FORMFUSION HELP TABLE OF CONTENTS

FormFusion Suite

Welcome to "Help for FormFusion Developer". This help file contains information on how to make FormFusion work for you. A full tutorial on how to use FormFusion exists at the Evisions web site and can be referenced using the "Tutorial" link in the "Additional Topics" section below.

Additional Topics:

Overview

FormFusion has the ability to completely replace pre-printed forms using the digital "form fusing" process. It allows for limitless layout and graphical improvements, and allows users to select from various destinations for their new digital documents -- printer, e-mail, web, or digital/CD archive. Each FormFusion module integrates with the others seamlessly. You are free to choose one and add more as your needs grow, or select the enterprise-wide solution to fundamentally change the look and flow of information throughout your world.

FormFusion Production Suite

FormStamp

- Eliminate pre-printed forms forever!
- Select the form to be used, customize with your own logo, signature, or other graphical elements
- Run the process and the changes are digitally "fused" with basic output, then printed from virtually any laser printer

MapForm

- "Remap" fields to move them *anywhere* on the page
- Change page orientation
- Modify font type and size
- Generate letters from an Oracle database
- Create duplex mailers
- Add POSTNET Bar coding

CaptureForm-SQL

- Use SQL statements to add any field from an Oracle database
- Customize your content to your own specifications
- Dramatically reduces or eliminates modifications to the baseline processes

FormDirector

- Direct output to automatically route to one or all possible paths
- Digital/CD archive
- Distribute/web
- E-mail
- And, of course, Printer

Additional Topics:

- Using FormStamp
- Using MapForm
- Using CaptureForm-SQL
- Using FormDirector

What's New

Hot New Changes

Many changes have been made to FormFusion since its original release in 1999. Due to internal design, development, and suggestions from our broad user-base we have packed FormFusion with many exciting new features.

New Features:

- **E-mail Encryption.** This newer version contains support for encrypted and password protected emailing. This is very useful when you want to secure the emails you are sending.
- **Integration with Banner Security-** FormFusion is now integrated with Banner Security. No more creating unnecessary Oracle roles to work with your Banner environment. The DBA has already set up security once for Banner ... why should it have to be set up again for FormFusion?
- **Migrate Earlier Database Versions-** Integrated database updater helps migrate earlier database versions to the latest version.
- **New Database Administration Wizard-** The Database Administration Wizard helps the novice database administrator configure FormFusion painlessly. Even advanced DBA's will appreciate the ability to toggle every aspect of the configuration.
- **New MapForm Options-** MapForm has new options at its disposal. Header, detail, and footer areas enable you to separate and better control the information on your report page. Header areas can automatically resize depending on key information that you define on the page.
- **More Functions for MapForm Fields-** MapForm fields can now resize or move when the header or detail areas change in size.
- **Offset Fields-** A new MapForm field type has been created: "Offset Field". An Offset Field allows you to find key data in the report and map a field at some offset from the key data. You can then remove the data from the report file or leave it if you wish.
- **Smarter Variables-** Smarter variables allow you to make greater use of the variables you have created.
- **New Variable Reference-** The new variable reference allows you to see the variables you have defined at all times. You can even drag and drop your variable to add it to CaptureForm queries and FormStamp forms.
- **More Intuitive Interface-** A more intuitive interface lets you navigate your forms with greater ease.
    - **FormFusion** has undergone a "face-lift". Larger toolbars, softer icons, and clearly marked sections make for a better designing experience.
    - **CaptureForm** is smarter and the interface is more intuitive. Defining variables is now separated from creating queries. This subtle difference allows for incrementing variables (for example). Many more uses for this nuance remains to be discovered.
- **Sort Using Newly Created Variables-** The server can now sort the pages of your report using variables you create as sorting criteria.

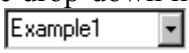
- **New Help System-** The help system has undergone a "face-lift" as well. FormFusion 1.6 help uses the Windows® HTML help format.
- **FormFusion Today-** With FormFusion Today! at startup, you can keep yourself up-to-date on the latest in FormFusion developments. Or, you can disable FormFusion Today! during startup and access it from the "Help" menu at your discretion.
- **New and Better Export File Format-** Text object export format allows for direct editing of exported groups, processes, special print parameters, and process modifiers.
- **Compatible with the Older Format-** Don't worry, FormFusion 1.6 still reads the older group file format. FormFusion 1.5 can even export to the older file format if you need to share your process group with a colleague still using an earlier version of FormFusion.

There are many more subtle changes that make FormFusion 1.6 a greater experience. If there is something missing from FormFusion that you would like to see in a future release then let us know about it. Visit us at the Evisions Website.

Getting Started

To get started, you need to log in to a database session. On the left-hand side of the application window you will find a panel with three buttons and a drop-down combo box.

Select a Database

First you need to select the Oracle SQL*Net session you would like to connect to. The sessions in the drop-down list are read from the "tnsnames.ora" file. If the session is not in the drop-down list, you may type it into the edit box. Select a session from the combo-box. 

Every time you exit FormFusion, the last session used is saved to the Windows® Registry. The next time you return to FormFusion, the session will be displayed in the box automatically.

Log in 

After the session has been chosen, click on the Login icon. Alternatively, you can type the shortcut keys <CTRL> and L. At this point, you will be prompted for a Username and Password. The session drop-down list will become disabled disallowing the option to change the Oracle session.

After the session is logged in, assuming there were no warning messages, you should see a view of the FormFusion table structure. The tree view may or may not contain groups and processes at this point. This will depend on whether your DBA installed the Evisions Sample Forms or have created forms for your organization's use. See Tree View Organization for more information on how the tree view is structured.

Log out 

After you have logged in to the Oracle session the log in button will become the "log out" button. Clicking this button will log FormFusion off of the connected session. The session drop-down list will become active again allowing for a change to a different Oracle session.

Second Session

To facilitate the ability to copy or move process nodes across sessions, FormFusion offers the ability to log in to two Oracle instances at the same time. This option (called Second Session) is accessed by selecting "Tools" from the menu and then selecting "Second Session". Then, by dragging a tree node from one session's tree view to the other, the node can be copied or moved. Both sessions are fully functional.

How it Works

FormFusion is comprised of two components: client/workstation and server software. Each component is executed at different times and places but both are crucial to make the FormFusion solution work.

The Client/Workstation

The client executes on any 32-bit Windows® based operating system. This can be used by a system administrator, forms administrator, "power user," or form designer to design the layout of the reports to print and to change the way the server component will alter the reports.

The Server

The server software executes invisibly to all users. It resides on the Oracle server machine and is executed after a report is run. It takes the raw output file generated by the report, adds graphical elements, remaps data, etc. depending on how the process was configured using the client.

Before running either of the FormFusion components, the FormFusion Administrator should be executed. This will create the tables necessary for FormFusion. These tables are used to store configuration information. The server portion of FormFusion uses these same tables to process the document output. (As a note, the workstation software is used only as a design and configuration tool). After design changes are complete, the workstation updates the tables and exits. The server component actually processes your output files as needed on your host. Because our server software resides on your host, there is no need for an additional computer system to provide the processing. When you run a process from your Oracle database the server component will evaluate whether or not you have requested any modifications to the output stream and where to direct the output.

Additional topics

- Using FormStamp
- Using MapForm
- Using CaptureForm-SQL
- Using FormDirector

Contact Evisions

The Evisions, Inc. headquarters is located in sunny Southern California. All correspondence can be directed to the address or email address listed below. We welcome any questions about our products, technical support, and future development. Our friendly technicians are available Monday through Friday 8:00 am to 5:00 pm Pacific Standard Time. We also have an East Coast office available to take technical support calls from 8:00 am to 5:00 pm Eastern Standard Time. Arrangements can be made for after-hour technical consultations.

However, please read through the Frequently Asked Questions before contacting technical support since your question may have already been answered there.

Evisions, Inc.
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Irvine, CA 92612
(949) 833-1384
http://helpdesk.evisions.com

Frequently Asked Questions (FAQ)

This FAQ is separated into the sections pertaining to plug-ins. If your question isn't in one of the sections it may be in another since many tasks actually cross plug-ins. The first section deals with questions generally pertaining to the entire program and not specific to any one plug-in. If the question(s) you are looking for cannot be found here, you can visit the on-line FAQ at http://www.evisions.com/products/formfusion/faq.asp. Questions are regularly updated as we receive feedback from the FormFusion community.

Q: Why is there no option for remembering my password?
A: Most Windows® programs offer the ability to remember passwords. This is to make the task of logging on to programs or web pages easier for the user. There is really no inherent danger in saving the passwords for most Windows® based applications since Windows® 95/98 security is relatively easy to break anyway. However, the Oracle database and other Oracle-based programs do not make a practice of saving passwords since this is an enormous security risk. Our program follows suit in that passwords will never be remembered.

Q: Beneath a Special Print Parameter I can add multiple PCL Forms but I can't add multiple nodes of anything else. Why is that?
A: The process modifiers for MapForm, CaptureForm, and FormDirector expect there to be only one process modifier of each kind beneath a single special print parameter. There shouldn't be a need to create multiple nodes of these kinds since all tasks can be accomplished using a single node. If you want to make a backup of one of these nodes then create a "dummy" Special Print Parameter and move or copy the node there.

Q: Occasionally, when I am creating a new Special Print Parameter, I receive a message that says, "Cannot rename 'New_SPP' to '*New Name*'..." Why does this happen?
A: Most likely this will be because another process somewhere else amongst the groups has the same name of the process you are adding your Special Print Parameter to. And it also has a Special Print Parameter with the name you are trying to name your new Special Print Parameter. The Process/Special Print Parameter combination must be unique throughout the entire session not just beneath a group. This is because groups are not used by the server. The server grabs the process and special print parameter from the database using the parameters passed on the command-line.

CaptureForm-SQL

Q: What is the difference between the Pre, Page, and Post options?
A: This shows how the queries will be executed at various stages when the server application runs. All "Pre" queries will be executed before any processing of the input process file. This means that you can create a SELECT query, which will populate a variable that will not change during the execution of the server program. For instance, your organization's PO Box is unlikely to change from page to page therefore create a "Pre" query. The "Page" queries are to be executed for each page processed. The queries are executed after the MapForm fields have been evaluated so you are free to use a MapForm variable as search criteria. The "Post" queries run before the program exits. INSERT, UPDATE, and DELETE queries are most common here.

Q: I have several queries and two of them are dependent on the results of a third SELECT query. How can I tell CaptureForm to execute that query first?
A: The server will execute the queries in the order they are listed in the query list. Use the "move up" and "move down" buttons to place the SELECT query above the queries that are dependent upon the results.

FormDirector

Q: How can I add copies to the copy list?
A: The copy list is a mirror of the copies that you've created in the Special Print Parameter properties. You must add and remove copies there.

Q: How does FormDirector know if an email did not execute?
A: FormFusion server has no idea if the email was actually delivered successfully or if the address was actually valid. The server decides if the email is executed by checking the TO address. If this field evaluates to empty (nothing in the TO address) then this is a *non-executing* status. If you have a hard-coded address in the TO clause rather than a variable retrieved by MapForm or CaptureForm-SQL then the email will always have an executed status. You should place hard-coded email addresses in the CC and BCC fields.

Q: How can FormDirector know if a PrintDirector did not execute?
A: The Print, Archive, and Web Directors always execute. There is no logic for determining if the script is invalid or an INSERT could not be performed. However, if you have created logic such that PrintDirector will only execute if EmailDirector does not, and ArchiveDirector will execute only if PrintDirector does. Then if EmailDirector does execute then PrintDirector will not. Hence ArchiveDirector will not. The logic is available in a "second-hand" sense.

FormStamp

Q: I want to draw circles on my form. Why is there no circle shape?
A: PCL only has the ability to draw rectangles. While circles are possible the overhead involved with creating a filled or outline circle would make the file size grow rather large. We are working on a way to do this and still keep file sizes small. For now, if you need a circle, either create a bitmap and import it or create a text box and use one of the Symbol or Wing ding fonts. Use the Windows® tool "Character Map" to assist in finding the correct circle for you.

Q: I want to place a data field on a PCL Form but the data field object button is disabled. Why does this happen?
A: FormStamp checks whether any variables have been defined for its parent Special Print Parameter. If there are no variables then this button will be disabled since there are no fields that can be added. Variables can be created in either CaptureForm or MapForm.

Q: Why won't the "Add Data Field" button enable even though I've defined fields in a MapForm?
A: This typically will be caused if the changes to the MapForm node have not been "committed" to the database. Once committed, FormStamp will detect that valid fields are present and enable the button.

Q: I have created a rather large number of MapForm fields and don't want to add and position each one of them by hand. Is there an automated process?
A: Yes. When in a PCL Form, select "Tools | Add All Data Fields" from the menu. This will add all the MapForm data fields that aren't currently on the form in approximately the correct location. Once added, all fields will be *selected* so you can simply drag all objects into the correct locations.

Q: I have noticed the files being sent to the printer are rather large. I only have a few lines, boxes, and text fields. Why is the file so large?
A: Any text fields that are created on the PCL Form are turned into bitmaps when exported to PCL code if the font used is a Windows® TrueType® or System font. It is done this way to allow you to use any font to create the static text fields. If you are using the Arial, Times New Roman, or Courier font then try using the Arial (PCL), Times New Roman (PCL), or Line Printer font instead to increase text quality and decrease file size requirements. Other PCL fonts may exist on your system. When choosing a font, be sure to pick one that has a printer icon next to it. This designates a PCL font. We are working on a method to convert TrueType® fonts to PCL Soft Fonts to even further decrease size requirements.

Q: I want to add a GIF to the form. Why don't you support the GIF format?
A: The GIF format is a proprietary graphics format created by Compuserve® in the late 1980's. It uses a patented compression algorithm called LZW (197x) held by Unisys®. A license can be negotiated with Unisys to use the compression technology though it can be quite expensive. Many companies support the graphics format "illegally." Due to a loophole, programs that made use of the algorithm prior to a particular year (somewhere in the mid 90's) are allowed to do so without having to pay to use the algorithm. We will continue to negotiate with Unisys a fair fee but for now must not use the LZW algorithm for either the GIF or TIFF formats. The patent will expire within a few years however so the entire topic may be a moot point.

Q: I want to check the text objects for spelling errors. Does FormStamp have a spelling checker?
A: Currently, FormStamp does not make use of any spell checking software. We are investigating our options and one may be available in the near future.

Q: What happened to the font drop-down boxes?
A: Beginning with version 1.3 the font name and size tool bar controls have been removed. This is due to the fact that we now support PCL fonts for text boxes. You can still change these settings in the object properties dialog.

Q: I'm using a PCL font for my text box and it looks fine on screen. But when I print the page the text overlaps the designed text area. How do I fix this?
A: Currently, FormFusion uses the Windows® font system to render text on screen even if you have selected a PCL font. Because of this, there are slight discrepancies between the two different types of fonts (TrueType and PCL). FormFusion also uses the Windows font to calculate the boundaries of the PCL text resulting in a slight error for large text boxes. To compensate, change the height of the font to something slightly smaller. For instance, if you want to display the font at 16 point, change the font height to 15.7. FormFusion will still calculate the boundaries at 16 point but the actual font size used will be 15.7. In a future release of FormFusion, we will display all PCL fonts on screen using actual PCL font files so this problem should go away.

MapForm

Q: I've noticed that the properties of a Special Print Parameter and the properties of a MapForm both have a "Pages separated by page-break", "Column Count", and "Row Count" fields. What is the difference?
A: There is no difference between these three properties in the Special Print Parameter and the MapForm. These fields are actually stored in the Special Print Parameter properties and MapForm makes use of them.

Q: Then why have these fields in both areas?
A: MapForm actually extends the use of these fields. If you import a sample output print file from one of the reports or processes run on your server, MapForm will detect the bounds of the page and whether page-break characters exist in the data file. The server software needs to know the expected bounds of a page but does not need a MapForm to do this. MapForm needs these bounds as well but does not need to store them twice.

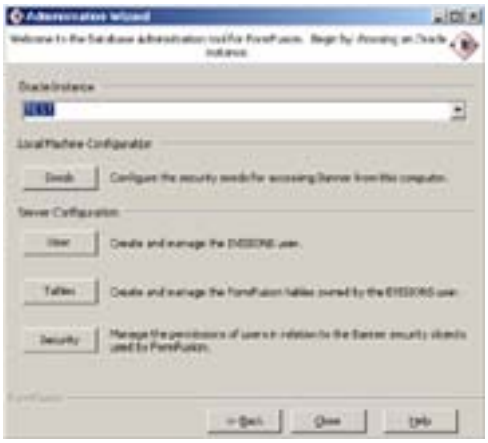
Q: What is that black area at the bottom of the page?
A: You will only see the black area if a page-break has been found in the sample output file. A page-break always instructs the printer to move on to the next page. Therefore, it will instruct FormFusion that the end of page has been found. The black area is to represent data that will not be added to the printed page. But, we display the area because the number of lines per page has been set to a number

greater than the line where the page-break was found. You can still design fields in that area, but when run on the server, if this area is past a page-break, the field will be filled with blanks or spaces.

Q: When I change the font size of the MapForm, why doesn't the font size for the data field change in FormStamp?
A: The font size in MapForm is for visual purposes only. It enables you to view more or less of the sample file as needed. It has no effect on the actual font used to render the text later. That is controlled in FormStamp by selecting the object properties and changing the font.

Q: I have defined a variable by selecting a field in MapForm. I use that field to create a new variable in CaptureForm. I then place the CaptureForm variable onto the FormStamp page. But when executed on the server, only the CaptureForm field displays, none of my original report fields print. I want to use MapForm but I don't want to select all of the printable fields and draw them on the PCL Form. How can I do this?
A: The server notices that you have defined a MapForm process modifier. Whenever this happens none of the original page text will print on the laser form unless explicitly drawn on a PCL Form. We are currently determining the best action to take to allow the use of MapForm and still print the page from the process output file as it existed. In the meantime, the best work-around is to create one large field in MapForm and then add that data field to the PCL Form. Use the Send To Back command on the field to put it behind any lines, text, or graphics you've created.

Administration Wizard



This is the Administration Wizard. This dialog will walk an administrator through the steps of configuring the Banner database and client machine to use FormFusion. Instructions for each step are summarized at the top of the dialog and more in-depth help is available here in the help file.

The first step is to choose the database session to configure. Each session that uses FormFusion must be configured separately. Select the "Oracle Instance" to configure and then click "Next".

Additional Topics

- Administration Wizard: Seeds
- Administration Wizard: User
- Administration Wizard: Tables
- Administration Wizard: Security

Administration Wizard: Seeds

This step is necessary to allow FormFusion to become part of Banner by learning the Banner Security Secret Seeds configured by the database Administrator when compiling Banner for the first time.

Banner 2000 provides additional security beyond that supplied by Oracle security. This is accomplished by using a password-protected role, which gives appropriate access to tables in the Banner database. In order for FormFusion to become part of the Banner system it must know two "seed" values.

These seed values allow FormFusion (and any other Banner process) to decrypt the password used to enable the correct Oracle role. Normal Banner processes and forms have these seed values compiled into the executable. FormFusion does not have this luxury and so therefore must be made aware of the seed values.

The seed values will be encrypted and stored in a local file (seeds.ini). The encryption scheme used makes it virtually impossible for a "hacker" to determine the values of the seeds. You can either manually enter the keys or allow FormFusion to find the keys in your database. FormFusion needs to log in as a DBA user to auto-detect the seeds.

If your institution does not make use of Banner Security then it may be safe to check the "Do not use Banner Security" check box.

Additional Topics

- Administration Wizard Dialog
- Administration Wizard: User
- Administration Wizard: Tables
- Administration Wizard: Security

Administration Wizard: User

This step will create the user that will own the FormFusion tables. The user is named 'EVISIONS'. Before creating the user you must edit the script (by clicking the top-most "Edit Script" button) and change the password from 'U_PICK_IT' to the password that will be used by your institution. The script file is named "create_user.sql" and it resides in the "Server" subdirectory. After creating the user, you need to edit the script again and replace the password with U_PICK_IT or some other invalid password to protect the new password.

Another reason to edit the creation script is to change the 'DEFAULT' and 'TEMPORARY' table spaces that should be used for this user. Keep in mind that the table space requirements for FormFusion may become very large over time so you should choose a tablespace, which will allow for at least 15MB of database disk space for EVISIONS. Your institution's requirements might be larger.

After the script has been sufficiently edited click "CREATE USER" to create the EVISIONS user.

Once the user account has been created it must be granted permissions to access data on your database. Click the bottom-most "EDIT SCRIPT" button to edit the script, which will grant permissions to the EVISIONS user. Your institution might require certain grants for all users and you can add these grants at this time. The minimum required grants for the EVISIONS user are:

```
RESOURCE, CONNECT, BAN_DEFAULT_M, CREATE PUBLIC SYNONYM, DROP PUBLIC
SYNONYM, CREATE ROLE, UNLIMITED TABLESPACE
```

When satisfied with the script click "GRANTS" to create the user grants.

Additional Topics

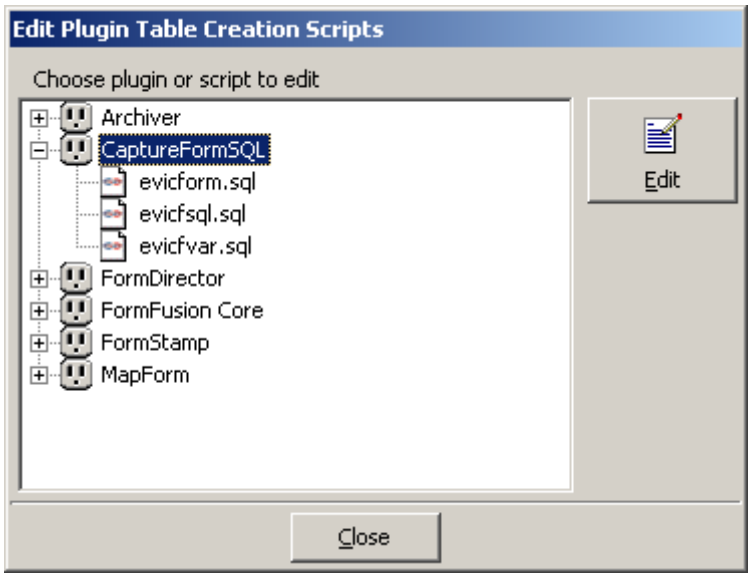
- Administration Wizard Dialog
- Administration Wizard: Seeds
- Administration Wizard: Tables
- Administration Wizard: Security

Administration Wizard: Tables

To reach this step you will be required to log in as the EVISIONS user. Type the password configured from the Create User step.

This step will allow you to manage the FormFusion tables. All tables required by FormFusion and its plug-ins will be listed here. Depending on the status of the table certain icons might appear next to the name of the table. The following table summarizes the icon meanings.

Icon	Meaning
	Created. The table has been created and validated.
	Missing. The table has not yet been created.



Before creating the tables you may wish to edit the scripts used to create the tables. Click the "Edit Scripts" button to open the "Edit Plugin Table Creation Scripts" dialog. The scripts are organized in a tree grouped by the plug-in that owns the tables. To edit all tables owned by a plug-in select the plug-in from the tree and click "Edit". To edit a specific script expand the plug-in (click the plus next to the plug-in name), select the script to edit, and click "Edit".

