Minisoft® eFORMz™
Reference Manual

Version 11.03

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eFORMz 11.03 - October 2019

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IF A CUSTOMER IS PURCHASING AN UPGRADE FOR AN EARLIER VERSION OF THE PRODUCT, THEN THIS AGREEMENT SHALL SUPERSEDE THE TERMS AND CONDITIONS OF THE LICENSE AGREEMENT THAT APPLIED TO THE EARLIER VERSION AS TO THE USE OF THE UPGRADE PRODUCT AS OF THE DATE OF INSTALLATION OF THE UPGRADE.

NOW, THEREFORE, in consideration of the foregoing provisions and the terms and conditions herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the following terms and conditions apply:

A. License Grants

1. Upon MINISOFT’s receipt from the Customer of the one-time license fee and further subject to the other terms and conditions herein, MINISOFT grants the Customer a non-exclusive and non-transferable perpetual license: (a) to install and use the Product on only one host computer or business server in the Customer’s business organization; and (b) to install the client portion of the Product on a network server for access by more than one personal computer and on any personal computer client accessing the host server program.

2. You may not: (a) allow access to or use of the Product to anyone outside of your organization; (b) decompile, reverse engineer, decrypt, disassemble, or otherwise attempt to copy or replicate the source code; (c) modify or translate those portions of the Product that are provided in an object or source code form, or alter, merge, modify, reverse engineer or adapt the Product in any way including disassembling or decompiling; (d) copy, loan, rent, lease or sublicense, assign, convey, sell, mortgage, pledge, dispose or in any other manner transfer to a third-party any part of or all of the Customer’s rights and obligations under this Agreement or in the Product; or (e) otherwise copy, distribute, rent, loan, disseminate, publish, sell or transfer any portion of the Product in any way inconsistent with or contrary to the terms and conditions of the Agreement.

3. Any attempt to violate any prohibitions described in this Agreement shall be considered a material breach of this Agreement, and no attempt to violate section 2(c) or 2(d) in the immediately preceding paragraph shall have any effect, and any prohibited act described therein shall be void and of effect if made by the Customer.

4. You may make one copy of the Product for use as a backup copy (the “Copy”) provided that: (i) the Copy includes all notices of copyright and all other proprietary rights appearing in and on the Software Product; (ii) the Copy and the original Product are not in use at the SAME time; (iii) Customer establishes a procedure for accounting for the Copy at all times; and (iv) Customer destroys or returns to MINISOFT the Copy when it is no longer required or when the license grants made hereunder are terminated for any reason, whichever occurs first.

5. This Agreement grants to the Customer a license for use of the Product on the terms and conditions set forth in this Agreement; and (ii) the Customer may not install, copy, perform, execute, display, or use in any other fashion the Product except in accordance with the terms and conditions of this Agreement. By any use of any element of the Product, the Customer shall be deemed to have accepted and be bound by all the terms and conditions of this Agreement.

6. MINISOFT retains and reserves all rights to the Product. Nothing contained herein shall be deemed to convey to the Customer any title to, or an ownership interest in, the Product or any of the intellectual property rights contained in the Product. Upon termination of this Agreement, all rights granted to the Customer herein shall automatically revert to MINISOFT.

B. Termination

The license grants made hereunder shall automatically terminate on the date of any breach by the Customer of any of the terms and conditions of this Agreement. In any such termination, you shall discontinue using the Product. You further agree to return the Product to MINISOFT or destroy all components of the Product and to certify in writing that the Product is no longer in use and that you have kept no copies of the Product. In any such termination of the license grants, none of MINISOFT’s rights in law or equity shall be barred, discharged, released, or otherwise impaired by such termination, and MINISOFT reserves all such rights described herein.

C. Confidential Information

The Product also contains MINISOFT’s commercially valuable, proprietary and confidential information and trade secrets (collectively “Confidential Information”). You are obligated to preserve and hold in confidence any Confidential Information and may not use any of it except in accordance with the terms and conditions of this Agreement. Confidential Information shall not include what is already public at the date of its disclosure or what later becomes lawfully public through no fault or responsibility of the Customer.

D. Limited Warranties and Limitations on Damages and Remedies.

1. Only the limited warranties expressly described in this section are made to the Customer purchasing this Product. No warranty of any kind, whether express or implied, is made to any third-party or other transferee or successor of the Customer.

2. MINISOFT warrants that it has the right to grant the licenses contained in this Agreement.

3. MINISOFT warrants that this product will execute its programming instructions when properly installed on a properly configured computer for which it is intended. MINISOFT makes no warranty of any kind, implied or express, that the Product will meet Customer’s requirements or that the Product will be uninterrupted or error-free

4. MINISOFT, Inc. warrants the media upon which this Product is recorded to be free from defects in materials and workmanship under normal use for a period of 90 days from the date of purchase. During the warranty period MINISOFT will replace media that prove to be defective. Customer’s exclusive remedy for any media that proves to be defective shall be to return the media to MINISOFT for replacement.

5. MINISOFT’ only obligation, liability and/or remedy, with respect to the warranties set forth in this Agreement shall be one of the following, which MINISOFT shall have sole discretion to choose: (1) as described above, to provide replacement media (whether in the form of the current release or otherwise) for the Product; (2) to

replace, without charge, the Product with a functionally equivalent software product; or (3) to refund the applicable license fees paid to MINISOFT by Customer. These are the sole and exclusive remedies for any breach of warranty.

