and formatting character strings.

FormStamp

FormStamp is where you create the visual layout and design of the finished FormFusion output. It is a virtual drawing board, allowing you to create shapes and add text objects and graphics. FormStamp can also be used to create letters, and includes features such as duplex output, POSTNET and USPS Intelligent Mail barcodes (using user-supplied MS Windows fonts) to enhance your letters.

FormStamp can be used to modify a base template designed by Evisions and customize it with your own logo, signature, or other graphical elements. You may also create new templates from scratch to meet your institution’s needs.

The FormFusion Developer allows you to see exactly how your final printed output will look during the design phase.

FormDirector

FormDirector is a component used within FormFusion Developer to direct the output to a variety of destinations. The output options are:

- **PrintDirector:** This module allows you to send the output to a printer.
- **EmailDirector:** This optional module allows output to be emailed to vendors, employees, etc. using email addresses stored in your database or entered by hand.
- **ImagingDirector:** This optional module allows you to direct output to an imaging system such as Banner® Document Management (BDM) by Ellucian™ (among others).
- **ScriptDirector:** This optional module creates FormFusion output as PDF files and saves them to a network or local drive, or to a database.

Logging In

Logging In to the eLauncher

The MAPS eLauncher provides a single location from which you can launch any of the MAPS applications, access online training and support resources, or see the new features in the latest releases.

In your web browser, navigate to the URL provided by your MAPS administrator. If you are prompted to log in at this time, do one of the following:

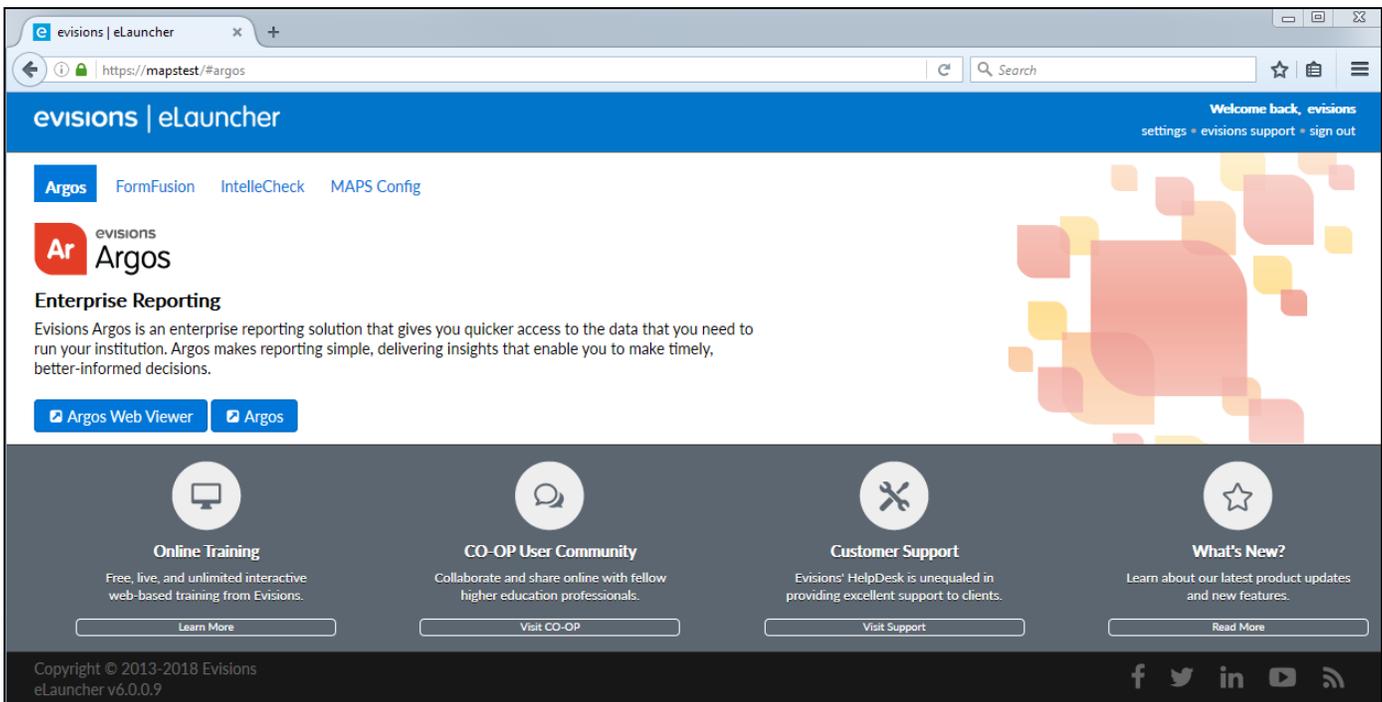
- For HTTPS, enter the username and password provided by your MAPS administrator.
- Enter your LDAP credentials if your institution uses LDAP for single sign-on.

If your institution has single sign-on configured for use with a SAML server, you do not need to enter your credentials here. Select the **Single Sign-On** button and enter your username and password on your institution's SSO page. (The Single Sign-On button is only displayed when SAML SSO is available.)



The screenshot shows the login interface for 'evisions'. It features a blue header with the 'evisions' logo. Below the header, there is a 'Username:' label followed by a text input field containing 'evisions'. Below that is a 'Password:' label followed by a password input field with masked characters. A 'Remember this user' checkbox is checked. At the bottom, there is a help icon, a 'Use Single Sign-On' button with a key icon, and a blue 'Sign In' button with a user icon.

The MAPS eLauncher displays after your credentials are validated.

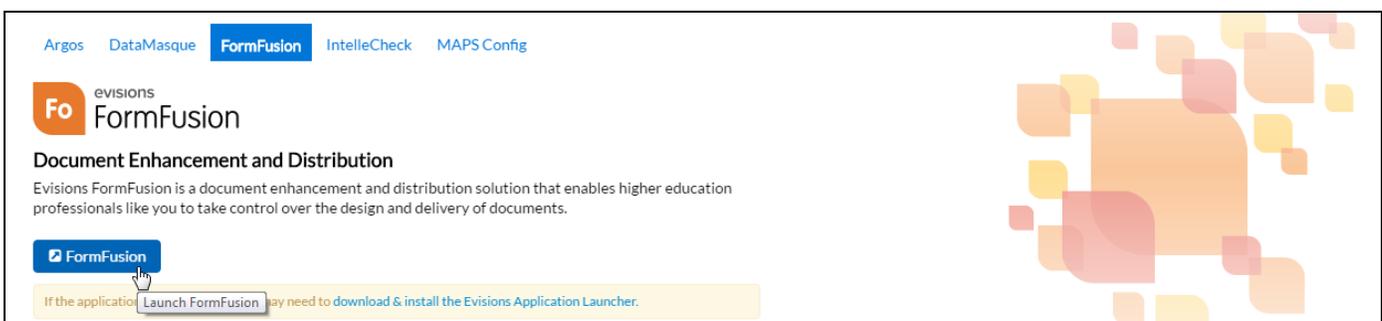


Login Issues

If you cannot log in, it may be due to local or network firewall settings. You may need to configure your firewall to allow access on the selected port.

Launching Application Clients

To launch an application client, navigate to the product you wish to use and then select the launch button for that product.



If you are prompted to install the **Evisions Application Launcher** (EAL), follow the prompts on your screen to continue. Expand the link below, for more information.

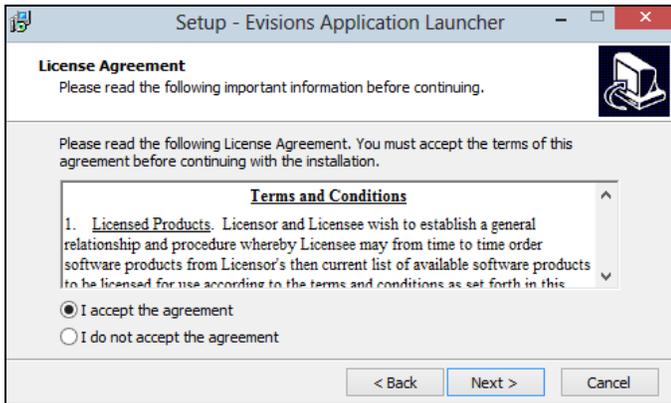
Note: If you do not have permission to install applications on your computer, you may need to consult with your IT department for assistance.

Installing the Evisions Application Launcher

Select the link to download the **setup.exe** file. When it has finished downloading, open the file to run the installer.



Follow the prompts on the screen. Select **Next** to continue.

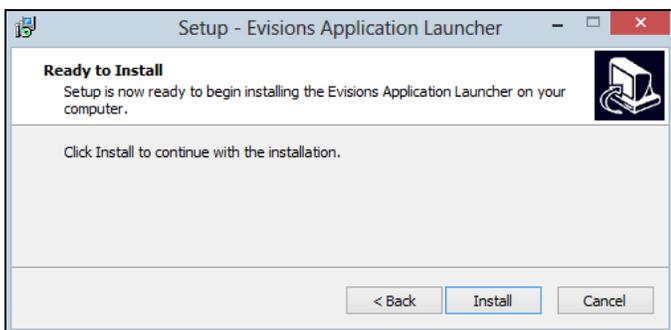


Review and accept the license agreement, then select **Next**.

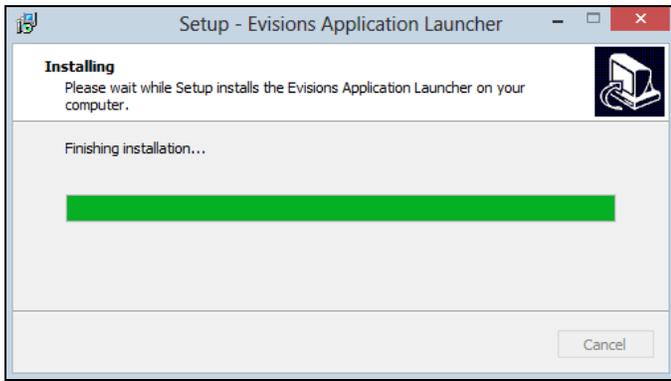
Microsoft .NET Framework is Required

If your computer does not have the Microsoft .NET framework already installed, you will be prompted to install it as part of the EAL setup.

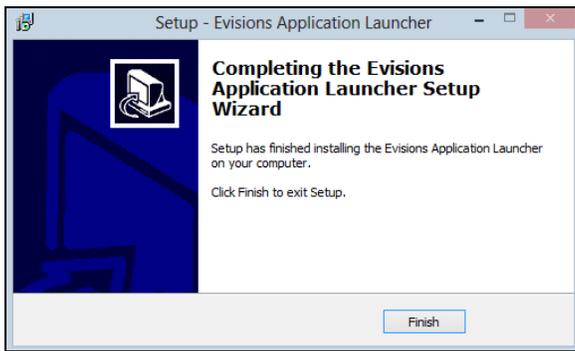
Review and accept its license agreement, then select **Install** to proceed.



Select **Install** to continue. If you are installing the Microsoft .NET Framework at the same time, it will install alongside the Evisions Application Launcher.

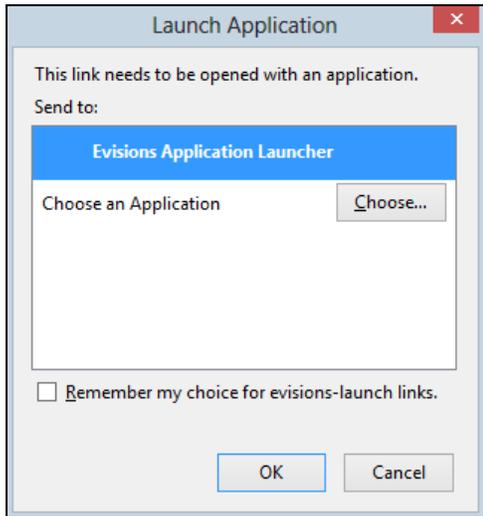


Once the installation is complete, select **Finish** to close the installer.

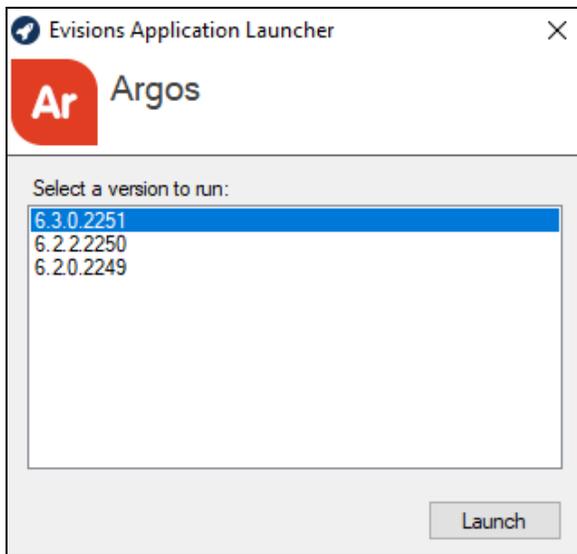


When you launch an application (Argos, for example) you may see a prompt informing you that the browser is trying to run an external program, and asking whether you want to proceed. Select **OK** or **Allow** to allow the launcher to run.

Note that the prompt is different in different browsers.



If there are multiple versions of the application available, choose the version to use, then select **Launch**.



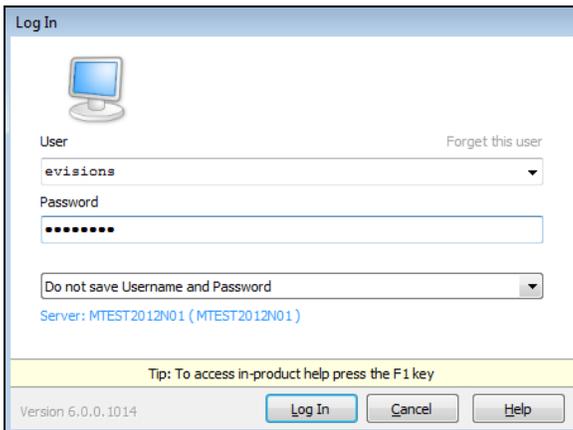
If the application or application version you selected is not already installed on your computer, it will download. This may take some time, especially over slow connections.

Logging In to the Application Clients

If you have not yet logged in to the application, the main login screen displays. The screen for each MAPS application is similar to the one below. You must enter your credentials to access the application under the following circumstances:

- You did not use the HTTPS version of the eLauncher
- You did not log in through a single sign-on server
- You are logging in to MAPS as an administrator
- You are logging in to IntelCheck (or accessing a secured area)

Otherwise, you do not need to enter your credentials again unless you are accessing a different secured program or feature, or need to reconnect.



There are several options you can configure on this screen:

- **Forget this user** - removes this user from the list of saved usernames in the dropdown list.
- **Do not save username and password** - do not save either the username or the password that you enter.
- **Save username** - adds this user to the list of saved usernames in the dropdown list.
- **Save username and password (if allowed by server)** - saves the password for this username, if password saving is enabled in MAPS. **Note:** for security reasons, you cannot save passwords when logging in to the MAPS Config application.
- **Server** - Click on the server name for additional options to change the server you are logging in to or the port number for that server.

IntelCheck users have an additional option to select the database connection prior to login:



Your data connection permissions (established by the MAPS administrator) determine the connections displayed in the list. If you do not see the connection you want to use, enter your username and password and select **Refresh**. Your MAPS administrator can provide further assistance with data connection permissions.

Once you have entered all information, select **Log In** to launch the application.

Failed Login Attempts

Your MAPS administrator determines how failed login attempts are handled, based on your institution's password policy. If allowed, you may be able to log in after waiting a period of time specified by the administrator (often an hour).

Server Selection

Select the **Server** link on the Login dialog to select a different server, if necessary. Note that the Servers section looks slightly different depending on the product and version you are running:

Version 4.3.0.588

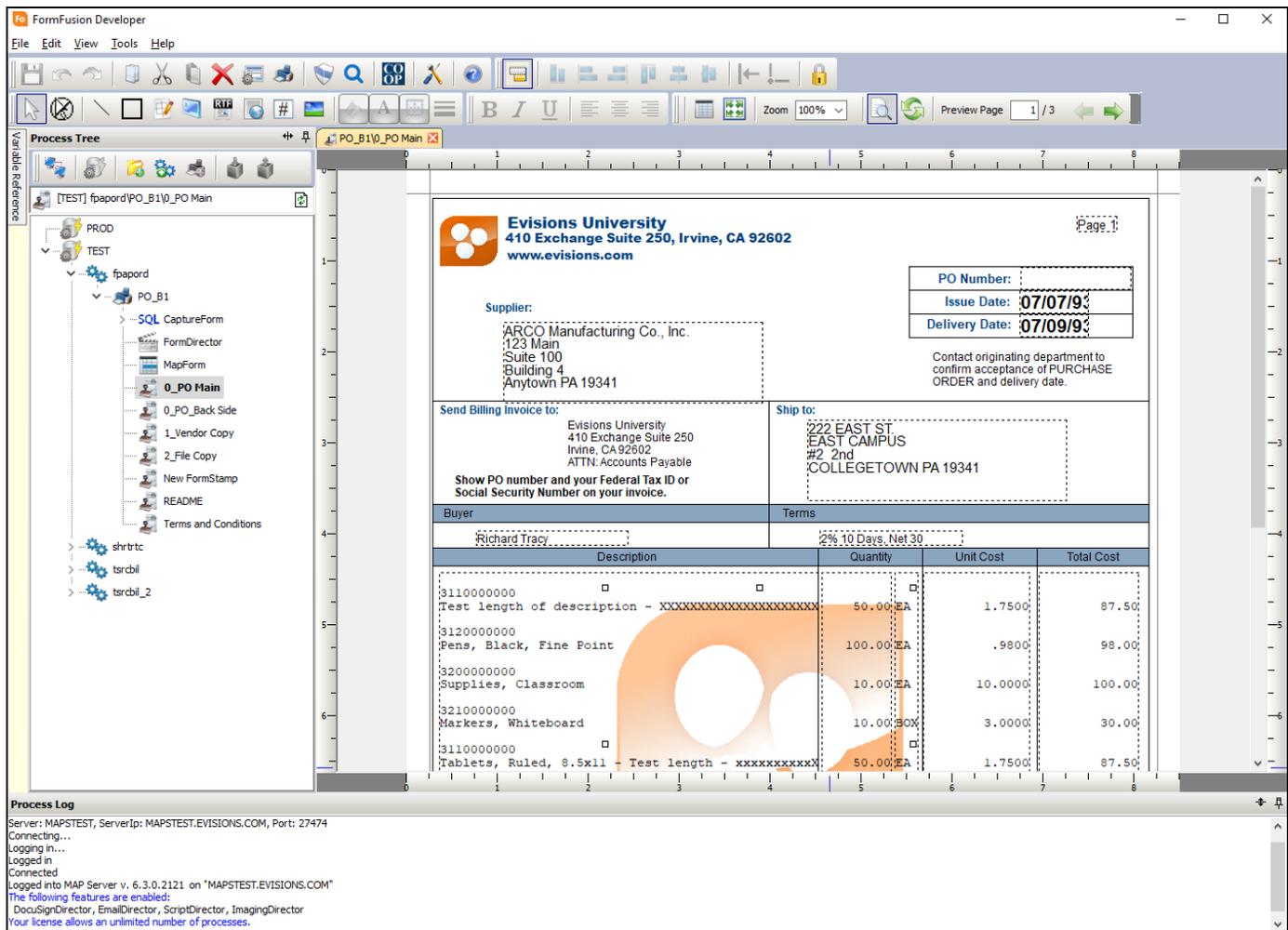
Version 6.0.0.1014

The following actions are available from this area:

- **Green "+" sign / Add button** allows you to add a server to the list of available servers.
- **Red "X" / Delete button** deletes the selected server.
- **Server Address** enter the name/address of the server.
- **Use the default port** check this box to use the default port for the application (27467) or uncheck to enter a specific port number.
- **Port** allows you to enter a different port number, if your MAPS administrator has instructed you to do so.

FormFusion Interface

After logging in to FormFusion, you will see the FormFusion user interface:



The FormFusion user interface contains several different areas:

- **Toolbars** - At the top of the screen are one or more toolbars, depending on the type of FormFusion object you are working with. The screen-specific toolbars are discussed in the sections for each component.
- **Process Tree** - The Process Tree appears on the left and displays all objects in FormFusion, sorted hierarchically by environment, process type, and print parameter (template). Double click on an item in the process tree to open it for editing.
- **Design Area** - The large pane in the middle of FormFusion displays a tab for each currently-open component. In the screenshot above, we are editing a FormStamp to design the layout of a template. The design area is empty until you open a template component to work on.
- **Process Log** - A scrolling text log at the bottom of FormFusion. The process log contains informative status messages such as connection status, enabled licenses, and any error messages that occur as a result of an action. The process log also contains debug information when doing a test print of a template.
- **Variable Reference** - The Variable Reference pane is collapsed by default. It contains a list of available variables (template variables as well as FormFusion system variables) that can be used when creating your template. To open the Variable Reference pane, hover over the sideways "Variable Reference" tab in the upper left, or select Variable Reference in the View menu.

Tip: The Variable Reference, Process Tree, and Process Log areas can be pinned or unpinned by clicking the pin icon on the upper right of the pane, or by toggling the pane in the View menu. Unpinning provides more room for you to work on your templates. When an area is unpinned, you can temporarily expand it by hovering over the edge of the collapsed region.

Main Toolbar

The main toolbar in FormFusion contains actions that are available throughout FormFusion, as well as links to external support resources.



Button	Description
	Save changes to the active tab. Make sure to save your work frequently! Objects that have unsaved changes have a red box around their icon in the process tree, and the name of the tab appears in red.
	Undo the previous action. Same as Ctrl-Z.
	Redo an undone action. Same as Ctrl-Shift-Z.
	Copy the selected item
	Cut the current item into the clipboard
	Paste an item from the clipboard
	Delete selected item
	Edit the properties of the selected form
	Print the selected template
	Edit the security settings for the selected object
	Search for text within CaptureForm queries
	Open a web browser and navigate to the CO-OP User Community
	Open a web browser and navigate to the Evisions support site

Button	Description
	Open a web browser and navigate to the FormFusion online help. Alternatively, you can access context-sensitive help for the specific area of FormFusion you are working with by pressing the F1 key.