The main reason to edit a script is to add any necessary tablespace constraints to optimize the storage of FormFusion data. If you are unsure what values can be beneficial to your organization Evisions, Inc. can help with determining this information. The EVIBLOB table will be the largest table of them all. This table stores raw binary data information and can get large very quickly.

The table scripts are stored in the "Server" subdirectory.

When satisfied with the table creation scripts click "Create Tables". After the tables have been created click "Synonyms" to create the PUBLIC synonyms for every table. The synonyms are only mandatory if users other than "EVISIONS" will be using FormFusion.

If you need to delete a table click the "Delete Tables" button. Only do this if you are absolutely positive you want to delete a table. The data will be removed from the database and changes cannot be rolled back.

Additional Topics

- Administration Wizard Dialog
- Administration Wizard: Seeds
- Administration Wizard: User
- Administration Wizard Security

Administration Wizard: Security

Banner 2000 is a large accounting system built on an Oracle database backbone. Banner is a multi-user environment that allows many users access to the tables. The user level could range from System Administrator to Part-Time Temporary employee. It is obvious that security plays a large role in making sure only the correct data is accessed by the appropriate user.

On its own, Oracle provides a great amount of security through roles and individual table permissions. This amount of security wasn't sufficient enough for the needs of Banner so there exists another layer of security managed by Banner, which allows specific user access to certain processes. There are many classes of security created by Banner but the one that FormFusion makes use of is known as Object level security.

FormFusion needs to have an object named "FORMFUSION" created in Banner security. In addition, FormFusion server needs a security object named "FORMFUSION_SERVER" and for those sites making use of FormFusion Archiver a "FORMFUSION_ARCHIVER" object must be created. The following steps discuss how to create these objects through Banner forms.

1. Launch the GSASECR form and log in as BANSECR or one of the authorized security users.
2. Enter into the "Object Maintenance" section.
3. Insert a new record, either by clicking the Insert button or choosing Record | Insert from the menu.
4. Type the following values for the specified fields:

Object	Current Version	Sys Code	Default Role
FORMFUSION	1.0	A	BAN_DEFAULT_M

5. *Sys Code* and *Default Role* may vary for each system. The default values created during the Banner 2000 install are shown here. These are also the default entries for most security Objects.
6. Click on Commit or Close and commit the changes.
7. Repeat steps 3 through 5 for each security object.
8. Enter into the "User Maintenance" section
9. Type the name of the user that should be authorized to use FormFusion and click Modify
10. Insert a record and type FORMFUSION for the name of the object and the desired role name for the user. The role allows the user access to certain privileges. Some roles will allow users to perform SELECT and INSERT queries but will not allow the user to UPDATE or DELETE. These settings are configured by your system administrator. Users of FormFusion must have SELECT, INSERT, and UPDATE privileges for most operations.
11. Repeat steps 8 and 9 for each user that should be granted access to FormFusion.

For more information on creating BANNER roles, adding objects to a role, and granting these roles to end-users using the Security Maintenance Form GSASECR, refer to Chapter 2, *User Access Administration*, of the Technical Reference Manual for the General System.

Additional Topics

- Administration Wizard Dialog
- Administration Wizard: Seeds
- Administration Wizard: User
- Administration Wizard: Tables

FormFusion Developer

FormFusion® Developer is the centerpiece of the FormFusion® Suite workstation software. It is the design, layout, and data content module that is used to either import and modify, or "build" your output from the ground up. Developer only needs to be installed on a single PC for FormFusion® to operate and runs on any Windows® platform.

Once the look, and distribution parameters are set, end-users simply run SCT Banner®, and the rest occurs invisibly on the SCT Banner® host server.

The Developer module consists of three major plug-ins – ***FormStamp, MapForm,*** and ***CaptureFormSQL*.** FormStamp and MapForm combine together to become the Production Suite.

PRODUCTION SUITE

FormStamp

FormStamp is the first step, the designing tool, used to create the template or form. It is also the means by which you import Evisions' already feature-packed templates for easy completion and implementation. *FormStamp* allows you to replace preprinted forms, and develop new ones from scratch. It is comprised of familiar drawing tools: lines, shapes, shading, fonts, outlines, alignment features, graphical import, and more. It is as simple to use as any paint, drawing, or graphics program.

MapForm

MapForm is used to "map" SCT Banner® data fields to which you can assign variable names. This allows you to create a collection of data elements that you can drag and drop, and paste into other plug-ins as needed. All the SCT Banner® templates that Evisions provides on web site have this already done for you. Simply drag the data fields where you want them on the page. Copy them, and use them elsewhere. Change the size. You have the tools to change where the data is located and how it looks.

Advanced users can also use the mapping feature to capture fields other than those we've already named for you. Use them as you desire, and build custom output.

MapForm also has new features beginning in v1.5 that allow you to search for text (the word "total", for example), and then offset the field to capture or collect the associated value. Thus, search a finance report for the word "total", and then capture the data that is to the right of this word as the "amount" to be printed or used in a calculation.

You can also use it to accommodate resizing headers and footers that allow the parent section to grow/shrink according to the amount of data in the section. Now data that is not 'locked down' in one spot on the SCT Banner® output can be captured and moved to where YOU want it.

CaptureForm SQL

CaptureForm SQL allows users to easily add data to the report and perform mathematical calculations. This element is crucial, as it lets users add the important data they need to their output. As with the other changes, SQL does this without changing your underlying code. It's an indispensable tool help you make SCT Banner® "say" what you want.

Using simple SQL statements a user can call more advanced functions provided by SCT Banner®. SQL statements can be written to create tables and/or update values. Queries can be written to execute only once before or after the list file is processed, or designed to execute for every page.

With *CaptureForm SQL*, any returned value is mapped to a variable with properties you have assigned. Thus, if a query is written that returns more then one row, you define the query to accept the number of rows expected.

FormFusion Developer Basics

- Tree View Organizations
- Working with Groups
- Working with Processes
- Working with Special Print Parameters
- Variables

FormFusion Developer

- FormStamp
- MapForm
- CaptureForm SQL

Tree View Organization

This section will discuss the layout and organization of the "Process Tree View." This can also be thought of as the view into FormFusion tables residing in the Oracle session. Each entry in the tree view is called a "tree node" (or "node" for short). Each node represents an entry in one or more of the FormFusion tables.

"Process Group Nodes" are containers for other group nodes or process nodes. "Process Nodes" are containers for special print parameter nodes. "Special Print Parameter Nodes" are containers for the process modifier nodes. "Process Modifier Nodes" are all nodes that add a new feature to a special print parameter. Each plug-in provides a different process modifier node type.

A Closer Look

Node type	Description
 Process Group	Each group node is pulled from the EVIPGRP table. A group can contain other groups or processes. A group can contain nothing else and has no configurable properties of its own. When you choose a group node in the tree view, additional options become available in the "Edit" and "Tools" menus. A group can be added to the root level (no parent node).
 Process	Each process node is pulled from the EVISCTP table. A process can only contain a special print parameter. There are no configurable properties to a process. When you choose a group node in the tree view, additional options become available in the "Edit" menu. A process can be added to the root level (no parent node).
 Special Print Parameter (SPP)	Each SPP is pulled from the EVISPP table. An SPP can only contain process modifier nodes. By selecting the node in the tree view, additional options become available in the "Edit" menu. The "properties" of the special print parameter can be modified by either choosing the "Edit | Properties" menu option or right-clicking and selecting "Properties" from the popup menu. Also, each type of available process modifier can be selected from the "Edit | New" menu or popup menu. For more information on changing properties and adding process modifiers see Working with Special Print Parameters
Process Modifier	There are multiple process modifier types. Each will be described in detail below. In general, each process modifier is pulled from the EVIPMOD table. Each process modifier is a configurable node and may or may not house any child nodes.
CaptureForm Plug-In	

CaptureForm	The CaptureForm node is linked to EVIPMOD using the EVICFORM table. Choosing "properties" for a CaptureForm node will bring up the CaptureForm properties dialog box. There, you can add any custom SQL queries that should execute for the process and special print parameter when executed on the server. For more information on changing properties and creating the queries, see Using CaptureForm-SQL
FormDirector Plug-In	
FormDirector	The FormDirector node is linked to EVIPMOD using the EVIFDDIR table. Choosing "properties" for a FormDirector node will bring up the FormDirector properties dialog box. There, you can specify which directors should be used for the process and special print parameter when executed on the server. Each director uses a different table to store its information: EVIFDARC, EVIFDEML, EVIFDPRT, and EVIFDWEB. For more information on changing properties and redirecting output, see Using FormDirector
FormStamp Plug-In	
FormStamp provides for two process modifier nodes. Each FormStamp node is linked to EVIPMOD using the EVIFSTMP table. For more information on these two types of nodes and configuring FormStamp see Using FormStamp.	
PCLForm	The first node type is PCLForm which is a graphical designing tool allowing for the drawing of graphics, shapes, text, and data fields. The node is linked to EVIFSTMP using the EVIPCLF table. Some properties are available to edit when the PCLForm is closed but most properties are only editable when the node is opened. Open by either double-clicking the node or choosing "Open" from the "Edit" or popup menus.
MACFile	The second node type is MACFile. This node type is rarely used and is merely a non-editable PCL file. Properties are the same for the MACFile as they are for the PCLForm when the nodes are closed. The MACFile cannot be opened.
MapForm Plug-In	
MapForm	The MapForm node is linked to EVIPMOD using the EVIMAPF table. Properties for a MapForm are only available when the MapForm is *opened*. To open a MapForm node either double-click the node or choose "Open" from the Edit or popup menus. The properties of a MapForm node can also be found in the special print parameter node. See Using MapForm for details on configuring and using this plugin.

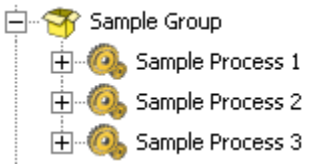
Additional Topics

- Working with Groups
- Working with Processes
- Working with Special Print Parameters
- Using FormStamp
- Using MapForm
- Using CaptureForm-SQL
- Using FormDirector

Working with Groups

What is a Group?

A group (also known as a Process Group) allows you to organize several processes together under one node (see image). A group is only used for organizational purposes and has no effect on the number of processes that are allowed to be created.



Creating a Process Group

On the "Edit" menu, point to "New", and then click "Group". A dialog box prompting for the process group name appears. Type the process group name and click OK. You will see the new process group node appear in the tree view.

Copying/Pasting/Moving a Process Group

Select the process group name to be copied in the tree view. Click the "Copy" button on the toolbar. The process group will be copied and pasted at the same level. Another way to copy is to click and drag to another process group or a different session's Process Tree. When you release the mouse you will be prompted with three options: Copy Here, Move Here, Cancel. Select the appropriate action.

Deleting a Process Group

Select the process group in the tree view. Click the "Delete" button on the toolbar. Note: all processes, special print parameters, and process modifiers under the process group will also be deleted.

Renaming a Process Group

In the tree view, select the process group to be renamed. On the "Edit" menu, click "Rename". Type the new name and press ENTER.

Exporting a Process Group to file

Select the process group to export in the tree view. On the "Tools" menu, click "Export to File". If you want to save the file in a different folder, locate and open the folder. In the "File name" box, type a name for the file. Click "Save". FormFusion Export filenames are given the extension ".ffe". All process groups, processes, special print parameters, and process modifiers under the process group will be exported to the file you specified.

Importing a Process Group from file

Select the process group 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, click "Import from File". If you want to import a file that was saved in a different folder, locate and open the folder. Double-click the file you want to open (**Note**: the filename will have a .ffe extension). The imported file will be placed beneath the currently selected group and the tree structure within that file will be created.

Working with Processes

What is a process?
A FormFusion process corresponds to the filename of a process or report, which is executed from your UNIX, VMS, or NT server. A process run from your server generally updates information within the database session and produces an output file.

Creating a new process
Select the process group to which you want to add a new process. Choose "Edit | New | Process" from the menu to create a new process node. Type the process name and hit the ENTER key. The new process name will now be listed in the tree view.

Copying/Pasting/Moving a Process
Select the process name to be copied in the tree view. Click the "Copy" button  on the toolbar. The process group will be copied and pasted at the same level. Another way to copy a process is to click and drag to another process group or a different session's Process Tree. When you release the mouse you will be prompted with three options: Copy Here, Move Here, Cancel. Select the appropriate action.

Deleting a process
Select the process in the tree view to be deleted. Click the "Delete" button  on the toolbar. Please be aware that all special print parameters and process modifiers under the process will be deleted.

Renaming a Process
In the tree view, select the process to be renamed. On the "Edit" menu, click "Rename". Type the new name and press ENTER.

Exporting a Process to file

Select the process to export in the tree view. On the "Tools" menu, click "Export to File"  . If you want to save the file in a different folder, locate and open the folder. In the "File name" box, type a name for the file. Click "Save". FormFusion Export filenames are given the extension ".ffe". All special print parameters, and process modifiers under the process will be exported to the file you specified.

Importing a Process from file
Select the process group 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, click "Import from File"  . If you want to import a file that was saved in a different folder, locate and open the folder. Double-click the file you want to open (**Note**: the filename will have a .ffe extension). The imported file will be placed beneath the currently selected group and the tree structure within that file will be created.

Working with Special Print Parameters

What is a special print parameter?
A special print parameter is the key node, which triggers the FormFusion server to take special action on the results of a report. When a matching Special Print Parameter is found, all process modifiers created to enhance the output stream will be read from the Oracle database and executed accordingly. If the process is run without the special print parameter defined, the process modifiers created in FormFusion will not be called and the process results will print as normal.

Creating a special print parameter
In the tree view, select the process for which you would like to create the special print parameter. On the "Edit" menu, point to "New" and then click "Special Print Parameter".

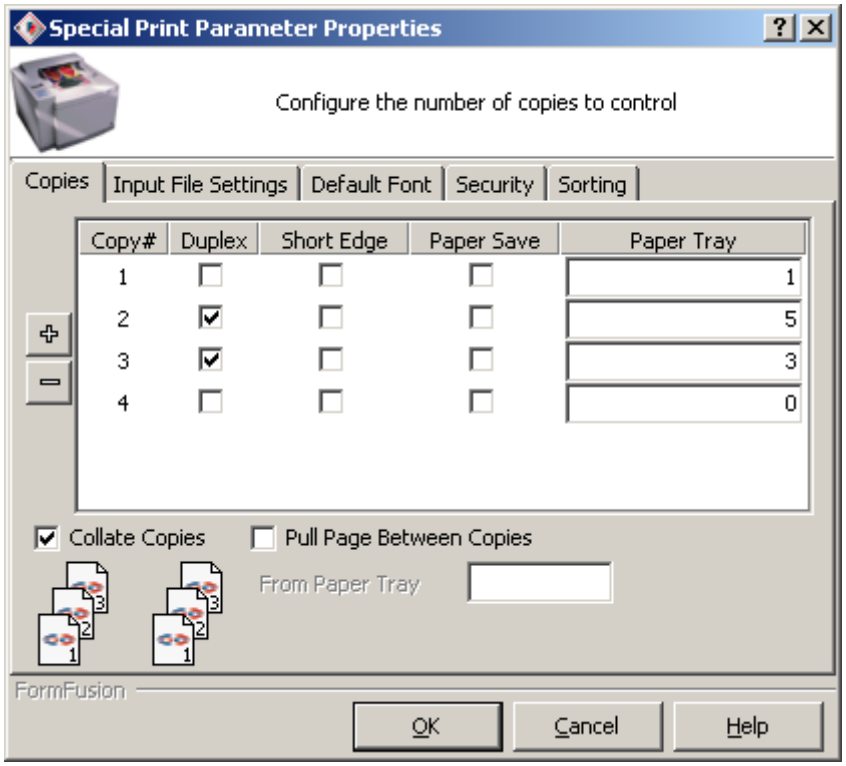
Copying a special print parameter
Select the special print parameter to be copied in the tree view. Click the "Copy" button  on the toolbar. The special print parameter will be copied and pasted under the same process. Another way to copy a special print parameter is to click and drag. You will be prompted with three options: Copy Here, Move Here, and Cancel. Select the appropriate action.

Deleting a special print parameter
Select the special print parameter to be deleted in the tree view. Click the "Delete" button  on the toolbar. Any process modifiers created for this special print parameter will be deleted.

Additional Topics

- Special Print Parameter Properties
- Special Print Parameter: Copies
- Special Print Parameter: Input File Settings
- Special Print Parameter: Default Font
- Special Print Parameter: Security
- Special Print Parameter: Sorting

Special Print Parameter: Properties



This is the Special Print Parameter Properties dialog. All database properties that make up a special print parameter can be altered here. The various aspects are separated into logical groups and can be accessed by clicking on the appropriate "tab" at the top of the dialog.

Copies Tab
Controls the number of copies that are printed for the report and how each copy is printed.

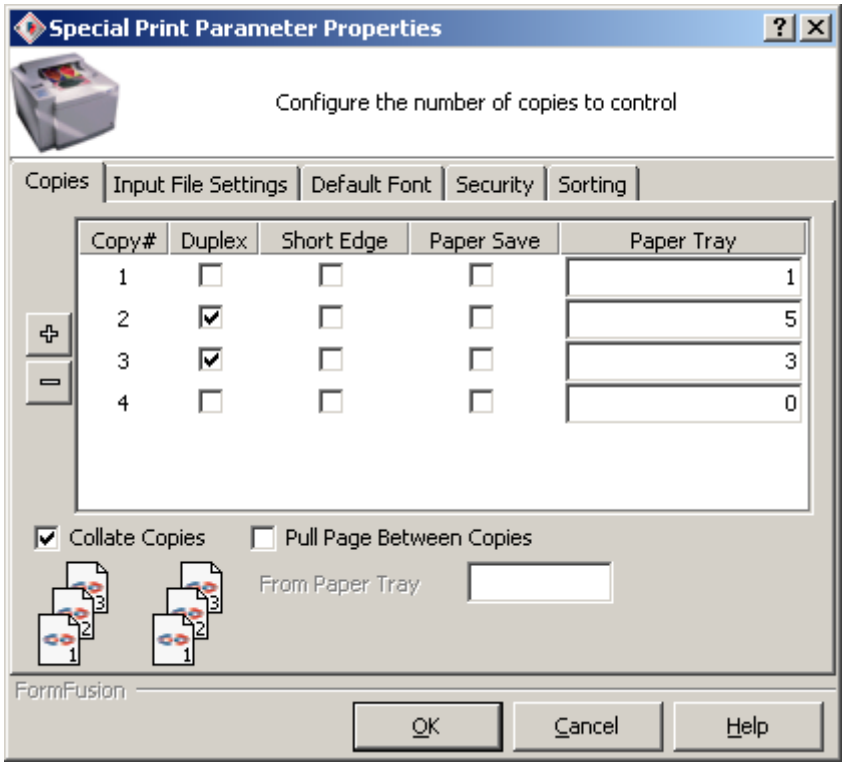
Input File Settings Tab
Controls how the input file should be processed.

Default Font Tab
Controls the default font that will be used when no other font has been specified.

Security Tab
Controls which users are allowed to modify the forms beneath this special print parameter.

Sorting Tab
This tab is provided to allow the user to sort the report output.

Special Print Parameter: Copies



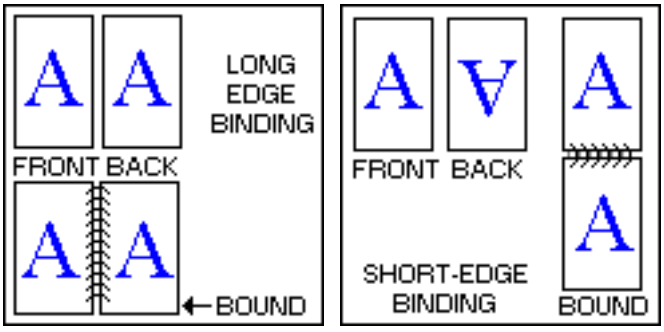
This tab controls the number of copies and the rendering of each copy on the printed page. The copies to process are listed in the large list in the center of the dialog. The first copy to process is listed at the top and the last copy to process is listed at the bottom. To add a new copy to the list, click the "Add Copy" button  . This will add a copy with the default properties at the bottom of the list.

To remove a copy, click the "Remove Copy" button  . This will remove the bottom-most copy.

Note: After removing a copy, it may be necessary to edit the PCL Forms beneath the special print parameter and re-assign the copy numbers to print on for each form, see Form Properties: Overlay for more details

Duplex
This field controls whether the copy will be duplexed or not duplexed. This only applies to copies that are actually printed on paper. A duplexed sheet means that both sides of the paper will be printed on. Even if your printer doesn't support duplexing FormFusion will think that it does so you should be careful when setting this option. To enable duplex printing click the "Duplex" checkbox. To control which PCL forms print on the front or back sides, see Form Properties: Overlay. The next two options *Short Edge* and *Paper Save* will be ignored if this box is not checked.

Short Edge
This field controls the orientation of the back side of a duplex printed page. This is also referred to as the "binding" of the page. With short-edge binding enabled, the back side is "flipped" compared to the front side. Refer to the images below for an example. To enable short-edge binding, click the "Short Edge" checkbox.



Short-Edge binding is commonly used for papers that will be bound like a flip-open notebook. Long-Edge binding is used for papers that will be bound like a standard book (such as a novel).

Paper Save
This field controls the amount of paper that will be used to print the entire copy. By default, when duplexed, FormFusion assumes that each page (front and back) belong to one page from the output process file. This means that you can place data fields on either side of the page before moving on to the next page of the output process file. By checking the "Paper Save" option you are specifying that each *side* of the page will be one page from the output process file. This reduces the number of pages printed by half. To enable paper save printing click the "Paper Save" checkbox.

Paper Tray
With FormFusion, you can control which paper tray a copy will feed from. This is especially useful when multiple copies are requested and each must be printed on different types of paper. To specify a paper tray to feed from enter the *Paper Tray* value for the desired copy. This value differs from printer to printer and may not correspond to the physical paper tray number stamped on the printer itself. See the table below for a comparison. The value you enter here should be the value necessary for the **PCL escape command**. The table below shows the paper tray values for some common printers. If your printer is not listed, refer to your printer's user manual.