6. MINISOFT shall have no obligation, liability or any other kind of responsibility for the costs of restoring any destroyed or defective data, installation of replacement media, or software conversion work made necessary by replacement media, even if MINISOFT had been specifically informed by Customer of the possibility or probability of any such consequences. During the ninety (90) days warranty period for the media, MINISOFT will replace, without charge, on an exchange basis, any media which is not as warranted. Customer must return the defective item postpaid to MINISOFT, postmarked within the time period stated above. Customer must either insure the defective item being returned or assume the risk of loss or damage in transit. Any claim under the above warranty must include a copy of Customer's receipt or invoice or other proof of the date of delivery.

7. Year 2000 Warranty. MINISOFT warrants that the Product will accurately process date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations, in accordance with the Product's documentation BUT ONLY to the extent that other technology and systems (e.g., software and operating systems, hardware and firmware) used in combination with the Product properly exchanges date/time data with it. In addition to the limitations of liability and remedies described above in this Section, the Year 2000 warranty made herein is made only for ninety (90) days after the date of delivery of the Product and only if any noncompliance is discovered and made known to MINISOFT in writing within such ninety (90) days. The Year 2000 warranty expires after such ninety (90) day period and shall not extend to any events occurring after the expiration date.

8. MINISOFT makes no other warranty, expressed or implied, with respect to the Product.

9. NOTICE: THE WARRANTIES, OBLIGATIONS AND LIABILITY OF MINISOFT AND THE RIGHTS AND REMEDIES OF CUSTOMER SPECIFICALLY SET FORTH IN THIS AGREEMENT ARE THE CUSTOMER'S EXCLUSIVE REMEDIES. MINISOFT DISCLAIMS, AND CUSTOMER HEREBY WAIVES, DISCHARGES AND RELEASES MINISOFT, ITS OFFICERS, DIRECTORS, EMPLOYEES AND AGENTS, FROM ANY AND ALL (1) OTHER WARRANTIES, OBLIGATIONS, OR LIABILITIES AND (2) RIGHTS, CLAIMS, CAUSES OF ACTIONS, EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE IN CONNECTION WITH, REGARDING, OR ARISING FROM THE PRODUCT OR ANY RELATED SOFTWARE, TANGIBLE OR INTANGIBLE ITEMS OR SERVICES PROVIDED UNDER THE AGREEMENT (INCLUDING, WITHOUT LIMITATION, ALL DOCUMENTATION SUPPLIED WITH THE PRODUCT). THE WAIVER, DISCHARGE AND RELEASE INCLUDE, BUT ARE NOT LIMITED TO: (1) ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A SPECIFIC PURPOSE; (2) ANY IMPLIED WARRANTY ARISING FROM COURSE OF PERFORMANCE, COURSE OF DEALING, OR USAGE OF TRADE; AND (3) ANY OBLIGATION, LIABILITY, RIGHT, CLAIM, OR REMEDY, WHETHER IN TORT, CONTRACT, OR OTHERWISE. IN NO CASE SHALL MINISOFT BE LIABLE FOR ANY INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOSS OF USE, REVENUE, PROFIT, OR DATA), PUNITIVE DAMAGES, EXEMPLARY OR OTHER STATUTORY DAMAGES, EXPENSES, COSTS (INCLUDING ATTORNEY FEES). IN ADDITION, IN NO CASE SHALL MINISOFT'S LIABILITY EXCEED THE FEES PAID BY CUSTOMER FOR THE PRODUCT.

E. Updates

Customer is entitled to updates and enhancements to licensed software if under a current Minisoft software update and subscription service. The cost of the update and subscription service will be 20% of the purchase price of the licensed software. The update and subscription service is for twelve (12) months and can be renewed at the customer's discretion.

F. Support Services

A customer that has purchased annual support entitles them to any and all software updates for their licensed product(s) as well as technical support via phone and email. Software Updates are available from our web site, www.minisoft.com. Included with the purchase of support is the use of our Toll Free 800 number, and support email. Days and Hours of support coverage are Monday through Friday 7:30am (Pacific) until 5:00pm (Pacific). When support is purchased or renewed, an update may be downloaded from the Minisoft Website. In cases where support has expired, back-support is charged to bring the support account current. Any supplemental software code provided to you as part of the Support Services shall be considered part of the SOFTWARE PRODUCT and subject to the terms and conditions of this License Agreement.

G. Miscellaneous

1. Governing Law. This Agreement is made for the sole benefit of the parties hereto, and there are no third party beneficiaries to this Agreement. This Agreement shall be interpreted under the laws of the State of Washington, notwithstanding the application of any jurisdiction's choice-of-law rules to the contrary.

2. Independent Contractors. No agency, partnership, joint venture, or employer-employee relationship is created hereby, and neither party nor any of its agents or employees shall have any authority of any kind to bind the other party in any respect whatsoever. Each party is an independent contractor to the other party.

3. No Assignment by Customer. This Agreement shall be binding upon and inure to the benefit of MINISOFT and any successors and assigns. Customer shall have no right to assign or otherwise transfer its rights or obligations under this Agreement except with the prior written consent of MINISOFT, which MINISOFT in its sole discretion and for any reason or no reason provide or withhold.

4. Entire Agreement. This Agreement contains the complete understanding between the parties and shall as of the date the Product is first installed supersede all other agreements, whether they are written or oral, between the parties concerning the particular subject matter. The language of this Agreement shall for all purposes be construed as a whole, according to its fair meaning, not strictly for or against either party, and without regard to the identity or status of any person who drafted all or any part of it. No purchase order or any other purchasing instruments issued by Customer, even if such purchase order or other purchasing instrument provides that it takes precedence over any other agreement between the parties, shall be effective to contradict, modify, delete from or add to the terms of this agreement in any manner whatsoever.