Tip: You can rearrange the toolbars at the top of FormFusion by clicking and dragging on the two vertical lines on the far left of each toolbar, and dragging them to the desired location.

The Template Design Process

The process for enhancing the input file is as follows:

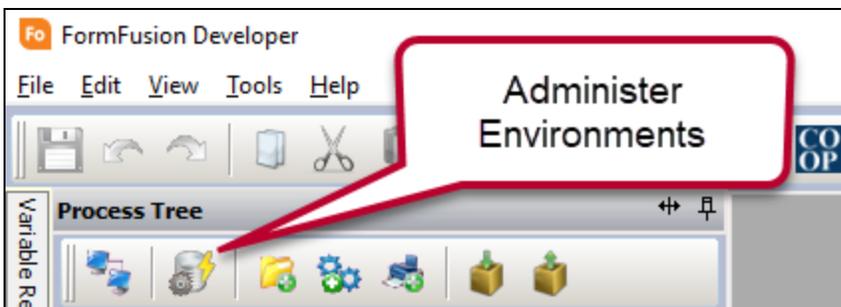
Get the input file

Obtain a sample input file from your application. The output from your application is the input file for FormFusion.

Note: "Your application" is referenced many times within this guide and refers to the application that produces the output to be enhanced by FormFusion.

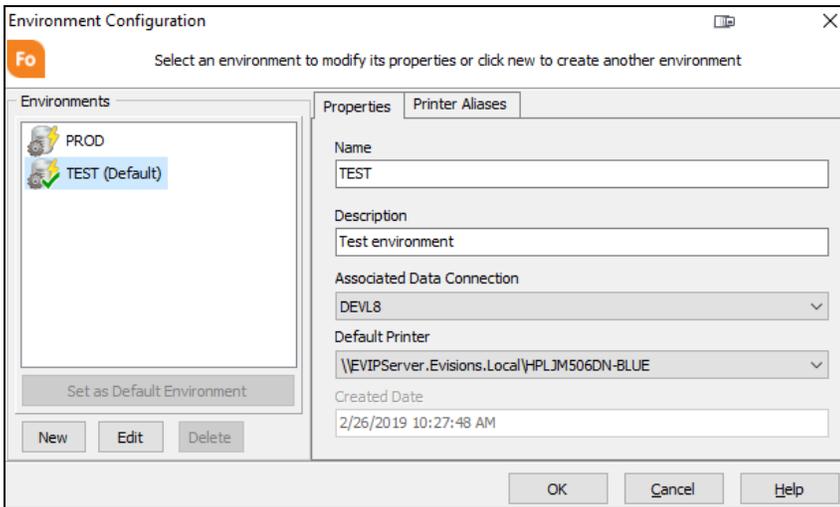
Identify the Default Printer and database connection in FormFusion

Launch FormFusion and create an Environment entry in the process tree. The environment typically corresponds to a specific database, such as "PROD" or "TEST". The Environment entry contains the database connection and default printer used by FormFusion. Click "Administer Environment" in the FormFusion toolbar to display the Environment Configuration dialog box where the database connection and default printer are identified.



After clicking "Administer Environment" the "Environment Configuration" dialog box shown below will be displayed which contains the list of printers you previously defined when installing MAPS. Choose one of the printers to serve as the default printer.

On this dialog you also select a database connection previously created in MAPS from the drop down list to be used as the default connection used for CaptureForm SQL queries.



Use MapForm to identify fields to be mapped

Import the input file into MapForm and identify fields that are to be mapped into the output template. The various types of fields that can be mapped are:

- Fields that always appears in the same position within the output (called Floating Fields).
- Fields whose position depends on the location of other data (offset fields).
- Fields that appear in header/footer portions of the report.

Tip: Create header/footer areas within the output which can be fixed or variable length, depending upon the nature of the input file.

Use CaptureForm to access external database – if needed

If data exists within your database that needs to be mapped into the output template, use CaptureForm to enter SQL queries which will capture the data.

Use FormStamp to build template

Transfer fields defined within MapForm and CaptureForm into the final template utilizing FormStamp.

Use FormDirector to direct output

Select Output Methods using FormDirector to direct output to print, email, to Imaging software, or to execute custom scripts for processing output.

Tip: Scripts can be developed to provide additional flexibility in processing output.

Summary

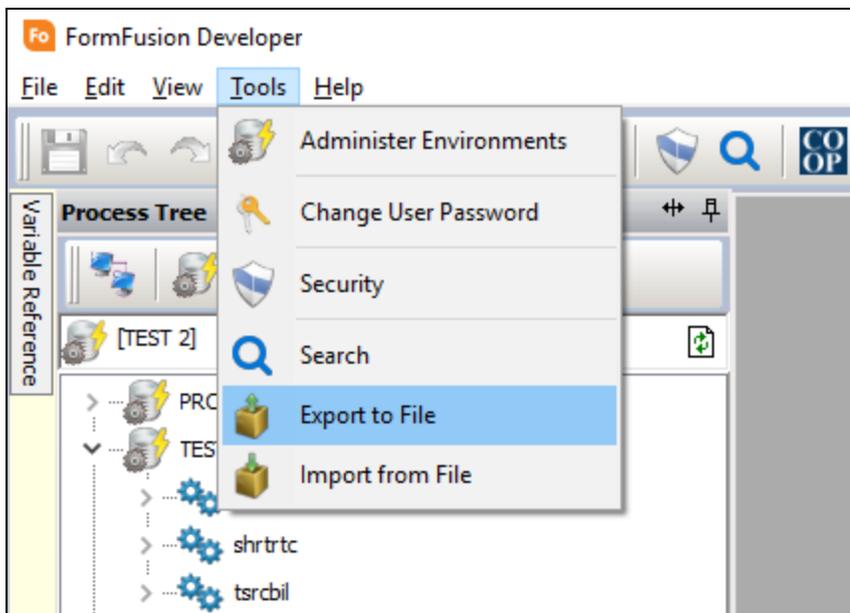
The template that was created can then be utilized by your application to produce the enhanced output defined within FormFusion.

Exporting and Importing FormFusion Templates

FormFusion allows you to import and export objects to/from the process tree, including entire environments, folders, and processes (templates). You can use this functionality to save a backup of a template, move it to another FormFusion instance, or share it with other users on the Evisions CO-OP.

Exporting to a File

Select the environment, folder, or process (template) that you wish to export from the process tree. In the **Tools** menu, select **Export to File**. You can also right-click on the object and select **Export to File**.



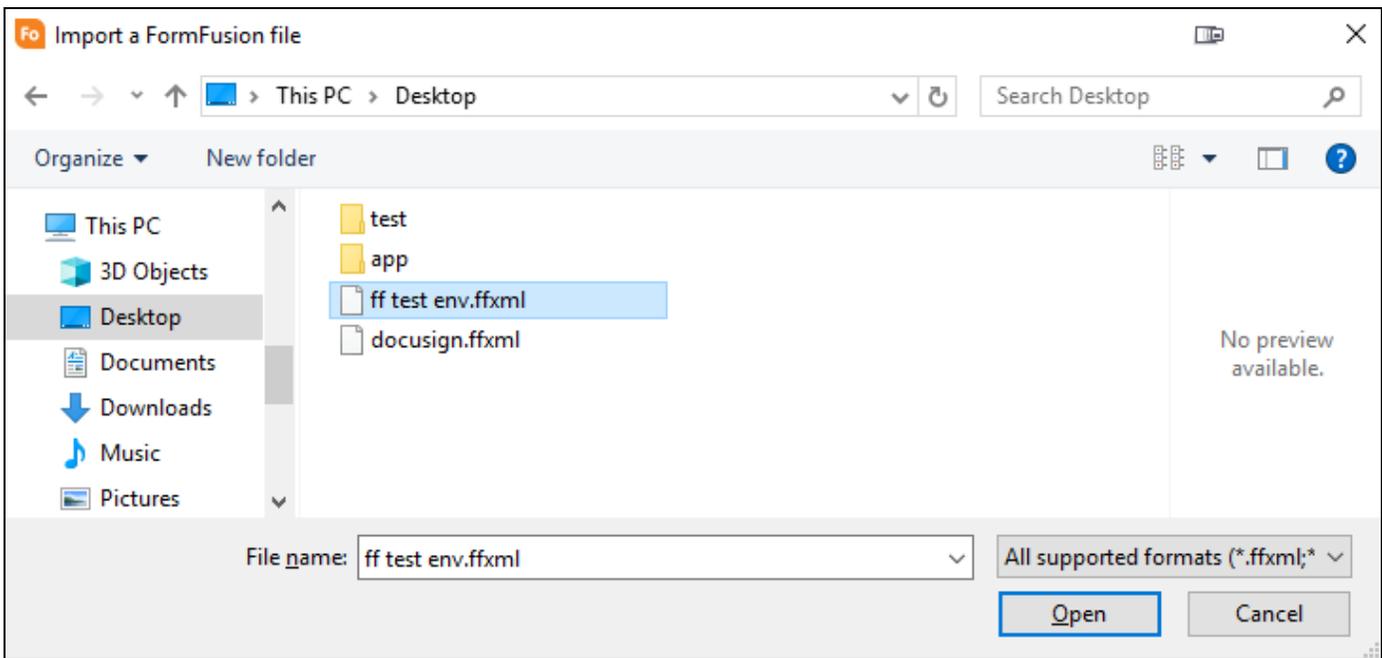
In the file browser, navigate to the location where you wish to save the file and select **Save**. FormFusion Export filenames are given the extension ".ffe". All print parameters, and components under the process will be exported to the file you specified.

Importing from a File

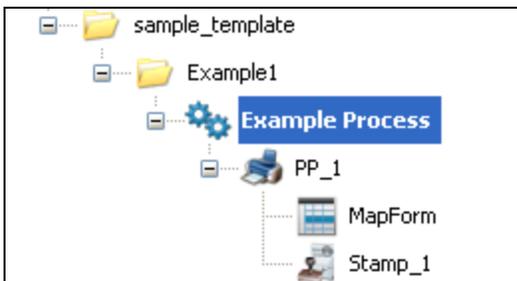
Select the folder that you want to import the file beneath. If you would like to import the file to the root level, then select the empty area of the process tree view (no node selected).



In the **Tools** menu, select **Import from File**. Navigate to the location of the file, then select the .ffe file that you want to import.

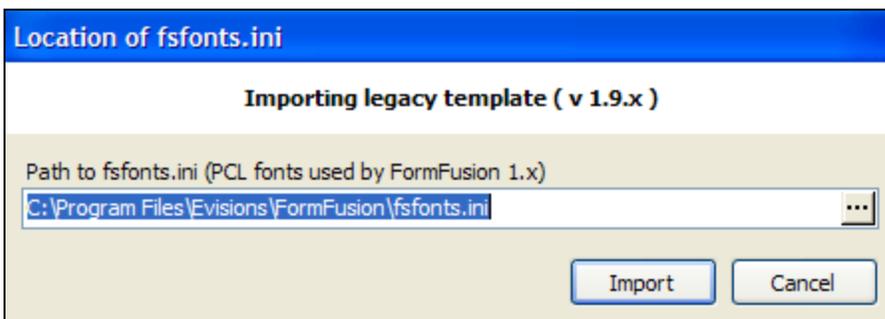


The imported template(s) will appear inside the folder that you selected.



Importing a Legacy Template

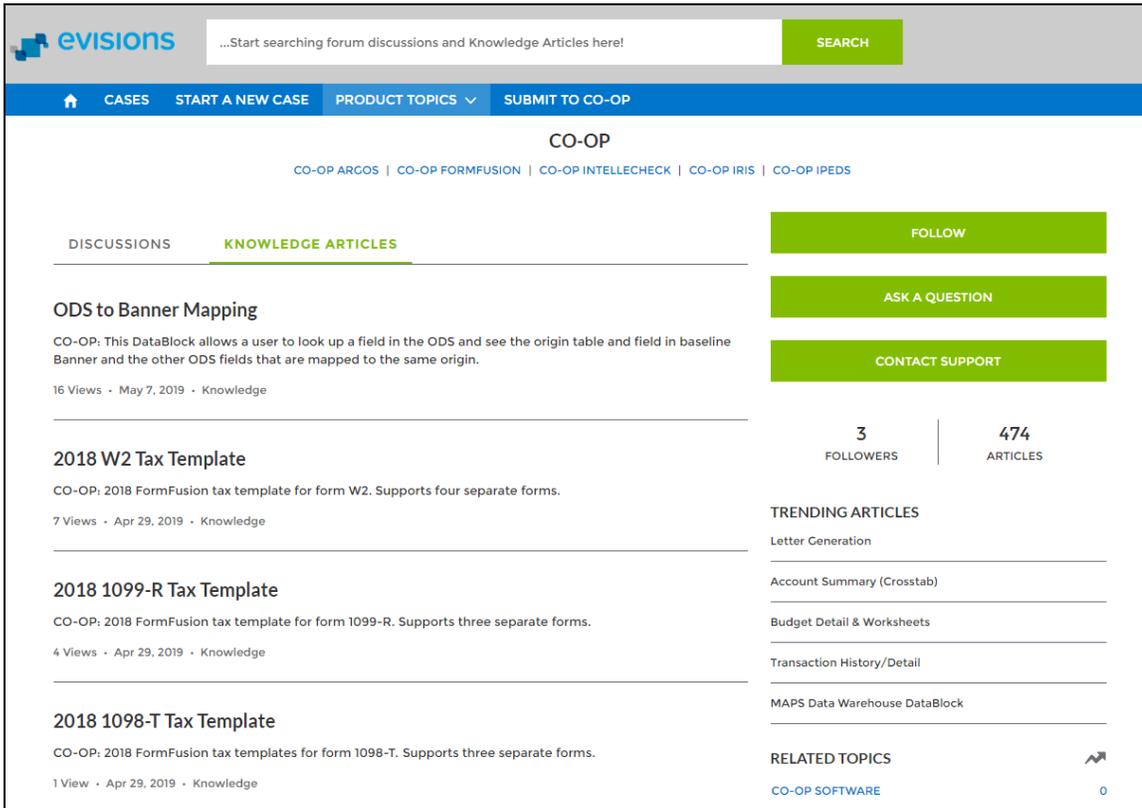
If you are importing a template from a legacy version of FormFusion, you will be prompted to enter the location of the fsfonts.ini file. This will allow FormFusion to correctly convert any PCL fonts to a comparable TrueType version.



The CO-OP User Community

The Evisions [CO-OP](#) provides a place for users to collaborate by sharing Argos DataBlocks, FormFusion templates, Data Dictionaries, and other objects. It contains items uploaded by Evisions as well as by clients like yourself. The shared DataBlocks and templates make a great starting point for your own development, since much of the work is already done for you.

To access the CO-OP, navigate to it from the [Evisions Support website](#), or click the  button in the toolbar.



The screenshot shows the Evisions CO-OP user community interface. At the top, there is a search bar with the text "...Start searching forum discussions and Knowledge Articles here!" and a "SEARCH" button. Below the search bar is a navigation menu with options: "CASES", "START A NEW CASE", "PRODUCT TOPICS", and "SUBMIT TO CO-OP". The main content area is titled "CO-OP" and includes sub-links for "CO-OP ARGOS", "CO-OP FORMFUSION", "CO-OP INTELLECHECK", "CO-OP IRIS", and "CO-OP IPEDS". There are three tabs: "DISCUSSIONS", "KNOWLEDGE ARTICLES" (which is selected), and "FOLLOW". Below the tabs, there are three knowledge articles listed:

- ODS to Banner Mapping**
CO-OP: This DataBlock allows a user to look up a field in the ODS and see the origin table and field in baseline Banner and the other ODS fields that are mapped to the same origin.
16 Views · May 7, 2019 · Knowledge
- 2018 W2 Tax Template**
CO-OP: 2018 FormFusion tax template for form W2. Supports four separate forms.
7 Views · Apr 29, 2019 · Knowledge
- 2018 1099-R Tax Template**
CO-OP: 2018 FormFusion tax template for form 1099-R. Supports three separate forms.
4 Views · Apr 29, 2019 · Knowledge
- 2018 1098-T Tax Template**
CO-OP: 2018 FormFusion tax templates for form 1098-T. Supports three separate forms.
1 View · Apr 29, 2019 · Knowledge

On the right side of the interface, there are three green buttons: "FOLLOW", "ASK A QUESTION", and "CONTACT SUPPORT". Below these buttons, there are statistics: "3 FOLLOWERS" and "474 ARTICLES". There is also a "TRENDING ARTICLES" section with a list of articles: "Letter Generation", "Account Summary (Crosstab)", "Budget Detail & Worksheets", "Transaction History/Detail", and "MAPS Data Warehouse DataBlock". At the bottom right, there is a "RELATED TOPICS" section with a link to "CO-OP SOFTWARE" and a small icon of a person.

The file uploads are under the **Knowledge Articles** tab at the top.

Searching for DataBlocks and Templates

To search the CO-OP for Argos DataBlocks, select **CO-OP ARGOS** in the list of categories at the top. Similarly, if you want to view FormFusion templates, select **CO-OP FORMFUSION**. If you are looking for DataBlocks/templates specific to Banner, Colleague, etc, you can further filter your results by selecting only that subcategory.

CO-OP ARGOS

[CO-OP ARGOS BANNER](#) | [CO-OP ARGOS COLLEAGUE](#) | [CO-OP ARGOS POWERCAMPUS](#) | [CO-OP ARGOS ADVANCE](#) | [CO-OP ARGOS JENZABAR CX](#) | [1 More...](#)

[DISCUSSIONS](#) **[KNOWLEDGE ARTICLES](#)**

ODS to Banner Mapping

CO-OP: This DataBlock allows a user to look up a field in the ODS and see the origin table and field in baseline Banner and the other ODS fields that are mapped to the same origin.

16 Views · May 7, 2019 · Knowledge

Examine Oracle Rollback Segments

CO-OP: This datablock examines Oracle Rollback Segments

35 Views · Apr 25, 2019 · Knowledge

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ARGOS

Graduation Completion

CO-OP : This Advancement DataBlock contains Graduation Completion information on graduation trends and to monitor and improve graduation rates.

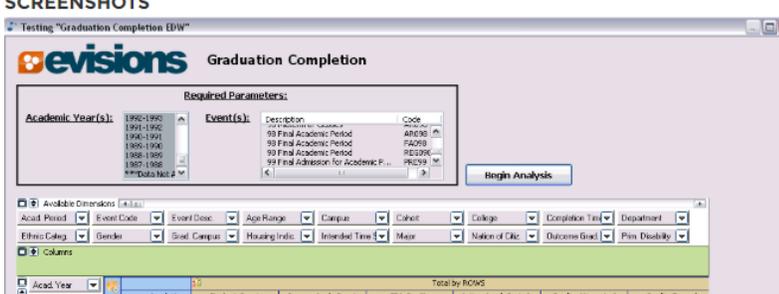
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www.evisions.com

FormFusion User Guide

Page 25 of 100

Last Updated 6/4/2020

From here, you can choose to download the document by clicking on the filename. You can then import the selected objects into the product and edit them as needed.

Submitting Files

To upload a DataBlock, template, or other object to the CO-OP, first export it to a file. You may wish to make a copy first so that you can clean up any notes or sensitive information that may be associated with the object.

In the CO-OP, select **SUBMIT TO CO-OP** in the menu. Fill out the required information such as the subject, product, system, your name and institution, and other information. For example, an Argos DataBlock developed for Ellucian Banner that pertains to Finance.

The screenshot shows the 'SUBMIT TO CO-OP' portal with the following fields and content:

- Subject:** My Banner DataBlock
- Description:** A new DataBlock I created that does awesome things.
- Author:** Evisions
- Institution:** Evisions
- Product:** Argos
- System:** Ellucian Banner
- Functional Area:** Finance
- Article Body/About This File:** (Empty text area with rich text editor toolbar)
- Screenshots:** (Empty text area with rich text editor toolbar)
- What's New:** (Empty text area)

At the bottom left, there is a green link labeled 'Upload File' with a red arrow pointing to it. At the bottom center, there is a green 'Submit' button.

Use the Upload File link to attach the file(s) you want to upload. When finished, click the **Submit** button. The files will appear publicly on the CO-OP once they have been approved by a moderator.

Creating a Template

Introduction

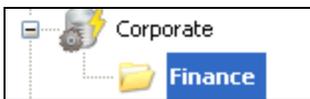
In the event that you cannot locate a template from the Evisions site that meets your needs, then you must create a template or modify an existing template to match the output from your application.

This example of a typical Purchase Order demonstrates how to use MapForm to import an input file from your application then map selected fields into a template created within FormStamp. The data will be stored within the Process Tree under the "Finance" folder with a Print Process called "Example Process".

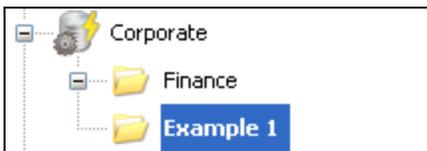
Creating the Process Tree Structure

Choose the appropriate environment folder, right click, and then select **New >> Folder**.

Tip: New environments can be created by clicking the "Administer Environments" button on the Toolbar.

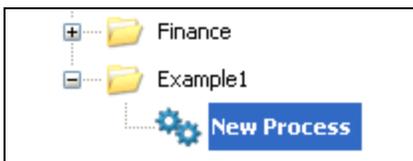


Enter "Example1" to create the new folder as follows:



Tip: Any number of folders can be created under environments or other folders.

To create a Process, right-click on the Example1 folder and select **New >> Process**.



Rename the process to "Example Process" by right clicking on the "New Process" icon and selecting **Rename**.



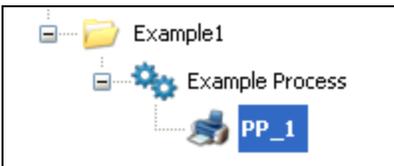
Tip: A process corresponds to the process from your application. Any number of processes can be created under each environment or folder. Processes can also be created by clicking the “New Process” button on the Toolbar.