Printer	Actual Paper Tray	Paper Tray Escape Sequence Value
HP 8000/5000	1	2
HP 8000/5000	2	1
HP 8000/5000	3	5
Xerox/N40	1	1
Xerox/N40	2	4
Xerox/N40	3	5
Xerox/N40	5	2 or 3

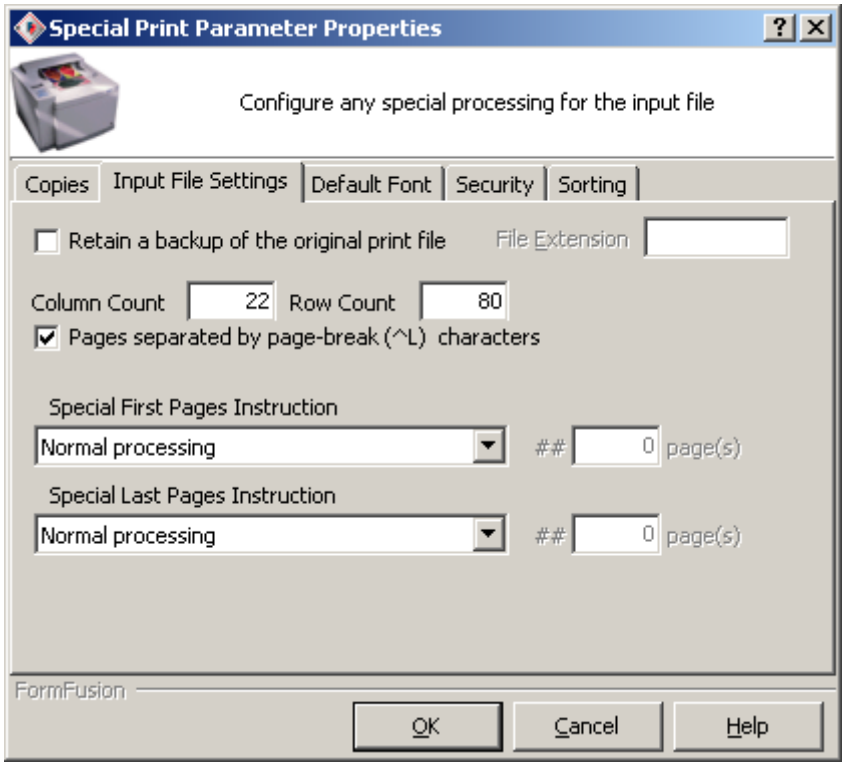
For example, to feed from tray 3 on an HP 8000/5000 printer, the actual escape sequence is `esc&l5H`. Thus, you would enter **5** in the "Paper Tray" field.

Note: If you leave this value as "0", the paper will be fed from your printer's default paper tray.

Collate Copies
When printing multiple copies; you can select to have the copies collated by checking this box. This means that each page of the first copy will print together, then each page of the second copy will print together. Uncheck this box to print the first page of each copy together followed by the second page of each copy and so on. The default action is for the copies to be collated.

Pull page between copies
FormStamp has a feature, which allows you to pull a separate page between copies being printed from the process. For example, if there was an announcement which was pre-printed that needed to be collated with the output from a process, you could put the announcement in a different paper tray and have the special print parameter set up to pull the announcement in between each page being printed.

Special Print Parameter: Input File Settings



This tab controls how the input file should be processed.

Retain a backup of the original print file
Check this box to force FormFusion to make a copy of the original input file for backup purposes. The copy will be in the same directory as the original input file with the same name and a default file extension of _bak. A different file extension may be designated.

Column Count
When you fetch a sample file in MapForm, the Column Count will default to the longest line in the file. However, if you know the sample does not contain the longest possible line, you can manually enter the number of columns possible for the sample file.

Row Count
If the report file does not contain page break characters, you can manually set the number of lines per page by entering it in the Row Count box. This will be helpful when you are trying to map fields for a multiple page sample file.

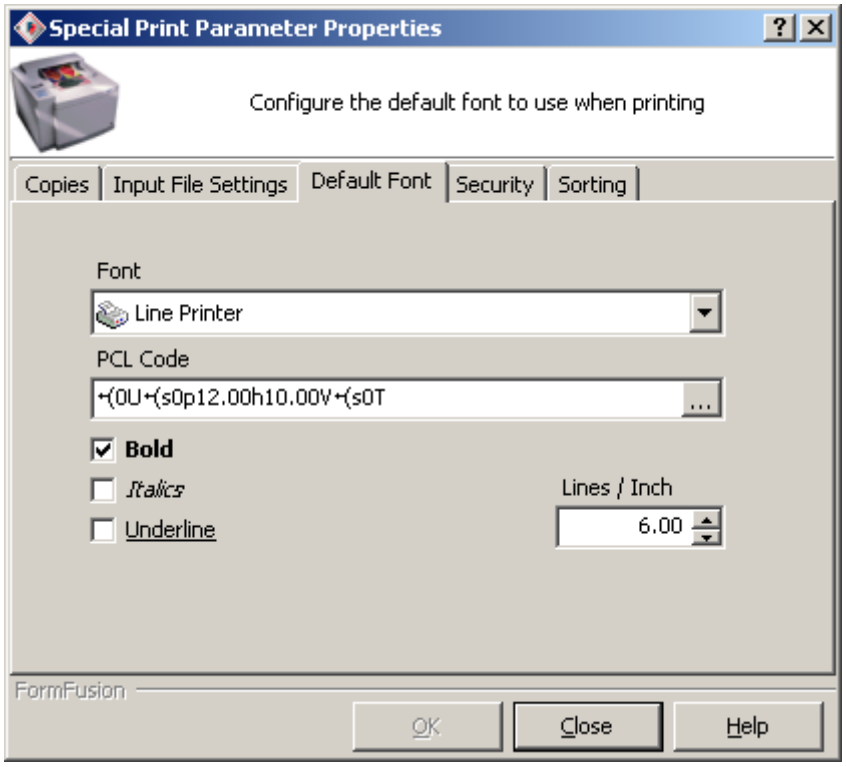
Pages separated by page break character (^L - control L)
If the original print file contains page break characters to designate the end of every page, check the indicator box.

Row Count and *Page Break* work together to interpret the input file correctly. Without page break set, FormFusion will read *Row Count* number of lines for each page. If FormFusion encounters a page break, that page will end regardless of the number of rows read. If page break is set, FormFusion will read up to *Row Count* number of lines per page. If a page break hasn't been found by the time *Row Count* lines have been read, the remaining lines will be skipped until a page-break character has been found.

Special First Pages Instruction
This option controls how FormFusion will process the first page(s) of the input report file. If set to *normal processing* then the first page(s) will be treated just like any other page of data. If set to *Print first ## pages without modification* then FormFusion will not stamp any forms on the output page, for the specified number of pages, and will use the default font to render the text. If set to *Do not print first ## pages* then FormFusion will not perform any processing for the first specified number of pages.

Special Last Pages Instruction
This option controls how FormFusion will process the last page(s) of the input file. Options are the same as above in *Special First Pages Instruction* however are in respect to the end of the file.

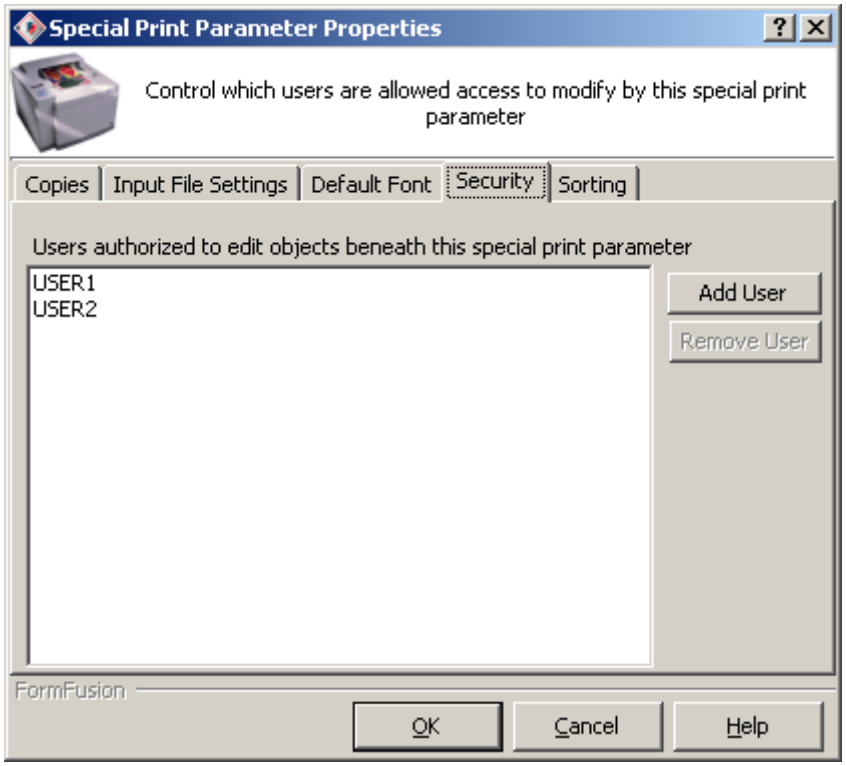
Special Print Parameter: Default Font



This tab controls the font that will be used to render text when no other font has been specified.

Control of the font name, pitch and height, bold, italics, underline, and lines per inch is the same here as it is in Working with Text

Special Print Parameter: Security

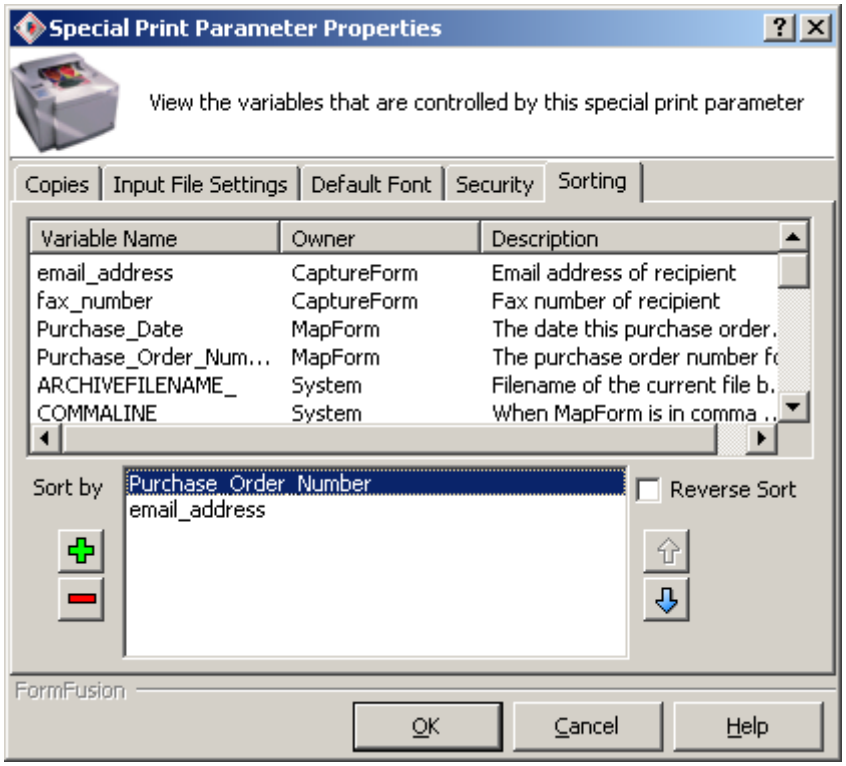


This option is provided to allow for some internal security. By default, any user allowed to edit a form in FormFusion can modify *any* form. You may not want a user from "Accounts Payable" to be able to edit a form in your department. You can add the user names here that should be allowed to edit any properties of the Special Printer Parameter and any process modifier beneath it. A user must have access to the forms of a process in order to modify them.

Add User
Click this button to add a user to the list. You will be prompted for the user name.

Remove User
Click this button to remove the selected user from the list. It is possible to lock yourself out from being able to edit the forms if you don't add your name to the list of valid users. You will receive a warning if doing so. It is also advised to add the EVISIONS user to the list of users since even EVISIONS can be locked out if not added.

Special Print Parameter: Sorting



This tab is provided to allow the user to sort the report output. This is provided to eliminate the need to modify base Banner reports to produce output sorted in the desired order.

Sorting is achieved by comparing the value of variables on each page. On the server, sorting is performed by executing its own pass, without producing output or modifying the input. All MapForm variables are valid for use and many of the system variables are valid. Some system variables are not valid (such as FILENAME_) since the value will be empty during the comparison. CaptureForm variables are valid for use depending on when the variable is populated. Only "Page Queries" are executed during sort.

At the top are all of the variables that exist beneath this special print parameter. Variables cannot be edited from this location but do show the process modifiers that "own" the variable name. At the bottom are the currently applied sorting variables. If no variables are present in this list then sorting will not occur.

Variables

Description
Variables offer a method to extend the functionality of FormFusion. Variables store data retrieved from different areas of FormFusion so that the results can be used across plug-ins. Currently there are two ways that variables can be created. The first is with MapForm and the second is with CaptureForm-SQL. There is future development in progress to offer more methods.

MapForm creates a "string" variable when you draw a field. This variable is then usable anywhere else in the application in which variables are accepted.

You can create variables with CaptureForm-SQL and populate these variables when you write a SELECT SQL statement. The INTO clause is where multiple variables can be populated.

Format and Limitations
Variable names must be unique beneath a Special Print Parameter. The variable name must start with an 'alpha' character (a-z or A-Z). After the first character the following characters are valid: alphanumeric (a-z, A-Z, 0-9), underscore (_), dollar sign ($). A variable name cannot contain any spaces, instead we suggest using the underscore character in place of spaces. Variable names are limited to 32 characters.

Referencing
A variable is referenced using a colon followed by the variable name. For instance, if you want to reference a variable named "My_Company_Address" then you would reference it as `:My_Company_Address` in FormFusion wherever variable references are allowed. Currently, FormDirector and CaptureForm are the only areas that variables can be referenced.

When creating a "Data Field" object in FormStamp, the variables you have previously created will be present in a drop-down list. You select the variable name from the list and never actually type its name anywhere.

Reserved Variable Names
There are several reserved variable names. These names are used by the server software and can be referenced but never overwritten. The general format of global reserved variables is a name in all uppercase letters with an underscore appended. These include:

ARCHIVEFILENAME_	Name of the current file being created for archive. No path.
COMMALINE_	When MapForm is in comma-delimited mode this variable contains the entire line read in with commas still in place.
DEBUG_	Set to 0 if not running in debug mode, 1 if in debug mode.
EMAILFILENAME_	Name of the current file being created for email. No path.

FILENAME_	Name of the current output file being referenced. This can change depending on what area the server software is executing. This variable contains the fully qualified path of the file.
LISFILENAME_	Name of the original input file. The fully qualified path.
PASSWORD_	The password of the user running FormFusion server.
PROCESS_	The name of the process being extended.
PRINTFILENAME_	Name of the current file being created for print. No path.
SYSDATE_	The system date at the time server started execution.
TEMPPATH_	The path used to create temporary files
USERNAME_	The name of the user running FormFusion server
FILENAME_UUENCODED_	Filename of the current email file that has been prepared for emailing using the 'sendmail' UNIX system command.
WEBFILENAME_	Name of the current file being created for web. No path.

For example, to use the system date variable you would type: **`SYSDATE_`** wherever references to variables are allowed. Future system variables are planned as development progresses.

Additional Topics

- Using FormStamp
- Using MapForm
- Using CaptureForm-SQL
- Using FormDirector

FormStamp

FormStamp is the core plug-in used by FormFusion Developer to create the visual layout and design of the finished documents. FormStamp is a What-You-See-Is-What-You-Get (WYSIWYG) tool that allows you to draw lines, create text objects, and add logos and signatures to the finished output. In addition to the basic drawing tools, FormStamp also brings together elements from other FormFusion Developer plug-ins. These include dropping mapped fields (MapForm) onto your final output along with custom SQL results (CaptureForm).

As with all other FormFusion Developer plug-ins, all setup and design information is stored in your Oracle environment.

Using FormStamp

FormStamp is the centerpiece of FormFusion. FormStamp is a what-you-see-is-what-you-get (WYSIWYG) designing tool where you can place graphics, text, shapes, and data field objects anywhere on a standard sized laser form. Each FormStamp node is a "digital template" that will be "stamped" onto the laser form when the report or process is run from the server. There is no logical limit to the number of digital templates you can design for any process.

Since there is no guesswork at what the final output will look like what you see on the screen is what the laser output will look like when the process is run from your Oracle database. Should you run a process that does not have a digital template defined by a Special Print Parameter, FormFusion will not interfere in any way. Using the WYSIWYG style of FormStamp, you can design your digital template any way you want. The ability to draw lines, boxes, shading, and text elements allows you to create the format you desire. Combine the basic drawing elements with the ability to import and place graphics such as logos, signatures, watermarks and you have a completely customizable and configurable laser printing solution.

FormStamp is opened by double-clicking the PCL Form node or selecting "Open" from the "Edit" or popup menu. For information on nodes see Tree View Organization. When a PCL Form window is active, the tool bar at the top of the FormFusion application window will change to display all of the options available. The tool buttons will enable and disable as the option becomes available or not.

FormStamp Topics

- Working with Forms
- Working with Objects
- Working with Shapes
- Working with Text
- Working with Data Fields

Additional Topics

- Working with Groups
- Working with Processes
- Working with Special Print Parameters
- Tree View Organization

Working with Forms

What is a PCL form?
A FormFusion PCL Form is basically a "digital template" which you can overlay onto any output stream from a process run on your Oracle database. The ability to draw lines, boxes, shading, and text elements allows you to create ANY format you desire. The combination of the basic drawing elements with the ability to import and place graphics such as logos, signatures, and watermarks allows you to create the forms you need. The forms can be "layered" on top of each other when sent to the laser printer. Through simple logic, you can request that only certain forms print on a page, front side, back side, only on certain copies, etc.

Creating a new PCL form
In the Process Tree View, select the special print parameter beneath the process you would like to add the form to. Choose "Edit" from the menu and choose "New". Beneath the "New" sub menu, you will find a variety of process modifiers that can be created. Choose "PCL Form (FormStamp)". By default, the new form is named *New PCLForm*. Type your desired form name, and then press ENTER. The name of the form is important only to you since it is not referenced on the server side at all. The name should indicate the options of the form. For instance, "Copy 1 Front Side" would be a good descriptive name. The name length is limited to 64 characters

Opening a form
Locate the form you would like to edit and open it by either double-clicking the form name or selecting it and choosing "Open" from the "Edit" or popup menus. This will display the PCL Form designing window in the area to the right of the Process Tree View. If the form was already open, it will become active again.

Renaming a form
Select the form you want to rename. Choose "Edit" from the menu and then choose "Rename". Type the new name and press ENTER.

Deleting a form
Select the form to be deleted. Click the "Delete" button  on the toolbar.

Saving a form

To save a form click "Commit Changes" button on the toolbar. This option will not be available unless a change has taken place on the form. Two types of saves occur at this point. First, all objects are saved to the Oracle database in their respective tables. After the objects are saved, the form is converted to PCL5 code and saved to the EVIFSTMP Oracle table for later retrieval by the server component.

Exporting as PCL5 file

Select the form to be exported. Click the "Export as PCL5" button on the toolbar. You will be able to choose the destination location and filename.

Printing a form

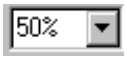
You can print the active form by clicking the "Print" button on the toolbar. Only the form "template" will be printed, any data fields added from MapForm will only be printed when the process is run from the Oracle database. You must print to a PCL5 compatible printer.

Toggle Grid

To toggle the displaying of the grid lines on or off, click the "Toggle on or off the display of grid lines" button on the toolbar.

Snap to Grid

When this option is active, objects that are placed on the form are placed on the nearest grid point. To toggle this option on or off, click the "Turn on or off snapping of objects to grid" button on the toolbar.



Change view magnification

Select the desired magnification from the zoom drop-down box on the toolbar. You are free to type the desired magnification or use the presets already present.

Working with Objects

What are objects?
An object is any item that can be placed onto a PCL Form. This includes lines, rectangles, images, and text. These objects are used to help enhance the overall appearance of a form. Future enhancements to FormFusion might offer more object types.

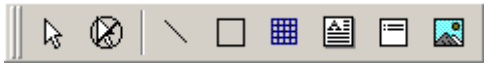
Selecting Objects on a Form
To select an object, left-click on it. When an object is selected, it is highlighted and its sizing handles are displayed. You can select multiple objects by holding the SHIFT key down while selecting objects.

Moving an Object
Select the object(s) to move. Left-click and drag the object to its new position. To move an object in small increments hold the "CTRL" key down while pressing the arrow key in the direction you want to move the object.

Deleting an Object
Select the object(s) you want to delete from the form. Then click the "Delete" button from the toolbar, or press the DELETE key.

Resizing an Object
Select the object you want to resize. Click and drag a sizing handle until the object is the desired size. To resize an object in small increments hold the CTRL key down while pressing the arrow key in the direction you want to move the object. To resize from the upper left of the object hold the SHIFT key down as well.

Creating an Object
To draw an object you must activate the object-drawing mode by clicking the appropriate button for the object type.



Click on one of the following topics to learn more about creating objects:

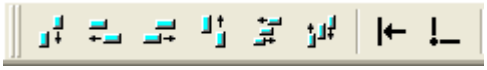
Working with Basic Shapes
Working with Text
Working with Images

Changing Line Width (Lines, Rectangles, Text Objects)
To change the line width of lines, rectangles and text objects, select the object. Click the "Change line width" button . Enter the desired width (in pixels) and click OK.

Change Fill Color (Rectangles, Text Objects)
To change the fill color of rectangles and text objects, select the object. Click the "Change fill color" button  . Select the desired color from the drop down list.

Locking an Object
To lock an object in place on a form, select the object. Then, click the "Lock selected object in place" button  on the toolbar. This will protect the object from accidental mouse clicks and drags. You can still, however, modify the object using "Format Object."

Aligning Multiple Objects
There are eight different ways to align multiple objects:



Bottom Align Selected Objects
Left Align Selected Objects
Right Align Selected Objects
Top Align Selected Objects
Center Selected Objects Horizontally
Center Selected Objects Vertically
Force Objects to Intersect
Force Objects to Meet at a Point

Additional Topics

Working with Shapes
Working with Text
Working with Data Fields

Working with Basic Shapes

At its core, FormStamp is a PCL authoring tool. The PCL language has only one shape... the rectangle. FormStamp extends this basic functionality by providing the Line, Rectangle, and Grid objects.

Line

A line is the most basic object type. A line can be drawn either vertically or horizontally -- diagonal lines do not exist in PCL. To draw a line on a PCL Form you must first select the "Draw Line" tool button from the tool bar. Click and drag the mouse anywhere on the PCL Form to create the line.

The properties that can be modified for a line are the "Line Width" and "Line Color." See Object Properties for more information on editing lines.

Rectangle

A rectangle is much like a line except that it has the ability to resize in both vertical and horizontal directions. A rectangle also has a fill style for the background color as well as a separate line color. Rectangles are used to denote areas of importance, organization, or to change the color of a background area. To draw a rectangle on a PCL Form you must first select the "Draw Rectangle" tool button from the tool bar. Click and drag the mouse anywhere on the PCL Form to create the rectangle.

The properties that can be modified for a rectangle are the "Line Width", "Line Color", and "Fill Color". See Object Properties for more information on editing rectangles.

Grid

Grids can be used for several reasons. Most namely, grids are used to indicate areas of repetitive data from sources such as MapForm variables. To draw a grid on a PCL Form you must first select the "Draw Grid" tool button from the tool bar. Click and drag the mouse anywhere on the PCL Form to create the grid.

The properties that can be modified for a grid are the "Line Width", "Line Color", "Fill Color", and "Column or Row Count". See Object Properties for more information on editing grids.