5. Severability. In the event that any one or more provisions of this Agreement is found by a court of competent jurisdiction to be unenforceable or invalid, then notwithstanding any such finding the remainder of this Agreement shall remain in full force and effect, and such provision that is found to be unenforceable or invalid shall be deemed severed.

6. Waiver. Neither party's right to require performance of the other party's obligations hereunder shall be affected by any previous waiver, forbearance, or course of dealing, nor shall any waiver or forbearance or other course of dealing at any time with respect to any term or condition in this Agreement be effective unless evidenced in writing signed by the waiving party as to such waiver, forbearance or other course of dealing. No waiver or modification of this Agreement or any covenant, condition or limitation herein contained shall be valid and no evidence of waiver or modification shall be offered or received in evidence in any proceeding, arbitration or litigation between the parties hereto arising out of or affecting this Agreement or the rights or obligations of the parties hereunder, unless such waiver or modification is in writing duly signed by both parties.

7. Headings, Sections - The various headings in this Agreement are inserted for convenience only and shall not affect the meaning or interpretation of this Agreement or any Section or provision hereof.

8. Disputes; jurisdiction and venue. Customer and MINISOFT consent to personal jurisdiction, subject matter jurisdiction, and venue in the state and/or federal courts sitting in King or Snohomish Counties, State of Washington. Any action relating to this Agreement must be brought in the state or federal courts located in King or Snohomish County, Washington.

9. Attorney's Fees. In the event legal action is brought by either party to enforce any of the provisions of this Agreement, the prevailing party shall recover its reasonable attorney's fees, costs, and expenses, including but not limited to fees, costs and expenses of collecting any judgment.

10. Export. The export of this product is restricted by U.S. export regulations.

11. GOVERNMENT RESTRICTED RIGHTS. The Software Product and documentation are provided with restricted rights. Use, duplication or disclosure by the Government is subject to restrictions as set forth in subparagraph (c) (2) (ii) of the Rights in Technical Data and Computer Software clause at DFARS 252. 227-7013 or subparagraphs (c) (1) and (2) of the Commercial Computer Software-Restricted Rights at 48 CFR 52.227-19, as applicable. Contractor/manufacturer is MINISOFT, INC., 1024 FIRST STREET, SNOHOMISH, WASHINGTON, 98290, U.S.A

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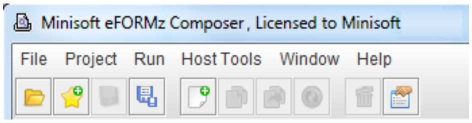
SECTION 1

Menus and Project Properties

Main Menu Options

The Composer menu bar has the following six menus:

File, *Project*, *Run*, *Host Tools*, *Window*, and *Help*.


Minisoft eFORMz Composer, Licensed to Minisoft

File Menu

The File Menu controls the project file with the following items:

Open Project
Opens any previously saved project template.

New Project
Creates a new project template with the supplied name.

Save Project
Saves the currently loaded project by its current name.

Save Project As
Saves the currently loaded project by a new user supplied name.

System Properties
Controls the operation of the eFORMz Composer.

Exit
Closes the currently loaded project and exits the Composer.

Project Menu

The Project Menu controls project items with the following options:

Add New Page to Project...
Adds a new page to your project. You will need to add a page for each logical page of data within your report. Most projects will only contain one logical page regardless of how many physical pages are contained within the report.

Add Form to Page...

Adds a form to a logical page. Adding multiple copies of the same form causes a report to print multiple copies of a page of data.

Replace Form

Replaces an existing form with another. Used extensively when making alterations to your form.

Reload Form

Reloads a previously imported RTF document automatically.

Remove Selected Item

Removes a selected page, form, or rule from the current project. A warning message will be issued prior to the delete.

Properties...

Displays the Properties dialog box of the selected item in the Current Project window (Project, Page, or Form).

Run Menu

Print

Sends a merged print file of your form and current data file to a selected printer.

Output..

PDF File

Produces a merged pdf file of your form and data output.

eFORMz Document Files

Produces an .efd file for eReader.

PCL Files (B/W)

Produces a merged file of your form and data in black/white pcl format.

PRN Files (B/W)

Produces a merged file of your form and data in black/white pcl format.

PCL Files (Color)

Produces a merged file of your form and data in color pcl format.

PostScript Files

Produces a merged file in the standard format for a Postscript printer.

XML
Produces a merged file in standard XML format for a Zebra printer.

HTML
Produces an HTML file of your output.

TEXT
Produces a print file in standard text format.

AFPDS
Produces an AFPDS print file.

ZPLII
Produces a print file in Zebra's ZPLII format.

IPL
Produces a print file in Intermec Printer Language format.

TIFF, JPEG, PNG, GIF, BMP
Produces an image file in one of the above formats.

Process w/eDIRECT or eDIRECT PLUS
Processes output through eDIRECT.

Host Tools Menu

Local Director Toolkit
Provides a GUI interface for configuring the eFORMz job process on a Windows operating system (Vista/7/Server 2008/8). For further information, see the *eFORMz Director Manual*.

Install an extension
An eFORMz Extension is a file set that can be installed within an installed copy of eFORMz that may be supplied to a customer by a Minisoft support representative. The extension can include, files, directories and XML file modifications. These items are scripted through an XML file.

AS400
Provides a GUI interface for configuring the eFORMz job process on your AS400. For further information, see the *eFORMz Director Manual*.