Right-click on the “Example Process” process and select **New>> Print Parameter** to create a print parameter. A new print parameter called New_PrintParameter will be created.



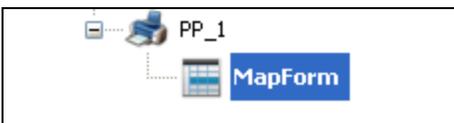
Tip: Print Parameters are the templates used to enhance the input file. Each process can have any number of print parameters under it. Users specify which print parameter to run at the time they run the process.

Rename the Print Parameter to “PP_1”.



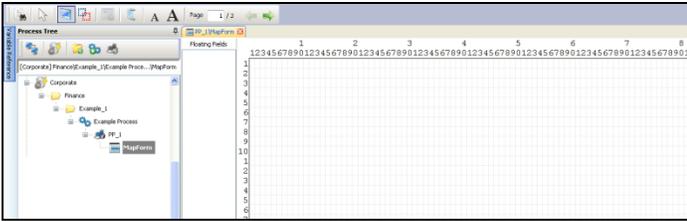
Executing of the various FormFusion components will now take place under the PP_1 Print Parameter.

The next step is to execute MapForm in order to acquire a sample template that corresponds to your Application. To execute MapForm, right-click on PP_1, then select **New >> MapForm**. You will then see the following:



Fetch a Sample Input File

To begin working with MapForm, double click on the MapForm Icon, or right click then select Open. The Design Screen utilized by MapForm will open and will be empty at this point. When you open MapForm, the toolbar changes to show the options available in MapForm.



The next step is import a sample input file from your application. To import a file that you placed on a PC, click the  icon on the toolbar. A dialog box will appear which will allow you to specify the location of the file. MapForm will load the sample file into the Design Window as shown below.

Floating Fields	1	2	3	4	5	6
	12345678901234567890123456789012345678901234567890123456789012345					
	1					
	2					
	3					
	4					
	5					
	6					
	7	300000020				
	8					
	9	ARCO Manufacturing Co., Inc.				
	10	123 Main				
	11	Suite 100				
	12	Building 4			07/09/93	
	13	Anytown PA 19341				
	14					
	15	2% 10 Days, Net 30		Richard Tracy		
	16					
	17					
	18	FOB Shipping Point				
	19					
	20					
	21					
	22					
	23	1 3110000000				
	24	Test length of description - XXXXXXXXXXXXXXXXXXXXXXXXXX				
	25					
	26	2 3120000000				
	27	Pens, Black, Fine Point				1
	28					
	29	3 3200000000				
	30	Supplies, Classroom				
Offset Fields	1					
	2	4 3210000000				
	3	Markers, Whiteboard				
	4					

Remember: The output file from your application becomes the sample input file for FormFusion.

MAP Floating Fields (MapForm)

You are now at a point where you can specify which fields will be mapped. These fields are then available to the output template which will be created within FormStamp.

Once you determine which fields to map, you need to select them within MapForm so that they can be made available to the FormStamp template. Within this example, we will be creating floating fields, which are fields that are always printed at the same place within each page

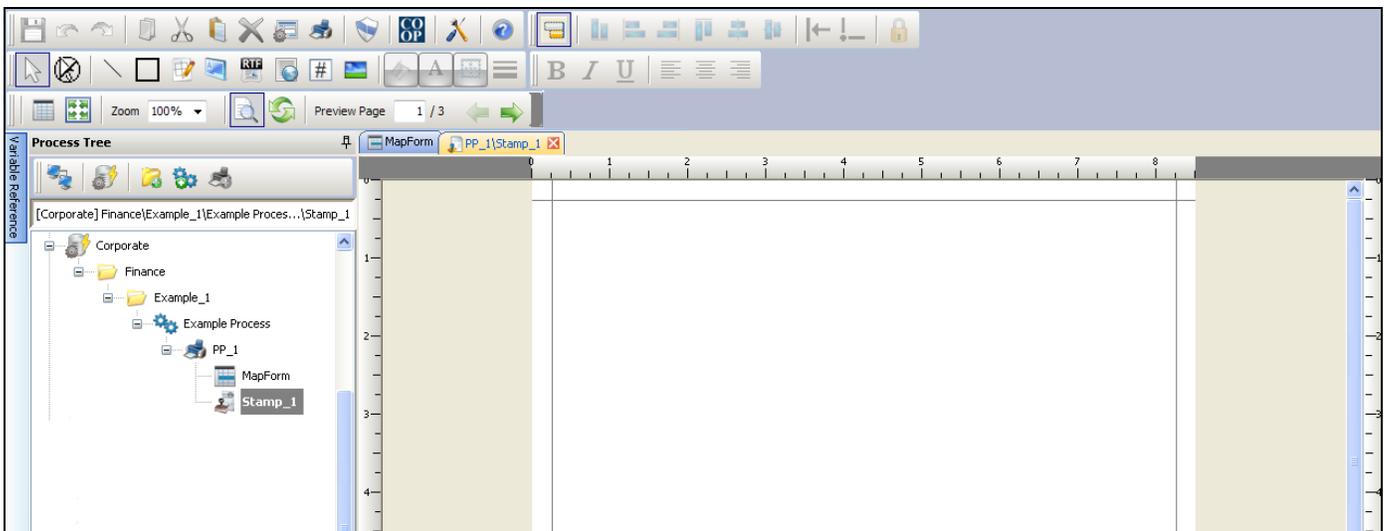
Building the new output (FormStamp)

The next step is to use FormStamp to create a template that the variables will be moved into. To utilize FormStamp, right click on the PP_1 Print Parameter icon then select New->FormStamp. A new icon with a name of "NewFormStamp" will be created that can be renamed. Right-click on "NewFormStamp" and change the name to "Stamp_1".



Note that both MapForm and FormStamp data will now exist under the PP_1 Process.

Double click the Stamp_1 icon to bring up the FormStamp Design Window and FormStamp toolbar items.



Note the new tool buttons located on the top row of the Main Toolbar and the empty design area. Also note that the Variable Reference area contains the list of floating variables created by MapForm. These fields will be utilized within FormStamp as described below.

Add Objects to FormStamp

Now that FormStamp is active, you can create your template. There are a number of drawing tools that can be utilized that are located on the toolbar (drawing of lines, boxes, creation of text fields, import of graphics objects) similar to other graphics applications. Use these tools to add such objects to the Design Area.

When creating objects, it is important to understand the distinction between the  icon on the toolbar and the "Change Draw Mode to..." icons (see the table below for descriptions). The  icon is used when selecting objects, and the icons below are used to create objects. For more information about the objects you can place on a FormStamp, see [FormStamp Objects](#).

Icon	Description
	Draws horizontal or vertical lines.

Icon	Description
	Draws rectangular objects.
	Draws a grid.
	Draws a text box.
	Draws a text box and opens a dialog with rich text options.
	Draws a box and opens a dialog to enter HTML code. This will render the HTML inside the box that was drawn on the form.
	Draws a box and opens a dialog to select a pre-defined data field to inhabit the box.
	Draws a box and opens a dialog to find and select an image file to place on the form.

Experiment with creating lines boxes, importing graphics images, etc. Each of the objects that you create will be given a name, and its attributes can be modified by right clicking on the object, then selecting "Format Object". This brings up a dialog box that allows you to change many attributes of the object.

Add Variables to FormStamp

You also need to define fields on the template that Floating Fields created within MapForm will be moved into. To accomplish this, find the variable within the Variable Reference Window, then drag it into the desired location onto the template. This field becomes an object within FormStamp and its attributes can be modified by right clicking on the object.

 Evisions Institute of Technology 410 Exchange ste. 250, Irvine, CA WWW.evisions.com 888.533.5993		PageNo	
Supplier: VendAddress		PO Number: <input type="text"/> Issue Date: PODate Delivery Date: DeliverDate	
Send Billing Invoice to: Evisions Institute of Technology 410 Exchange ste. 250 Irvine, CA 92602 ATTN: Accounts Payable Show PO number and your Federal Tax ID or Social Security Number on your invoice.		Ship to: ShipToAddress	
Buyer	Terms		
<input type="text"/>	<input type="text"/>		
Description	Quantity	Unit Cost	Total Cost
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
FOB: <input type="text"/>		TOTAL TAXES: <input type="text"/>	

Floating Fields from MapForm

The template above shows the floating fields after dragging them onto the template.

Tip: Select the  icon on the toolbar to toggle between display of Floating Field names vs. the actual data (see the screenshots above and below).

To refresh the display of data within FormStamp, click the  icon on the toolbar.

 Evisions Institute of Technology 410 Exchange ste. 250, Irvine, CA WWW.evisions.com 888.533.5993		Page 1			
Supplier: ARCO Manufacturing Co 123 Main Suite 100 Building 4 Anytown PA 19341		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>PO Number:</td></tr> <tr><td>Issue Date: 07/07/93</td></tr> <tr><td>Delivery Date: 07/09/93</td></tr> </table> <p>Contact originating department to confirm acceptance of PURCHASE ORDER and delivery date.</p>	PO Number:	Issue Date: 07/07/93	Delivery Date: 07/09/93
PO Number:					
Issue Date: 07/07/93					
Delivery Date: 07/09/93					
Send Billing Invoice to: Evisions Institute of Technology 410 Exchange ste. 250 Irvine, CA 92602 ATTN: Accounts Payable Show PO number and your Federal Tax ID or Social Security Number on your invoice.	Ship to: 222 EAST ST. EAST CAMPUS #2 2nd COLLEGETOWN PA 19341				
Buyer	Terms				
Richard Tracy	2% 10 Days, Net 30				
Description	Quantity	Unit Cost	Total Cost		
3110000000 Test length of description - XXXXXXXXXXXXXXXXXXXX	50.00 EA	1.7500	87.50		
3120000000 Pens, Black, Fine Point	100.00 EA	.9800	98.00		
3200000000 Supplies, Classroom	10.00 EA	10.0000	100.00		
3210000000 Markers, Whiteboard	10.00 BC	3.0000	30.00		
3110000000 Tablets, Ruled, 8.5x11 - Test length - xxxxxxxxxxX	50.00 EA	1.7500	87.50		
3120000000 Pens, Black, Fine Point	100.00 EA	.9800	98.00		
FOB: <input checked="" type="checkbox"/> FOB Shipping Point <input type="checkbox"/>		TOTAL TAXES:			

Note: After moving fields from MapForm into FormFusion, the data may not fit and you must resize the object within FormStamp.

To resize the object, right click on the object, then select "Format Object". The "Object Properties" dialog will appear. Click the "Size and Position" Tab, then click the "Allow Resizing" checkbox. Close the dialog, then return to FormStamp where you can now click on the object and resize it by dragging the cursor over the object.

Fields surrounded by dashed lines are floating variables and will receive data from your application. Other objects not surrounded by dashed lines are graphics objects created within FormStamp using the drawing tools previously mentioned and will not be populated with data from your application.

You have now completed the template design process within FormFusion. Your application can now be used to print using the templates that you created within MapForm and FormStamp.

Use of Fonts Within FormStamp

The list of fonts shown within the Object Properties Dialog for each object is based upon the fonts existing on your PC. Ultimately, the templates that you design will be used in conjunction with the data passed from an enterprise application to enhance the output. This process may be done on a different PC than the PC on which you designed the template.

Therefore the fonts that you selected during the template design process must also exist on the PC where FormFusion is executing and enhancing the output.

Using Offset Fields

Introduction

The previous example demonstrated how to map fields (floating fields) that always exist at the same location (same row and column) within the input file. In some applications, the location of data fields may change depending upon the amount of and location other data within the input file. An example might be a “total” the prints near the bottom of the report. The position of the “total” field in this case is not fixed because it depends on the number of rows of data above it to be summed. In the following example (from the MapForm Design Window) the printed position of the three fields at the lower right of the output (DISCOUNT, ADDL CHARGES, and TOTAL TAXES) will change depending upon the amount of data above it. In order to map these fields correctly, the “Offset Fields” feature must be utilized.

Identifying the offset fields

Quantity	Unit Price	Total Price
50.00	EA	1.7500
100.00	EA	.9800
10.00	EA	10.0000

DISCOUNT:	.00
ADDL CHARGES:	.00
TOTAL TAXES:	1,232.00

In this example we will map only the “Total Taxes” field. The DISCOUNT and ADDL CHARGES fields would be mapped in the same fashion.

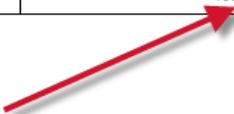
To utilize an offset field, within MapForm you must identify a text field (and its corresponding data field, or fields) and specify it as an offset field. This field will then appear in the Variable Reference window and can be moved into FormStamp in the same fashion that Floating Fields are moved. The text field is searched for by MapForm in order to determine the location of the data.

In the sample below, the word “TOTAL” represents the text field that will be searched for, along with its associated field directly to the right of it. The TOTAL TAXES field resides on page 3 of the printed output.

Add the Offset Field Variable to the Template

The "Total_1" variable can now be placed on a FormStamp template in the same manner that is used for Floating Fields. That is, find the variable in the Variable Reference window, then drag it to the desired location onto the template. The screen below shows that the "Total_1" field is mapped next to the TOTAL TAXES object previously created in FormStamp.

 Evisions Institute of Technology 410 Exchange ste. 250, Irvine, CA WWW.evisions.com 888.533.5993		Page 1	
Supplier: ARCO Manufacturing Co 123 Main Suite 100 Building 4 Anytown PA 19341		PO Number: Issue Date: 07/07/93 Delivery Date: 07/09/93 Contact originating department to confirm acceptance of PURCHASE ORDER and delivery date.	
Send Billing Invoice to: Evisions Institute of Technology 410 Exchange ste. 250 Irvine, CA 92602 ATTN: Accounts Payable Show PO number and your Federal Tax ID or Social Security Number on your invoice.	Ship to: 222 EAST ST. EAST CAMPUS #2 2nd COLLEGETOWN PA 1934		
Buyer	Terms		
Richard Tracy	2% 10 Days, Net 30		
Description	Quantity	Unit Cost	Total Cost
3110000000 Test length of description - XXXXXXXXXXXXXXXXXXXX	50.00 EA	1.7500	87.50
3120000000 Pens, Black, Fine Point	100.00 EA	.9800	98.00
3200000000 Supplies, Classroom	10.00 EA	10.0000	100.00
3210000000 Markers, Whiteboard	10.00 BC	3.0000	30.00
3110000000 Tablets, Ruled, 8.5x11 - Test length - xxxxxxxxxxxX	50.00 EA	1.7500	87.50
3120000000 Pens, Black, Fine Point	100.00 EA	.9800	98.00
FOB: FOB Shipping Point	TOTAL TAXES: <Total_1>		

Offset Field "Total_1" Added Here


Remember: Save your work before moving on to the next step!

Using CaptureForm

Introduction

Previous examples demonstrated how to map data from a sample input file and place it in a template. This example will demonstrate how to obtain data from a database using a SQL query and then place the data onto the FormStamp template.

The example will obtain the Purchase Order number from the application's database and place it next to the "PO Number" label on the template.

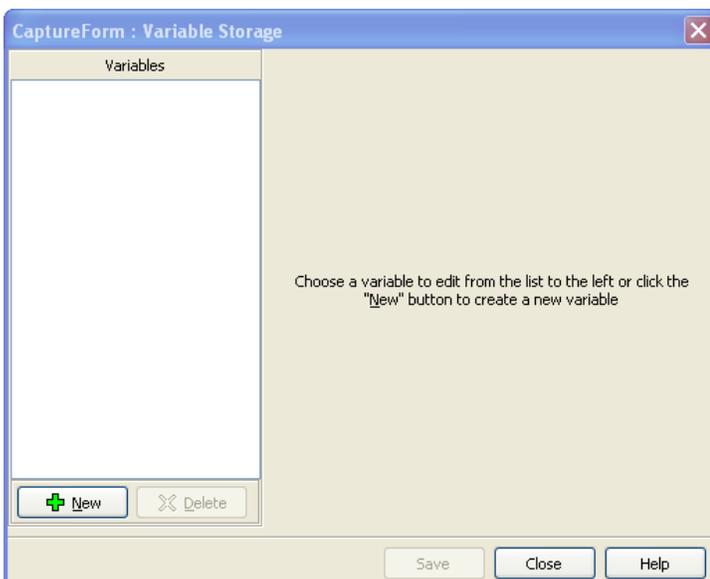
Adding CaptureForm to the Process Tree

The first step is to create an entry within the Print Process. Right-click on the Print Parameter icon and select **New >> SQL CaptureForm**. The Process Tree now contains an entry named "SQL CaptureForm" to store the query information.

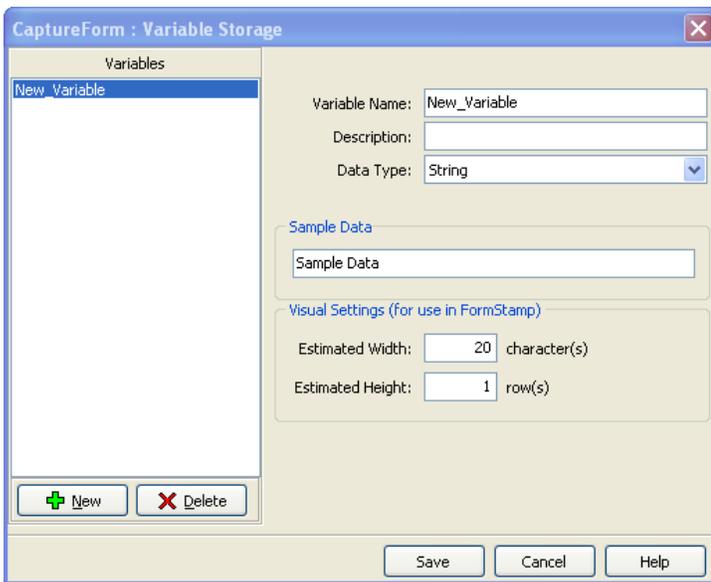


Creating a variable to contain results of a SQL query

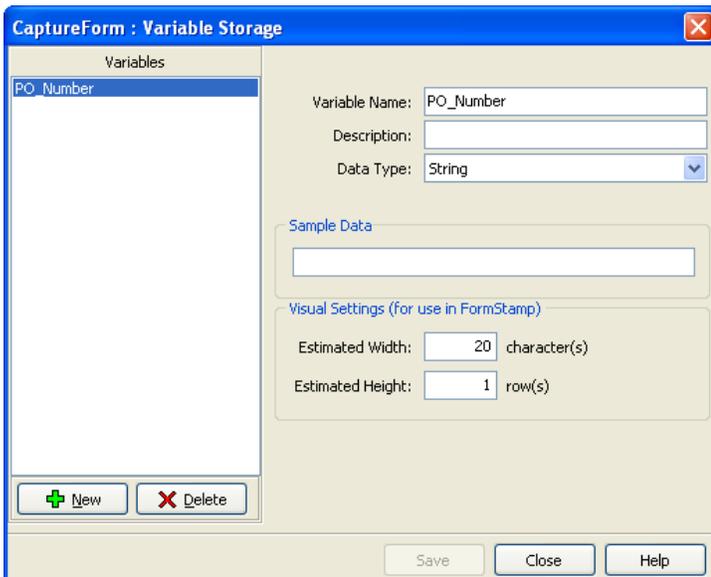
Next, double click the  icon in the Process Tree to bring up the Variable Storage Dialog where you will create a variable to store the PO number obtained from the database.



Click the "New" button to add a new variable see options for setting its properties.



Enter the variable name that you choose and enter text into the "Sample Data" field. The text entered will be displayed within FormStamp until the data is actually obtained from the database. We have chosen **PO_Number** as the variable name.



Note that the new variable **PO_Number** is now shown in the Variable Reference Window with an "SQL" icon preceding it. The icon indicates that the variable was created in CaptureForm.

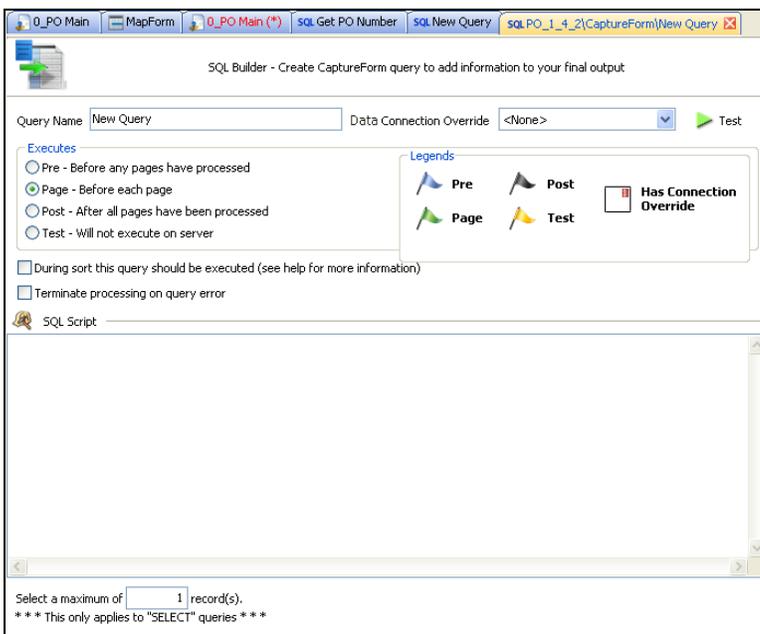


Building the SQL Query

The next step is to create the SQL query. To do this, right-click on the “SQL Capture Form” icon and select **New -> CaptureForm Query**. A “New Query” entry will now exist in the Process Tree.



Right-click on “New Query” to rename the query to “Get PO Number” then double click on the item to bring up the Design Window where you will enter the query.



The selection chosen under “Executes” determines when the query will execute during the process. This is indicated next to the query in the Process Tree with one of the colored flags in the Legends section.