Working with Text

Text

Text objects combine the functionality of rectangles with the necessity to create areas of written information on the form. Text objects can use any Windows® or PCL font and can be displayed using a variety of formatting options.

To create a text object on the form first select the "Draw Text" tool button from the tool bar. Then, click anywhere on the PCL form to add the object. A dialog will appear asking for the text to place in the object. The text will be formatted using default formatting options. To edit the text object you may double-click or click the "Properties" tool button from the tool bar.

The properties that can be modified for a text object are the "Line Width", "Line Color", "Fill Color", "Font", "Font Style", "Font Color", "Indent", and "Rotation". See Object Properties for more information on editing text objects.

Working with Data Fields

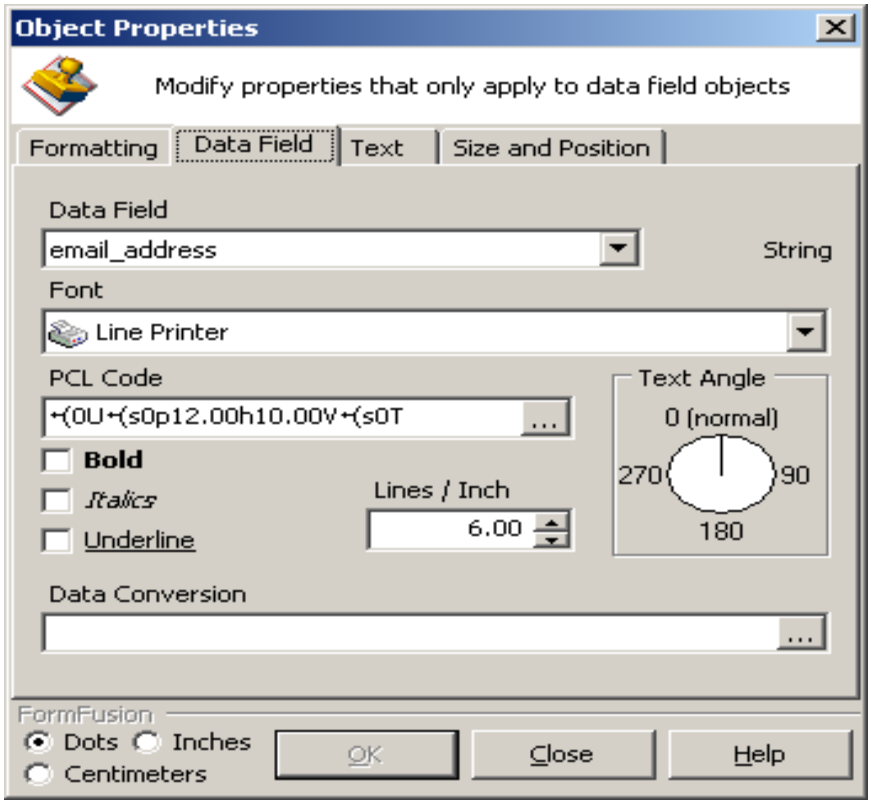
What is a Data Field?
A Data Field is a block of text, which was defined in MapForm or the user-defined variable created with CaptureForm-SQL. Once a data field has been defined it can be inserted onto a PCL Form and placed in the appropriate position in order to create the desired appearance for the form.

Inserting a Data Field

Click the "Draw a pre-defined data field object" button  . Click the position on the form where you want to insert the data field. The **Object Properties** dialog for data fields will appear. Select the **Data Field** to insert from the drop down list.

Add All Data Fields
To add all data fields at once, in the "Tools" menu, click "Add All Data Fields". All the data fields defined in MapForm will be placed on to the form.

Changing Data Field Font
Select the data field you want to change. Open the "Format Object" dialog and select the Data Field tab. Select the "Font Name" from the drop down list.

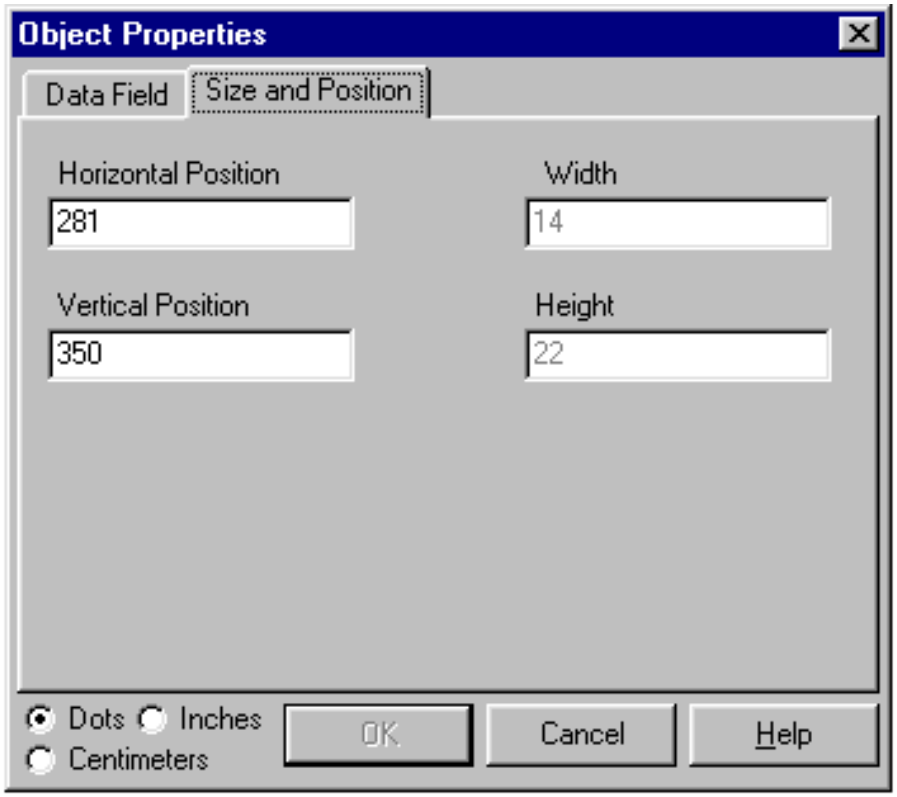


Changing Data Field Angle

Select the data field, then click the "Edit | Properties" menu. Choose the Data Field tab. Under the **Text Angle** section there are four options: **0**, **90**, **180**, **270**. These options correspond to the number of degrees to rotate the text counter-clockwise. Simply select the desired rotation.

PCL Code
The Printer Command Language (PCL) codes, or escape sequences, provide access to the various features of the printer, such as font type, size and style. This is entered when you select the font features you want but can be modified manually if necessary. By click on the ... you can change the pitch and height of the PCL font.

Data Conversion
This field displays the conversion code used by FormFusion when rendering this field. To edit the text, click the ellipses button to the right. This will bring up the "Conversion Format" dialog box.



Position
The horizontal and vertical position of the data field can be modified on the Size and Position tab for the data field properties. You can also change the position of a data field object by clicking and dragging on the form itself.

Size
The size of a data field cannot be changed in FormStamp. The size is determined where the variable was defined and can only be modified by the plug-in that created the variable.

Additional Topics
- Using MapForm
- Using CaptureForm-SQL

Working with Images

 **Image**

An image is a graphical element used to display logos, signatures, watermarks, etc. Color or black and white images can be added to the form but currently images will only be printed in black and white. The use of logos and watermarks creates a professional appearance while the addition of signatures can reduce the amount of manual processing required.

FormFusion supports the following image file formats:

- JPEG (*.jpg, *.jpeg)
- Bitmaps (*.bmp, *.dib)
- Icons (*.ico)
- Metafiles(*.wmf, *.emf)
- Portable Network Graphics (*.png)
- Tagged Image File Format (*.tiff, *.tif)
- Zsoft (*.pcx)
- TrueVision (*.tga)

To draw an image on a PCL Form you must first select the "Draw Image" tool button from the tool bar. Then, click the mouse anywhere on the form to open the "Load Image" dialog. Locate the image to load and then click "OK".

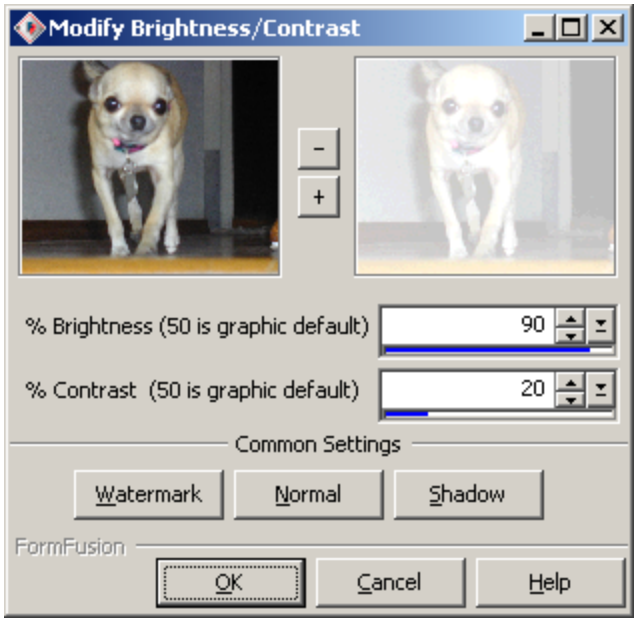
Adjust Image Brightness/Contrast

FormStamp has the ability to alter the brightness and/or contrast of any loaded image. To do this, right click on the image object you want to adjust. Choose "Adjust" and then "Brightness/Contrast". To learn more about this process click Modify Brightness/Contrast.

See Object Properties for more information on editing images.

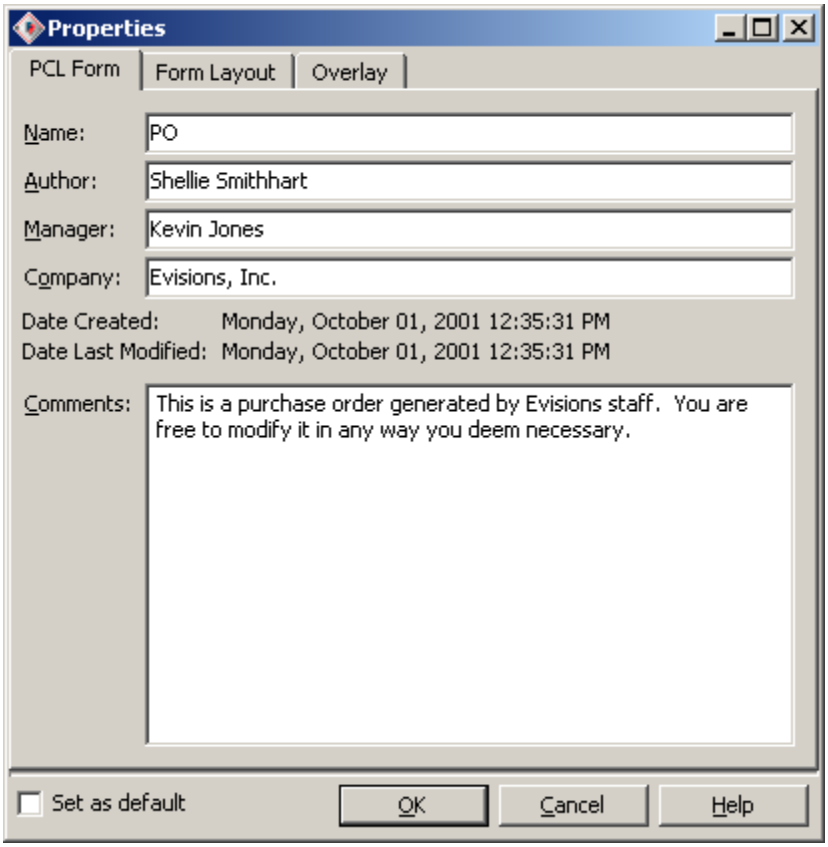
Modify Brightness / Contrast

Adjust Image Brightness/Contrast



Right click on the image object you want to adjust. Choose "Adjust" and then "Brightness/Contrast". The following dialog will appear. Adjust the Brightness and Contrast controls until you achieve the desired image. Click OK when finished.

Form Properties



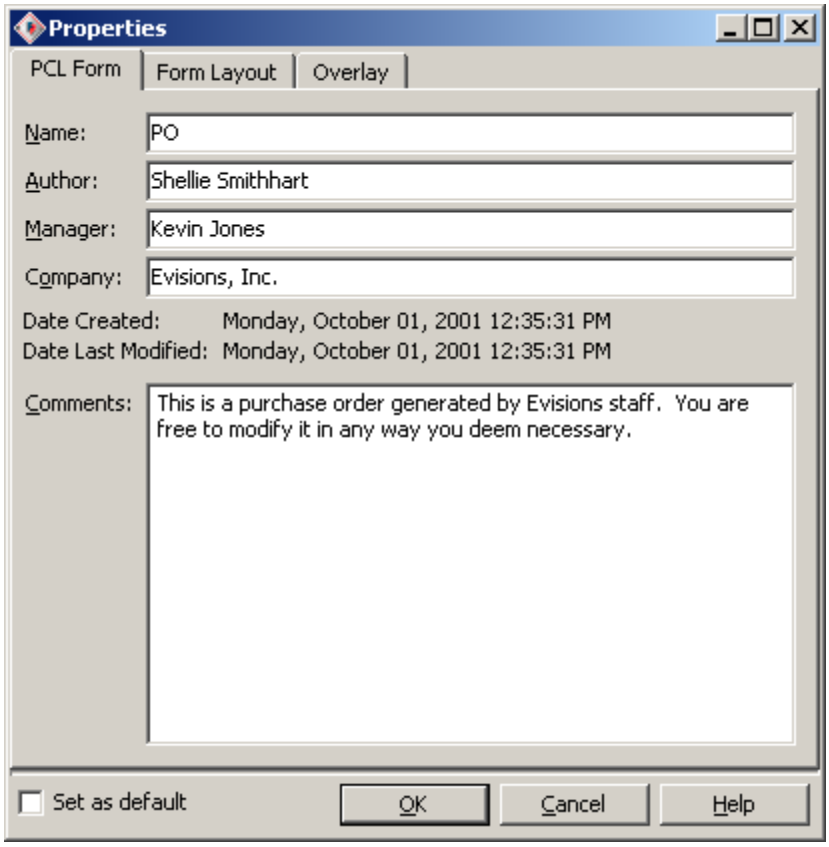
The Form Properties dialog allows you to set the properties for each specific form. You can change the orientation of the page, set the resolution of the PCL encoding, and determine what copies of the output the form should be printed on.

For users that have printers with the ability to duplex, these properties also allow you to specify whether or not to print the form on the front or back of the page. Other advanced features within this section of the properties allow you to load forms into printer memory.

For more help, click on one of the following topics:

- Form Properties: PCL Form
- Form Properties: Form Layout
- Form Properties: Overlay

Form Properties: PCL Form



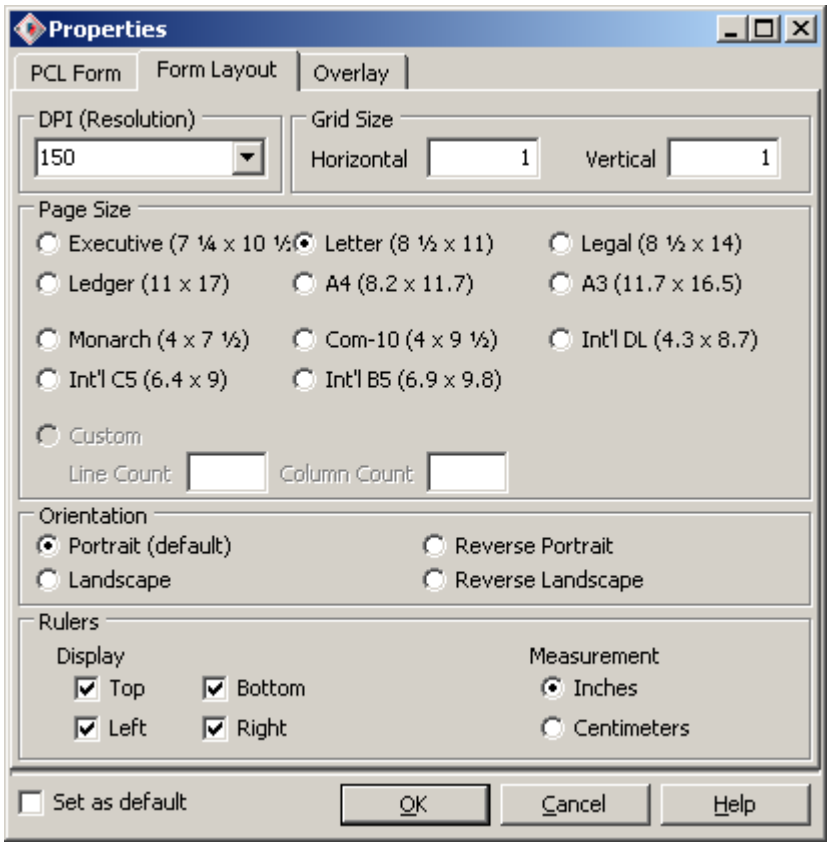
Editing form properties
To edit the form properties, open the form you wish to edit. On the "Tools" menu, click "PCL Form Options".

Click on the **PCL Form** tab in the "Form Properties" Dialog. Here you can edit the form name, author name, manager name, company name and any comments about the form. These fields are for internal management and are not used by FormFusion in any way.

Additional Topics:

- Form Properties
- Form Properties: Form Layout
- Form Properties: Overlay

Form Properties: Form Layout



DPI (Resolution)
The resolution of the form is in DPI (dots per inch). This controls the sharpness of the printed page. To change the form resolution, select the desired resolution from the existing settings. The higher the number, the better the resolution. However, setting this option higher requires more memory for graphics and text boxes. Most printers look fine at 300 dpi and 600 dpi. It is possible to achieve a higher resolution but is unadvised due to additional memory requirements.

Grid Size
The grid size is used when viewing with the grid on or snapping to grid. These lines are an aid for drawing fields, boxes, lines, etc. The grid is not used by the server software, only the client. There are two settings, which control the grid lines: *Horizontal* and *Vertical*. To set the width of the grid, enter it in the *Horizontal* edit field. To set the height of the grid, enter it in the *Vertical* edit field.

Page Size
This option controls what type of paper the form should be printed on. There are several standard page sizes to choose from. Simply check the button that corresponds to the page size you desire. The width

and height of each page size is listed next to the name. These measurements will be displayed in the current measurement mode (inches or centimeters).

Page Orientation
This controls the physical direction the form should display on the printed page. There are four choices: *Portrait (default)*, *Landscape*, *Reverse Portrait*, and *Reverse Landscape*. Simply check the button that corresponds to the orientation you desire for the page. Most common choices are portrait and landscape.

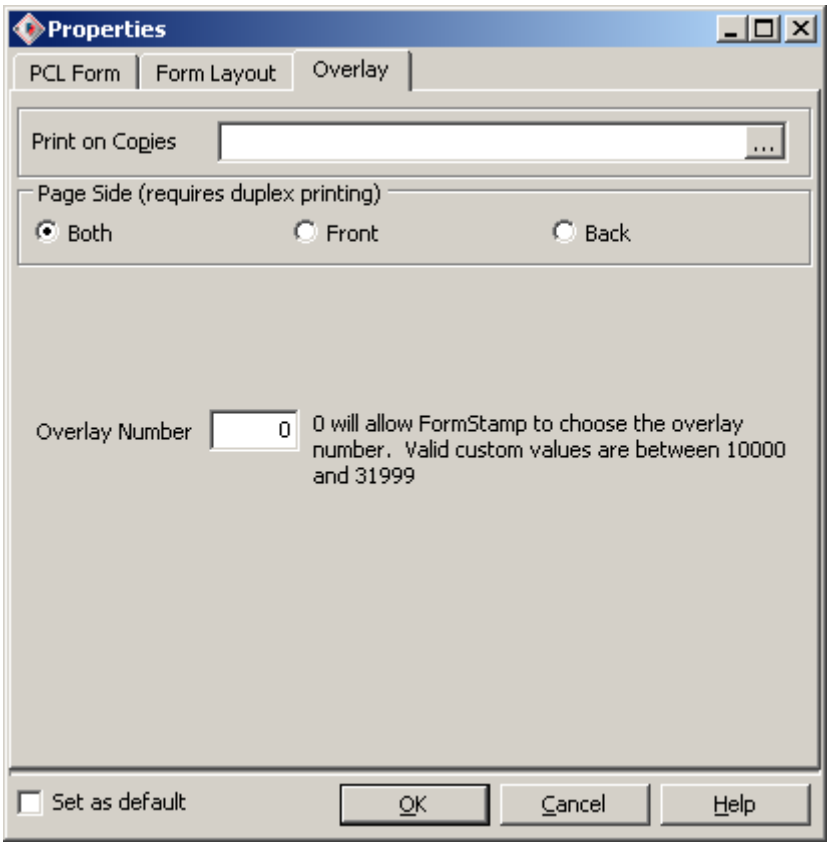
Rulers
The rulers are useful when designing your form layout. They can be helpful for lining up objects at approximate locations on the printed page. The rulers can be displayed on any of the four sides of the form window. Check or uncheck the rulers you would like displayed. This option is to allow for a customized view that has no bearing on the output.

Measurement
This option controls the measurements of the page size, grid size, and all placement of objects on the form. You can either view measurement in "inches" or "centimeters".

Set as default
The current settings for the form can be set as the default by checking this box and then choosing "OK".

Additional Topics
- Form Properties
- Form Properties: PCL Form
- Form Properties: Overlay

Form Properties: Overlay



Print on Copies
In this edit field you can enter the copy (or copies) the form will be printed on. For example, if you want a form to print on copies 1 and 3, enter "1, 3" (no quotes). To print on copies 2, 3 and 4, enter "2-4". When a copy number is not specified, the form will print on all copies. If a form is being modified or is not currently needed and should not be printed on any form, you can specify copy 0. This will cause it to never print

Page Side
You must also specify which side of the page the form will print on. There are three radio buttons for doing this: "Both" (default), "Front", and "Back". Simply choose the side you want the form to print on if you are printing simplex. Or choose "Both" if you are printing duplex and want the form to display on both sides.

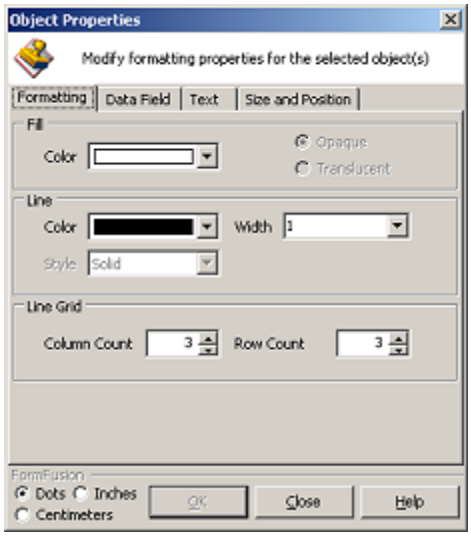
Overlay Number
An overlay number is a PCL term. Also known as a *macro*, the overlay contains all the graphics, text, lines, etc. that will print for the form. FormFusion will automatically number macros sequentially starting with 1 and stopping before 10000. If you would like to take control of the macro number, you

may choose a number between 10000 and 31999. All other values will be invalid. Most users will have no need to do this.