Unix
Provides a GUI interface for installation, saving, uploading, and downloading files from your Unix system. For further information, see the *eFORMz Director Manual*.

Window Menu

The *Window* menu allows you to select which windows you would like to have active within the eFORMz Composer.

Project
(default enabled) Displays the *Current Project* window.

Viewer
(default enabled) Displays the form and data *Viewer* window.

Variables
(default disabled) Displays the *Variables* viewer window.

Reset
Restores the default window settings.

Text to XML Editor
Works in conjunction with the *Project Properties* > *Advanced Preprocessor* > *Text to XML Converter.*

Help Menu

eFORMz Manual
Provides quick access to the eFORMz pdf manual.

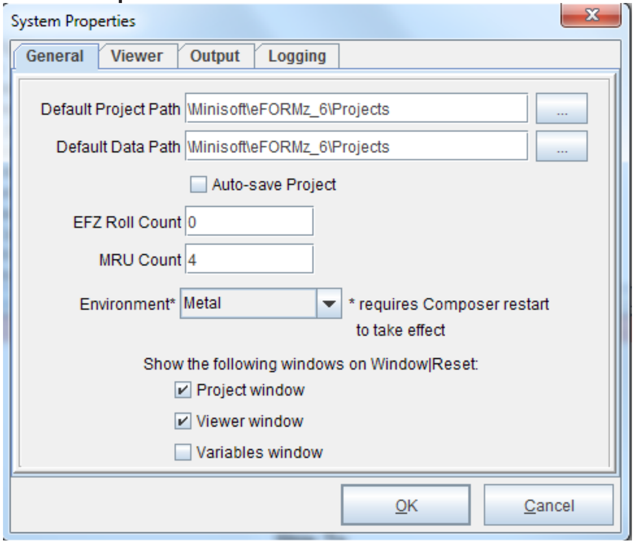
About Minisoft eFORMz
Displays the eFORMz copyright date and version number. Provides an activation license check.

Available Character Sets
Contains a list of accessible character sets.

System Properties

The eFORMz *System Properties* sets the settings for all projects. To access the eFORMz System Properties, select *System Properties* from the eFORMz *File Menu*.

General Options



Default Project Path \Minisoft\eFORMz_6\Projects

Default Data Path \Minisoft\eFORMz_6\Projects

□ Auto-save Project

EFZ Roll Count 0

MRU Count 4

Environment* Metal

* requires Composer restart to take effect

Show the following windows on Window|Reset:

☑ Project window

☑ Viewer window

□ Variables window

Default Project Path
Sets the default folder that will be opened when retrieving a project file.

Default Data Path
Sets the default folder that will be opened when retrieving a data file.

Auto-save Project
Automatically saves changes made to your project file.

EFZ Roll Count
Permits the automated backup of projects based on a preset counter. For using the *EFZ Roll Count*, consult the following tutorial:
http://support.minisoft.com/index.php/revision-handling/

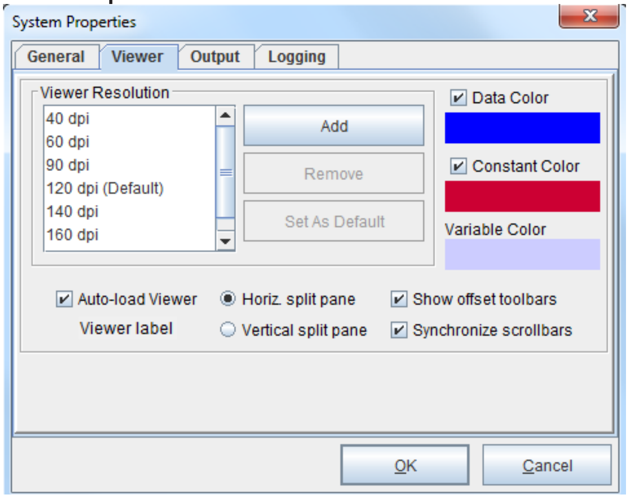
MRU Count
Controls the number of recently-used projects to be shown from the File tab of the eFORMz Composer Main Menu, based on a preset counter. For using the *MRU Count*, consult the following tutorial:
http://support.minisoft.com/index.php/mru-count/

Environment
Changes the appearance of the eFORMz application. Shutting down the eFORMz application is required for an appearance to change. Options include: *Metal, CDE/Motif, Windows Classic*. Default is *Metal*.

Window|Reset
When checked, the associated window will appear if the Window Reset is selected from the Composer Task bar.

- Project
- Viewer
- Variables

Viewer Options



Viewer Resolution
40 dpi
60 dpi
90 dpi
120 dpi (Default)
140 dpi
160 dpi

☑ Data Color
☑ Constant Color
Variable Color

☑ Auto-load Viewer
Viewer label
● Horiz. split pane
○ Vertical split pane
☑ Show offset toolbars
☑ Synchronize scrollbars

Viewer Resolution
(Default 120dpi) Controls the default zoom levels. Customize your viewer controls by clicking *Add* or *Remove*.

Data Color
Allows you to change the data color displayed in the viewers.

Constant Color
Allows you to change the constant color displayed in the Form and Data Viewer.

Variable Color
Allows you to change the variable color displayed in the Data and Form Viewer.

Auto-load Viewer
When checked, the Form and Data Viewer automatically reloads when a change has been made to the project rules, properties, or form.

Viewer label
When checked, it adds the labels Input and Output in the Form and Data Viewer. A restart of the Composer is necessary to view the change.