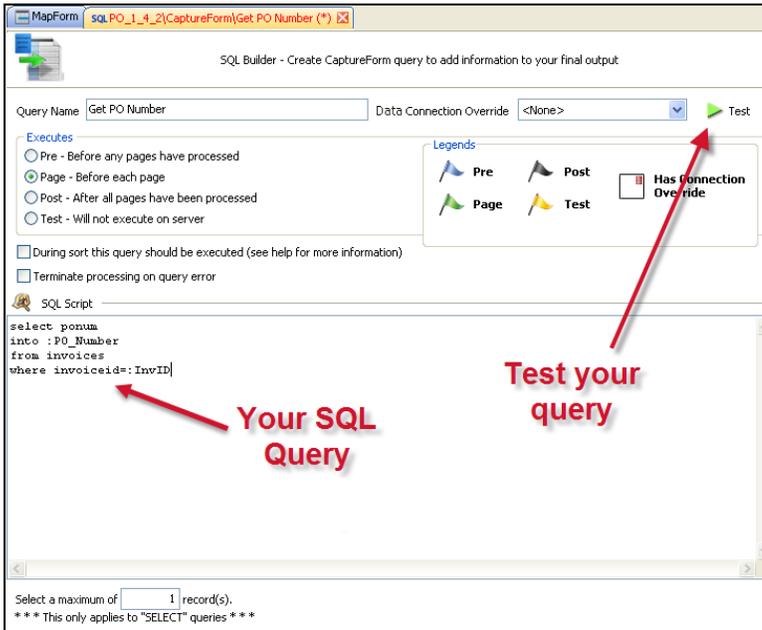
Enter a query that obtains the PO number from the application’s database and store it into the PO_Number variable. For example:

```
select ponum
into :PO_Number
from invoices
where invoiceid = :InvID
```

Note: Do not enter a semicolon at the end of your SQL statement. If you are copying a query from another application that uses semicolon notation, you should make sure to remove the semicolon when pasting the query into FormFusion.

For more information, see [Working with CaptureForm Queries](#).

Queries will execute in the order listed within the Process Tree if the same execute option is selected for multiple queries. Queries can be re-ordered within the Process Tree by right clicking the query, then selecting Move Up or Move Down.



Click the green  button to test the SQL script.

Adding the Variable to the Template

Bring up FormStamp. Since the PO_Number variable exists within the Variable Reference Window, it can be dragged into the FormStamp template in the same fashion as any other variable.

Evisions Institute of Technology
 410 Exchange ste. 250, Irvine, CA
 www.evisions.com 888.533.5993

Supplier:
 VendAddress

PO Number:
 Issue Date: **PODate**
 Delivery Date: **DeliverDate**

Contact originating department to confirm acceptance of PURCHASE ORDER and delivery date.

Send Billing Invoice to:
 Evisions Institute of Technology
 410 Exchange ste. 250
 Irvine, CA 92602
 ATTN: Accounts Payable

Ship to:
 ShipToAddress

Show PO number and your Federal Tax ID or Social Security Number on your invoice.

Buyer Terms

Buyer Terms

Description	Quantity	UC	Unit Price	Total Cost
Description	Quantity	UC	Unit Price	Amount

Drag PO_Number into this area

You have now completed the CaptureForm process. When your application runs, the PO Number will be extracted from the database and placed onto the template.

Using Headers and Footers

Introduction

Headers can be used when your output contains text that grows or shrinks on each page and the position of data below it depends upon the number of lines of text above it. This is to using Offset Fields. Mapping can be done using Offset Fields; however, if your output consists of a large number of fields whose location depends upon data above it, then use of Headers can be a more convenient way to perform the mapping rather than creating a large number of offset fields.

The following example is a repair bill from a fictitious auto repair shop containing 3 pages of output (each page for a different customer) in which the number of items repaired differs for each customer:

07/15/2004 *** ACME AUTO REPAIR ***
QUALITY WORK AT LOW PRICES

CUSTOMER:
John Doe
111 South Main Street
Anywhere, USA 91111
(714) 111-1111

Page 1 – (2 items)

07/16/2004 *** ACME AUTO REPAIR ***
QUALITY WORK AT LOW PRICES

CUSTOMER:
Harry James
111 South Main Street
Anywhere, USA 91111
(714) 111-1111

ITEM	QTY	LABOR COST	PARTS COST	TOTAL COST
OIL CHANGE	5	15.00	20.00	35.00
LUBE	1	15.00	2.00	17.00
WHEEL ALIGNMENT	1	75.00	10.00	85.00
FLUSH RADIATOR	1	75.00	20.00	95.00
REPLACE WIPERS	2	20.00	20.00	40.00

Total Cost \$272.00
THANK YOU FOR YOUR BUSINESS

Warranty on Parts 1 year

Page 2 – (5 items)

07/20/2004 *** ACME AUTO REPAIR ***
QUALITY WORK AT LOW PRICES

CUSTOMER:
John Smith
111 South Main Street
Anywhere, USA 91111
(714) 111-1111

ITEM	QTY	LABOR COST	PARTS COST	TOTAL COST
REPAIR FLAT TIRE	1	20.00	5.00	25.00

Total Cost \$25.00
THANK YOU FOR YOUR BUSINESS

Warranty on Parts 1 year
Warranty on Labor 90 days
ACME AUTO REPAIR
12345 West Hoover Blvd.
Los Angeles, CA 90045

Page 3 – (1 item)

Demonstrating the Need for a Header

Note that each bill from the [previous topic](#) contains a different number of repairs performed and the position of the “Total Cost” and all text beneath it depends on the number of items repaired. After mapping the date, customer, items repaired, total_cost, and warranty information for the first page within MapForm, the display appears as follows:

Floating Fields	1	2	3	4	5	6	7
customer	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890
date	07/15/2004		*** ACME AUTO REPAIR ***				
items_repaired			QUALITY WORK AT LOW PRICES				
total_cost							
warranty							
	CUSTOMER:						
	John Doe						
	111 South Main Street						
	Anywhere, USA 91111						
	(714) 111-1111						
	ITEM	QTY	LABOR COST	PARTS COST	TOTAL COST		
	OIL CHANGE	5	15.00	20.00	35.00		
	LUBE	1	15.00	2.00	17.00		
			Total Cost	\$52.00			
			THANK YOU FOR YOUR BUSINESS				
			Warranty on Parts	1 year			
			Warranty on Labor	90 days			
			ACME AUTO REPAIR				
			12345 West Hoover Blvd.				
			Los Angeles, CA 90045				

This is fine for page one, but when scrolling to page 2 you will see that the mapping is not correct since page 1 contains only 2 items repaired, but page 2 contains 5 items. Also, the “Total Cost” and “Warranty” information (which is below the dynamic text) is not mapped correctly on page 2. Similar problems occur on page 3 which only lists one item.

Floating Fields	1	2	3	4	5	6
customer	123456789012345678901234567890123456789012345678901234567890123456789					
date	07/16/2004		*** ACME AUTO REPAIR ***			
items_repaired			QUALITY WORK AT LOW PRICES			
total_cost						
warranty						
	4		CUSTOMER:			
	6		Harry James			
	7		111 South Main Street			
	8		Anywhere, USA 91111			
	9		(714) 111-1111			
	10					
	1	ITEM	QTY	LABOR COST	PARTS COST	TOTAL COST
	2					
	3	OIL CHANGE	5	15.00	20.00	35.00
	4	LUBE	1	15.00	2.00	17.00
	5	WHEEL ALIGNMENT	1	75.00	10.00	85.00
	6	FLUSH RADIATOR	1	75.00	20.00	95.00
	7	REPLACE WIPERS	2	20.00	20.00	40.00
	8					
	9					
	20			Total Cost	\$272.00	
	1			THANK YOU FOR YOUR BUSINESS		
	2			Warranty on Parts	1 year	
	3			Warranty on Labor	90 days	
	4			ACME AUTO REPAIR		
	5			12345 West Hoover Blvd.		
	6			Los Angeles, CA 90045		
	7					

To obtain correct mapping on all pages, you need to create a header area that contains the fields that can vary in length, and also modify certain properties of each field within the header.

Note: Headers are required only for certain templates that contain text areas that grow/shrink from page-to-page.

Defining the Header Area

After creating the floating fields as shown in the figure on the previous page, you then need to determine the scope of the header area. The header must contain all of the data that varies in length between each page. In this example the top of the header begins on line one and ends on the line of text containing "THANK YOU FOR YOUR BUSINESS".

To define the header, click the  icon on the toolbar to bring up the "MapForm Header/Properties" dialog. In this dialog, we will enter text to be searched for to define the bottom of the header. We will search for the text "THANK" (which is between columns 30 and 34). This is similar to the search method used to define offset fields.

MapForm Header/Footer Properties

Modify the properties describing the size of the header for this MapForm. Click 'Help' for detailed instructions on setting these fields.

Header **Footer**

Header Size:

Header sizing:

- The size of the header is fixed to the above 'Header Size' value
- 'Search Text' is located between Start Column and Stop Column

Search Text:

Offset:

Start Column: Stop Column:

OK Cancel Apply Help

After defining the header, it appears as a pink shaded area in MapForm.

```

07/15/2004          *** ACME AUTO REPAIR ***
                    QUALITY WORK AT LOW PRICES

CUSTOMER:
John Doe
111 South Main Street
Anywhere, USA 91111
(714) 111-1111

ITEM          QTY      LABOR COST      PARTS COST      TOTAL COST
OIL CHANGE    5          15.00           20.00           35.00
LUBE          1           15.00            2.00           17.00

Total Cost    $52.00
THANK YOU FOR YOUR BUSINESS

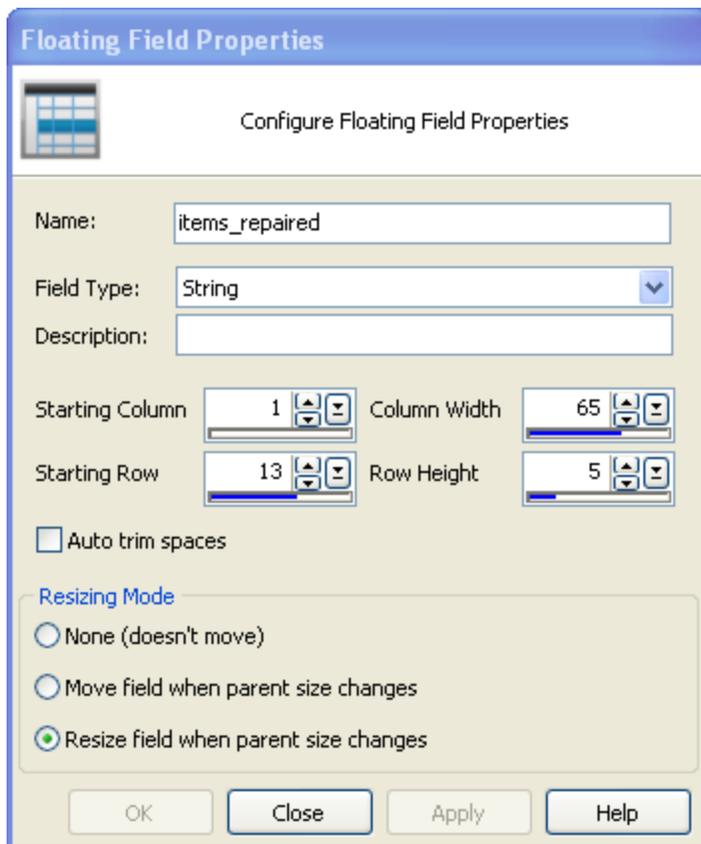
Warranty on Parts  1 year
Warranty on Labor  90 days
ACME AUTO REPAIR
12345 West Hoover Blvd.
Los Angeles, CA 90045
  
```

Resizing fields within the header

When scrolling from page-to-page, you will see that the pink shaded header area correctly grows and shrinks along with the number of items repaired (always ending at the line containing "THANK"). However, when scrolling through each page you will also notice that the mapping of the floating fields is still incorrect on pages 2 and 3.

This is because the header acts as a "parent" to the floating fields within it and the floating fields must move within the parent area as the parent changes in size. For each floating field within the header you must select an appropriate resize property for the field. This is done by bringing up the "Floating Field Properties" dialog by double clicking on the floating field then selecting the "Resize field when parent size changes" button.

For this example, resizing of the items_repaired field is necessary and is demonstrated in the figure below.



The screenshot shows the "Floating Field Properties" dialog box. The title bar reads "Floating Field Properties" and the main title is "Configure Floating Field Properties". The dialog contains the following fields and options:

- Name: items_repaired
- Field Type: String (dropdown menu)
- Description: (empty text box)
- Starting Column: 1 (spin box)
- Column Width: 65 (spin box)
- Starting Row: 13 (spin box)
- Row Height: 5 (spin box)
- Auto trim spaces
- Resizing Mode section with three radio buttons:
 - None (doesn't move)
 - Move field when parent size changes
 - Resize field when parent size changes

At the bottom of the dialog are four buttons: OK, Close, Apply, and Help.

You need to do the same for the "Total Cost" field since it moves as well. However since the size of this field is constant (one row), you need to select the "Move Field when parent size changes" (instead of "Resize field when parent size changes").

Verification

After the above steps have been completed, the mapping is now correct as can be seen by scrolling through each page:

```
07/15/2004          *** ACME AUTO REPAIR ***
                    QUALITY WORK AT LOW PRICES

CUSTOMER:

John Doe
111 South Main Street
Anywhere, USA 91111
(714)111-1111

ITEM          QTY    LABOR COST    PARTS COST    TOTAL COST
OIL CHANGE    5         15.00         20.00         35.00
LUBE          1         15.00          2.00         17.00

Total Cost 852.00
THANK YOU FOR YOUR BUSINESS

Warranty on Parts 1 year
Warranty on Labor 90 days
ACME AUTO REPAIR
12345 West Hoover Blvd.
Los Angeles, CA 90045
```

```
07/16/2004          *** ACME AUTO REPAIR ***
                    QUALITY WORK AT LOW PRICES

CUSTOMER:

Harry James
111 South Main Street
Anywhere, USA 91111
(714)111-1111

ITEM          QTY    LABOR COST    PARTS COST    TOTAL COST
OIL CHANGE    5         15.00         20.00         35.00
LUBE          1         15.00          2.00         17.00
WHEEL ALIGNMENT 1         75.00         10.00         85.00
FLUSH RADIATOR 1         75.00         20.00         95.00
REPLACE WIPERS 2         20.00         20.00         40.00

Total Cost 8272.00
THANK YOU FOR YOUR BUSINESS

Warranty on Parts 1 year
Warranty on Labor 90 days
ACME AUTO REPAIR
12345 West Hoover Blvd.
Los Angeles, CA 90045
```

Mapping is now correct for each page.

You can now move on to FormStamp and place the variables created above on the FormStamp.

Conditional Printing/Processing

Introduction

Some situations require that certain fields should print (or not print) based on a specified criteria. A good example of this would be a signature limit on a purchase order. Your company policy could dictate that purchase orders less than a certain value would print a graphic image of a signature, but purchase orders above the limit would require an actual hand-written signature, thus no signature need be printed. This situation could be handled easily by using FormFusion's Conditional Print feature.

The following example uses a PO where a signature is printed on the PO if the total is less than \$200. Page one of the output for this example contains a PO with a total of \$195.50, and page two has a total of \$285 (shown in the image below). The image of the signature will print on page one, but the field will be left blank on page two.

An individual field or entire page can be printed conditionally based upon specified criteria.

 Evisions Institute of Technology 14522 Myford Rd, Irvine, CA 92606 www.evisions.com 888.533.5993		Page 1																												
Supplier: ARCO Manufacturing Co., Inc. 123 Main Suite 100 Building 4 Anytown PA 19341 Mexico		PO Number: Issue Date: 07/07/93 Delivery Date: 07/09/93 Contact originating department to confirm acceptance of PURCHASE ORDER and delivery date.																												
Send Billing Invoice to: Evisions Institute of Technology 14522 Myford Rd. Irvine, CA 92606 ATTN: Accounts Payable Show PO number and your Federal Tax ID or Social Security Number on your invoice.	Ship to: 222 EAST ST. East St. Discount Emporium Side door #2 2nd COLLEGETOWN PA 19341 Mexico																													
Buyer	Terms																													
Richard Tracy	% 10 Days, Net 30																													
<table border="1"> <thead> <tr> <th>Description</th> <th>Quantity</th> <th>Unit Cost</th> <th>Total Cost</th> </tr> </thead> <tbody> <tr> <td>3110000000 Legal Size Paper</td> <td>50.00 EA</td> <td>1.7500</td> <td>87.50</td> </tr> <tr> <td>3120000000 Pens, Black, Fine Point</td> <td>100.00 EA</td> <td>.9800</td> <td>98.00</td> </tr> <tr> <td>3200000000 Supplies, Classroom</td> <td>1.00 EA</td> <td>10.0000</td> <td>10.00</td> </tr> <tr> <td colspan="3">DISCOUNT:</td> <td>.00</td> </tr> <tr> <td colspan="3">ADDL CHARG:</td> <td>.00</td> </tr> <tr> <td colspan="3">TOTAL TAXES:</td> <td>.00</td> </tr> </tbody> </table>		Description	Quantity	Unit Cost	Total Cost	3110000000 Legal Size Paper	50.00 EA	1.7500	87.50	3120000000 Pens, Black, Fine Point	100.00 EA	.9800	98.00	3200000000 Supplies, Classroom	1.00 EA	10.0000	10.00	DISCOUNT:			.00	ADDL CHARG:			.00	TOTAL TAXES:			.00	
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DISCOUNT:			.00																											
ADDL CHARG:			.00																											
TOTAL TAXES:			.00																											
FOB: FOB Shipping Point	TOTAL: 195.50																													
Packing slip must accompany all shipments. Purchase Order number must appear on all packages, invoices, and correspondence. ALL TERMS & CONDITIONS LISTED ON THE COLLEGE WEB SITE. http://www.evisions.com , APPLY. The college reserves the right to cancel this order if delivery is not made by agreed-upon delivery date. Evisions Institute of Technology is exempt by statute from payment of all federal, state and municipal excise, sales and other taxes. Federal ID and tax exemption number is 93-xxxxxx.																														
 AUTHORIZED SIGNATURE REQUIRED																														
EIT is an affirmative action equal opportunity institution.																														

Template Design

The PO form shown in the figure above was developed within FormStamp and contains the graphic image of the signature. This is the object

that requires print conditions.

Identify the Field to be Used for the Print Criteria

The MapForm image below shows the "Total" field that will be used as the criteria for printing the signature.

100.00	EA	.9800	98.00
10.00	EA	10.0000	100.00
		DISCOUNT:	.00
		ADDL CHARGES:	.00
		TOTAL TAXES:	.00
			285.00

The "Total" field 

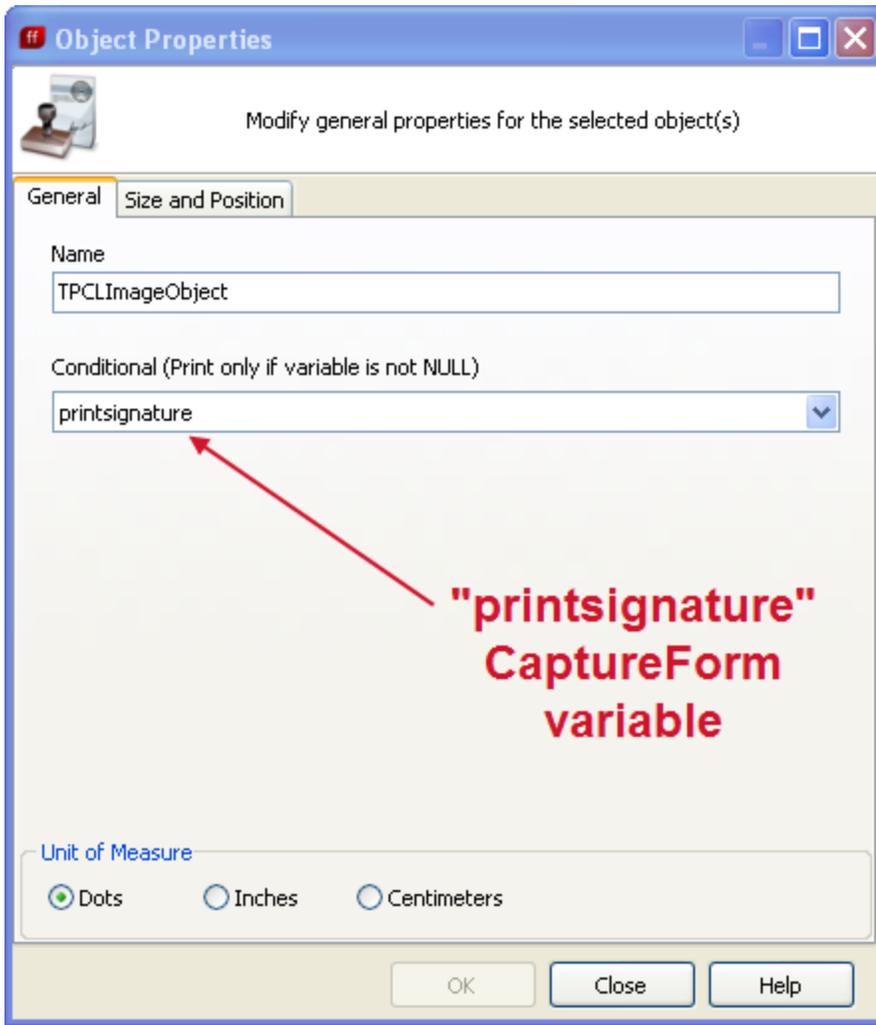
Develop the SQL Query

The CaptureForm query is written, which, based upon the value of the Total field sets the printsignature variable to "not NULL" or leaves the variable in a NULL state. Note that `printsignature` is set to NULL if the total is greater than 200, and "not NULL" if the value of Total is less than or equal to 200. FormFusion will check if the value is "null" or "not NULL", so although 'true' was utilized, any string that is not NULL could have been used.

```
select 'true'  
into :printsignature  
from dual  
where :Total <=200
```

Assign SQL Variable to the Object

Next, open FormStamp then bring up the Object Properties dialog for the signature object by right clicking on the object then selecting Format Object. For this example, the object is a graphic image of a signature. The following dialog will then be displayed:



Select the printsignature variable, which determines if the object (the signature in this case) will print. If printsignature is not a null value, FormFusion will print the signature.

This completes the process. The output will now print as shown on the next page.