Additional Topics

- Form Properties
- Form Properties: PCL Form
- Form Properties: Form Layout

Object Properties



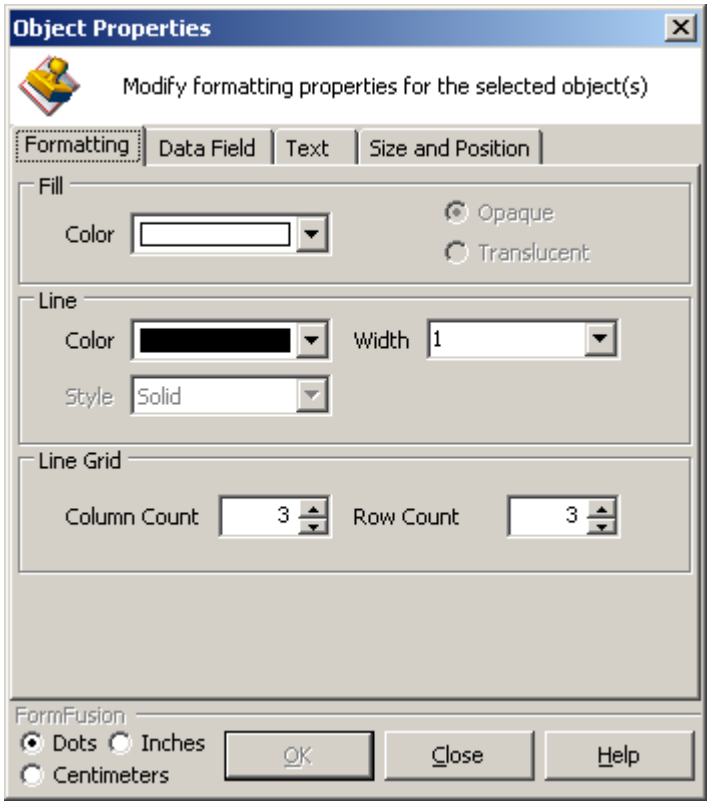
This dialog allows you to modify the properties of a single object or multiple objects. If editing multiple objects at the same time, the *same* values will be displayed while the values that aren't the same will be displayed as either blank or disabled.

The properties for the different objects can be accessed by clicking the appropriate tab. All objects will have a "Size and Position" tab. At the bottom of the dialog are three radio buttons titled "Dots", "Inches", and "Centimeters". This allows you to choose which mode to display the numeric values in this dialog. The properties that support measurements other than dots will change when you select a different measurement mode.

For more help click on one of the following topics

- Object Properties: Formatting
- Object Properties: Data Field
- Object Properties: Text
- Object Properties: Size and Position

Object Properties: Formatting



This sheet allows you to edit various properties for different object types. Depending on the object that is selected some or all of these properties may or may not be enabled.

Fill Color
This changes the color that is displayed in the background of many objects. Choose transparent if the object should not use any fill color.

Line Color
This changes the border color for the selected object. A color of transparent is valid but it is advised to use a line width of 0 rather than a transparent line color to achieve the same effect.

Line Width
This changes the borderline width for the selected object.

Line Grid
This area only applies to selected line grid objects

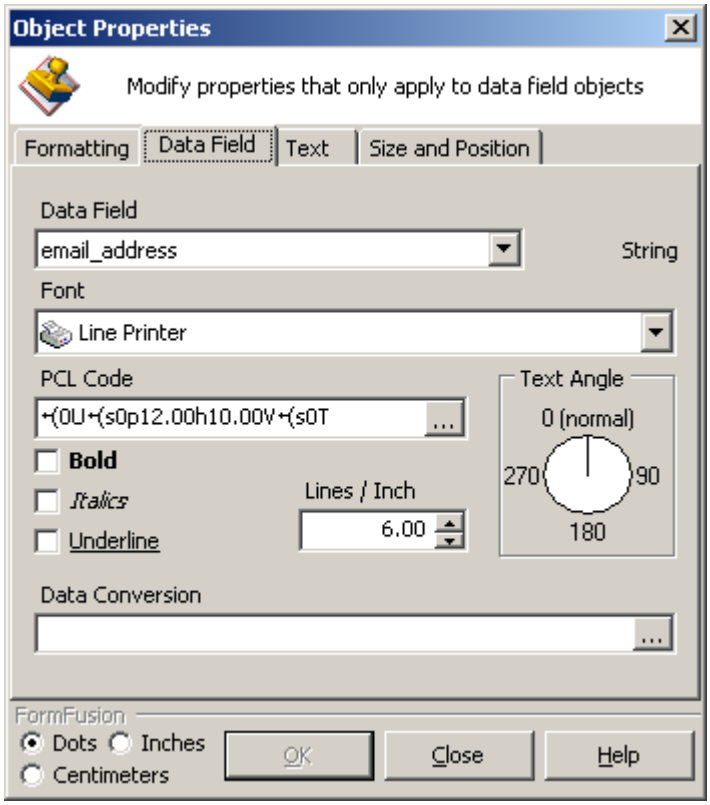
Column Count
This changes the number of columns in the grid. Grids have a minimum of 1 column.

Row Count
This changes the number of rows in the grid. Grids have a minimum of 1 row.

For more help click on one of the following topics

- Object Properties
- Object Properties: Data Field
- Object Properties: Text
- Object Properties: Size and Position

Object Properties: Data Field



This sheet will only be available when editing a data field object. This sheet controls the bulk of configurable properties of a data field. This sheet will also appear when creating a data field object for the first time.

Data Field
This drop-down combo box will allow you to choose the variable that the data field will use for its data. To the right of the combo box the data type of the variable is displayed.

Font
Choose the font to render this data field in. Only PCL fonts are displayed in this drop-down combo box.

PCL Code
This edit box contains the PCL code that will be sent to the printer before the text of the data field is printed. The PCL codes control the font and many formatting characteristics. To edit the height and/or pitch of the font click the ellipsis (...) button to the right of the edit box.

Text Angle
This controls the angle that the text should display. 0 is normal (left to right) and is the default. Other choices are 90 degrees (bottom to top), 180 degrees (right to left), and 270 degrees (top to bottom).

Formatting
Check or uncheck the formatting check boxes to enable/disable the feature. Choices are: Bold, Italics, and Underline.

Line Spacing
This controls the number of lines that should print within an inch on the printed page. The default is 6 for a 12-pitch font.

Data Conversion
This is an advanced edit box, which is used to format the variable before printing. Click the ellipsis (...) button to the right of the edit box to display the Data Conversion dialog. See Conversion Format for more details.

For more help click on one of the following topics

- Object Properties
- Object Properties: Formatting
- Object Properties: Text
- Object Properties: Size and Position

Conversion Format

This dialog controls how the data field will be converted when printed by FormFusion. Pre-created conversion types can be selected in the list box on the left of the dialog. Some of these pre-created types will have configurable options. An example of how the data will appear when printed is displayed at the top of the dialog. When finished, click "OK" or "Cancel".

Number/Currency Conversion
This conversion type should be used for numeric data (real or integer). When you select this type, configurable options will display on the right. You can control the number of decimal places to display, the characters used for the thousandths place, the character used for the decimal place, negative numbers display and the currency character.

Date/Time Conversion
This conversion type should be used for date field types. When you select this type, configurable options will display on the right. You can control how the date and time are displayed or if they should display at all. You can also control AM/PM status and the order in which the date and time are displayed relative to each other.

Summary of Conversion Codes
Following is a summary of the conversion format for hand-entering data conversions into the *custom* conversion edit box.

The basic format is as such (no spaces):

{pre characters} **[** {conversion type character} {conversion codes} **]** {post characters}

{pre characters}
Characters to display before the converted text.

{conversion type character}

- **#** Specifies numeric conversion
- **D** Specifies date/time conversion

{conversion codes}
numeric conversion A~B~C~D~E~F

- **A** The minimum number of characters to the left of the decimal place to print
- **B** The negative number format, **-** to display a negative sign, **(** to enclose in parentheses, **[** to enclose in square brackets, **{** to enclose in curly brackets, **<** to enclose in angle brackets.

C When minimum number of characters (A) is not met, this is the character to fill the space with.

D Character to use as thousandths separator (comma)

E Character to use as decimal point

F Number of decimal places to print

Example: **`$[#5~(~0~,~.~2]->`**
Would print the number -45 as: **`$(00045.00)->`**

Date/time conversion [!][{format}^[{separator}]^[{format ...}][~am~pm~]

! Used to signify 24-hour time. Leave out for standard 12-hour time format.

format Can be any one of the following date formatting strings:

M	Month	1 - 12
MM	Month	01 - 12
MMM	Month	Jan - Dec
MMMM	Month	January - December
D	Day	1 - 31
DD	Day	01 - 31
Y	Year	Example: 1
YY	Year	Example: 01
YYYY	Year	Example: 2001
H	Hour	1 - 12 or 0 - 23
HH	Hour	01 - 12 or 00 - 23
N	Minute	0 - 59
NN	Minute	00 - 59
S	Second	0 - 59
SS	Second	00 - 59

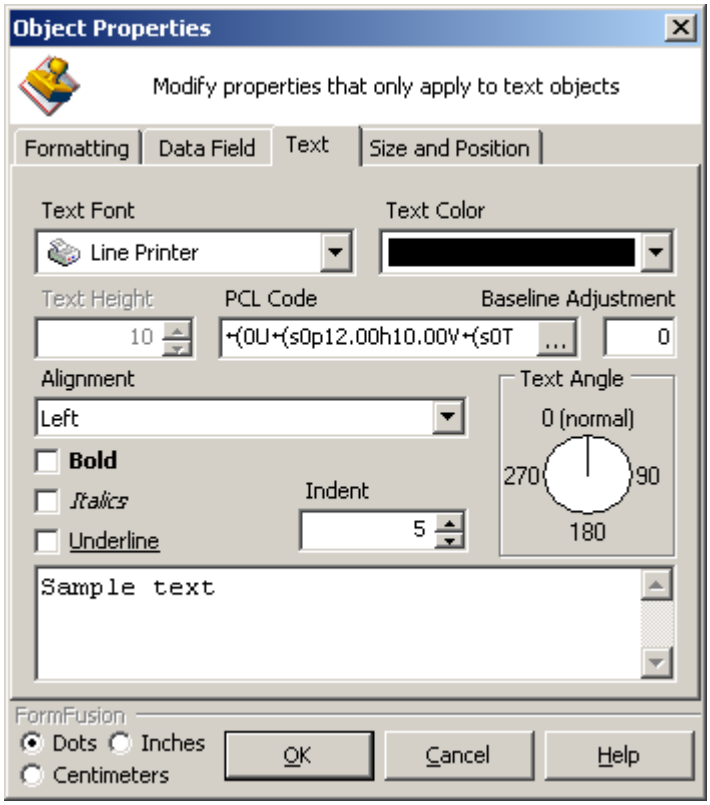
separator Enclosed in caret (^) symbols this specifies the text to display in between format strings.

am The text to display for AM

pm The text to display for PM

Example: **`***[D!MMM^ ^dd^, ^yyyy]***`**
might print the date: **`***Feb 29, 2002***`**

Object Properties: Text



This sheet will only be available when editing a text object. This sheet controls the bulk of configurable properties of a text object.

Text Font
Choose the font to render this text in. All True-Type® and PCL fonts are displayed in this drop-down combo box.

Text Color
Choose the color to render the text in.

Text Height
This spin edit will only be enabled for True-Type® fonts. This controls the height (point size) of the font.

PCL Code
This edit box will only be enabled for PCL fonts. This contains the PCL code that will be sent to the printer before the text is printed. The PCL codes control the font and many formatting characteristics. To edit the height and/or pitch of the font click the ellipsis (...) button to the right of the edit box.

Baseline Adjustment
This edit box will only be enabled for PCL fonts. This is an advanced feature that is provided to help align text properly on the printed page. PCL fonts are always aligned to the baseline, which can vary

from font to font. FormFusion approximates the baseline according to the height of the font but this approximation may be off significantly from the actual baseline. Enter a value other than 0 to adjust the baseline. Negative numbers move the text up on the page while positive numbers move the text down.

Alignment
This controls the left and right alignment of the text. Left, right, and center choices are available.

Text Angle
This controls the angle that the text should display. 0 is normal (left to right) and is the default. Other choices are 90 degrees (bottom to top), 180 degrees (right to left), and 270 degrees (top to bottom).

Formatting
Check or uncheck the formatting check boxes to enable/disable the feature. Choices are, Bold, Italics, and Underline.

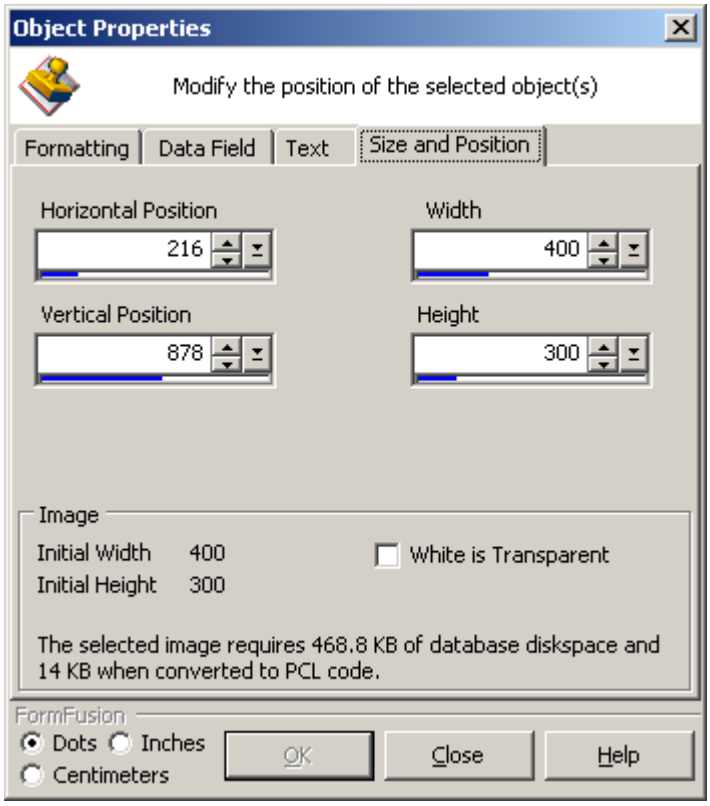
Indent
This controls the amount of indentation from the border before displaying any text.

Text
The bottom edit box shows a sample of the printed text. You are also free to modify the text of your text object here.

For more help click on one of the following topics

- Object Properties
- Object Properties: Formatting
- Object Properties: Data Field
- Object Properties: Size and Position

Object Properties: Size and Position



This sheet is available for all objects. This sheet controls the positioning and size of the selected object. The top four spin-edit boxes control the top, left, width, and height of the object.

Image
This area will only appear if an image object is selected. The initial width and height are displayed (as a reference) and an estimate of the amount of space this image consumes in your database and when converted to PCL.

White is Transparent
Check this checkbox if the white areas of the image should allow concealed data to show through. This will have the effect of making the image translucent on the printed page.

For more help click on one of the following topics

- Object Properties
- Object Properties: Formatting
- Object Properties: Data Field
- Object Properties: Text

MapForm

MapForm is a plug-in used by FormFusion Developer to define the layout of the input report files being submitted to FormFusion for enhancement. Because FormFusion relies upon a "text-based" input file, the importance of a flexible, feature-robust tool for "mapping" the various areas of an input file cannot be overstated. MapForm allows you to draw boxes around areas on the form and assign a "name" to these areas. Once you have outlined all of the important areas on the input file you can drop this information on the final output using FormStamp.

One of the challenges with a product that relies upon input "text-based" files lies in the fact that many elements that you may want to "map" move around on a page and may not exist in the same location on successive pages. MapForm has addressed this issue with many advanced features, which allow you to create "dynamic mapping" entries. These allow you to use header or footer information combined with "searchable" columns.

As with all other FormFusion Developer plug-ins, all setup and design information is stored in your Oracle environment.

Using MapForm

Using traditional methods of printing process, the output from the process is fixed to the columns and lines that the text is placed. In order to move these areas you must modify the process code, recompile, and test the output until the text lines up appropriately on the page. MapForm allows you the ability to move around areas of your output print file without the need to modify the code.

The use of MapForm is straightforward. First, you need to add a MapForm node beneath a Special Print Parameter node. Once you have added the node you can open the node and import a "sample print file" from the process you are enhancing. This sample print file should be unmodified by any graphical package (including FormFusion). It should be in the format that the process would normally produce. Once imported, each page will be shown one page at a time. You are free to navigate through the pages as necessary. Use your mouse and draw areas (called "floating fields") on the normal printed page. Name each field appropriately to denote what information will normally appear at that location.

Example: Let's assume that you pulled into MapForm a sample Purchase Order output file. By viewing on-screen, you could highlight the "date" area on the printed form and create a field name called "PO_Date". In FormStamp you can then add a Data Field object and select the "PO_Date" field created from MapForm. Now you are free to move it to any area of the printed page. You can change the formatting characteristics such as font type, size, rotation, and location on the page. Additionally, you are free to add the field as many times as you'd like if the field must exist in more than one location.

Note: If you do not add a MapForm node beneath the Special Print Parameter, the text for the page will be displayed in a 10 pitch Line Printer font in the original locations. Once a MapForm has been created for a Special Print Parameter, *only* the fields placed on the form will print. All other text from the report is assumed to be un-needed and will be discarded.

Additional Topics

- Working with MapForm
- MapForm Properties

Working with MapForms

Creating a MapForm
A MapForm is created under a Special Print Parameter (SPP). Select the SPP for which you would like to create a MapForm. On the "Edit" menu, point to "New" and then click "MapForm".

Open a MapForm
Locate the MapForm in the process tree view you want to open and double-click on the MapForm name.

Saving a MapForm

To save a MapForm, click the "Commit Changes" button  on the toolbar.

Renaming a MapForm
Select the MapForm you want to rename. On the "Edit" menu, click "Rename". Then type the new name and press ENTER.

Deleting a MapForm

Select the MapForm to be deleted. Click the "Delete" button  on the toolbar. When you delete a MapForm, all data fields defined there will no longer be available in FormStamp or CaptureForm. Next time you open a PCL Form, FormFusion will warn you of the deleted fields.

Editing MapForm Properties
On the "Tools" menu, click "Properties". The Row and Column Count can be edited. Check the box if the pages are separated by a page break character. Please see Special Print Parameter: Input File Settings for additional information.

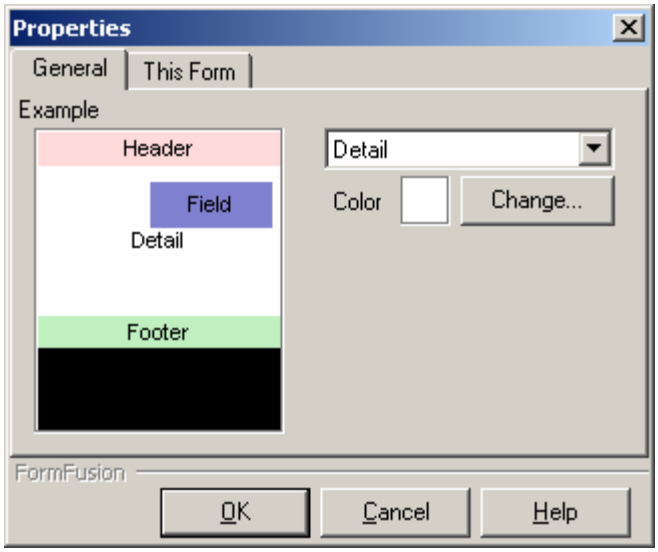
Toolbar

Most FormFusion plug-ins add their own toolbar to FormFusion's toolbar when a dialog owned by the plug-in is active. Above is MapForm's toolbar. Following is a description of each button's purpose.

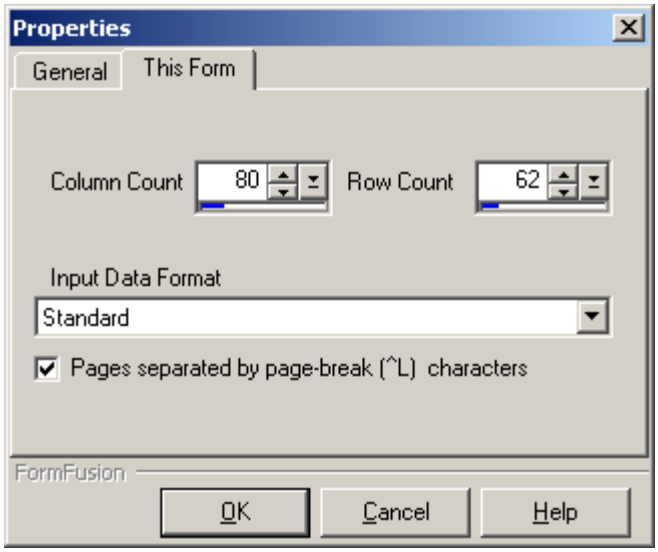
- This is the **Commit** tool button. This button will be enabled when changes have been made to the MapForm and need to be saved to the database. Click this tool button to save the changes.
- This is the **Fetch Sample Report** tool button. Click this tool button to locate and open the file that will be the basis for this MapForm. Selecting the right sample file is important. If a sample file does not yet exist you should run the report to produce output for all possible fields and the longest possible fields. If too simple an input file is used to map data to a form, there is a potential to miss mapping certain data fields, which may show up on a more complex file. When a process can produce multiple pages for a particular form, it is strongly suggested that you import a sample file with multiple pages. If the mapping appears to be misaligned on subsequent pages you may need to adjust the MapForm properties as noted above. The "lines per page" is very critical to successfully mapping the fields on a page.
- This is the **Selection** tool button. Click this tool button to enable data field selection in the MapForm window. Multiple fields can be selected by clicking and dragging to surround all of the desired fields.
- This is the **Draw Floating Field** tool button. Click this tool button to begin the task of drawing floating fields to create MapForm variables. See Floating Fields for more help on working with this field.
- This is the **Draw Offset Field** tool button. Click this tool button to create an offset field on the form. See Offset Fields for more help on working with this field.
- This is the **Undo** tool button. Click this tool button to undo the last change that was made to a field on this form.
- This is the **Redo** tool button. Click this tool button to redo the last change that was undone to a field on this form.
- This is the **Edit Field Properties** tool button. It will enable when either a floating field or an offset field is selected. Click this tool button to edit the selected field's properties.
- This is the **Edit Header/Footer Properties** tool button. Click this tool button to edit the properties of the header and footer of this MapForm. See Header/Footer Properties for more detailed information.
- This is the **Decrease Displayed Font Size** tool button. Click this tool button to decrease the font size of the MapForm report text.
- This is the **Increase Displayed Font Size** tool button. Click this tool button to increase the font size of the MapForm report text.
- **Page** This displays the current page number being viewed.
- This is the **Previous Page** tool button. Click this tool button to display the previous report page.
- This is the **Next Page** tool button. Click this tool button to display the next report page.