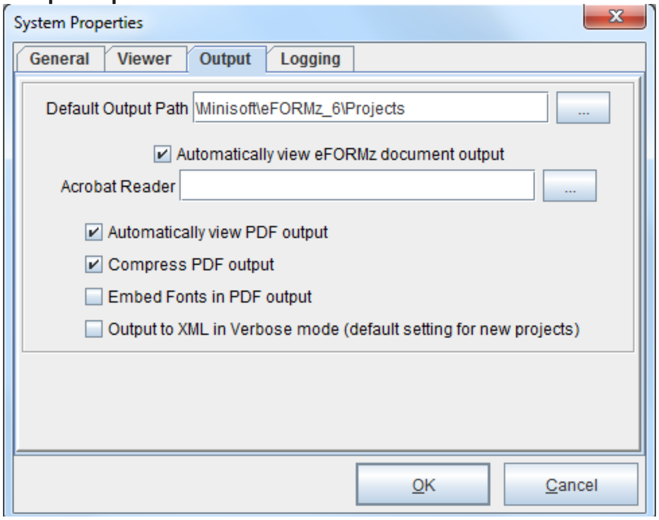
Horizontal Split Pane
Allows you to view your input and output data simultaneously using the horizontal split pane button. Default is checked.

Vertical Split Pane
Allows you to view your input and output data simultaneously using the vertical split pane button.

Show Offset Toolbars
When checked, the Form and Data Toolbar displays allowing you to easily adjust the positioning of your form and data. Default is checked.

Synchronized Scrollbars
Allows scroll bars within the Viewer to become synchronized. Default is checked.

Output Options



System Properties

Default Output Path \Minisoft\eFORMz_6\Projects

☑ Automatically view eFORMz document output

Acrobat Reader

☑ Automatically view PDF output

☑ Compress PDF output

□ Embed Fonts in PDF output

□ Output to XML in Verbose mode (default setting for new projects)

Default Output Path
Specifies the folder the output will be directed to.

Automatically view eFORMz document output
When checked, automatically starts the eReader when an .efd file is created.

Acrobat Reader
Path to the Adobe Acrobat reader executable. Specify if you wish to use a reader other than system default.

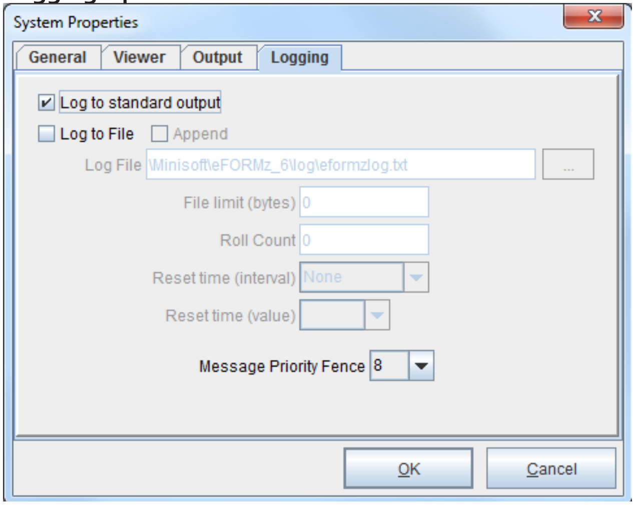
Automatically View PDF Output
When checked, the PDF file reader will automatically start after a PDF file has been built from eFORMz. *Note*: Path must be provided for Acrobat Reader.

Compress PDF Output
Compresses the eFORMz pdf file output allowing smaller file sizes.

Embed Fonts in PDF Output
Embedded fonts prevents font substitution when a pdf file is viewed or printed. Text will remain in its original font.

Output to XML in Verbose mode
Default unchecked. When unchecked the XML output is condensed using token references. Checked will cause the XML output to be represented in full text XML verbiage.

Logging Options



☑ Log to standard output

□ Log to File □ Append

Log File \Minisoft\eFORMz_6\log\eformzlog.txt

File limit (bytes) 0

Roll Count 0

Reset time (interval) None

Reset time (value)

Message Priority Fence 8

Log to Standard Output
When checked, logs all messages and standard output from eFORMz to a DOS window.

Log to File
When checked logs all messages and standard output from eFORMz to a text file.

Log file
When “Log to File” is checked use the *Log File* field to specify the path and file name of the log file.

File limit (bytes)
Size in bytes of the log file where a new write will result in rolling. The action of closing the current log file and opening a new log file is called “rolling” the log file.

Roll Count
Limits the number of retained log files.

Reset time (interval)
The type of time interval that the *reset time (value)* uses. Options include: *Years, Months, Days and Hours*. The default value is *None.*

Reset time (value)
The numeric value of reset time intervals to allow for the time a log file to reach the maximum age before rolling. Options include: *1-5 Years, 1-12 Months, 1-30 Days* and *1-24 Hours*.

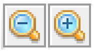
Append
Permits log messages to be appended to the log file.

Message Priority Fence
A message priority fence can filter what messages are displayed or written to the log file.

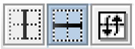
0-3	-	All informative messages
4-7	-	Unused
8-11	-	Status messages (i.e.: pages output, etc...) only
12-15	-	Error and other high priority messages only

Minisoft recommends a log priority of 8. If the log priority is set below 8, it could adversely affect performance.

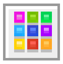
Viewer Controls



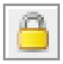
Zoom Control
Controls the zoom level for viewing. The view setting will display to the right of your zoom controller icons. To personalize your view settings, from the eFORMz Composer File Menu select *System Properties: Viewer tab > Zoom Control.*



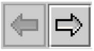
Vertical/Horizontal Panes
Allows you to customize your Viewer panes to view horizontally or vertically your input and output data simultaneously. Use the *Flip Pane* button to switch the Viewer windows. If you wish to view only one pane, slide the pane separator to one side.