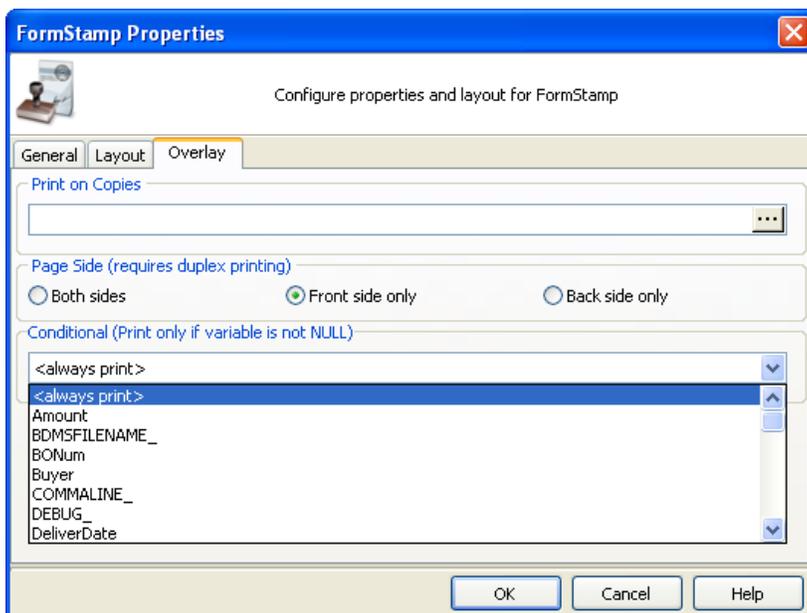
FOB: <input type="text" value="FOB Shipping Point"/>	TOTAL: <input type="text" value="195.50"/>
<p>Packing slip must accompany all shipments. Purchase Order number must appear on all packages, invoices, and correspondence. ALL TERMS & CONDITIONS LISTED ON THE COLLEGE WEB SITE, http://www.evisions.com, APPLY. The college reserves the right to cancel this order if delivery is not made by agreed-upon delivery date.</p> <p>Evisions Institute of Technology is exempt by statute from payment of all federal, state and municipal excise, sales and other taxes. Federal ID and tax exemption number is 93-xxxxxxx.</p> <p style="text-align: right;"><i>John M Smith</i></p> <p>EIT is an affirmative action equal opportunity institution.</p>	

FOB: <input type="text" value="FOB Shipping Point"/>	TOTAL: <input type="text" value="285.00"/>
<p>Packing slip must accompany all shipments. Purchase Order number must appear on all packages, invoices, and correspondence. ALL TERMS & CONDITIONS LISTED ON THE COLLEGE WEB SITE, http://www.evisions.com, APPLY. The college reserves the right to cancel this order if delivery is not made by agreed-upon delivery date.</p> <p>Evisions Institute of Technology is exempt by statute from payment of all federal, state and municipal excise, sales and other taxes. Federal ID and tax exemption number is 93-1000000.</p>	
EIT is an affirmative action equal opportunity institution.	_____ AUTHORIZED SIGNATURE REQUIRED

Summary

This example has demonstrated conditional printing of an object based on the value of a field. You can also conditionally print any object on a FormStamp by editing its properties.

Conditional printing can also be applied to an entire form. To accomplish this, open the FormStamp and right click anywhere in the Design Window and go to Form Properties. In the FormStamp Properties dialog, go to the Overlay tab. You can then select a variable to be used to determine if the form will be printed. Note that the default is <always print>.



Procedure

The general procedure for conditional printing of an object is as follows:

1. Design your template, which will contain all objects. Use of conditional printing will determine if some objects need not be printed.
2. Identify a variable to be used as the criteria for printing. For this example the PO total will be used for the printing criteria.
3. Develop a CaptureForm query which, based on the value of the variable, sets a CaptureForm variable to true or false. The true/false state of the variable will be used to determine if the object in question will print.

4. Within FormStamp, for the field to be printed conditionally, assign the CaptureForm variable to the object to be printed conditionally. This is done within the Object Properties dialog that is displayed after right clicking the object within FormStamp.

Template Design

The PO form shown in the figure on the [Conditional Printing/Processing](#) page was developed within FormStamp and contains the graphic image of the signature. This is the object that requires conditionally printing.

Identify the field to be used for the print criteria

The MapForm image below shows the field Total that will be used as the criteria for printing the signature.

100.00	EA	.9800	98.00
10.00	EA	10.0000	100.00
DISCOUNT:			.00
ADDL CHARGES:			.00
TOTAL TAXES:			.00
			285.00

The "Total" field 

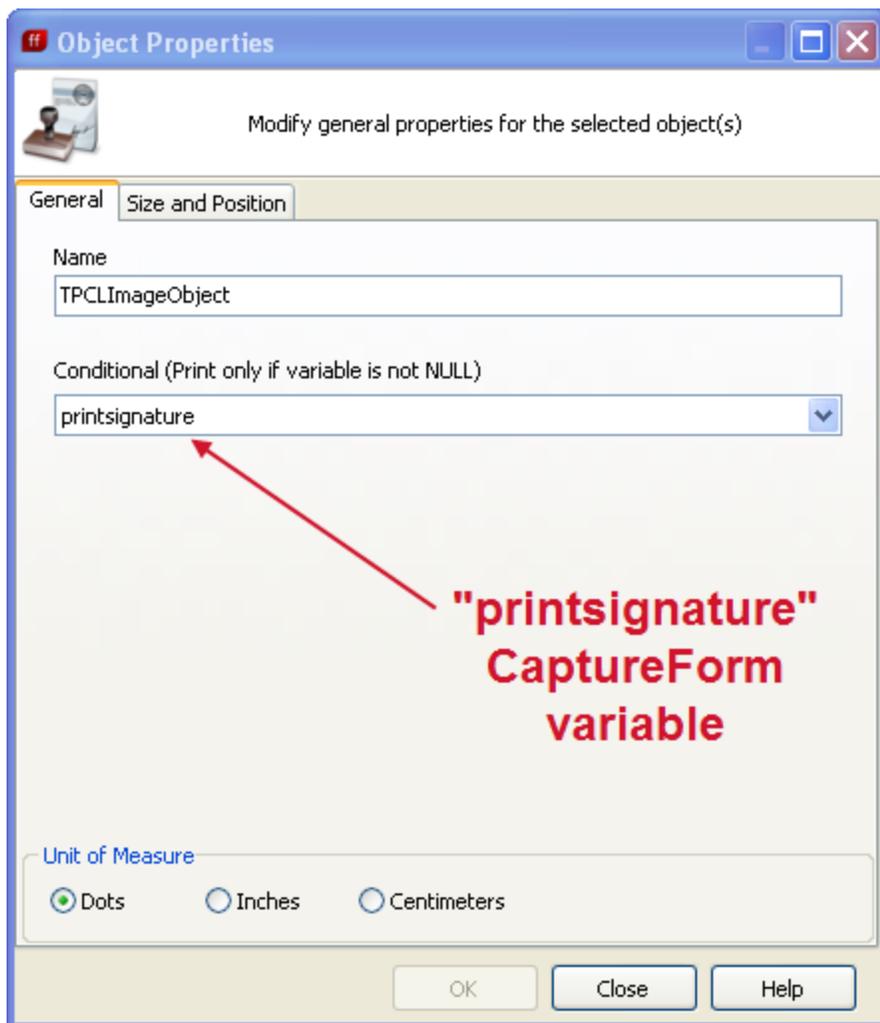
Develop the SQL query

Next, the CaptureForm query is written, which, based upon the value of the Total field sets the printsignature variable to "not NULL" or leaves the variable in a NULL state. Note that printsignature is set to NULL if the total is greater than 200, and "not NULL" if the value of Total is less than or equal to 200. FormFusion will check if the value is "null" or "not NULL", so although 'true' was utilized, any string that is not NULL could have been used.

```
select 'true'  
into :printsignature  
from dual  
where :Total <=200
```

Assign SQL variable to the object

Next, open FormStamp then bring up the Object Properties dialog for the signature object by right clicking on the object then selecting Format Object. For this example, the object is a graphic image of a signature. The following dialog will then be displayed:



Select the printsignature variable which determines if the object (the signature in this case) will print. If printsignature is not a null value, FormFusion will print the signature.

This completes the process. The output will now print as shown on the next page.

FOB: <input type="text" value="FOB Shipping Point"/>	TOTAL: <input type="text" value="195.50"/>
<p>Packing slip must accompany all shipments. Purchase Order number must appear on all packages, invoices, and correspondence. ALL TERMS & CONDITIONS LISTED ON THE COLLEGE WEB SITE, http://www.evisions.com, APPLY. The college reserves the right to cancel this order if delivery is not made by agreed-upon delivery date.</p> <p>Evisions Intstitute of Technology is exempt by statute from payment of all federal, state and municipal excise, sales and other taxes. Federal ID and tax exemption number is 93-xxxxxxx.</p> <p style="text-align: right;"><i>John M Smith</i></p> <p>EIT is an affirmative action equal opportunity institution.</p>	

FOB: <input type="text" value="FOB Shipping Point"/>	TOTAL: <input type="text" value="285.00"/>
<p>Packing slip must accompany all shipments. Purchase Order number must appear on all packages, invoices, and correspondence. ALL TERMS & CONDITIONS LISTED ON THE COLLEGE WEB SITE, http://www.evisions.com, APPLY. The college reserves the right to cancel this order if delivery is not made by agreed-upon delivery date.</p> <p>Evisions Intstitute of Technology is exempt by statute from payment of all federal, state and municipal excise, sales and other taxes. Federal ID and tax exemption number is 93-xxxxxxx.</p> <p style="text-align: right;">_____ AUTHORIZED SIGNATURE REQUIRED</p> <p>EIT is an affirmative action equal opportunity institution.</p>	

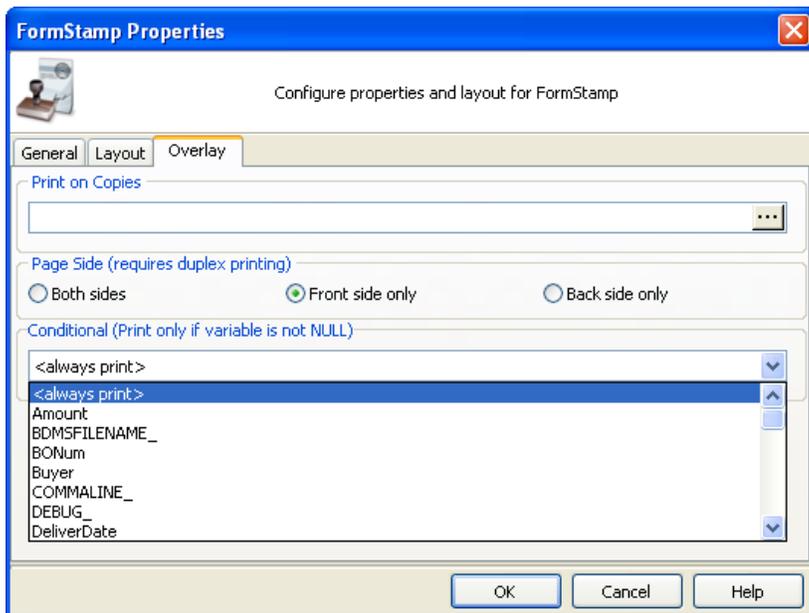
Summary

Conditional printing at the object level

You can conditionally print any object on a FormStamp by editing its properties.

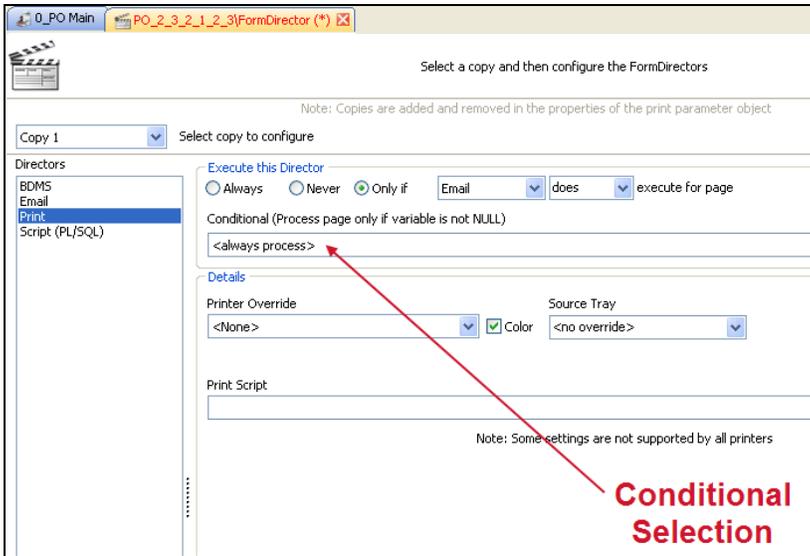
Conditional printing at the form level

Conditional printing can also be applied to an entire form. To accomplish this, open the FormStamp and right click anywhere in the Design Window and go to Form Properties. In the FormStamp Properties dialog, go to the Overlay tab. You can then select a variable to be used to determine if the form will be printed. Note that the default is <always print>.



Conditional processing at the page level

The Imaging, Email, Print and Script Directors contain similar conditional selections, which control conditional processing for each page of the input file. The figure below shows the Conditional selection for PrintDirector.



Overlays and Multiple Copies

You may have a need to include watermarks (overlays) on the document to be printed. FormFusion provides the ability to place different overlays on each copy of the printed output or to include overlays on some copies, and not on others. Overlays typically consist of graphics images that are added to FormStamp. Using the FormStamp Properties dialog for a graphics image, you can specify on which copy each image is to be printed.

For example, assume you want the overlay to contain "CONFIDENTIAL" on the first copy, and no overlay on any other copies. The figure below shows the copy of the document containing the overlay.

The FormStamp objects used for this example are shown in the figures below. The objects are named in the Process Tree in the left image. The a_Confidential FormStamp is the image in the middle, and the b_PO Main is the image on the right.

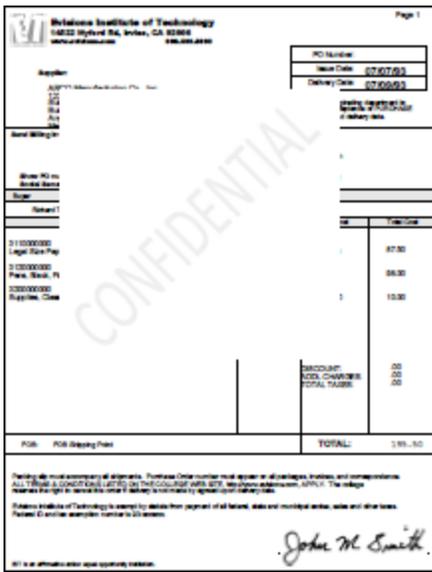
PO

- SQL CaptureForm
- FormDirector
- MapForm
- a_Confidential
- b_PO Main

CONFIDENTIAL

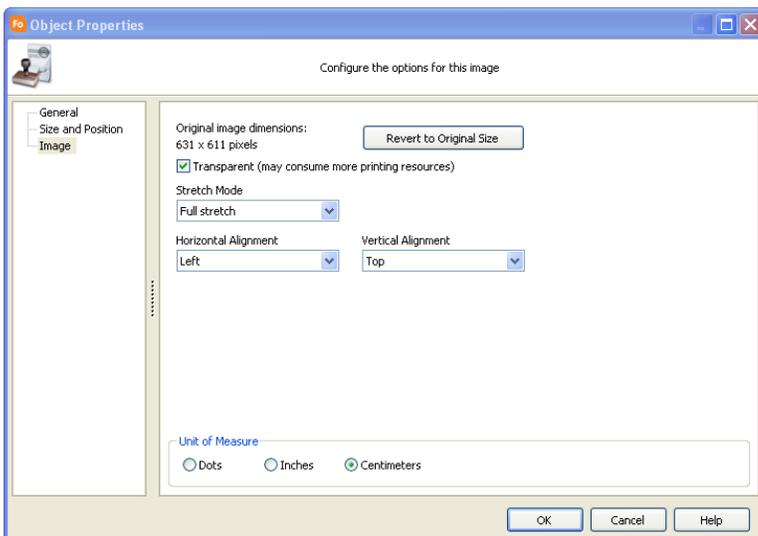
For the overlay to print as expected, you MUST order the FormStamps in the process tree such that the FormStamp containing the overlay appears before the document. FormFusion lists FormStamp objects alphabetically in the process tree. Since FormFusion executes the FormStamp objects in the order listed, be sure to name the FormStamp objects such that the FormStamp containing the graphics image

(overlay) appears first. This is why the FormStamp objects for this example are prefixed by "a" and "b" - the overlay must be processed before the document. If the order is reversed, the overlay will cover-up the text as shown in the figure below.



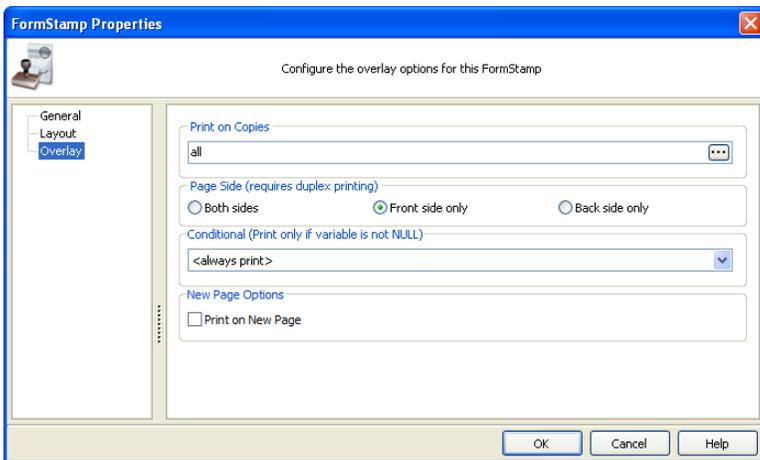
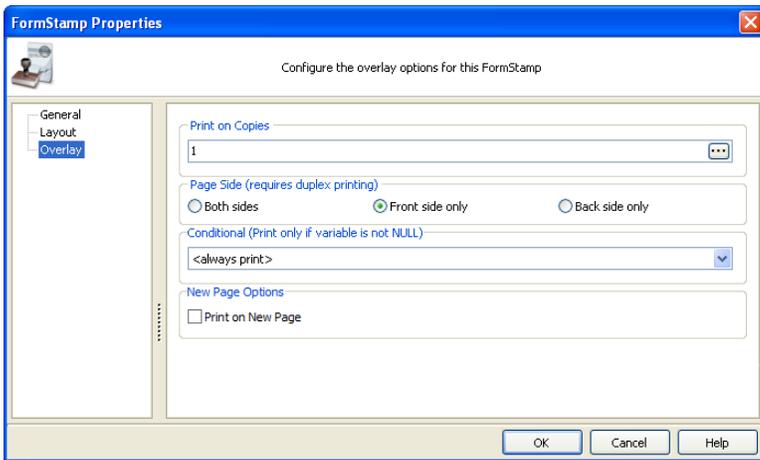
For the overlay (the graphics image) to show through clear areas in the document, check the **Transparent** box within the Object Properties dialog for the image as shown below.

To get to the Object Properties dialog, right-click the object and select **Format Object**.



The figures below show the FormStamp Properties for both the overlay and document objects. The FormStamp Property for the document would be set to **Print on Copies = all**. The FormStamp Property for the overlay would be set to **Print on Copies = 1**. Therefore, the document prints on all copies, but the overlay prints on only the first copy.

To show the FormStamp Properties dialog, right-click on the FormStamp in the Process Tree and select **Properties**.



Although this is a simple example, the same principles are applied if your document requires several copies, each with a different overlay to be applied. Just be sure to order (name) the FormStamp objects such that the overlay object appears before the document object in the process tree.

Security and Permissions

Ability to Run FormFusion Jobs

One of the features of FormFusion is that it is completely invisible to the end user. If the user can run a job in the ERP system, they can run it through FormFusion as long as the template has been set up by a template developer. To run a job through FormFusion, the user specifies the print parameter for that template, and runs it normally. The user does not need any special privileges or permissions to do this since the job itself runs as the MAPS user in the evicfg file.

Access to FormFusion Configuration

The Administer Environments area of FormFusion can only be accessed by administrators. It is grayed out for other user types.

Template Development Permissions

There are three areas where permissions are given or denied to template developers:

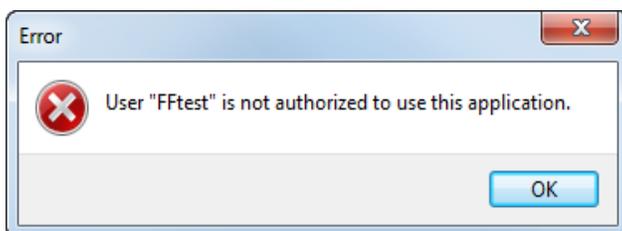
- Permissions in MAPS determine whether a MAPS user can access FormFusion.
- Object security within FormFusion controls access to individual environments, templates, etc.
- FormFusion 3.3 and higher locks templates that are currently being edited, so that only one developer can work on a given template at a time.

MAPS Authorizations

Developing FormFusion templates requires a login to MAPS. Similar to the evicfg MAPS user, this user must be authorized in MAPS to use the FormFusion application, the data connection(s) to the database(s), and any printers or email servers that will be used with FormFusion. Refer to the MAPS documentation for more information on this topic.

Application

A user who does not have permission to use the FormFusion application will see FormFusion in the list, but will receive an error when attempting to log in:



To give permissions, a MAPS administrator must go to the Applications tab of the MAPS Configuration Tool, select FormFusion, and add the user or group the user is a member of in the “authorized for use with” pane on the right.