MapForm Properties

This dialog box allows you to customize the look of the MapForm editor and modify properties specific to the currently open MapForm node. The view is separated by two tabs. The first tab is "General" properties and the second tab contains properties for "This Form."



General
You are free to modify the colors used to represent specified areas of a MapForm. Current areas are "Detail," "Field," "Footer," "Header," and "Next Page".

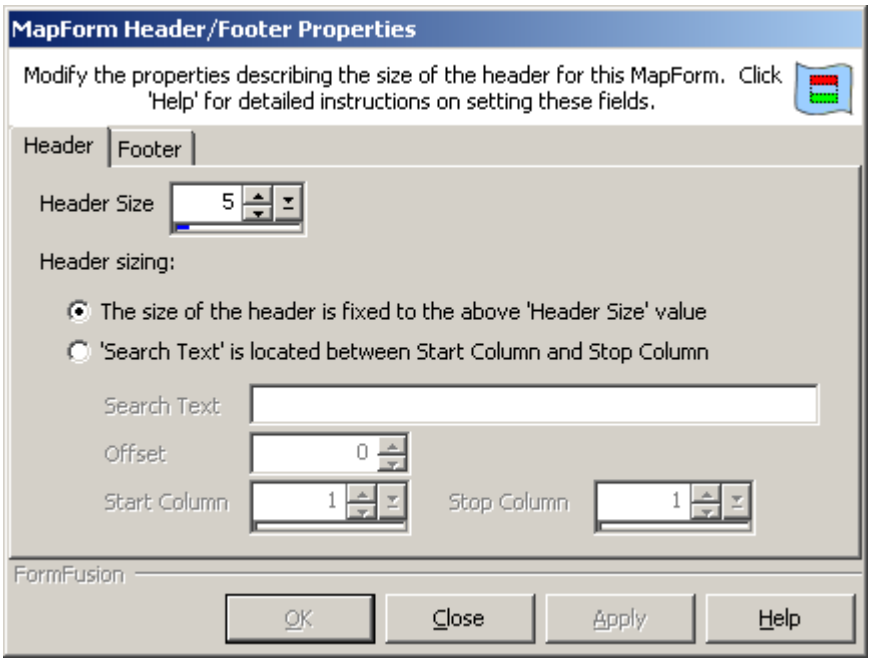


This Form
Most of the options found here are subsets of those that can be found in the Special Print Parameter properties. Here, you can modify the number of columns per page, the number of lines per page, and whether a page break should be sought for every page. For more information about these options see Special Print Parameter: Input File Settings. Additionally, you can specify the format of the input data file. *Standard* format is used for normal processing of report files. *Comma-delimited* format is used for input files that have been generated with fields separated by commas. Choose the appropriate format for the input file type.

Additional Topics

- Special Print Parameter: Input File Settings

Header/Footer Properties



The "Header/Footer Properties" dialog will assist you in modifying the header and footer areas of the report. There are two tabs on this dialog. The first is 'Header' which is used for editing the properties of the header area. The second is 'Footer' which is used for editing the properties of the footer area.

Header

Header Size

This is the size of the header area. This can be dynamically altered (as you will see below).

Header Sizing

This controls the format of the header area.

- *The size of the header is fixed...*: This setting specifies that the header size should remain constant from page to page and use the above value.
- *'Search Text' is located between...*: This setting specifies that the header size can change from page to page. A key text value will be searched for starting after the above header size value.

Search Test

This controls the text that should be searched for below the 'Header Size' value indicated above. The text is case insensitive and leading and trailing spaces will be trimmed before the comparison.

Offset

After the text is found the header size will be adjusted relative to the row the text was found on. This value can be negative.

Start Column

This specifies the column to begin searching for the text at.

Stop Column

This specifies the column to stop searching for the text at.

Field Type

This is the type of variable format this field should expect to hold. The default type is 'String' since all floating fields are created by mapping text from the input report file. You are free to change this value to other field types in which case the server will convert the field before the variable is populated.

Description

This value is provided for use by the designer to indicate any additional information about this field. This value is not used by FormFusion.

Starting Column

This is the starting column (left side) of the field on the MapForm. Valid values are from 1 to the width of the report file.

Column Width

This is the width of the floating field. Valid values are from 1 to the width of the report file minus the starting column.

Starting Row

This is the starting row (top side) of the field on the MapForm. Valid values are from 1 to the height of the report file.

Row Height

This is the height of the floating field. Valid values are from 1 to the height of the report file minus the starting row.

Resizing Mode

This controls the way the floating field reacts to changes in the size of its parent area (which can be the header, detail, or footer). Choose from the following options:

- *None (doesn't move)* This is the default setting and will leave the field where it is currently at on its parent area. The size and location of the field remains constant.
- *Move field when parent size changes* This setting instructs the field to move up if the parent area shrinks or move down if the parent area grows. The size of the field remains constant.
- *Resize field when parent size changes* This setting instructs the field to shrink if the parent area shrinks or grow if the parent area grows. The location of the field remains constant.

Footer

Footer Size

This is the size of the footer area. Presently, the footer size is not dynamically sizeable but the footer does move up and down as the size of the page changes.

Click **OK** to save the changes and close this dialog. Click **Cancel** to cancel any changes made. Click **Apply** to apply any changes made to the areas. The dialog will remain open and the changes can be viewed on the form. Click **Help** to bring up this help page.

Floating Fields

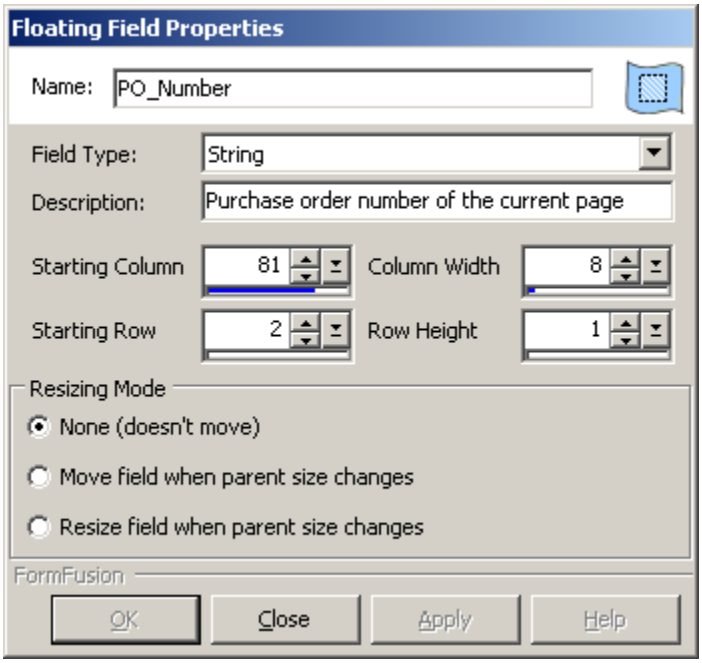
Description
A floating field is the main field type that you will create on a MapForm. This type of field is used to define areas from the report file that should be moved around on the final document using FormStamp.

Creating a Floating Field
Click the "Draw Floating Field" tool button to enable drawing of floating fields. Outline the text you want to define as a floating field by clicking and dragging the mouse. When you release the mouse the 'Field Name' dialog box will appear. Type the name to assign to the floating field then click OK. You are free to create as many floating fields as desired but each name must follow the variables naming convention. After the field has been created it will appear in the "Floating Fields" list to the left of the MapForm window.

Editing a Floating Field
The Floating Field Properties dialog will assist you in modifying the properties of a floating field. This dialog box can be made to appear a few different ways. You can double-click the name of the floating field in the Floating Fields list, double-click the floating field on the MapForm, or select the field and click the "Edit Field Properties" tool button.

Deleting a Floating Field
Select the floating field(s) to be deleted (either in the Floating Fields list or on the MapForm). Click the "Delete" tool button  on the toolbar. If the field has already been inserted into a PCL Form (FormStamp), it will automatically be deleted from the form. Once a field has been deleted, any reference to it, whether it is in CaptureForm or FormDirector, will no longer be valid and should be manually edited.

Floating Fields Properties Form



The "Floating Field Properties" dialog will assist you in modifying the properties of a floating field.

Name
This is the name that has been assigned to this floating field. The name must follow the variables naming convention.

Field Type
This is the type of variable format this field should expect to hold. The default type is 'String' since all floating fields are created by mapping text from the input report file. You are free to change this value to other field types in which case the server will convert the field before the variable is populated.

Description
This value is provided for use by the designer to indicate any additional information about this field. This value is not used by FormFusion.

Starting Column
This is the starting column (left side) of the field on the MapForm. Valid values are from 1 to the width of the report file.

Column Width
This is the width of the floating field. Valid values are from 1 to the width of the report file minus the starting column.

Starting Row
This is the starting row (top side) of the field on the MapForm. Valid values are from 1 to the height of the report file.

Row Height
This is the height of the floating field. Valid values are from 1 to the height of the report file minus the starting row.

Resizing Mode
This controls the way the floating field reacts to changes in the size of its parent area (which can be the header, detail, or footer). Choose from the following options:

- *None (doesn't move)* This is the default setting and will leave the field where it is currently at on its parent area. The size and location of the field remains constant.
- *Move field when parent size changes* This setting instructs the field to move up if the parent area shrinks or move down if the parent area grows. The size of the field remains constant.
- *Resize field when parent size changes* This setting instructs the field to shrink if the parent area shrinks or grow if the parent area grows. The location of the field remains constant.

Click **OK** to save the changes and close this dialog. Click **Cancel** to cancel any changes made. Click **Apply** to apply any changes made to the field. The dialog will remain open and the changes can be viewed on the form. Click **Help** to bring up this help page.

Offset Fields

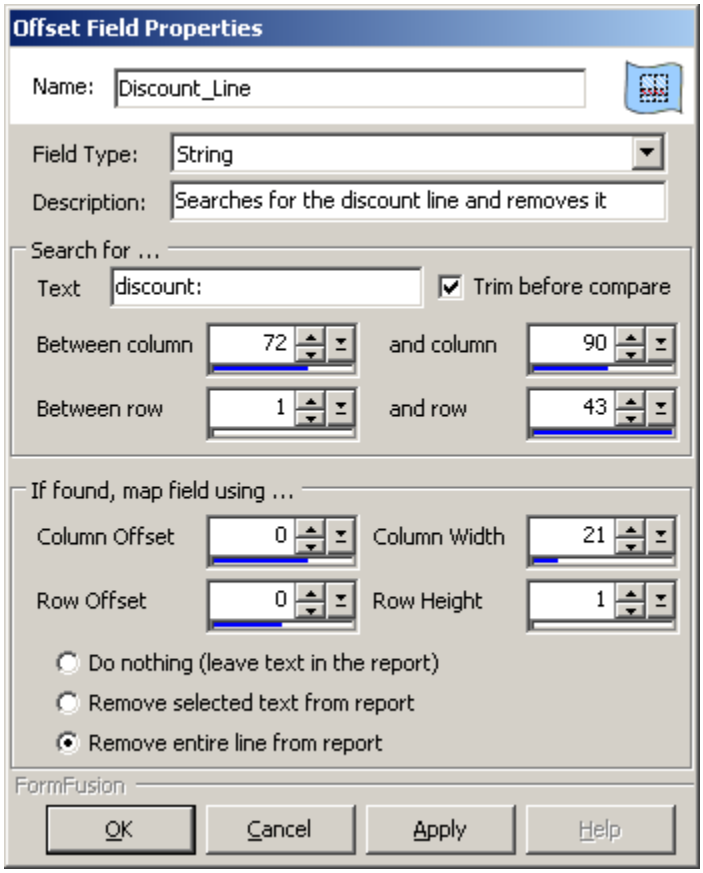
Description
An offset field should be used when a simple floating field will not suffice. This type of field will search for key text information in the report and allow you to map a field from the top-left of where the key text was discovered.

Creating an Offset Field
Click the 'Create Offset Field' tool button to bring up the 'Field Name' dialog box. Type the name of the offset field and then click OK. You are free to create as many offset fields as desired but each name must follow the variables naming convention.

Editing an Offset Field
The Offset Field Properties dialog will assist you in modifying the properties of an offset field. This dialog box can be made to appear by double-clicking the field in the 'Offset Fields' list or by first selecting the field and then clicking the 'Edit Field Properties' tool button.

Deleting an Offset Field
Select the offset field to be deleted in the 'Offset Fields' list. Click the "Delete" tool button  on the toolbar. If the field has already been inserted into a PCL Form (FormStamp), it will automatically be deleted from the form. Once a field has been deleted, any reference to it, whether it is in CaptureForm or FormDirector, will no longer be valid and should be manually edited.

Offset Fields Properties Form



The "Offset Field Properties" dialog will assist you in modifying the properties of an offset field.

Name
This is the name that has been assigned to this offset field. The name must follow the variables naming convention.

Field Type
This is the type of variable format this field should expect to hold. The default type is 'String' since all offset fields are created by mapping text from the input report file. You are free to change this value to other field types in which case the server will convert the field before the variable is populated.

Description
This value is provided for use by the designer to indicate any additional information about this field. This value is not used by FormFusion.

Search for ...
This area defines properties about the text that will be searched for.

Text
This is the text to search for. Check the **Trim before compare** check box to trim any preceding or trailing spaces from the report file text before comparing. The comparison is not case sensitive.

Between column ... **and column**
This defines the column area to search for the text defined above. The text will only be scanned for in this area. By default, the entire form will be searched.

Between row ... **and row**
This defines the row area to search for the text defined above. The text will only be scanned for in this area. By default the entire form will be searched.

If found, map field using ...
This area defines the field's mapping value. This is similar to the properties for defining a floating field.

Column Offset
This is the starting column (left side) of the field on the MapForm. This is an offset value relative to the left side of the position of the 'search text' defined above.

Column Width
This is the width of the offset field.

Row Offset
This is the starting row (top side) of the field on the MapForm. This is an offset value relative to the top side of the position of the 'search text' defined above.

Row Height
This is the height of the offset field. Valid values are from 1 to the height of the report file minus the starting row.

The next three options control the way the offset field will treat the text of the report file once the mapping is complete. Choose from the following options:

- *Do nothing (leave text in the report)* This is the default setting and will leave the text on the report after mapping.
- *Remove selected text from report* This setting instructs the server to remove the mapped area from the report.
- *Remove entire line from report* This setting instructs the server to remove the mapped area and all text to the left and right of the mapped area.

Click **OK** to save the changes and close this dialog. Click **Cancel** to cancel any changes made. Click **Apply** to apply any changes made to the field. The dialog will remain open and the changes can be viewed on the form. Click **Help** to bring up this help page.

CaptureForm

CaptureForm is a plug-in used within FormFusion Developer to perform a variety of functions. The primary use of CaptureForm is to retrieve additional information from your Oracle environment for use on your document's output. However, there are a number of other uses for CaptureForm as well. These include items such as mathematical calculations, inserting or deleting information in your Oracle environment and formatting character strings. With all CaptureForm statements you can use "fields" from the MapForm module to aid in your selection criteria within the SQL statement. Thus, you have the ability to use information on the document to tie back to various pieces of database information.

As with all other FormFusion Developer plug-ins, all setup and design information is stored in your Oracle environment.

Using CaptureForm-SQL

CaptureForm-SQL allows you to add SQL statements and place additional report information into the printer data stream coming from your Oracle database. You can use fields that you have "mapped" using MapForm as selection criteria for the SQL statements you create.

Creating a CaptureForm

A CaptureForm is created as a child node of a Special Print Parameter(SPP) node. From the tree view, select the SPP for which you would like to create a CaptureForm. On the "Edit" menu, point to "New" and then click "CaptureForm". Only one CaptureForm can be added to an SPP; however, unlimited queries and variables can be created within each CaptureForm process modifier.

Using CaptureForm

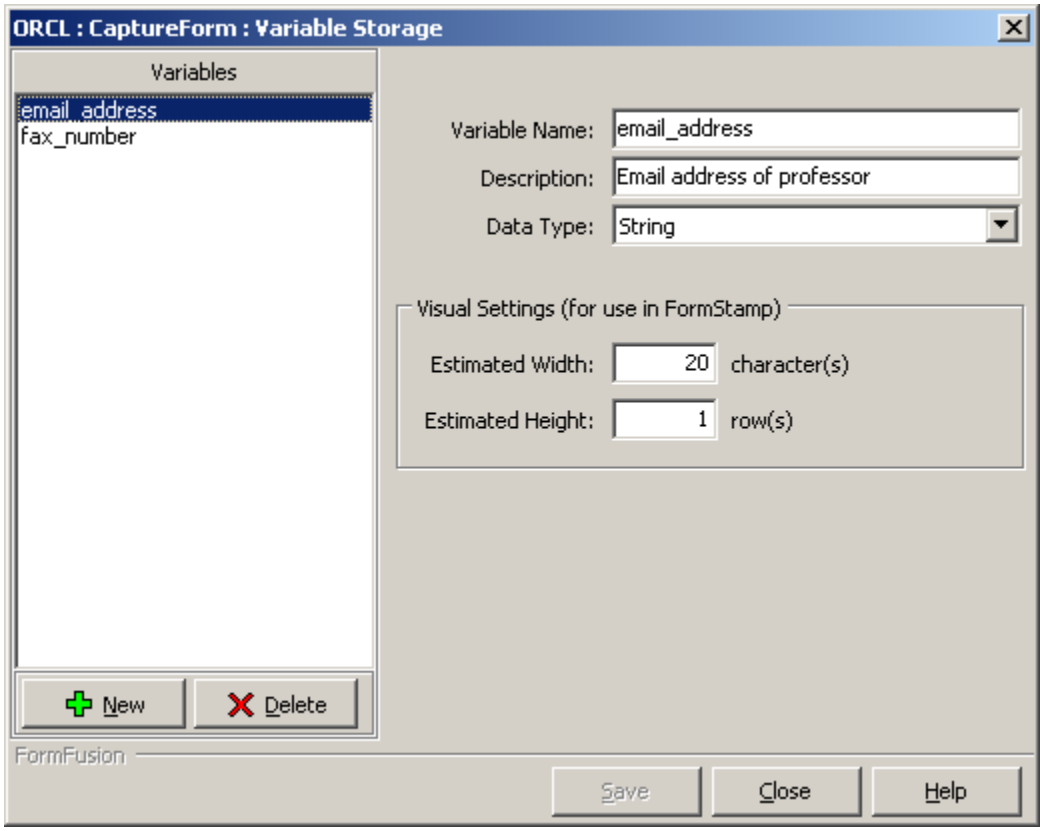
After creating a CaptureForm you will find a single "Variable Storage" node as a child. This node offers access to all variables created and owned by this CaptureForm node. Double-Click the "Variable Storage" node to open the Variable Storage Dialog. There you are free to add and remove variables.

Also appearing beneath a CaptureForm node are all of the query nodes that have been created. After creating a CaptureForm there will not be any queries. See Using CaptureForm Queries to learn how to manage query nodes beneath a CaptureForm node.

Deleting a CaptureForm

From the process tree, select the CaptureForm to be deleted. Click the "Delete" button on the toolbar. All of the queries owned by the CaptureForm will be deleted as well as the variables.

Variable Storage Dialog



This is the Variable Storage Dialog. In this dialog you can manage the variable names owned by this CaptureForm.

Variable Name
This is where you can type the name of the variable. To learn more about variable names and naming conventions see Variables

Description
This area allows you to type a short description for this variable. This should describe the general purpose of the variable or what it will be used for. The description is never used by FormFusion. This field is limited to 96 characters.

Data Type
This drop-down combo box allows you to specify the expected format of the variable. If the specified format of the variable differs from the actual format retrieved from the database (when populated in a CaptureForm Query) then the data will be converted before the variable is populated.

Visual Settings (for use in FormStamp)
The two fields in this area "Estimated Width" and "Estimated Height" are used to estimate the maximum area the variable will take up if ever placed onto a FormStamp PCLForm. These values do not limit the amount of data retrieved from the database.

Create a Variable 

Create a new variable by clicking the "New" button. Populate the variable field information as described above.

Delete a Variable 

Delete a variable by selecting it in the variable list and click the "Delete" button. The variable will be removed from the database but not from any query or use by FormStamp. You will need to manually edit any areas that make use of the variable.

Using CaptureForm Queries

This area will teach you how to create, delete, and design CaptureForm Queries.

Create a Query
Click the CaptureForm node that will own the query. Choose "Edit" from the menu and choose "New" then "CaptureForm Query". A default query node will now be created. You are now able to edit the properties of the query.

Edit a Query
Double-click the CaptureForm Query node to edit. A SQL Builder window will open which will allow you to modify the properties of the query. See Editing a CaptureForm Query for more information regarding editing a query.

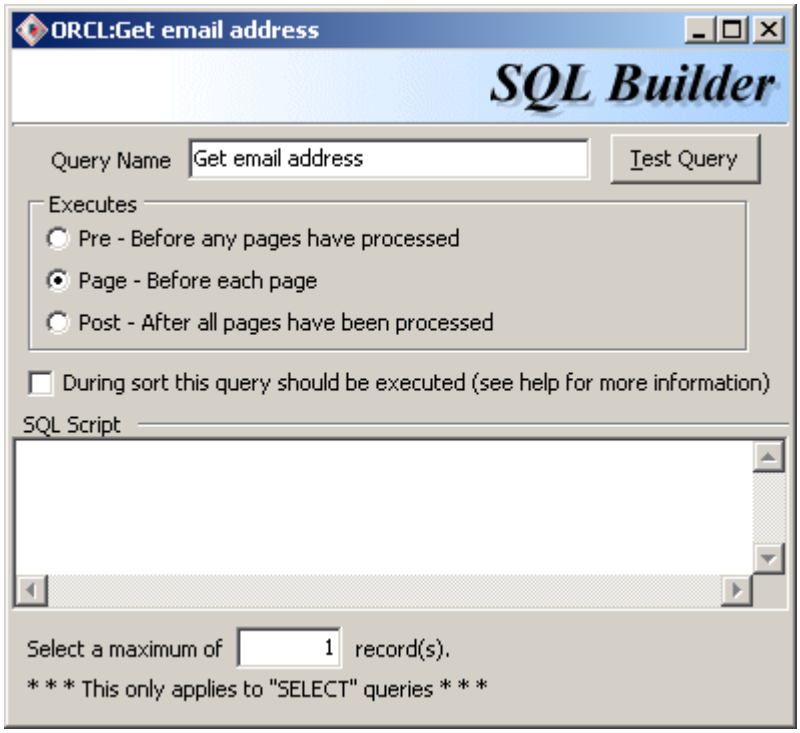
Order of Execution
CaptureForm queries are executed in the order they appear in the tree. This means that queries higher in the tree will execute before queries lower in the tree. There are two methods available to change the order of execution for a query. The first is to use the "Move Up" and "Move Down" commands. Select the query to move, choose "Edit" from the menu, and then choose either "Move Up" or "Move Down". You will immediately see the query list change.