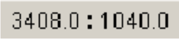
Color Control
Enables/Disables color display in the Input Data Viewer and Form and Data Viewer.



Drag Control
Allows you to lock down movable elements in the Form and Data Viewer. Default is unlocked.



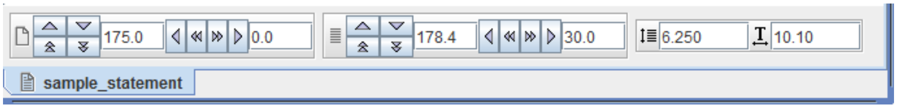
Previous/Next Buttons
Allows you to move back and forth between data pages.



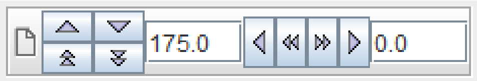
3408.0 : 1040.0

Row/Column Coordinates
The position of your mouse in the Form and Data Viewer. Coordinates based in decipoints.

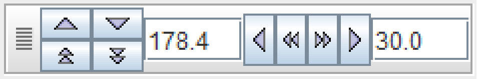
Offset Adjustment Toolbars



When checked, the Form and Data Toolbar displays allowing you to easily adjust the positioning of your form and data.



Form Offset Adjustment Toolbar



Data Offset Adjustment Toolbar

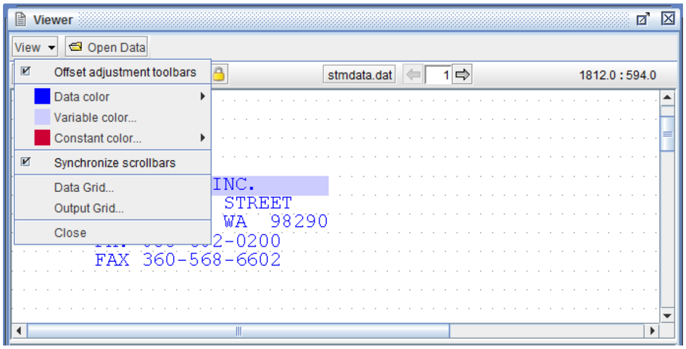
Lines Per Inch - The number of data lines in every vertical inch.

Characters Per Inch - The number of characters per inch horizontally. Used in conjunction with Fixed fonts.

Height - The vertical height of each data character. Used in conjunction with Proportional fonts.

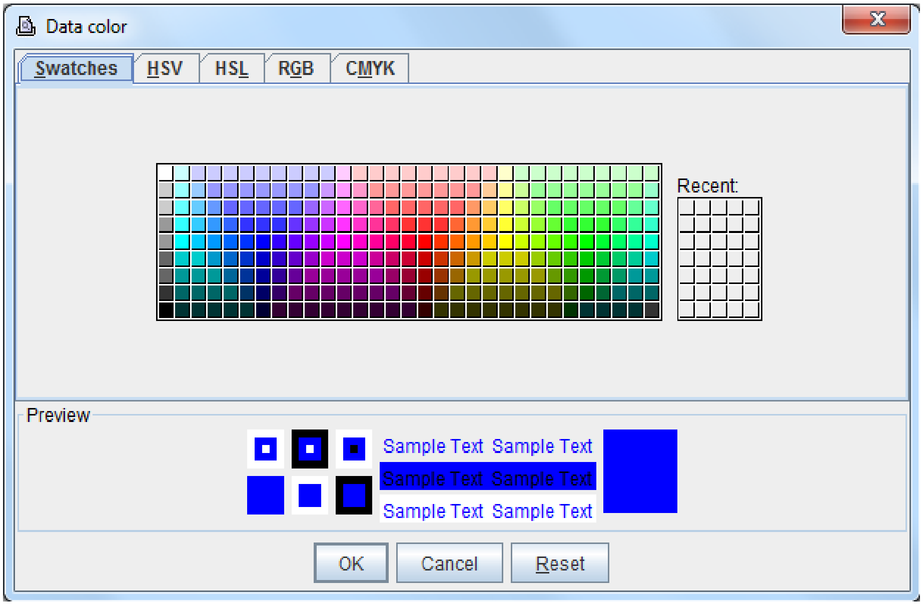
Viewer Menu Options

The eFORMz Viewer has a main menu option that allows you to control different aspects of the viewer such as the data grid, scrollbars, and viewer colors. Note some of the options available in the following headings.



Data, Variable, and Constant Color

Allows you to change the data color displayed in the Viewer.



Data Color
Allows you to change the data color displayed in the Viewer. Disable deactivates the color function. Enable is the default.

Variable Color
Allows you to change the variable colors displayed in the Viewer.

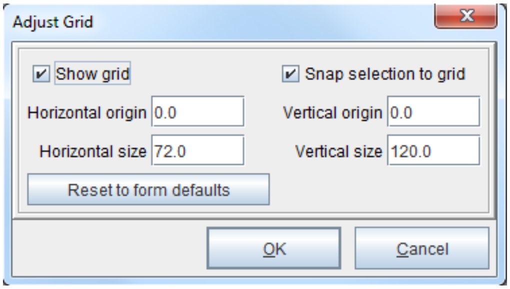
Constant Color
Allows you to change the constant colors displayed in the Viewer. Disable deactivates the color function. Enable is the default.

Synchronize Scrollbars

When checked, scroll bars become synchronized in the Viewer windows.