Data Connection

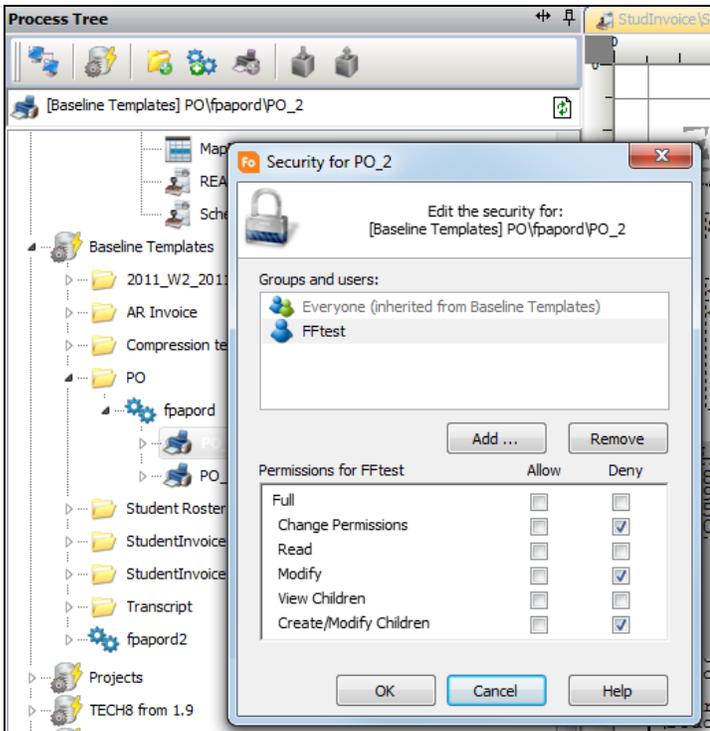
- Template developers need permissions to use the database connection that is being used to run CaptureForm queries.
- Developers can only see data connections that they are authorized to use. When overriding the default connection set in the environment, the developer needs to be authorized for the new connection.
- In order to test a template or queries, the developer needs to be able to use the data connection when logged in as their own username. Note that when calling FormFusion from a host system, the user running the job is the user in the evicfg file. In contrast, when a developer logs in to FormFusion, any jobs they run via test print or queries run using the test button will run as the user they are logged in as.
- The data connection needs to be set up correctly, with a valid database username/password specified for each user or group that has been authorized to use the connection. If the database credentials are not valid, running the template will produce an error: `ORA-00942: table or view does not exist`.
- To see what database credentials are assigned to a specific MAPS user, go to the Data Connections screen in MAPS and select the connection being used with this template. Click Edit Connection. On the User/Group rules tab, find the user or group this user is a member of, and look on the right to see how they are connecting.

Printers and Email Servers

If test printing templates from FormFusion, the developer needs to be authorized in MAPS for any printers or mail servers they will be using. Otherwise, they can test running jobs through the ERP system, which runs all FormFusion jobs as the evicfg user. It is significantly easier and faster to test print from FormFusion, since the same input file can be used over and over.

FormFusion Object Security

It is also possible to set security on individual objects in FormFusion. To do so, log in as an administrator user type (or another user with appropriate permissions granted in MAPS), right-click on the object, and go to Security.



Non-administrators can view the security permissions for objects they have permissions to view, but cannot edit the permissions unless they have the "change permissions" privilege. Otherwise, specific users and groups can be denied access to read, modify, change permissions, etc. on any FormFusion object.

FormFusion objects are organized into a tree structure in which some objects are children of other objects. For example, a print parameter is the "child" of a process (which is the print parameter's parent). The permissions below relate to what a user can do to an object and/or the object's children.

Select a user or group from the list to configure permissions, or click the **Add . . .** button to add a new user or group to the list. You can Allow or Deny any of the following:

- **Full:** Perform any action, including modifying permissions for any user, including themselves. Checking this option has the same effect as checking all the other options individually.
- **Change Permissions:** Modify permissions for any user, including themselves. Note that this permission is the same in some respects as Full, since the user could easily enable Full if granted Change Permissions.
- **Read:** Allows the user to open and read child objects of the selected object without the permission to make any changes.

- **Modify:** Create or Modify child objects of the selected object. Typically this permission would be placed on a folder to enable children to be created. If you cannot determine why a given user or group is able to Create or Modify certain objects, examine the parent of the object in question for this permission.
- **View Children:** View the object and the children of the object. Typically this permission would be placed on a folder or process to enable children of that object to be viewed. If you cannot determine why a given user or group is able to see a given object, examine the parent of the object in question for this permission.
- **Create/Modify Children:** Create or Modify child objects of the selected object. Typically this permission would be placed on a folder, process or print parameter to enable children to be created. If you cannot determine why a given user or group is able to Create or Modify certain objects, examine the parent of the object in question for this permission.

To remove security for a user or group, select the user or group that needs to be removed and click the **Remove** button. Note that they may still have permissions due to membership in other groups.

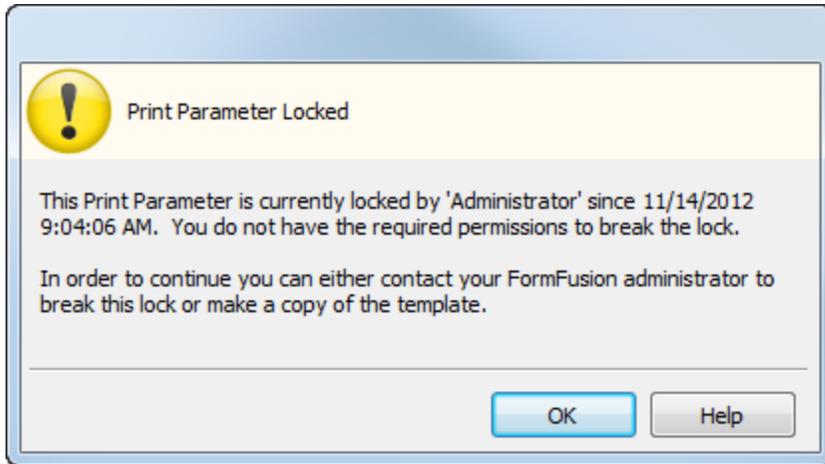
Group vs. user security: User permissions are a sum of all of the group permissions the user has. However, any security defined on an individual user supersedes all group security.

Inherited permissions: Objects in FormFusion automatically inherit the permissions of their parent unless otherwise specified.

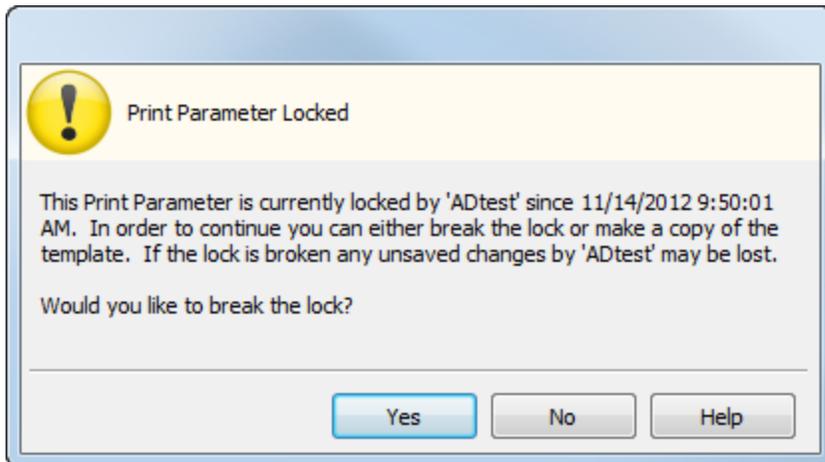
“Everyone” group: All MAPS users are automatically a member of the “Everyone” group. It is often a good policy to deny permissions to the “Everyone” group once other groups have been established.

Template Locking

FormFusion 1.9 had a feature that would prevent two users from editing the same template at the same time. This has been brought back in version 3.3. If someone is already in a template, the second person who tries to access it sees a message:



Administrator user types have the option of breaking the lock. This can be useful in situations where a user has left a template open and is not available to release the lock:

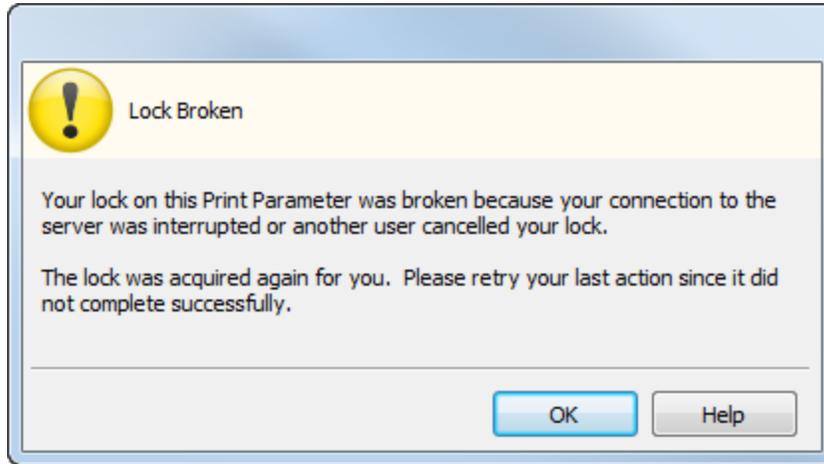


Clicking "Yes" requires the administrator to type the word "YES" to confirm, and then breaks the user's lock.

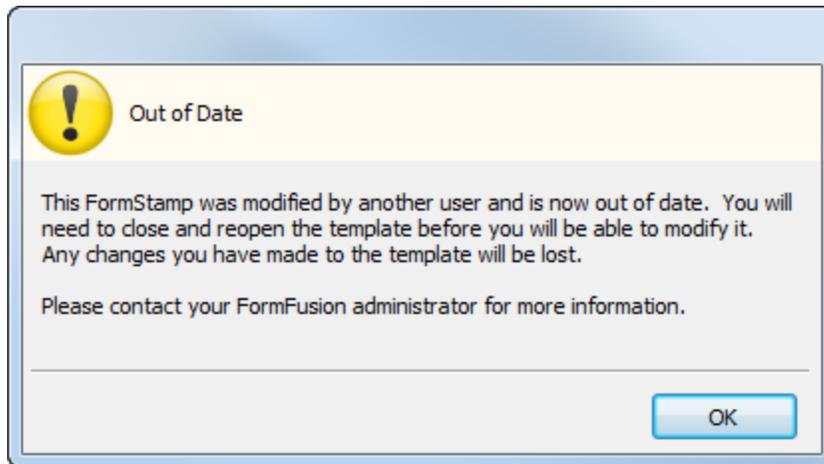
Important note: After losing their lock, if someone else makes changes to the template then the original user will be unable to save any changes they may have made. For this reason, an administrator should only break a lock when absolutely necessary.

Template locks can also be broken if the user's connection to MAPS has been interrupted (user lost Internet access, MAP server restarted, etc.). If a user has been making changes and lost their lock, one of three situations will occur when they attempt to save:

- If no one else has opened the template since the user lost their lock, FormFusion will automatically reacquire it.



- If another user has opened the template, is still working in it, but has not saved any changes, the original user sees the message indicating that the template is currently locked by that user and cannot be edited.
- If another user has made changes to the template and saved them, any work the original user made will be lost, and they will be prompted to reopen the FormStamp to get the updated version.



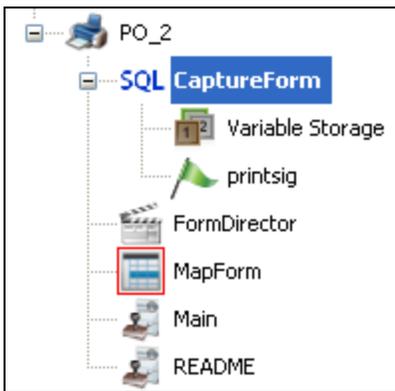
Saving Your Data

As discussed in several examples, when using one of the FormFusion components (MapForm, FormStamp, etc.) you need to save your work prior to moving on to another component.

For example, if a floating field is created within MapForm and you move on to FormStamp without saving the changes, the field will not be listed within the Variable Reference. After saving your data, the field will then be available to other FormFusion components.

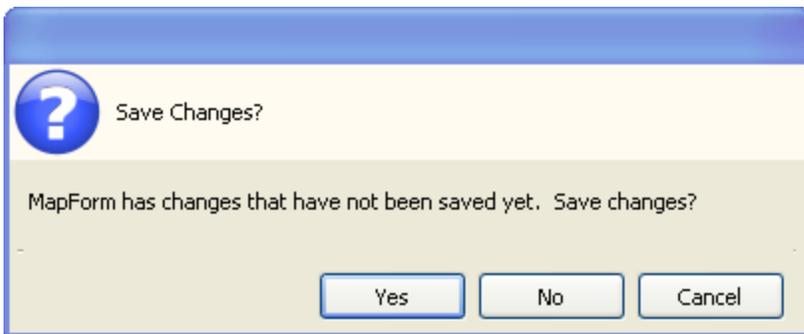
To assist you in remembering to save your work, several reminders have been implemented as described below.

When making any change within the Design Area for any component, a red box will be placed around the corresponding component within the Process Tree which indicates that changes have been made but not have been saved. The figure below shows that changes to MapForm were made but have not been saved.



It is possible to have more than one component waiting for changes to be saved. In this case, each component will be surrounded by the red box. The data within each component must be saved individually. Double-click on the component, click the Save icon on the toolbar, then the red box will be removed for that component. Do this for each component that you want data to be saved.

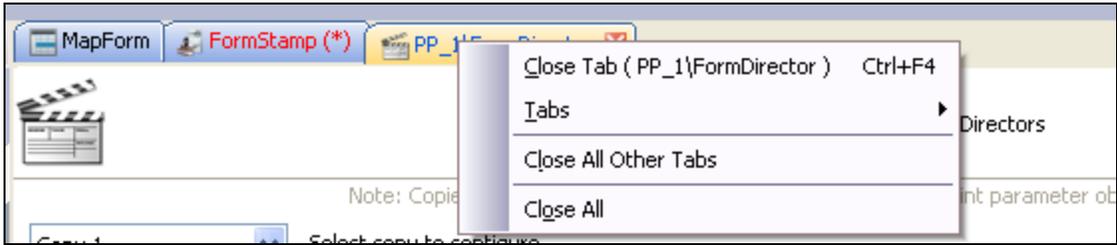
As an additional reminder, when you close the Design Area, FormFusion will ask if you wish to save your data (see the figure below) giving you another opportunity to decide if you wish to save your data.



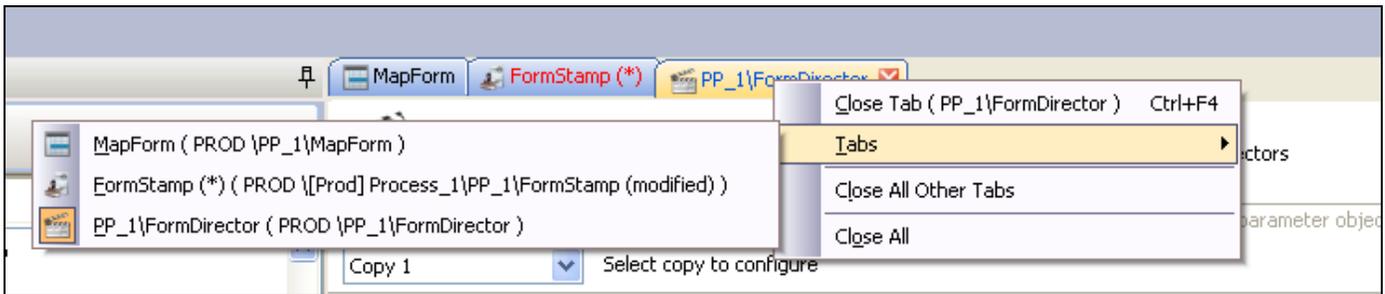
A further reminder to save your data has been implemented as shown in the figure below. This is an image of the tabs that appear on the top of the Design Area which indicate which components are in use. The FormStamp tab is displayed in red which serves as another reminder to save your data.



Also note the options available to you by right-clicking any of the tabs. You have various options for closing the tabs, or obtaining the location within the Process Tree of the component used in the tab.



When choosing the Tabs menu item, yet another reminder to save your data is presented. Note in the figure below that FormStamp has the phrase “(modified)” which indicates that you have modified data within FormStamp but have not saved it.



Tip: Right-clicking on any of the tabs within the Design Area provides a convenient way to close individual or all tabs. It also provides a method to view where in the Process Tree the component (MapForm, FormStamp, etc.) is located.

FormDirector

Introduction

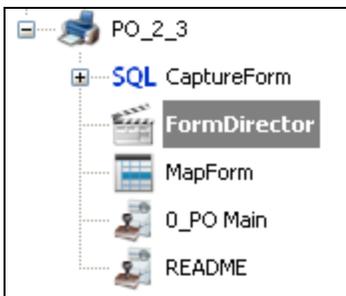
A FormDirector is the component of a template that directs output from FormFusion to a variety of destinations (email, imaging, script, and/or printer). Logic built into the FormDirector allows you to create a workflow routine based on successful completion of the various output options. For example, FormFusion can direct the output to email, and then print if the email was not able to execute. Each copy coming from FormFusion can have its own set of FormDirector settings. For instance, copy 1 can be sent via email, and copy 2 can be sent to an imaging system.

Following is a brief description of each output destination:

- [EmailDirector](#): Sends FormFusion output via email. The output can be sent as an attachment, or included in the body of the email.
- [ImagingDirector](#): Sends FormFusion output to an imaging system. A script residing on the server can be used to process the output files. Can be integrated with Banner Document Management (BDM).
- [ScriptDirector](#): Sends FormFusion output to a file system or database. Custom PL/SQL scripts can be used to parse and store the output as individual files.
- [PrintDirector](#): Can be used to override the default Environment printer selection and create a custom print command.
- [DocuSign® Director](#): Sends FormFusion output to DocuSign to request signatures and obtain read receipts.

Creating a FormDirector

To create a FormDirector, right-click on a print parameter and select **New-> FormDirector**. Double-click on the newly created FormDirector to display the FormDirector properties.



The following operations are allowed on a FormDirector object once it has been created.

Open: Opening a FormDirector displays the FormDirector properties where you can edit parameters and settings.

Delete: Select **Delete** to delete the FormDirector.

Rename: Select **Rename** to rename the FormDirector.

Security: Select **Security** to apply security to the FormDirector object.

Copying a FormDirector: A FormDirector cannot be copied to the same Print Parameter, but can be dragged and dropped to a different Print Parameter. Left-click and drag the FormDirector object you would like to copy then drop it on the Print Parameter you would like to copy to. A pop-up menu will appear offering the following choices: Copy Here, Move Here, and Cancel.

Editing FormDirector Properties

To edit the FormDirector properties, double-click on the FormDirector or right-click and select **Open**.

The screenshot shows the 'FormDirector Properties' dialog box for a copy named 'Copy 1'. The window title is 'PO\FormDirector (*)'. The main heading is 'Select a copy and then configure the FormDirectors'. A note states: 'Note: Copies are added and removed in the properties of the print parameter object'. Below this, a dropdown menu shows 'Copy 1' selected. A 'Directors' pane on the left lists 'DocuSign', 'Email', 'Imaging', 'Print', and 'Script (PL/SQL)', with 'Email' selected. The configuration area for the 'Email' director includes: 'Execute this Director' with radio buttons for 'Always' (selected), 'Never', and 'Only if', followed by a dropdown set to 'Imaging' and a text field 'does' with a dropdown arrow, and the text 'execute for page'. A 'Conditional' section has a dropdown set to '<always process>'. The 'Details' section contains fields for 'Email Server' (set to '<use system default>'), 'From' (test@evisions.com), 'To' (:vendor_email), 'Reply-To', 'Receipt' (test@evisions.com), 'CC' (test@evisions.com), 'BCC', and 'Subject' (Test). A 'Body' text area contains the message: 'Attached is electronic purchase order number :PO_number from Evisions. It is being sent in PDF format. If you do not have Acrobat Reader, you may download it at www.adobe.com free of charge. Please acknowledge receipt of this email by replying to this message. If you have any questions about this email or the purchase order, please contact the Purchasing Office at 714-555-7890'. At the bottom, 'Attachment Format' is set to 'PDF' and 'Attachment Filename' is 'PO.pdf'. There is an 'Options ...' button.

Select copy to configure

In the dropdown list at the top, select the copy that you want to edit. Each copy has its own set of FormDirectors.

Choose a Director that you want to use from the **Directors** pane on the left. The configuration options for the chosen Director will appear. The figure above shows the configuration options for the Email Director.

Copy 1

Directors

- DocuSign
- Email
- Imaging
- Print
- Script (PL/SQL)

[Execute this Director](#)

This section specifies the conditions under which a Director will execute. Choose one of the following three conditions:

- **Always:** this copy will always be sent to the selected Director (Email, Imaging, Print, or Script).
- **Never:** this copy will *not* be sent to the selected Director.
- **Only if:** this copy will be sent to the selected Director *only if* the **execution condition** is met. The execution condition can be used to send output via a Director depending on the successful execution of a different Director. For example, a PrintDirector can be set to execute only if the EmailDirector does not execute for this copy.
- **Conditional (Process page only if variable is not NULL):** this copy will be sent to the selected Director only if the selected FormFusion variable is not NULL. In order to use conditional processing, a CaptureForm query must be created to evaluate some condition that will set the variable to a non-NULL value.

EmailDirector

The EmailDirector module allows output to be sent as an email attachment.

Configuration

All email customization is controlled in the **Details** pane. The edit boxes can contain static values (test@evisions.com), or use variables defined previously in MapForm or CaptureForm, using the colon variable notation. For example, a SQL statement can be created that retrieves the email address of a vendor and stores it into a variable named vendor_email. To insert this variable, type : vendor_email.

The screenshot shows the configuration window for 'Copy 1'. The 'Directors' list on the left includes DocuSign, Email, Imaging, Print, and Script (PL/SQL). The 'Execute this Director' section has 'Always' selected. The 'Conditional' dropdown is set to '<always process>'. In the 'Details' section, 'Email Server' is '<use system default>', 'Email Format' is 'HTML', 'From' is 'purchasing@evisions.com', and 'To' is ':vendor_email'. The 'Subject' is 'Purchase Order'. The 'Body' field contains the following text: 'Attached is electronic purchase order number :PO_Number from Evisions. It is being sent in PDF format. If you do not have Acrobat Reader, you may download it at Adobe's website free of charge.
 Thank you,
 Evisions Purchasing Department'. The 'Attachment' section shows 'Attachment Format' as 'PDF' and 'Attachment Filename' as 'PO.pdf'. An 'Add Attachment' button is present with a file 'Terms and Conditions.docx (11 KB)' selected.