The second method of rearranging queries is to drag and drop the query. Click and drag the query you would like to move. Drop the query on the query this query should execute before or after. After releasing the mouse button a popup menu will appear with the following choices: "Move Before", "Move After", "Cancel". Choose the appropriate action. If the query is dropped on a query that executes during a different time (Pre, Page, Post) the query that was dropped will use the new execution.

Copy a Query
Select the query to be copied in the tree view. Click the "Copy" button  on the toolbar. The query will be copied and pasted under the same CaptureForm node. Another way to copy a query is to click and drag to a different CaptureForm node. You will be prompted with three options: "Copy Here", "Move Here", and "Cancel". Select the appropriate action.

Delete a Query
Select the query to be deleted in the tree view. Click the "Delete" button  on the toolbar.

Editing a CaptureForm Query



This form allows you to define the properties of a CaptureForm Query.

Query Name
This is the name of the query as it appears in the tree view. The query name isn't used by FormFusion but is provided to allow you to create a descriptive name for the query. Such as "Get email address" or "Get email address of professor". The name is limited to 64 characters.

Executes
This area controls when the query will execute. "Pre" queries execute before any data has been processed on the server side. "Page" queries execute before each page is processed. "Post" queries execute after the entire job is complete. Most queries will be "Page" queries.

During sort this query should be executed
To facilitate the sorting process you must specify which queries should be executed during the sort. This decreases program latency by only executing the queries that you instruct FormFusion to execute. Sorting is performed before the processing of the report file is begun.

SQL /
Below the "Executes" area you will find an edit box. This box is where the SQL query can be created that defines the actions for the CaptureForm Query node. Any standard SQL statement can be entered here. This includes the statements SELECT, INSERT INTO, UPDATE, and DELETE. Variables can be

used almost anywhere in the query. The most common use for variables are in the INTO clause of a SELECT statement or in the WHERE clause.

The following are some examples of queries and their use:

```
select EMPFIRST || EMPMIDDLE, EMPLAST
  into :EmpFirst_and_M, :EmpLast
  from EMP
 where EMPID = :employee_ID
```

The above would retrieve the First Name, Middle Name, and Last Name fields from the EMP table and place the results into variables "EmpFirst_and_M", and "EmpLast". The constraint placed on the search is that EMPID should equal the value contained in "employee_ID" which is defined elsewhere in FormFusion (currently either in CaptureForm or MapForm).

```
update EMP
   set EMPFULLNAME = :EmpLast || ', ' || :EmpFirst_and_M
 where EMPID = :employee_ID
```

The above would update the records for the employee with ID equal "employee_ID" in the EMP table. It would combine the two string variables created in the above SELECT query into one string and place that value into EMPFULLNAME.

Select a maximum of # record(s).
This edit box allows you to specify the maximum number of records to retrieve and place into the variables in the INTO clause of a SELECT statement. This field is only used for SELECT statements.

Test Query
The Test Query button allows you to test the query you created without committing the results. You will be prompted for the values of all variables in the query.

Commit Changes
After making any changes to the query properties an option will appear at the top of the window to allow you to commit your changes to the database. Any changes that are made are not saved to the database until you click this button. Similarly, if you have made a mistake you can click the "Revert Changes" button, which will revert all changes since the last time you committed.

FormDirector

FormDirector is a plug-in used within FormFusion Developer to direct the output from FormFusion to a variety of destinations. The current output options are: printer, email, archive, and web. There is logic built into FormDirector, which allows you to create a workflow routine based upon successful completion of the various output options. An example of this would be to have FormFusion direct the output to email and print if the email was not able to execute for some specified reason. Each copy coming from FormFusion can have a separate set of FormDirector settings. For example, you have the ability to email the first copy of output but send the second copy to the web.

A brief description of the output destinations is:

- Email Director: This option allows you to direct the output via email. You can determine the email address, subject, body and the type of attachment. The FormDirector module can directly convert the output to PDF as an attachment.
- Print Director: You can override the Banner printer selection and create a custom print command using Print Director.
- Archive Director: The output can be stored in FormFusion Archiver for later retrieval and printing.
- Distribute/Web Director: You can specify a custom OS or Script command that will take the output of FormFusion to a local directory or intranet. Because you can customize the output command you have complete control over how to handle the PDF WEB documents.

Using FormDirector

FormDirector enables you to specify the destination of output when a process is executed in a way that is totally invisible to the end user.

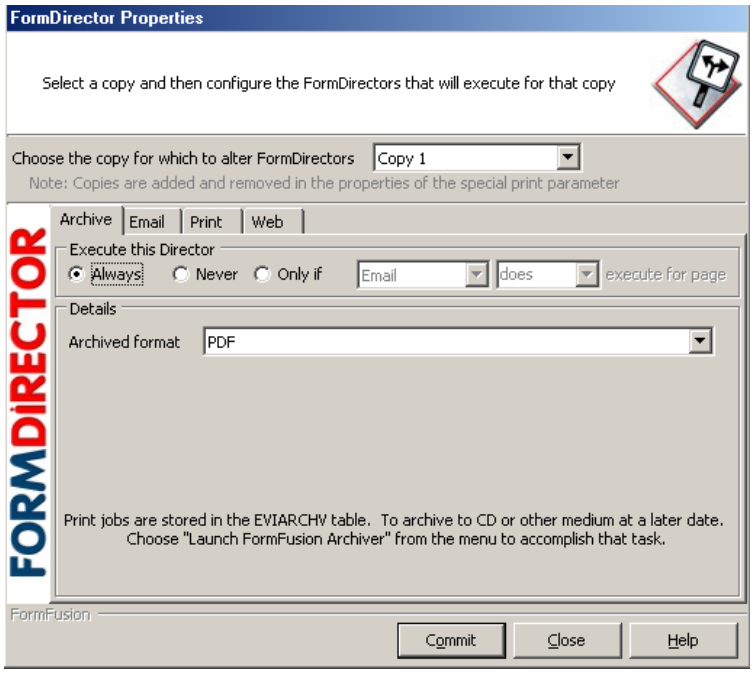
Creating a FormDirector
Select the special print parameter you want to create a FormDirector beneath. Then, choose "Edit" from the menu and choose "New" and "FormDirector".

Renaming a FormDirector
Select the FormDirector you want to rename. Then choose "Edit" from the menu and click "Rename". Type the new name and press ENTER.

Deleting a FormDirector
Select the FormDirector to be deleted. Click the "Delete" button on the toolbar.

Copying a FormDirector
A FormDirector cannot be copied to the same special print parameter but can be dragged and dropped to a different special print parameter. Left-click and drag the FormDirector node you would like to copy. Drop the FormDirector on the Special Print Parameter you would like to copy to. A pop-up menu will appear offering the following choices, "Copy Here", "Move Here", and "Cancel". Choose the appropriate action.

Editing FormDirector Properties



To edit FormDirector Properties, double-click on the Form-Director icon that you want to edit. The dialog will appear. In this dialog, the copies that are available to direct are displayed in the "Copies" section. Click on the copy you want to edit.

Execute this Director
This section designates when a copy is directed. All copies can have their own set of rules for directing output. Each FormDirector plug-in can be executed according to three different conditions:

- **Always**: When this radio button is selected, your output will always be directed to the destination of the plug-in selected (i.e. Archive, Email, Print, Distribute/Web) when the process the FormDirector is attached to is run.
- **Never**: When this radio button is selected, your output will never be directed to the destination of the plug-in selected (i.e. Archive, Email, Print, Distribute/Web) when the process the FormDirector is attached to is run.
- **Only if**: When this radio button is selected, your output will be directed to the destination of the plug-in selected only if the *Execution Condition* is met.

What is an Execution Condition?
The execution condition determines whether a FormDirector module will execute. If the condition is true, the module executes. Presently, the only conditions that appear in this area are the execution status of other directors. For instance, if we are editing the Archive director properties we can specify that it will only execute if the email director has executed.

Additional Topics

- FormDirector Archive
- FormDirector Email
- FormDirector Printer
- FormDirector Distribute/Web

FormDirector: ArchiveDirector

ArchiveDirector stores PDF/PCL versions of the print job to the EVIARCHV and EVIBLOB tables for later use in FormFusion Archiver. A single configurable option exists for ArchiveDirector. You can choose which format to store the archived output in. PCL is the native format produced by FormFusion and can be directly sent to any PCL compatible printer. PDF is a format created by Adobe® and is widely used across the industry. PDF converted documents are generally 3 to 10 times larger than PCL documents.

FormDirector: EmailDirector

The EmailDirector module enables you to send your output as an email attachment using the "sendmail" standard. Most UNIX environments will have this application installed and on the search path. For advanced help on configuring the various fields consult the "main" pages or on-line help for **sendmail**.

Configuring EmailDirector
All email customization is controlled in the *Details* pane. Here you will find the following edit controls: To, From, CC, BCC, Subject, Return Receipt, Body, Attachment Format, Password and Filename of Attachment. In each of the edit box controls you are free to use variables defined earlier in the program such as in MapForm or CaptureForm-SQL using the colon variable notation (i.e. you could have created a SQL statement that retrieves the email address of a student and stores the results into a variable named Student_Email. To access this variable type: `Student_Email`).

To
This controls the direct recipients of the email. Multiple recipients can be separated by commas.

From
This controls the address that will be replied to if a recipient chooses to reply to the email. Also controls the name that is displayed as the originator of the email.

CC
This controls recipients that should receive a copy of the email. Multiple recipients can be separated by commas.

BCC
This controls recipients that should receive a copy but should not be displayed as a recipient in the email. Multiple recipients can be separated by commas.

Subject
The subject header of the email.

Return Receipt
Specify the email address that will request a return receipt when the recipient(s) read the email. Not all email-reading programs support this feature.

Body
Click this button to display a message editor in which you can type any additional text that should be emailed.

Attachment format
This controls how the processed report output file will be attached to the email. You are free to choose from the following options:

- Unformatted (original text)
- No attachment (just the email body will be sent)
- PCL (native PCL format of FormFusion which can be sent directly to any PCL printer)
- PDF (converted PDF version)
- Unformatted in body (will be appended to the end of the body rather than as an attachment).

Filename of Attachment
This controls the name of the attachment, as it will be stored in the email. If this field is left blank, a default name will be used (FormFusion.XXX where XXX is either PDF or PCL).

Password
You can password protect the attachment using a variable from MapForm or CaptureForm.

FormDirector: PrintDirector

FormFusion already supports printing to a PCL5 compliant printer without the use of PrintDirector. This module is provided to allow for different copies to be printed to different printers or to turn off printing.

Editing Print Details
The only option available to you at this time is the print script. Here you can enter the commands necessary for creating custom print commands. For example, to print the currently created file to the printer named "Joe" the script might look like this:

```
lp -d Joe :FILENAME_
```

If you do not want multiple copies to go to different printers then leave the script field blank. When FormFusion server finishes executing it will send the entire print job to the default printer.

FormDirector: Distribute/WebDirector

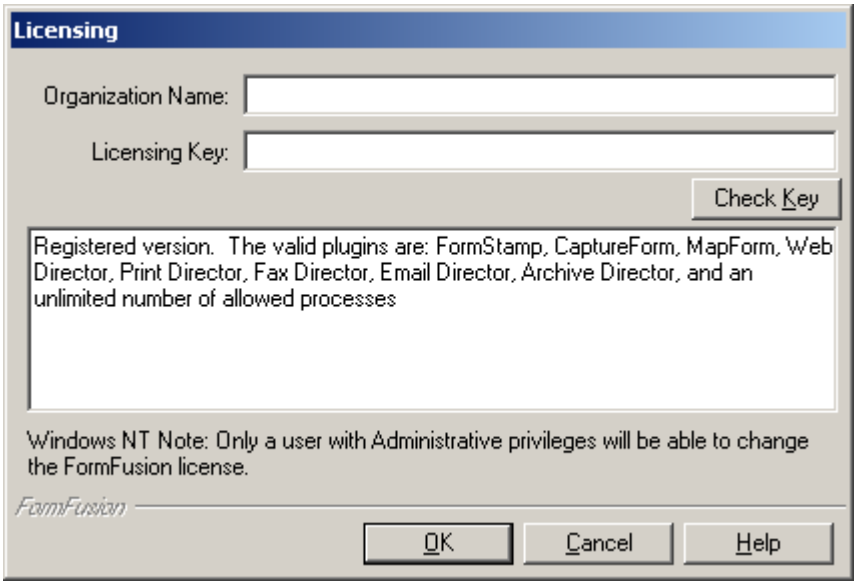
The Distribute/WebDirector module enables you to send your output to the web as a PDF document. FormDirector allows you to specify the specific location of Internet/Intranet to publish the page to.

Web Script
You can enter your custom web script here. For example, to copy the web director file the script might be:

```
cp :FILENAME_ $HTTP_BASE/recent_files/:FILENAME_
```

Additional

Licensing



This is the licensing dialog. In order to use FormFusion you must be given access to certain plug-ins. Enter the Organization Name and License Key that was given to you by an Evisions representative into these two boxes. Click on "Check Key" to make sure the license is valid. The information about this key will be displayed in the memo box for your verification.

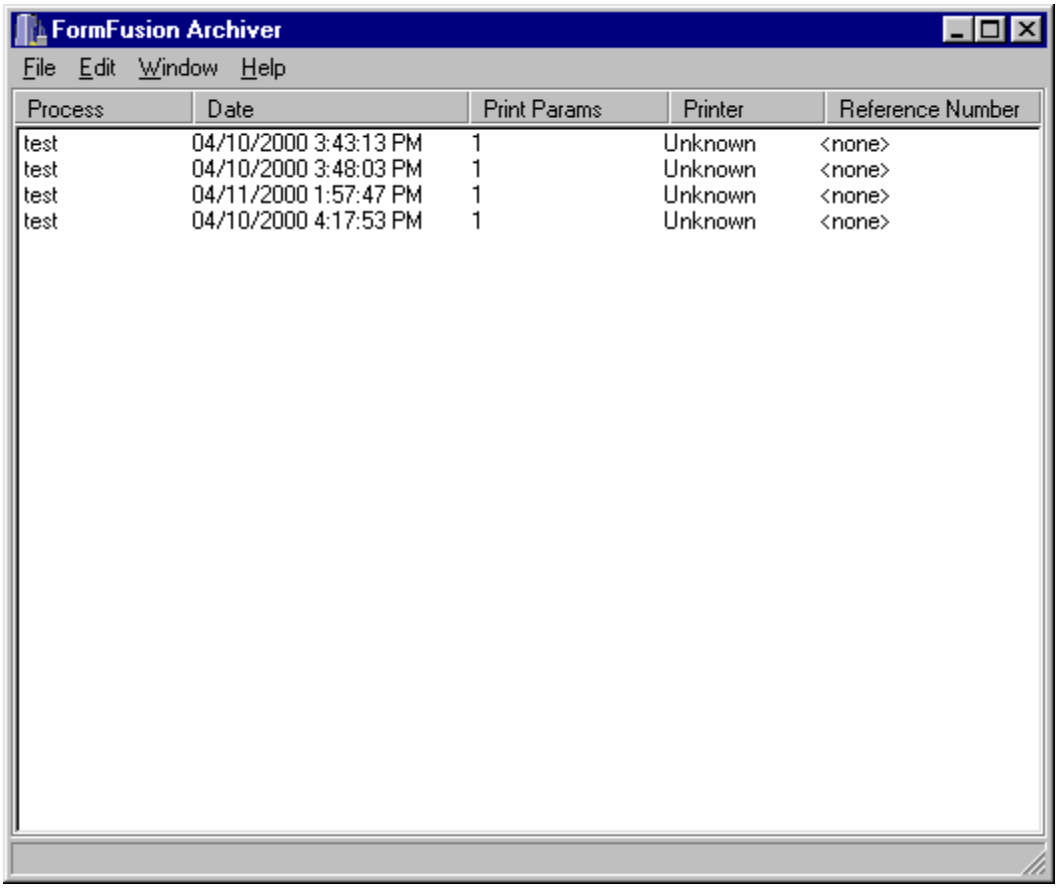
Licenses are specific to your organization. Please do not give keys to other clients even if they have a demo version of our software. Licenses may not be shared.

FormFusion Archiver

Archiver (not fully functional in demo version)
FormDirector's Archival module maintains a searchable database of all the stored process output files. This allows you to retrieve, view, and re-print previously run jobs. By working from the set of rules you create using the configuration utility, the FormDirector's Archival plug-in will automatically purge your job submission directories for you.

FormFusion Archiver
FormFusion Archiver is used to show a listing of the archived PDF/PCL files that are stored in the FormFusion EVIARCHV table. To view the PDF files, you must have a PDF viewer installed on your system. Click the following link which will take you to Adobe's website. Similarly, to view the PCL files you must have a PCL viewer installed on your system. Click the following link which will take you to Visual Software's website.

On the FormFusion "Tools" menu, click "Archiver" to start the archiver plug-in. Enter your Oracle username and password. Choose a database then click OK. Once you have logged on to FormFusion Archiver, a listing of archived processes will appear. A sample FormFusion Archiver window is shown below.



Double-click on the process name to view the properties of the archived file. To open and view the document, choose "view" and the associated viewer installed on your PC will be launched.

To log off FormFusion Archiver, exit the program.

Additional Topics

- Using FormDirector

Add Custom PCL Fonts

FormFusion was designed to allow for the use of built-in printer fonts as well as custom fonts used by your institution. The default fonts that exist in the fsfonts.ini file are standardized fonts used by all PCL5 printers. There are many, many more built-in printer fonts for higher-end printers but Evisions decided not to include those fonts to avoid potential confusion.

Adding custom fonts to the fsfonts.ini file is easy. If your printer, for some reason, does not support the custom font, then the printer will default to Arial, Line Printer, or another font that closely resembles the font you expected. If more than one workstation needs to be able to edit a form that uses your custom font then the custom font must be installed in the fsfonts.ini file on all workstations.

To add your font, follow these steps:

1. Add a new section to the fsfonts.ini file which can be found in the directory FormFusion was installed (C:\Program Files\Evisions\FormFusion). For example, to add a font named "Gorgon" add the following:

   ```
   [Gorgon]
   ```

2. Beneath the newly created font section add one or more of the following arguments in the form of "*argument* = *value*":

`Allow Formatting`	Instructs FormFusion if the font parameters can be formatted. There are some fonts that need to be a specific pitch and height and will not work using any other setting. Valid values are 0 (do not allow formatting) and 1 (allow).
`Built In`	Instructs FormFusion to create different PCL codes to enable the font. A built-in font is one that exists in the printer. A non built-in font is one that must be sent to the printer for the font to print correctly. Valid values are 0 (not built-in) and 1 (built-in).
`Display Font`	This is the name of the Windows™ font that should be used to display the font from inside FormFusion. Currently FormFusion does not read PCL font files to correctly display the font while editing forms.
`Filename`	This value is the filename of your custom PCL font. Add this value only if using a non built-in font. The font must exist in the "Fonts" subdirectory and the value of these parameters must not contain any directory or path information.
`Fixed`	This value instructs FormFusion to treat the font as a "fixed-width" font (meaning all characters of the font are exactly the same width). Different rules apply for fixed-width versus proportional fonts. Valid values are 0 (proportional) and 1 (fixed-width).
`Font Height`	The default font height that will be displayed when the font is first selected.

`Font Pitch`	The default font pitch that will be displayed when the font is first selected.
`ID`	The PCL font ID for both built-in and non built-in fonts. This is the code that allows the printer to uniquely select a font. For custom fonts that make use of a font file please contact Evisions for assistance.
`Symbol Set`	This is an advanced setting that controls the regional symbol set to be used for the font.
`Use Formatting`	This value instructs FormFusion to create specific PCL codes to enable the font. Some fonts do not allow formatting parameters and will not work if any are used. Valid values are 0 (don't use formatting codes) and 1 (use formatting codes).

3. If your font is not a built-in font, the above steps have been taken and the font file exists in the "Fonts" subdirectory, FormFusion will automatically add the font to the EVIFONT table the next time FormFusion connects to your database.

The only current problem with using custom fonts is if you plan on sending the output of your form to either email or archiving using the PDF format. The application which we licensed to perform the PCL to PDF conversion does not correctly translate certain fonts to the PDF format. Most fonts that we have tested have worked however some have not. You should be aware of this before implementing your new font.

Database Conversion

This dialog appears when you are attempting to log into a database that is an older format than what is currently supported. Each new version of FormFusion might add new database tables or change fields in existing tables.

This dialog will convert your database to the latest version. Since some conversion tasks are network intensive this should be performed on a computer on the network with a fast connection to the Oracle server. The conversion dialog will automatically determine which tables need to be updated and will prompt you whenever a task needs to be completed.

Depending on your current database version there might be 1 or 2 steps for conversion. Once completed the database will be up-to-date and ready for use with FormFusion 1.5. Any older FormFusion clients will need to be updated since they will not work with this new database format. Each database instance will need to be converted separately.

For databases that are older than version 1.3 the following changes will be made:

Modification	Description
D C	EVIARCHV will be completely recreated. Several fields were deemed unnecessary and some are in direct conflict with the new design
A	EVIMAPF, adds the EVIMAPF_FORMAT field
A	EVIFDEML, adds the EVIFDEML_FILENAME and EVIFDEML_FROM fields
A	EVIPDTAF, adds the EVIPDTAF_LPI field
A	EVISPP, adds the EVISPP_LAST_MODE, EVISPP_LAST_NUM, EVISPP_FIRST_NUM, EVISPP_FIRST_MODE, EVISPP_FONTNAME, EVISPP_FONTPITCH, EVISPP_FONTHEIGHT, EVISPP_FONTSTYLE, EVISPP_FONTPCL, and EVISPP_LPI fields
A	EVIFDARC, adds the EVIFDARC_FORMAT field
A M	EVIPTEXT, changes the field EVIPTEXT_FONTSIZE to be FLOAT". Adds the EVIPTEXT_PCLPITCH, EVIPTEXT_PCLCODE, and EVIPTEXT_BASELINEOFF fields
C	Creates the EVIARUSR table for FormFusion Archiver security
V	Finally, the database version is updated to 1.3
Conversion guide:	
	A - Field added C - Table created D - Table dropped M - Modifies the size of a field V - Version update

For databases that are version 1.3 the following changes will be made:

Modification	Description
D C	EVIBLOB will be completely recreated. EVIBLOB_SIZE field is added and each record is read to determine the blob size then EVIBLOB_SIZE is populated.
A	EVISPVAR, adds the EVISPVAR_DESCRIPTION field.
A	EVISPP, adds the EVISPP_REVERSE_SORT field.
D C	EVICFSQL is completely modified. Existing fields are converted to the new format.
D C	EVICFVAR is no longer dependent upon EVICFSQL and so is destroyed and then recreated without the EVICFVAR_EVICFSQL_ID field.
A	EVISPP, adds the EVISPP_LAST_MODE, EVISPP_LAST_NUM, EVISPP_FIRST_NUM, EVISPP_FIRST_MODE, EVISPP_FONTNAME, EVISPP_FONTPITCH, EVISPP_FONTHEIGHT, EVISPP_FONTSTYLE, EVISPP_FONTPCL, and EVISPP_LPI fields
A	EVIPMOD, adds the EVIPMOD_CREATE_DATE and EVIPMOD_MODIFY_DATE fields
A	EVIMAPF, adds the EVIMAPF_HEADER_SIZE, EVIMAPF_FOOTER_SIZE, EVIMAPF_HEADER_SIZING, EVIMAPF_HEADER_SEARCHTEXT, EVIMAPF_HEADER_OFFSET, EVIMAPF_HEADER_COLUMN, EVIMAPF_HEADER_COLUMN_COUNT fields
C	Creates the EVIMFFLD table
C	Creates the EVIMAFFLD table
P	Populates fields in EVIMFFLD and EVIMFAFLD from existing MapForm fields in EVISPVAR.
C	Creates the EVIMFOFLD table
A	EVIFDEML, adds the EVIFDEML_RECEIPT field.
C	Creates the EVIPLGRD table.
C	Creates the EVIVSORT table.
V	Finally, the database version is updated to 1.5
Conversion guide:	
	A - Field added C - Table created D - Table dropped M - Modifies the size of a field P - Records added V - Version update

Table Guide

FormFusion is a database driven application. Every operation performed by FormFusion is tied to the Oracle database in one manner or another. FormFusion creates many tables of its own to manage the nodes and objects created and tracked by FormFusion and its plug-ins. This help page describes each table owned by FormFusion and the role it plays in the system.