Data Grid

Allows you to include/exclude the data grid from the Input Data Viewer. Customize the data grid size using the horizontal and vertical decipoint values.


Adjust Grid

☑ Show grid

☑ Snap selection to grid

Horizontal origin 0.0

Vertical origin 0.0

Horizontal size 72.0

Vertical size 120.0

Options Available:

Show Grid
Displays the data grid for easy character selection.

Snap Selection to Grid
Allows you to precisely align objects or data to the grid.

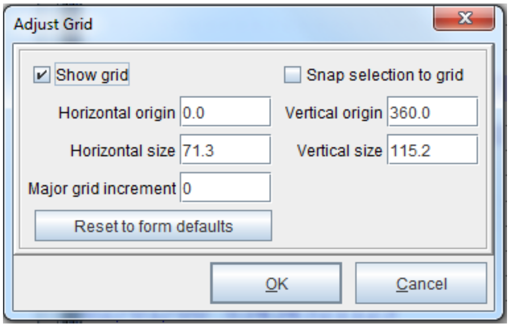
Horizontal/Vertical Origin
Sets the horizontal and/or vertical start of the grid. Values are in decipoints.

Horizontal/Vertical Size
Sets the horizontal and/or vertical size between each line of the grid. Values are in decipoints.

Reset to Form Defaults
Sets origin of size to the default of the form.

Output Grid

Allows you to include/exclude the output grid from the Form and Data Viewer. Customize the data grid size using the horizontal and vertical decipoint values.



Adjust Grid

☑ Show grid ☐ Snap selection to grid

Horizontal origin 0.0 Vertical origin 360.0

Horizontal size 71.3 Vertical size 115.2

Major grid increment 0

Options Available:

Show Grid
Displays the data grid for easy character selection.

Snap Selection to Grid
Allows you to precisely align objects or data to the grid.

Horizontal/Vertical Origin
Sets the horizontal and/or vertical start of the grid. Values are in decipoints.

Horizontal/Vertical Size
Sets the horizontal and/or vertical size between each line of the grid. Values are in decipoints.

Major Grid Increment
Controls the number of large increments contained in the grid.

Reset to Form Defaults
Sets origin of size to the default of the form.

Close Option

Closes the currently displayed tab in the Viewer.

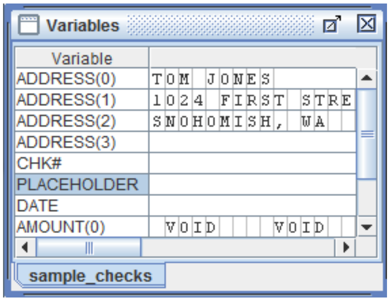
Variables Viewer

The eFORMz Variables Viewer window displays the details of each variable. The information included pertains to:

- The name of the variable.
- The data contained within the variable.

The *Variable* column shows the name of the variable and the number of times it is repeated.

The column to the right presents the data that the variable contains. Variables repeated more than once occupy the corresponding number of lines.



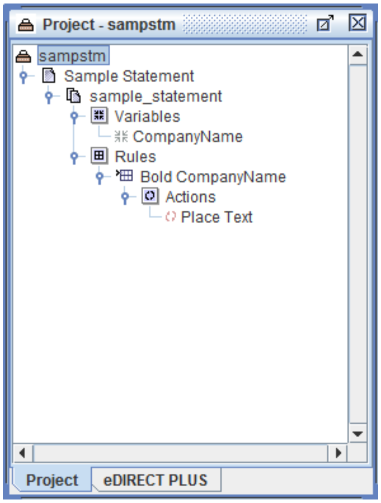
Variables

Variable	
ADDRESS(0)	TOM JONES
ADDRESS(1)	1024 FIRST STRE
ADDRESS(2)	SNOHOMISH, WA
ADDRESS(3)	
CHK#	
PLACEHOLDER	
DATE	
AMOUNT(0)	VOID VOID

Current Project Options

The Current Project window displays the entire project layout:

- Project Name
- Global Variables
- Preprocessor(s)
- Page(s)
- Form(s)
- Input and Constant Fields
- Variables
- Procedures/Actions
- Rules
- Form and Rule Conditions
- Document Template

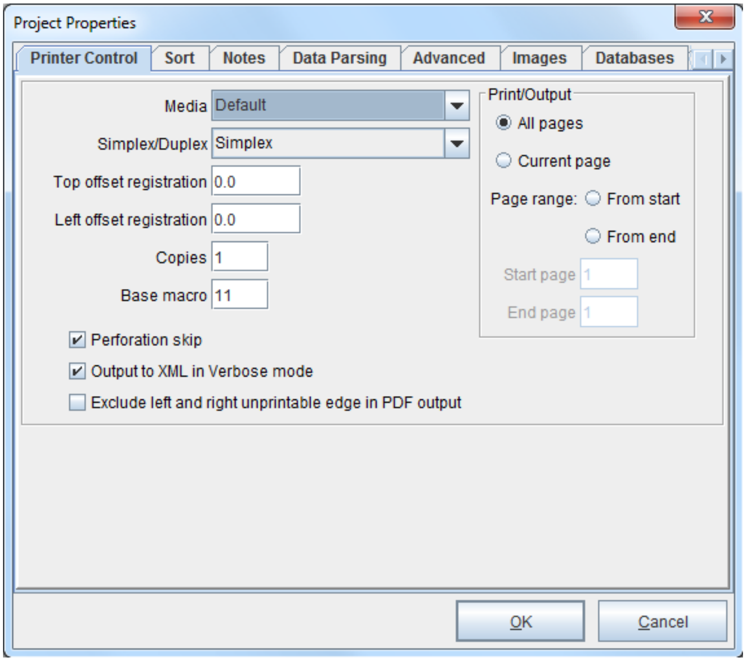


Project Properties

The *Project Properties* controls a project as a whole, for example:

- print orientation
- number of each individual copies
- and data parsing.