Each text-entry field can be filled out with static text, or can use any variables previously defined in MapForm or CaptureForm using the colon variable notation. In this example, a CaptureForm query has retrieved the vendor's email address and stored it into the :vendor_email variable used in the To field.

- **Email Server** - select the mail server to use, from the list of mail servers added to MAPS and authorized for use with FormFusion. The "system default" is the mail server that was authorized first.

- **Email Format** - controls the media type used in the header of the email. The available options are HTML (default) or plain text. When a recipient's mail program receives an email using the HTML media type, it interprets any HTML tags in the email body and renders it with appropriate formatting. Keep in mind that when using the HTML email type, the email body must contain
 tags wherever a line break is needed. Unlike plain text emails, simply inserting a carriage return will not move the text to a new line in the rendered output.
- **From** - the address that will appear as the originator of the email. If no reply-to is specified, the from address will also be the reply-to address.
- **To** - the recipient of the email. This field acts as the "break pages on" field for the EmailDirector. If the To address changes, it will begin a new email. Multiple recipients can be separated by commas.
- **Show all fields** - checkbox that shows or hides optional email fields such as reply-to, receipt, CC, and BCC.
- **Reply-To** - optional alternate email address that will receive any replies.
- **Receipt** - optional address that requests a read receipt when the user opens the email. Not all email software supports this feature, and some users may have disabled read receipts.
- **CC** - email address(es) that should be copied on the email.
- **BCC** - email address(es) that should be copied on the email, but should not be displayed as recipient(s).
- **Subject** - subject header of the email.
- **Body** - a plain-text message that will appear in the email body. It can include any FormFusion variables, using the colon variable notation.
- **Attachment Format** - specifies how the FormFusion output should be attached:
 - No attachment (default)
 - PDF
 - Unformatted input (original input file text)
 - Unformatted in body (appends plain text output to end of body rather than as an attachment)
- **Options** - edit PDF options such as document information, encryption, and file compression.
- **Attachment Filename** - specifies the filename of the attachment. If left blank, it will default to [FormFusion.xxx](#)
- **Add Attachment** - browse for any additional attachments to include in the email. Use the dropdown arrow to the right of an added attachment to view the attachment or remove it from the email.

Troubleshooting

If you are not receiving the expected output, check the following:

- Are the To and From fields both filled out with valid email addresses? If an email address is not in the correct format, the mail will not be sent.
- Try replacing any variables with hard-coded constants, to see if there may be a problem with invalid data in the variables.
- Make sure that an attachment format was chosen. If this is set to "none", the email will go through but will not have any output attached.
- Mail servers are set up in the MAPS Config application (the "system default" is the first mail server added to MAPS). Make sure that emails are being sent out from MAPS or from other Evisions products to verify mail server setup. As with data connections and printers, the template developer must be given permission in MAPS to use the mail server.

Advanced email example: sending separate emails to one recipient for different PO numbers

If an input file contains three purchase orders in a row that are being sent to one recipient (same To address), then all three purchase orders will be included in one attachment in one email.

Sometimes, you may want to separate out each purchase order into a different email (for example, to make sure additional POs are not overlooked). Since the To field dictates where emails are broken up, this can be done by including the PO number in the To field. For example:

```
:PO_number <:vendor_email>
```

ImagingDirector

The ImagingDirector module in FormDirector allows you to parse and store output into individual files. Depending on how the fields in ImagingDirector are populated, the individual files can be stored in a directory on the server or passed to a script for further processing.

ImagingDirector or ScriptDirector?

The ImagingDirector and the ScriptDirector are similar in nature – both can parse and store output into individual .pdf files.

- If you need to pass output to an imaging system that requires a "Key" field (such as Banner Document Management), choose the ImagingDirector.
- If you only need to store output to a file system, the ScriptDirector should be chosen.
- The ScriptDirector is required for Banner e-Bills and eTranscripts.

Both Directors allow you to use a script to direct the output: the ScriptDirector allows only PL/SQL scripts to be used, whereas any type of script that can be run on your server can be used with the ImagingDirector.

Using Banner Document Management?

Refer to our [BDM Integration Guide](#) for specific configuration instructions.

Configuring ImagingDirector

Select a copy to configure, then select **imaging** from the list of Directors.

The screenshot shows the configuration interface for a FormDirector. At the top, it says "Select a copy and then configure the FormDirectors". Below this is a note: "Note: Copies are added and removed in the properties of the print parameter object". A dropdown menu shows "Copy 1" selected. The "Directors" list on the left includes DocuSign, Email, Imaging (highlighted), Print, and Script (PL/SQL). The main configuration area is divided into sections: "Execute this Director" with radio buttons for "Always", "Never", and "Only if" (selected), and a dropdown for "Email" set to "does not"; "Conditional (Process page only if variable is not NULL)" with a dropdown set to "<always process>"; "Details" section with a "Key" text field; "Break pages on" and "Binary format" (set to "None") with an "Options ..." button; "Copy generated file to" text field with radio buttons for "Path is in Windows" and "Path is in Host OS" (selected); and "Script" text field with radio buttons for "Path is in Windows" and "Path is in Host OS" (selected).

Configure the options in the **Details** section as follows:

- **Key** - (Optional) Enter a string that your imaging system will search for within the FormFusion output. This key definition should exactly match the key configured in imaging system. Please refer to your imaging system's documentation regarding configuration of the key. The key field can include variables from MapForm or CaptureForm, using a colon preceding the variable name. FormFusion will place the generated key in "invisible" white text on every page of the output.
- **Break pages on** - (Optional) Enter a string value to use as a page separator so that ImagingDirector parses the output file into individual files. A MapForm or CaptureForm variable should be entered, with a colon preceding the variable name. In the figure above, the PONumber variable was created in either MapForm or CaptureForm. The value used for this variable must be present on each page of the output file and positioned consistently from page to page. Each time the PONumber variable changes, a new output file will be created.

To generate one output file (do not break pages), leave this field blank.

- **Binary format** - (Required) Select the output format for the file: None, Unformatted, or PDF.
 - **PDF** output has additional options such as document information, encryption, and file compression.
 - **Unformatted** prints the original input file. This is useful if you want to keep a record of the original input file.
 - **None** results in no output. This allows you to run a script without producing an output file.
- **Copy generated file to** - (Optional) Specify a target location for the generated file. Use the browse icon to navigate to a location, or type the target location into the field. Indicate whether the path is in Windows or the Host OS using the radio buttons below the field.
 - Select **Path is in Windows** to save the files on the MAP server or to a network location. If you specify the C: drive, this is the local drive on the MAP server. The UNC (Universal Naming Convention) must be used for network paths (\\ServerName\Folder\MyFileNameVariable).
 - Select **Path is in Host OS** to save files on the server where the host application (Banner, Colleague, or other calling program) is installed.
 - If you use the browse icon to navigate to a location, the path is converted and to the location is selected automatically.
 - For any Windows paths, backslashes must be escaped by a second backslash.
 - You may use a variable as any part of the filename or path.
 - The filename must include the appropriate extension.
- **Script** - Enter the name of a custom script that will run after each file is created. This field is optional if the **Copy generated file to** field is populated. The script can be any valid system command.

ScriptDirector

The ScriptDirector (PL/SQL) module creates PDF output which can be saved to the file system or stored in a database. It can also run PL/SQL scripts. The ScriptDirector was originally developed for use with [Banner e-Bills](#), which uses a PL/SQL script to make individual PDFs of students' bills available online.

ImagingDirector or ScriptDirector?

The ImagingDirector and the ScriptDirector are similar in nature – both can parse and store output into individual .pdf files.

- If you need to pass output to an imaging system that requires a "Key" field (such as Banner Document Management), choose the ImagingDirector.
- If you only need to store output to a file system, use the ScriptDirector.
- The ScriptDirector is required for Banner e-Bills and eTranscripts.

Both Directors allow you to use a script to direct the output. The ScriptDirector allows only PL/SQL scripts to be used, whereas any type of script that can be run on your server can be used with the ImagingDirector.

Using Banner e-Bills?

Refer to our [Banner e-Bill Integration Guide](#) for specific configuration instructions.

Configuring ScriptDirector

Select a copy to configure, then select **Script** from the list of Directors.

The screenshot shows the 'Select a copy and then configure the FormDirectors' window. At the top, there is a note: 'Note: Copies are added and removed in the properties of the print parameter object'. Below this, a dropdown menu shows 'Copy 1' selected. The main area is divided into sections: 'Directors' (with a list including DocuSign, Email, Imaging, Print, and Script (PL/SQL) selected), 'Execute this Director' (with radio buttons for 'Always', 'Never', and 'Only if', and a dropdown for 'DocuSign' and 'does'), 'Conditional (Process page only if variable is not NULL)' (with a dropdown for '<always process>'), 'Details' (with 'Break pages on' set to ':PO_Number', 'Binary format' set to 'PDF', and 'Copy generated file to' set to 'C:\\FormFusion\\;PO_Number.pdf'), and 'Associated Data Connection' (set to '<use system default>'). A 'Script' text area is at the bottom.

Configure the options in the **Details** section as follows:

- **Break pages on** - (Optional) Enter a string value to use as a page separator so that ScriptDirector parses the output file into individual files. A MapForm or CaptureForm variable can be entered, with a colon preceding the variable name. In this example, a purchase order number has been mapped with a floating field in MapForm, and is being stored into the :PO_Number variable. This variable will take on a different value for each PO, which makes it an ideal variable to “break” the input file into individual PDFs. Note how the colon before the variable name tells FormFusion that it is a variable and not plain text.

Important note: The variable used to break the output into individual files must be present on *every* page of the output file, and positioned consistently from page to page. FormFusion creates a new PDF every time this value changes, including if it is blank.

To generate one output file (do not break pages), leave the **Break pages on** field blank.

- **Binary format** - Select the output format for the file: None, Unformatted, or PDF.
 - **PDF** output has additional options such as document information, encryption, and file compression.
 - **Unformatted** prints the original input file. This is useful if you want to keep a record of the original input file.
 - **None** results in no output. This allows you to run a script without producing an output file.
- **Copy generated file to** - (Optional) Specify a target location for the generated file. Use the browse icon to navigate to a location, or type the target location into the field. Indicate whether the path is in Windows or the Host OS using the radio buttons below the field.
 - Select **Path is in Windows** to save the files on the MAP server or to a network location. If you specify the C: drive, this is the local drive on the MAP server. The UNC (Universal Naming Convention) must be used for network paths (\\ServerName\Folder\MyFileNameVariable).
 - Select **Path is in Host OS** to save files on the server where the host application (Banner, Colleague, or other calling program) is installed.
 - If you use the browse icon to navigate to a location, the path is converted and to the location is selected automatically.
 - For any Windows paths, backslashes must be escaped by a second backslash.
 - You may use a variable as any part of the filename or path.
 - The filename must include the appropriate extension.

This example uses the PO number as the filename. It is also possible to create a filename and store it into a variable using CaptureForm. The query could populate the variable with the PO number, a text string, or any other data used to uniquely identify the record. Note that the file extension *must* be included at the end of the filename.

- **Associated Data Connection** - Select the Data Connection from this list.
- **Script** - (Optional) Enter a PL/SQL script that will execute for each page of the input file. In the case of e-Bills, this script is what updates the Banner tables with the PDF output files or file locations.
 - For more room to edit, you can click the double arrow above the scroll bar to increase the size of the Script box. The other fields in the Details section will be hidden until the double-arrow is clicked again to minimize the Script box.
 - Selecting the  button changes the behavior of the Tab key so that it will insert a Tab character into the Script box instead of tabbing out of the box.
- **Delete file after script completes**- If using a PL/SQL script that copies the output files to another location, check this box (next to “Copy generated files to”) to remove the PDF file from the original location.

Troubleshooting ScriptDirector

If you are not receiving the expected output, check the following:

- Is the “binary format” drop down set to PDF? If it is set to “none”, FormFusion will not produce any output.
- If there is no output at all, remove the “break pages on” during initial testing to make sure the rest of the settings are OK.
- Make sure that the “copy generated files to” field has a valid path. The directory must already exist.
- Is a filename specified at the end of the path?
- Is the correct radio button selected for the specified location?
- Check the direction and number of the slashes or backslashes. Remember to escape all backslashes with a second backslash for Windows paths.
- For network locations, the MAPS service user must be able to view and save files to this directory. MAPS administrators can check to see what user the service is running as, and then try logging in to Windows as this user to see if the user is able to copy a file to the directory manually.
- Try specifying the full path to the remote location, including the drive letter.
- If testing a script or saving files back to the host OS, make sure that the job is being run from the host system/calling application, and not via the Test Print Template feature in FormFusion. When doing a test print, the job is run directly from the MAP server, so there is no “host” for it to send data to.

DocuSign Director

The DocuSign® Director module allows you to send FormFusion output as a PDF to DocuSign. DocuSign provides visibility into which users have opened a document, and allows you to request their signature on the document, based on a template that you configure in DocuSign.

In order to use this Director, you must have a current license for [FormFusion](#) and have an account with [DocuSign](#). If you would like more information on the DocuSign Director, please [contact your Evisions account representative](#).

Using a DocuSign Template Created in an Earlier Release

If you already have DocuSign templates in FormFusion 3.8 or 3.9, note the following:

- When you import a FormFusion template that was generated in an earlier release, the recipients list is not automatically populated. Select **Refresh Recipients** to update the list to the currently configured recipients.
- The email address from the *To* field will automatically populate the *Name* field in the template for 3.10. You should change the email address in the *Name* field to a valid name, since the text in the *Name* field is used as the DocuSign signature.
- The recipient from the previous release (that is, the email address shown in the *To* field) is automatically marked as a required signer in 3.10.

DocuSign Template Guidelines

The DocuSign template should be created based on a sample output file from FormFusion. You can use the Test Print Template feature to generate this sample, and then upload it into DocuSign to design the template.

The template you create should have an equal or lesser number of pages than the document coming over from FormFusion. If all of your signatures are on the same page, a 1-page template is ideal. You can remove unnecessary pages when editing the template in DocuSign. Using the "AutoPlace" function to base the signature location on text found in the template will tell DocuSign which page of the document should contain the signature.

FormFusion uses the template configured in DocuSign to build the list of recipients. Within DocuSign, you specify the roles and role types for the document. When creating a DocuSign template for use with FormFusion, you can include any number of recipients and use any available role types. When you display the template in FormFusion (via the FormFusion DocuSign Director) you will be able to enter the email and name for recipients with the following two role types:

- Needs to Sign
- Needs to View

When you configure the "Needs to Sign" and "Needs to View" recipients (in DocuSign), leave the **Name** and **Email** fields blank if you intend for them to be filled in via FormFusion. These fields will be populated when the FormFusion output is configured in the DocuSign Director before the document is sent.

Specifying Recipients in both the DocuSign Template and the FormFusion Director

You can specify recipients in the DocuSign template and also leave some recipient fields blank so that they are populated by FormFusion. Keep in mind:

- Recipients configured and specified in DocuSign can use any available role type (including "Needs to Sign" and "Needs to View"). They will be displayed in the FormFusion Director, but will be grayed out and are not editable.
- Recipients to be specified in FormFusion can use the "Needs to Sign" or "Needs to View" role type.

Note that when you use a combination of recipients from both DocuSign and FormFusion, you must leave the name and email for at least one recipient blank for FormFusion. If there are no fields to be configured in FormFusion, the FormFusion Director will not process the document.

The screenshot shows a web interface for creating an envelope. At the top, there is a blue header with a back arrow, the word 'Invoice', an 'ACTIONS' dropdown, a 'RECIPIENT PREVIEW' button, and a yellow 'NEXT' button.

The main content area is divided into two sections:

- Add Documents to the Envelope:** This section shows a preview of a document titled 'evisions' with a header and a table. Below the preview is a file named 'TemplateDoc.pdf' with '1 page'. To the right, there is an 'UPLOAD' button and a 'GET FROM CLOUD' dropdown menu.
- Add Recipients to the Envelope:** This section includes the text 'As the sender, you automatically receive a copy of the completed envelope.' and three links: 'LOOKING FOR IMPORT BULK LIST?', 'ADD FROM CONTACTS', and 'SIGNING ORDER'. There is a checked checkbox for 'Set signing order'. Below this is a form for adding a recipient:
 - A numbered box '1' is on the left.
 - The 'Role' field is set to 'Signer' with a dropdown arrow and a 'NEEDS TO VIEW' indicator.
 - The 'Name' field is empty with a dropdown arrow.
 - The 'Email' field is empty.
 At the bottom left of this section is an 'ADD RECIPIENT' button.

At the bottom right of the interface, there are 'SAVE AND CLOSE' and 'NEXT' buttons.

Once the template and role(s) are created in DocuSign (and you have entered your DocuSign credentials in FormFusion), use the **Refresh Recipients** button in the FormFusion DocuSign Director to update the list.

[Configuring the FormFusion DocuSign Director](#)

The DocuSign Director screen contains three main sections:

- The **Execute this Director** section is common to all directors.
- The **DocuSign Authentication** section displays the currently selected type of authentication: **OAuth** or **Username/Password**, and the account name, once the connection is working. Select the **Configure** button to change the authentication method and the settings used for it.
- The **Details** section is where you configure the output.

Directors

- DocuSign
- Email
- Imaging
- Print
- Script (PL/SQL)

Execute this Director

Always Never Only if Email does execute for page

Conditional (Process page only if variable is not NULL)

<always process>

DocuSign Authentication

Type OAuth Configure

Account DEV

Details

Template 3.10_sfrslst_twoActions_option2_blankFields Refresh Templates

Role	Name	Email	Required	Role Type
Signer 1	John	docusign@evisions.com	<input checked="" type="checkbox"/>	Needs to Sign
VP	John	docusign@evisions.com	<input checked="" type="checkbox"/>	Needs to View

The DocuSign template controls the processing order and list of recipients. Disabled recipients must be modified in DocuSign. Refresh to get the latest information from DocuSign. Refresh Recipients

Subject Purchase Order

Key #FORMFUSION#:courseNumber#FORMFUSION#

Filename Purchase_Order_:PO_Number.pdf

Break pages on :PO_Number

Binary format PDF Options ...

DocuSign Authentication Settings

The **DocuSign Authentication** section of the DocuSign Director screen provides options for configuring the authentication method. When configured properly, authentication allows FormFusion to access the DocuSign account.

Before you can configure the authentication settings, you must establish your DocuSign account and decide how you want FormFusion to provide credentials to DocuSign for authentication and authorization.

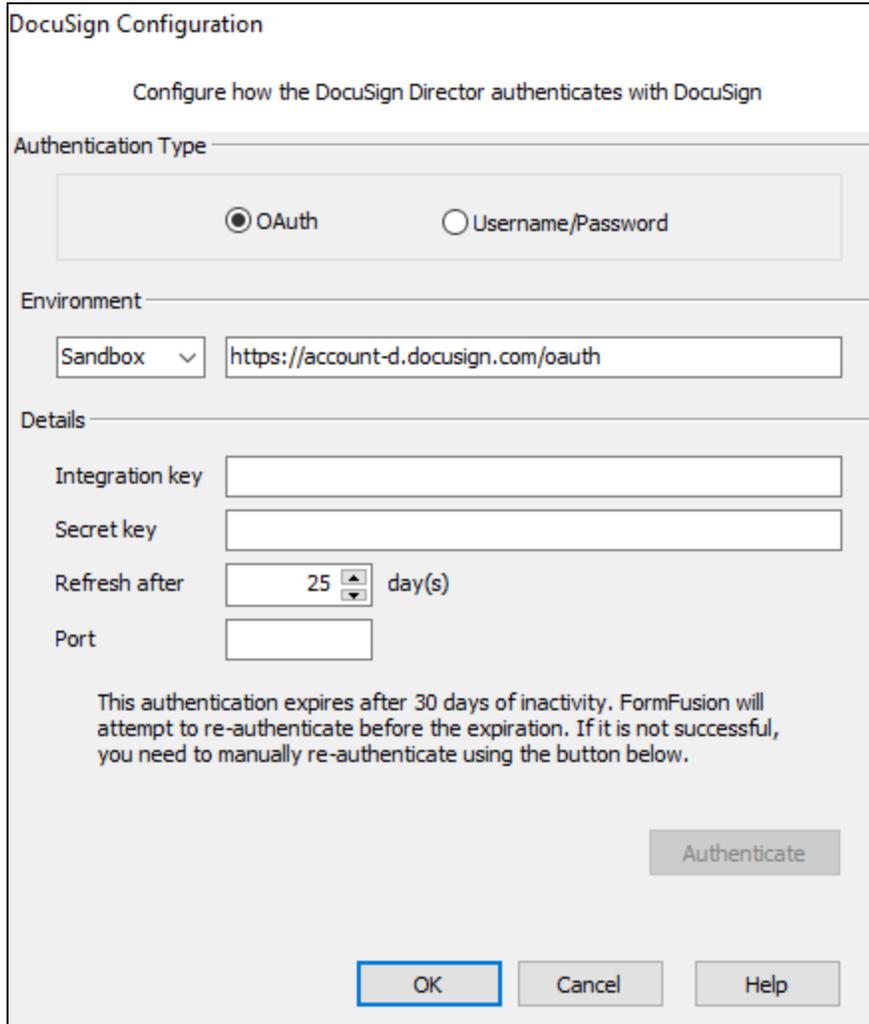
- Use **OAuth** whenever possible. It is the most secure option, and is recommended by DocuSign. FormFusion uses the Authorization Code Grant OAuth method.

If your account is inactive for approximately a month, your OAuth authorization expires. You can manually re-authenticate, or allow FormFusion to refresh the authentication on a scheduled basis.

- Use the **Username and Password** method if the OAuth method of authorization cannot be implemented.

DocuSign Configuration for OAuth Authentication

When you select the **Configure** button, a DocuSign Configuration dialog displays. Select the **OAuth** authentication type.