Core FormFusion Tables

EVIAUDIT		
Stores auditing information when certain events occur from within FormFusion.		
Field	Type	Description
EVIAUDIT_DATE	DATE	Date the event took place
EVIAUDIT_DESCRIPTION	VARCHAR2(128)	Description of the event

EVIAUSER		
Contains the names of users allowed to access a specified table name with a specified record ID. This is used internally by FormFusion and should only be modifiable by the EVISIONS user		
Field	Type	Description
EVIAUSER_ID	INT	Unique record ID
EVIAUSER_FLAGS	INT	Permissions flags for the user
EVIAUSER_TABLE	VARCHAR2(16)	The name of the table this entry was created for

EVIAUSER_TABLE_ID	INT	The record ID of the above table
EVIAUSER_USERNAME	VARCHAR2(64)	The username of the person that has been granted/revoked privileges

EVIBLOB

This table stores the Binary Large OBjects (BLOB -- Long Raw) for several different tables. All PCL data, PDF documents, graphics, etc are stored here. This table can grow extremely large and will have much data added and removed over its lifetime

Field	Type	Description
EVIBLOB_ID	INT	Unique record ID
EVIBLOB_EVIBLOB_ID	INT	Link to main EVIBLOB record, 0 = none
EVIBLOB_SIZE	INT	Number of bytes of data in EVIBLOB_DATA
EVIBLOB_DATA	LONG RAW	The binary data, multi-use, multi-purpose
EVIBLOB_COMPRESSED	INT	Compression used, 0 = none (raw)

EVICOPY

Contains one record for each copy of a special print parameter

Field	Type	Description
EVICOPY_ID	INT	Unique record ID
EVICOPY_EVISPP_ID	INT	Link to EVISPP record
EVICOPY_DUPLEX	INT	Controls duplex setting
EVICOPY_SHORTEDGE	INT	Controls the long/short edge setting
EVICOPY_PAPERSAVE	INT	Controls the paper save mode
EVICOPY_TRAYNUM	INT	Specifies the tray number to print to

EVILOCK		
Used for locking certain EVISIONS tables beyond the support offered by the Oracle lock convention.		
Field	Type	Description
EVILOCK_ID	INT	Unique record ID
EVILOCK_GUID	CHAR(38)	Unique computer ID that issued the lock
EVILOCK_REFNUM	INT	Reference number used by the calling lock routine
EVILOCK_DATE	DATE	Date the lock was issued
EVILOCK_TABLE	VARCHAR2(20)	Table that has been locked
EVILOCK_USER	VARCHAR2(64)	User name that issued the lock

EVIPGRP		
Holds definitions of the process group nodes		
Field	Type	Description
EVIPGRP_ID	INT	Unique record ID
EVIPGRP_EVIPGRP_ID	INT	Link to parent EVIPGRP record
EVIPGRP_NAME	VARCHAR2(64)	Name of this process group

EVIPMOD		
Holds definitions of the process modifier nodes		
Field	Type	Description
EVIPMOD_ID	INT	Unique record ID
EVIPMOD_EVIPROC_ID	INT	Link to EVIPROC record

EVIPMOD_EVISPP_ID	INT	Link to EVISPP record
EVIPMOD_NAME	VARCHAR2(64)	Name of this process modifier
EVIPMOD_ORDER	INT	Order of execution, obsolete
EVIPMOD_CREATE_DATE	DATE	Date of creation
EVIPMOD_MODIFY_DATE	DATE	Date of last modification

EVIPROC		
Describes each process modifier (plugin) type		
Field	Type	Description
EVIPROC_ID	INT	Unique record ID
EVIPROC_OBJTYPE	VARCHAR2(32)	Object type, used internally
EVIPROC_ORDER	INT	Order of execution (deprecated)
EVIPROC_PATH	VARCHAR2(255)	Path to plug-in (deprecated)
EVIPROC_PLUGINID	VARCHAR2(64)	Unique ID of plug-in
EVIPROC_VERSION	VARCHAR2(10)	Database version of plug-in tables (deprecated)

EVIPROGRAM		
Contains each file necessary to compile the server side software		
Field	Type	Description
EVIPROGRAM_NUM	INT	Unique record ID
EVIPROGRAM_VERSION	VARCHAR2(10)	Version of server to compile file with
EVIPROGRAM_PROG_NAME	VARCHAR2(15)	Filename of the file

EVIPROGRAM_PROG_TEXT	LONG	File data
EVIPROGRAM_COMPILE	INT	Special flag used by eviadm

EVISCTP		
Holds records for each process node.		
Field	Type	Description
EVISCTP_ID	INT	Unique record ID
EVISCTP_EVIPGRP_ID	INT	Link to parent process group record in EVIPGRP
EVISCTP_NAME	VARCHAR2(64)	Name of process.

EVISPP		
Holds records for each Special Print Parameter node.		
Field	Type	Description
EVISPP_ID	INT	Unique record ID
EVISPP_EVISCTP_ID	INT	Link to parent process record in EVISCTP
EVISPP_NAME	VARCHAR2(64)	Name of special print parameter
EVISPP_COLLATE	INT	Controls the collate setting
EVISPP_COLCOUNT	INT	Number of expected columns in report file
EVISPP_ROWCOUNT	INT	Number of expected rows in report file
EVISPP_PAGEBREAKS	INT	Controls the page break setting
EVISPP_PULLSHEET	INT	Controls the pull sheet between copies setting
EVISPP_PULLTRAY	CHAR(1)	Tray to pull the sheet from

EVISPP_RETAINEXT	VARCHAR2(10)	Holds the extension to use if retaining report file
EVISPP_RETAINORIG	INT	Controls the retain original report setting
EVISPP_FIRST_MODE	INT	Specifies what to do with the first X number of pages
EVISPP_LAST_MODE	INT	Specifies what to do with the last X number of pages
EVISPP_FIRST_NUM	INT	Used with EVISPP_FIRST_MODE (X number of pages)
EVISPP_LAST_NUM	INT	Used with EVISPP_LAST_MODE (X number of pages)
EVISPP_FONTNAME	VARCHAR2(64)	Name of the default font
EVISPP_FONTPITCH	FLOAT	Default pitch for default font
EVISPP_FONTHEIGHT	FLOAT	Default height for default font
EVISPP_FONTSTYLE	VARCHAR2(4)	Default style for default font
EVISPP_FONTPCL	VARCHAR2(128)	Default PCL string for default font
EVISPP_LPI	FLOAT	Lines per inch for default font.
EVISPP_REVERSE_SORT	CHAR(1)	Controls the reverse sorting setting

EVISPVAR		
Holds the variables defined beneath a special print parameter node.		
Field	Type	Description
EVISPVAR_ID	INT	Unique record ID
EVISPVAR_EVIPMOD_ID	INT	Link to owning EVIPMOD record
EVISPVAR_NAME	VARCHAR2(32)	Name of the variable
EVISPVAR_DESCRIPTION	VARCHAR2(96)	Description/purpose of variable

EVISPVAR_VARTYPE	INT	Expected data type
EVISPVAR_COL	INT	Column to find variable (MapForm)
EVISPVAR_COLCOUNT	INT	Width of variable
EVISPVAR_ROW	INT	Row to find variable (MapForm)
EVISPVAR_ROWCOUNT	INT	Height of variable

EVIVSORT		
Holds the variables that will be used to sort the output pages on the server.		
Field	Type	Description
EVIVSORT_EVISPP_ID	INT	Link to owning EVISPP record
EVIVSORT_ORDER	INT	Order to apply this sorting field
EVIVSORT_VARIABLE	VARCHAR2(32)	Name of the variable to sort by

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FormFusion Archive Tables

EVIARCHV		
Holds the variables that will be used to sort the output pages on the server.		
Field	Type	Description
EVIARCHV_ID	INT	Unique record ID
EVIARCHV_PROCESS	VARCHAR2(64)	The process that this document was created for
EVIARCHV_LISNAME	VARCHAR2(64)	The name of the LIS file of the report
EVIARCHV_SPP	VARCHAR2(32)	The special print parameter this process was run with
EVIARCHV_JOB_DATE	DATE	The date this job was processed
EVIARCHV_JOB_USER	VARCHAR2(64)	The user that processed the job
EVIARCHV_ARC_DATE	DATE	The date this document was archived
EVIARCHV_ARC_USER	VARCHAR2(64)	The user that archived the document
EVIARCHV_EVIBLOB_ID	INT	Link to EVIBLOB record that holds the document
EVIARCHV_CDNUM	VARCHAR2(15)	CD number, used during archiving
EVIARCHV_REFNUM	VARCHAR2(15)	Unique CD reference number
EVIARCHV_NAME	VARCHAR2(32)	Name of the archived document
EVIARCHV_COMMENTS	VARCHAR2(255)	Any comments made by users

EVIARCHV_EXP_DATE	DATE	Date the document should expire
EVIARCHV_FLAGS	INT	Special meaning inside of FormFusion Archiver
EVIARCHV_FORMAT	VARCHAR2(15)	Format the document has been stored in.

EVIARUSR		
Contains the names of users allowed access to specific processes in regards to FormFusion Archiver.		
Field	Type	Description
EVIARUSR_ID	INT	Unique record ID
EVIARUSR_USERNAME	VARCHAR2(64)	Username being granted access
EVIARUSR_PROCESS	VARCHAR2(32)	Process the user can access
EVIARUSR_SPP	VARCHAR2(32)	Special print parameter the user can access
EVIARUSR_FLAGS	INT	Permission flags
EVIARUSR_EXP_DATE	DATE	Expiration date of permission

CaptureForm Tables

EVICFORM		
Holds references to each CaptureForm process modifier		
Field	Type	Description
EVICFORM_EVIPMOD_ID	INT	Unique record ID and link to EVIPMOD record

EVICFSQL		
Holds each query created for a CaptureForm process modifier		
Field	Type	Description
EVICFSQL_ID	INT	Unique record id
EVICFSQL_EVICFORM_ID	INT	Link to EVICFORM record
EVICFSQL_NAME	VARCHAR2(64)	The name of this query
EVICFSQL_EVIBLOB_ID	INT	The text of the SQL statement, record in EVIBLOB
EVICFSQL_MAXRECORDS	INT	The maximum number of records to retrieve
EVICFSQL_APPLIED	INT	The group to execute this query in, pre(0), page(1), post(2)
EVICFSQL_ORDER	INT	The order to execute, in same APPLIED group
EVICFSQL_USEINSORT	CHAR(1)	True if this query should be used during a sort operation

EVICFVAR		
Specifies which variables defined in EVISPVAR are CaptureForm variables		
Field	Type	Description
EVICFVAR_EVISPVAR_ID	INT	Unique record ID and link to EVISPVAR

FormDirector Tables

EVIFDDIR		
Description		
Field	Type	Description
EVIFDDIR_EVIPMOD_ID	INT	

EVIFDARC		
Description		
Field	Type	Description
EVIFDARC_ID	INT	Unique record ID
EVIFDARC_EVIFDDIR_ID	INT	
EVIFDARC_EXECUTE	INT	
EVIFDARC_DEPEND	INT	
EVIFDARC_DEPENDCOND	INT	
EVIFDARC_COPY	INT	
EVIFDARC_FORMAT	INT	

EVIFDEML		
Description		
Field	Type	Description
EVIFDEML_ID	INT	Unique record ID
EVIFDEML_EVIFDDIR_ID	INT	
EVIFDEML_EXECUTE	INT	
EVIFDEML_DEPEND	INT	
EVIFDEML_DEPENDCOND	INT	
EVIFDEML_COPY	INT	
EVIFDEML_TO	VARCHAR2(255)	
EVIFDEML_CC	VARCHAR2(255)	
EVIFDEML_BCC	VARCHAR2(255)	
EVIFDEML_SUBJECT	VARCHAR2(255)	
EVIFDEML_RECEIPT	VARCHAR2(255)	
EVIFDEML_BODY	LONG	
EVIFDEML_FORMAT	INT	
EVIFDEML_FROM	VARCHAR2(255)	
EVIFDEML_FILENAME	VARCHAR2(64)	
td>EVIFDEML_SCRIPT		
VARCHAR2(255)		

EVIFDFAX		
Description		
Field	Type	Description
EVIFDFAX_ID	INT	Unique record ID
EVIFDFAX_EVIFDDIR_ID	INT	
EVIFDFAX_EXECUTE	INT	
EVIFDFAX_DEPEND	INT	
EVIFDFAX_DEPENDCOND	INT	
EVIFDFAX_COPY	INT	
EVIFDFAX_PHONE_NUM	VARCHAR2(64)	
EVIFDFAX_SCRIPT	VARCHAR2(255)	

EVIFDPRT		
Description		
Field	Type	Description
EVIFDPRT_ID	INT	Unique record ID
EVIFDPRT_EVIFDDIR_ID	INT	
EVIFDPRT_EXECUTE	INT	
EVIFDPRT_DEPEND	INT	
EVIFDPRT_DEPENDCOND	INT	
EVIFDPRT_COPY	INT	
EVIFDPRT_SCRIPT	VARCHAR2(255)	

EVIFDWEB		
Description		
Field	Type	Description
EVIFDWEB_ID	INT	Unique record ID
EVIFDWEB_EVIFDDIR_ID	INT	
EVIFDWEB_EXECUTE	INT	
EVIFDWEB_DEPEND	INT	
EVIFDWEB_DEPENDCOND	INT	
EVIFDWEB_COPY	INT	
EVIFDWEB_SCRIPT	VARCHAR2(255)	

FormStamp Tables

EVIFPCL		
Description		
Field	Type	Description
EVIFPCL_EVIFSTMP_ID	INT	Unique record ID and link to EVIFSTMP
EVIFPCL_AUTHOR	VARCHAR2(64)	
EVIFPCL_COLCOUNT	INT	
EVIFPCL_COMMENTS	VARCHAR2(255)	
EVIFPCL_COMPANY	VARCHAR2(64)	
EVIFPCL_DPI	INT	
EVIFPCL_GRIDX	FLOAT	
EVIFPCL_GRIDY	FLOAT	
EVIFPCL_LINECOUNT	INT	
EVIFPCL_MANAGER	VARCHAR2(64)	
EVIFPCL_MEAS	INT	
EVIFPCL_ORIENTATION	INT	
EVIFPCL_PAGESIZE	INT	

EVIFPCL_RULERBOTTOM	INT	
EVIFPCL_RULERLEFT	INT	
EVIFPCL_RULERRIGHT	INT	
EVIFPCL_RULERTOP	INT	

EVIFONTS		
Description		
Field	Type	Description
EVIFONTS_ID	INT	Unique record ID
EVIFONTS_NAME	VARCHAR2(64)	
EVIFONTS_EVIBLOB_ID	INT	
EVIFONTS_PCL_ID	INT	

EVIFSTMP		
Description		
Field	Type	Description
EVIFSTMP_EVIPMOD_ID	INT	Unique record ID and link to EVIPMOD
EVIFSTMP_EVIBLOB_ID	INT	
EVIFSTMP_COPY_NUM	VARCHAR2(255)	
EVIFSTMP_OVL_NUM	INT	
EVIFSTMP_OVL_PAGE	INT	
EVIFSTMP_OVL_SIDE	INT	

EVIPCLO		
Description		
Field	Type	Description
EVIPCLO_ID	INT	Unique record ID
EVIPCLO_EVIFPCL_ID	INT	
EVIPCLO_BOTTOM	FLOAT	
EVIPCLO_LEFT	FLOAT	
EVIPCLO_RIGHT	FLOAT	
EVIPCLO_TOP	FLOAT	
EVIPCLO_LOCKED	INT	
EVIPCLO_NAME	VARCHAR2(25)	
EVIPCLO_ORDER	INT	
EVIPCLO_TRANSPARENT	INT	

EVIPDTAF		
Description		
Field	Type	Description
EVIPDTAF_EVIPCLO_ID	INT	Unique record ID and link to EVIPCLO
EVIPDTAF_EVISPVAR_ID	INT	
EVIPDTAF_FONTNAME	VARCHAR2(64)	
EVIPDTAF_FONTPITCH	FLOAT	
EVIPDTAF_FONTHEIGHT	FLOAT	

EVIPDTAF_DATACONV	VARCHAR2(128)	
EVIPDTAF_FONTSTYLE	VARCHAR2(4)	
EVIPDTAF_ANGLE	FLOAT	
EVIPDTAF_PCLCODE	VARCHAR2(128)	
EVIPDTAF_LPI	FLOAT	

EVIPIMG		
Description		
Field	Type	Description
EVIPIMG_EVIPCLO_ID	INT	Unique record ID and link to EVIPCLO
EVIPIMG_IMAGE_TYPE	VARCHAR2(5)	
EVIPIMG_EVIBLOB_ID	INT	
EVIPIMG_BRIGHT_ADJ	FLOAT	
EVIPIMG_CONTRAST_ADJ	FLOAT	

EVIPLGRD		
Description		
Field	Type	Description
EVIPLGRD_EVIPCLO_ID	INT	Unique record ID and link to EVIPCLO
EVIPLGRD_FILLCOLOR	INT	Internal color
EVIPLGRD_LINECOLOR	INT	Color of lines
EVIPLGRD_LINESTYLE	INT	Style of lines

EVIPLGRD_LINEWIDTH	INT	Width of lines
EVIPLGRD_COLCOUNT	INT	Number of columns
EVIPLGRD_ROWCOUNT	INT	Number of rows

EVIPLINE		
Description		
Field	Type	Description
EVIPLINE_EVIPCLO_ID	INT	Unique record ID and link to EVIPCLO
EVIPLINE_LINECOLOR	INT	
EVIPLINE_LINESTYLE	INT	
EVIPLINE_LINEWIDTH	INT	

EVIPRECT		
Description		
Field	Type	Description
EVIPRECT_EVIPCLO_ID	INT	Unique record ID and link to EVIPCLO
EVIPRECT_FILLCOLOR	INT	
EVIPRECT_LINECOLOR	INT	
EVIPRECT_LINESTYLE	INT	
EVIPRECT_LINEWIDTH	INT	

EVIPTEXT		
Description		
Field	Type	Description
EVIPTEXT_EVIPCLO_ID	INT	Unique record ID and link to EVIPCLO
EVIPTEXT_ALIGN	INT	
EVIPTEXT_ANGLE	FLOAT	
EVIPTEXT_FILLCOLOR	INT	
EVIPTEXT_FONTCOLOR	INT	
EVIPTEXT_FONTNAME	VARCHAR2(64)	
EVIPTEXT_FONTSIZE	FLOAT	
EVIPTEXT_FONTSTYLE	VARCHAR2(4)	
EVIPTEXT_INDENT	INT	
EVIPTEXT_LINECOLOR	INT	
EVIPTEXT_LINESTYLE	INT	
EVIPTEXT_LINEWIDTH	INT	
EVIPTEXT_TEXT	LONG	
EVIPTEXT_PCLCODE	VARCHAR2(128)	
EVIPTEXT_FONTPITCH	FLOAT	
EVIPTEXT_BASELINEOFF	INT	
EVIPTEXT_PCLPITCH	FLOAT	

MapForm Tables

EVIMAPF		
Contains the information for a single MapForm		
Field	Type	Description
EVIMAPF_EVIPMOD_ID	INT	Unique record ID and link to EVIPMOD
EVIMAPF_EVIBLOB_ID	INT	Associated LIS file
EVIMAPF_FORMAT	INT	Format of LIS file, 0 = normal, 1 = comma-delimited
EVIMAPF_HEADER_SIZE	INT	Size of the header area
EVIMAPF_HEADER_SIZING	INT	The method of sizing the header area: 0 - size always remains the same 1 - size is adjusted by OFFSET rows using a column search for SEARCHTEXT
EVIMAPF_HEADER_SEARCHTEXT	VARCHAR2(64)	Text to search for when SIZING is 1
EVIMAPF_HEADER_OFFSET	INT	Number of rows to offset header size when SIZING is 1
EVIMAPF_HEADER_COLUMN	INT	Starting column to search for text when SIZING is 1
EVIMAPF_HEADER_COLUMN_COUNT	INT	Width of column to search for text when SIZING is 1
EVIMAPF_FOOTER_SIZE	INT	Size of the footer area

EVIMFAFLD		
Describes all floating fields created on a MapForm.		
Field	Type	Description
EVIMFAFLD_EVIMFFLD_ID	INT	Ties this record to EVIMFFLD
EVIMFAFLD_OWNER_ID	INT	Owning area of the mapform 0 - detail 1 - header 2 - footer
EVIMFAFLD_RESIZE_MODE	INT	The style of resizing for this field 0 - none 1 - move 2 - resize

EVIMFFLD		
Contains all fields created on a MapForm.		
Field	Type	Description
EVIMFFLD_EVISPVAR_ID	INT	Unique record ID and link to EVISPVAR
EVIMFFLD_EVIMAPF_ID	INT	The owning mapform
EVIMFFLD_FIELD_TYPE	INT	Easy method of determining what type of field this record is

EVIMFOFLD		
Describes all offset fields created on a MapForm.		
Field	Type	Description
EVIMFOFLD_EVIMFFLD_ID	INT	Unique record ID and link to EVIMFFLD
EVIMFOFLD_START_ROW	INT	Upper row to begin searching
EVIMFOFLD_START_COLUMN	INT	Left-most column to begin the search for SEARCH_TEXT
EVIMFOFLD_STOP_ROW	INT	Bottom row to stop searching
EVIMFOFLD_STOP_COLUMN	INT	Right-most column to stop the search for SEARCH_TEXT

EVIMFOFLD_SEARCH_TEXT	VARCHAR2(64)	Text to search for in mapped field
EVIMFOFLD_TRIM	CHAR(1)	'Y' means trim the text to be compared to SEARCH_TEXT before comparing
EVIMFOFLD_MAPPING_AREA	INT	If SEARCH_TEXT is found, controls what happens to mapped area 0 Nothing 1 Text is removed (left blank) 2 Entire line is removed