The image shows a 'DocuSign Configuration' dialog box. At the top, it says 'Configure how the DocuSign Director authenticates with DocuSign'. Under 'Authentication Type', there are two radio buttons: 'OAuth' (selected) and 'Username/Password'. Under 'Environment', there is a dropdown menu set to 'Sandbox' and a text field containing 'https://account-d.docusign.com/oauth'. Under 'Details', there are four fields: 'Integration key', 'Secret key', 'Refresh after' (set to 25 with up/down arrows and 'day(s)'), and 'Port'. At the bottom right is an 'Authenticate' button. At the bottom are 'OK', 'Cancel', and 'Help' buttons. A note at the bottom states: 'This authentication expires after 30 days of inactivity. FormFusion will attempt to re-authenticate before the expiration. If it is not successful, you need to manually re-authenticate using the button below.'

For information on selecting an Environment, see "Selecting an Environment (Sandbox or Production)" on page 91.

Obtain the Integration Key, Secret Key, and Port information from DocuSign after you add FormFusion as an approved app in your DocuSign account.

- To add FormFusion to DocuSign, in the DocuSign Admin area, go to **API and Keys** at the bottom of the left menu, then select **Add App/Integration Key**. Enter a name for the app (i.e., "FormFusion").

Be sure to obtain the following information for the app so that you can enter it on the FormFusion configuration screen.

- **Integration key** - After you add FormFusion as an App in DocuSign, the Integration Key is displayed. Click on the Integration Key, then use the Copy to Clipboard button to copy the entire key. Paste the key into the corresponding field in FormFusion.

Note: Make sure you copy the app's **Integration Key**, not the API Account ID above it.

The screenshot shows the DocuSign Admin interface. The top navigation bar includes the DocuSign logo, 'Admin > Evisions', and a 'Go to DocuSign' link. The left sidebar lists various settings categories: ORGANIZATION (Overview), ACCOUNT (Home, Billing and Usage, Account Profile, Security Settings, Regional Settings, Brands, Updates), and USERS AND GROUPS (Users, Permission Sets, Groups). The main content area is titled 'For Developers: API and Integration Key Information'. It explains that developers need to create and configure an integration key. Below this, there are three sections: 'My Account Information' with an 'API Account ID' field containing a long alphanumeric string; 'My Apps / Integration Keys' with a yellow 'ADD APP / INTEGRATION KEY' button; and a table listing existing integration keys. The table has columns for 'App Name', 'Integration Key', and 'Status'. One entry is visible for 'FormFusion' with a status of 'Demo' and an 'ACTIONS' dropdown menu.

- Continue on the same DocuSign screen to obtain the Secret key and Port information.
- **Secret key** - The Secret key is a type of password used with OAuth authentication. In the Authentication section of the DocuSign screen, select the **Authorization Code Grant** option, then select the **Add Secret Key** button. Copy the secret key. (Note that all but the last few characters in the secret key will be obscured the next time the key is displayed in DocuSign, after you save your changes.)
- **Refresh after** - The number of days between automatic refresh attempts. If you don't run the FormFusion template regularly (more frequently than about once a month), FormFusion will attempt to refresh the authorization token during FormFusion mapplet startup.
- **Port** - The port used for communication between DocuSign and FormFusion. On the DocuSign **Add App** page, enter the Redirect URI, `http://localhost:`, immediately followed by an open port number. (For example, `http://localhost:8081`.) The port number entered on the FormFusion dialog must match the port number entered on the DocuSign account page for the Redirect URI (8081 in this example).

DocuSign Configuration for Username and Password Authentication

When you select the **Configure** button, a DocuSign Configuration dialog displays. Select the **Username/Password** authentication type.

DocuSign Configuration

Configure how the DocuSign Director authenticates with DocuSign

Authentication Type

OAuth Username/Password

Environment

Sandbox

Details

Username

Password

Integration key

Account ID

Test Connection

OK Cancel Help

For information on selecting an Environment, see "Selecting an Environment (Sandbox or Production)" on the next page.

Select the Username/Password method of authentication, and then enter the username and password:

- **Username** - The email address associated with your DocuSign account.
- **Password** - The password associated with your DocuSign account.

Obtain the Integration Key from DocuSign after you add FormFusion as an approved app in your DocuSign account.

- To add FormFusion to DocuSign, in the DocuSign Admin area, go to **API and Keys** at the bottom of the left menu, then select **Add App/Integration Key**. Enter a name for the app (i.e., "FormFusion").

Be sure to obtain the following information for the app so that you can enter it on the FormFusion configuration screen.

- **Integration key** - After you add FormFusion as an App in DocuSign, the Integration Key is displayed. Copy and paste the entire key into the corresponding field in FormFusion. You do not need to change any other API configuration settings in DocuSign.

Note: Make sure you copy the app's **Integration Key**, not the API Account ID above it.

The screenshot shows the DocuSign Admin interface. The top navigation bar includes the DocuSign logo, 'Admin > Evisions', and a 'Go to DocuSign' link. The left sidebar is divided into three sections: ORGANIZATION (Overview), ACCOUNT (Home, Billing and Usage, Account Profile, Security Settings, Regional Settings, Brands, Updates), and USERS AND GROUPS (Users, Permission Sets, Groups). The main content area is titled 'For Developers: API and Integration Key Information'. It contains a paragraph explaining that developers need to create and configure an integration key. Below this is a section for 'My Account Information' with an 'API Account ID' field containing the value '76b8989f767407497876c0d0748b211008'. The next section is 'My Apps / Integration Keys', which features a yellow 'ADD APP / INTEGRATION KEY' button and a table. The table has columns for 'App Name', 'Integration Key', and 'Status'. One entry is shown for 'FormFusion' with a masked integration key and a 'Demo' status. An 'ACTIONS' dropdown menu is visible next to the entry.

- **Account ID** - The [account number](#) of your DocuSign account. **Note:** If your user has access to multiple accounts in DocuSign, this account must be set as the default, since FormFusion will only look at the default account.

Selecting an Environment (Sandbox or Production)

As you develop your FormFusion director for DocuSign, you may want to test your configuration in an environment separated from your production environment. You can use the Sandbox environment for this purpose.

The URLs for the production and sandbox environments are pre-populated for you.

- If you are using OAuth authentication, the URL is the OAuth URL.
- If you are using a username and password for authentication, the URL is the base URL.

You can enter a different URL, if you wish.

- A custom URL is always shown as the sandbox environment.
- If using a custom URL, the environment will default to the sandbox environment.
- If you switch between the sandbox and production environments, the manually-entered URL is no longer available and is replaced by the default sandbox URL.

If you previously added a DocuSign base URL registry key to the MAPS server, FormFusion will use the registry key under the following circumstances:

- A director is opened for the first time after upgrading from FormFusion version 3.8 to version 3.9 or 3.10.
- A new DocuSign Director is created.

If the URL is populated from the registry key, the Environment dropdown will be set to Sandbox.

Details Section: Output Settings

Before you can configure the output settings in FormFusion, you must configure the template in DocuSign. See "DocuSign Template Guidelines" on page 85 for details.

Refresh Recipients

Within FormFusion, it is good practice to use the **Refresh Recipients** button regularly to ensure that you are loading the latest recipient information from DocuSign. When you do this, FormFusion retrieves the latest information configured for the template.

Note that doing this clears any information already entered manually from FormFusion.

Once the template is created in DocuSign (and you have entered your DocuSign credentials into FormFusion), use the **Refresh Templates** button to update the list of templates. Select the template you want to use from the drop down. Then use the Details section of the FormFusion screen to configure how the output is processed.

The screenshot shows the 'Details' section of the FormFusion interface. At the top, there is a 'Template' dropdown menu set to '3.10_sfrslst_twoActions_option2_blankFields' and a 'Refresh Templates' button. Below this is the 'Recipients' section, which contains a table with two rows. Each row has a 'Role' field (e.g., 'Signer 1', 'VP'), a 'Required' checkbox (checked), and a 'Role Type' field (e.g., 'Needs to Sign', 'Needs to View'). Below the role information are input fields for 'Name' and 'Email'. The first row has 'John' in the name field and 'docusign@evisions.com' in the email field. The second row also has 'John' in the name field and 'docusign@evisions.com' in the email field. Below the table is a text box with the message: 'The DocuSign template controls the processing order and list of recipients. Disabled recipients must be modified in DocuSign. Refresh to get the latest information from DocuSign.' and a 'Refresh Recipients' button. Below the recipients section are fields for 'Subject' (Purchase Order), 'Key' (#FORMFUSION#;:courseNumber #FORMFUSION#), 'Filename' (Purchase_Order_;PO_Number.pdf), 'Break pages on' (:PO_Number|), and 'Binary format' (PDF) with an 'Options ...' button.

Template

Select the name of the template that you configured in DocuSign.

Recipients Section

The Recipients section lists all of the recipients who will receive the document once it is processed. Recipients shown in gray are configured in DocuSign and cannot be edited in FormFusion. Select **Refresh Recipients** to get the most recent data from the DocuSign template.

The following fields are included in this area:

- **Role and Role Type** - Displays the role configured in the DocuSign template for each recipient and the associated role type. FormFusion supports the **Needs to Sign** (default) and **Needs to View** role types. The other types cannot be configured within the FormFusion DocuSign Director . (These recipients will still receive the document as configured in the DocuSign template.)

- **Name and Email** - Enter a name and email address for each recipient that does not already have the information provided by the DocuSign template.
- **Required** - Select the check box to make the recipient a required recipient. The check box is checked by default.
 - If the **Required** check box is unchecked, you must fill in the **Name** and **Email** fields in order for the document to be sent to that recipient. If one or both fields are missing, FormFusion will not send the document to that recipient.
 - If the **Name** and/or **Email** fields are left blank while the Required check box remains checked, a message displays reminding you to complete the information.

Refresh Recipients - Select to refresh the information from DocuSign relating to recipients. Note that this will clear any fields manually entered within FormFusion. Always refresh if you believe that the DocuSign template may have changed, or if you are importing a template from a previous version of FormFusion and the list of recipients is missing.

Subject

Optional. The subject line of the email that will be sent to recipients. The subject can be typed in manually or use a combination of manual text and FormFusion variables.

Key

Optional. Defines a string that an imaging system will search for within the PDF output. This key definition should exactly match the key configured in imaging system. Please refer to your imaging system's documentation regarding configuration of the key. The key field can include variables from MapForm or CaptureForm, using a colon preceding the variable name. FormFusion will place the generated key in "invisible" white text on every page of the output.

Filename

Optional. The name of the PDF file to be sent to the recipient. You may use a variable as part of the filename. The .pdf file extension is not required. If this field is left blank, the filename will default to doc.pdf.

Break pages on

Optional. Specifies how the DocuSign Director parses the output file into individual files. A MapForm or CaptureForm variable should be entered, with a colon preceding the variable name. In the figure above, the PONumber variable was created in either MapForm or CaptureForm. The value used for this variable must be present on each page of the output file and positioned consistently from page to page. Each time the PONumber variable changes, a new PDF will be created.

Binary Format

The output format of the document. This is always set to PDF for DocuSign. Use the Options button to configure PDF details such as document information, encryption, and file compression.

Troubleshooting

- Use the **Refresh Recipients** button to update the list of recipients from DocuSign.
- Ensure that the *Name* and *Email* fields for the recipients that are to be configured in FormFusion are blank in DocuSign if you want them to be managed via FormFusion.
- Ensure that the role type for each recipient is set to either "Needs to Sign" or "Needs to View" for any recipient to be configured in FormFusion.
- You must save your changes in DocuSign before FormFusion can see them.
- Refer to the DocuSign documentation for information on setting up roles and using role types within the DocuSign template.

PDF Options

Three of the four FormDirector modules can produce PDF output. The EmailDirector, ScriptDirector, and ImagingDirector all have a PDF Options button which launches the following dialogue:

The screenshot shows a 'PDF Options' dialog box with the following sections:

- Document Information:** Fields for Author (Purchasing Department), Creator, Subject, Keywords, PO, and Title (Purchase Order).
- Encryption:** A checked 'Encrypt' checkbox, Owner Password and User Password fields, a Level dropdown set to '128 Bit', and 'Allow' checkboxes for Copy, Modify, and Print (Print is checked).
- Additional Options:** Font Embedding dropdown set to 'None' and Compression dropdown set to 'Maximum'.

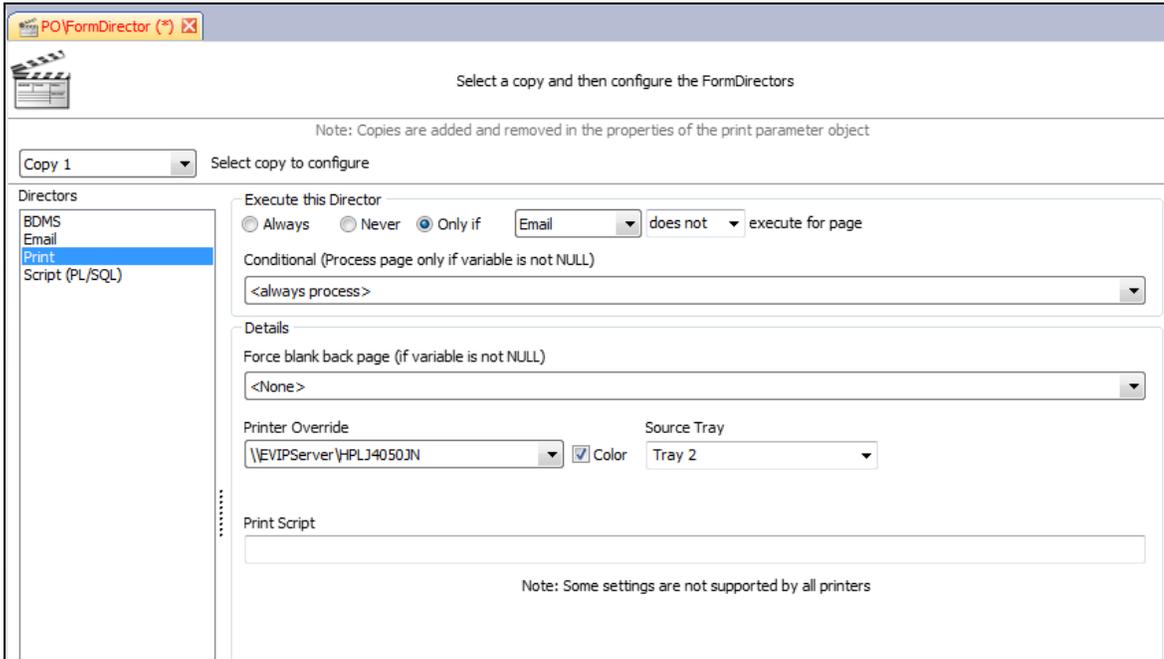
Buttons for 'OK' and 'Close' are located at the bottom right of the dialog.

- **PDF tagging information** - The document information section controls the information that is associated with the generated PDF files.
- **Encryption options** - When a document contains sensitive information, one option is to turn on PDF encryption. FormFusion variables can be used in the password fields to generate a unique password for each document based on some known piece of information. You can also choose whether or not to allow users to copy information out of the PDF, modify its contents, or print it.
- **Font embedding** - If the template uses non-standard fonts, turning on font embedding makes sure that the viewer sees the PDF as intended, and not rendered with the fonts available on their local system.
- **PDF compression** - PDF files can get very large, for example if they contain images of a significant size. Particularly when running large batches, it's a good idea to turn on PDF compression to speed up jobs and reduce server load. FormFusion 3.2 and higher sets compression to "maximum" by default for new FormDirectors; in earlier versions, it must be turned on if it is desired. Note: any templates with existing FormDirectors or saved templates that are imported into FormFusion will retain their original compression settings.

PrintDirector

FormFusion supports printing without the use of PrintDirector. This module is provided to give you more specific control over the printing process. For instance, the PrintDirector allows for different copies to be printed to different printers or to turn off printing.

Configuring PrintDirector



- **Force blank back page (if variable is not NULL)** - This setting is designed to work with the Paper Save option in the Print Parameter Properties. Paper Save enables printing on both sides of the page to conserve paper. In cases where a record may be more than one page long, this option can be used to force the next record to begin printing on a new page instead of on the back side of the previous record. There must be a variable set up in FormFusion (via MapForm or CaptureForm) that is non-null only for the last page of each record, which will be the variable chosen in the drop down.

Note: if Paper Save is not enabled but there is a back side to the FormStamp, using this option suppresses the back sides.

- **Printer Override** - Entering a printer override forces FormFusion to print to the selected printer regardless of the printer that the user specifies when submitting the job.
- **Color** - Check here to let FormFusion know this is a color printer.
- **Source Tray** - Specify the source tray for this copy. If a printer override is set, the available trays are those belonging to the selected printer. Otherwise, the drop down will show the trays available on the default printer.
- **Print Script** - This optional field is used for entering custom print commands. The format of the print command depends on your host system and what you want the script to do. As an example, a UNIX print script that just prints the output might look like:
`-lp -c -d printername :PRINTFILENAME_`

Note that PRINTFILENAME_ is one of the FormFusion system variables and contains the name and path to the temporary output file on the MAPS server.

Test Print Template

The Test Print Template features lets you do a test print of a template to see what the output will look like when the template is run. To perform a test print, select the print parameter in the process tree. Then, right click on it and select **Test Print Template**. You can also go to **File > Test Print Template**.

Test Print Template

Configure processing options and send to the server to be processed

Input file

Use the existing sample from Print Param configuration

Use a specific file:

Printer override

<use default settings>

Process all configured FormDirectors

FormDirectors that will execute:

Copy	FormDirector	Execute
1	Imaging	Always
1	Print	Always
1	Script	Always

Show debug messages in log

OK Cancel Help

- **Input File:** Select the desired radio button to print a test using the sample input file (configured in the MapForm), or to browse for a different file.
- **Printer Override:** Allows you to direct output to a printer other than the default printer set in the environment. Note that if the PrintDirector in the template is enabled and contains a different printer override, the printer specified in the PrintDirector will be used and this option will be ignored.
- **Process all configured FormDirectors:** By default, FormFusion will only send test print output to a printer. If your template is configured to use other directors such as the ScriptDirector, ImagingDirector, or DocuSign® Director, you will need to check this box if you want to run the non-print directors. A list of all configured copies and FormDirectors is displayed underneath the checkbox so you can see what will run.
- **Show debug messages in log:** Check this box to include debug messages in the process log at the bottom of FormFusion. Debug messages are much more detailed than the regular run log, and may be used to help troubleshoot issues.

Note

If you recently made changes to your template that you want to see in the output, please be sure to [save your work](#) prior to printing.

Getting Help

For information on using the software, please refer to the in-product Help, which contains detailed information on all aspects of the product.

If you are having problems with the installation or configuration, you can search our [support site](#), which includes a knowledge base of common issues. If you are unable to find the solution, submit a HelpDesk request with a detailed explanation of the problem you are experiencing.

Please do not hesitate to contact the Evisions HelpDesk if any questions or problems arise. We are here to help you and want to ensure your success.

If you find that areas of this documentation could benefit from additional detail or clarification, please let us know. We are constantly trying to improve the installation process to make it as easy as possible.

Glossary

A

Argos

Evisions' enterprise web-based reporting solution that delivers operational and strategic reports for your entire organization.

B

BDM

Banner Document Management by Ellucian is an imaging and document management solution that allows users to find and open documents directly from Banner.

BDMS

Banner Document Management by Ellucian is an imaging and document management solution that allows users to find and open documents directly from Banner.

C

CaptureForm

CaptureForm allows you to add SQL statements and place additional report information into the printer data stream coming from your database.

CO-OP

The CO-OP Community Share is the area of the Evisions website where you can look for FormFusion templates, Argos DataBlocks, and other files created by Evisions or by other institutions. You can also upload your own templates and DataBlocks to share with others.

D

data connection

A data connection connects MAPS to a data source such as a database or flat file. Data connections can be authorized for use with individual MAPS applications (Argos, FormFusion, and IntellectCheck).

E

evilp

Evisions Line Printer. One of the utilities that goes along with every FormFusion install, evilp is responsible for sending unformatted output to MAPS for document enhancement.

F

floating field

A floating field is the main field type that you will create on a MapForm. This type of field is used to define areas from the input file that can be moved around on the final output document using FormStamp.

FormDirector

A FormDirector is the component of a template that directs output from FormFusion to a variety of destinations (email, imaging, script, and/or printer). Logic built into the FormDirector allows you to create a workflow routine based on successful completion of the various output options. For example, FormFusion can direct the output to email, and then print if the email was not able to execute.

FormFusion

Evisions' solution for enhancing documents and managing their distribution via email, imaging software, print, or other electronic methods. You can turn plain text input into a graphical layout with images, fonts, and color, with the data rearranged to suit your needs. FormFusion lets you retrieve additional data not in your input file from a database, and print it on the form along with the rest of the information.

FormStamp

A FormStamp is where you design the graphical layout of your form. It is a "what-you-see-is-what-you-get" (WYSIWYG) editor, where you create areas of text, draw lines and shapes, insert pictures (logos, signatures, watermarks, etc.), and add data field objects from either the input file or from a database.

I

input file

The output file from your application software is the input file for FormFusion.

IntelleCheck

Evisions' payment processing solution— includes accounts payable, payroll, and refund checks; direct deposit advices; and electronic refunds.

M

MapForm

Maps the data fields from the input file.

MAPS

Multiple Application Platform Server (MAPS) is the server that delivers the FormFusion software to users. Once FormFusion is installed, users connect to MAPS, which fetches data and performs other tasks.

O

offset field

Offset fields are fields that print in different positions depending on the amount and location of other data within the output.

P

print parameter

A Print Parameter triggers FormFusion server to take special action on the results of a process. When a matching Print Parameter is found, all components created to enhance the output stream will be read from the database and executed accordingly. If the process is run without the Print Parameter defined, the template components created in FormFusion will not be called and the process results will print as normal.

S

SQL

Structured Query Language – a standard language for accessing a database.

T

template component

A template component is a document or form that is part of a group of building blocks that comprise a FormFusion template. There are four template component types: MapForm, CaptureForm, FormStamp, and FormDirector.