To access the Project Properties, select the project name from the Current Project window, *right click*, and select *Properties*:



Project Properties

Media Default

Simplex/Duplex Simplex

Top offset registration 0.0

Left offset registration 0.0

Copies 1

Base macro 11

☑ Perforation skip

☑ Output to XML in Verbose mode

□ Exclude left and right unprintable edge in PDF output

Print/Output

● All pages

○ Current page

Page range: ○ From start

○ From end

Start page 1

End page 1

Printer Control Options

Media
Used to put logical output page(s) onto a physical page. Uses would be to arrange logical pages n-up (2-up) on a physical page or to rotate a logical page on a physical page. When "Media" is set to "Default" the physical page is the same as the logical page. "Media" entries are defined in eFORMzCfg.xml.

Simplex/Duplex
Simplex
Long-Edge Duplex
Short-Edge Duplex

Top Offset Registration
Sets the top margin position for printing (in decipoints).

Left Offset Registration
Sets the left margin position for printing (in decipoints).

Copies
Sets the number of copies printed for each physical page.

Base Macro
Specifies the macro ID number sent to the printer. Use when a printer contains saved macro's in print memory. Default is 11.

Perforation Skip
A setting often used with tractor-fed printers. Unchecked allows you to use the maximum number of lines per page. Checked reduces the number of available printed lines. Default is checked.

Output to XML Verbose Mode
Default unchecked. When unchecked the XML output is condensed using token references. Checked will cause the XML output to be represented in full text XML verbiage.

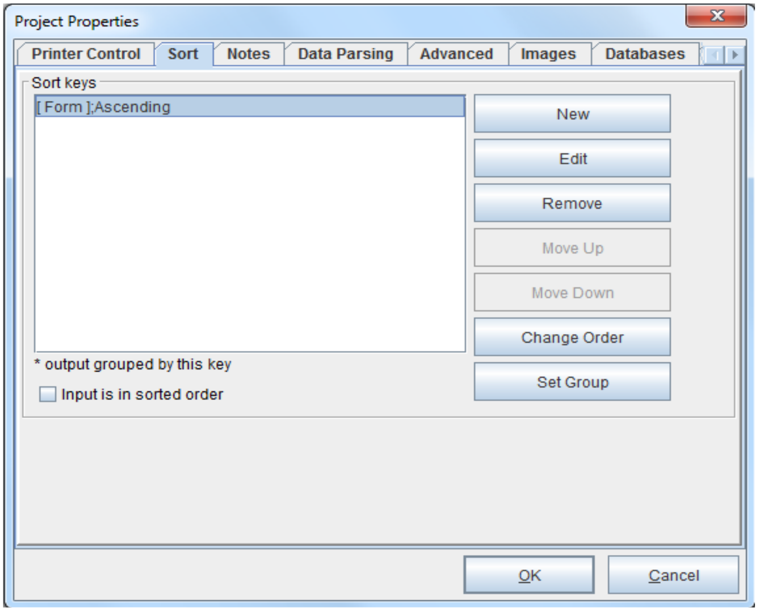
Exclude left and right unprintable edge in PDF output
Excludes the left and right margin from pdf file output.

Print/Output - All Pages
When specified, the merge process will print all pages within a data file.

Print/Output - Current Pages
When specified, the current page being viewed within the eFORMz Viewer will be printed.

Print/Output - Range of Pages
When selected, the Start Page and End Page fields will become available. Enter the range of pages you would like to print.

Sort Options



Sort keys

[Form];Ascending

* output grouped by this key

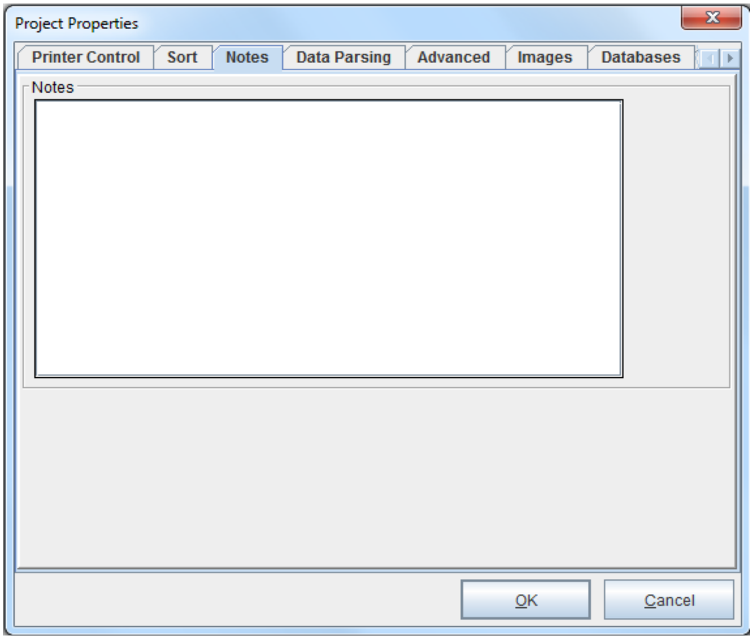
☐ Input is in sorted order

The *Sort* tab allows you to sort your data file based on a variable or form. Multiple variables or forms can be added.

***Cross-Reference*:** For sorting pages by data, view the following tutorial:

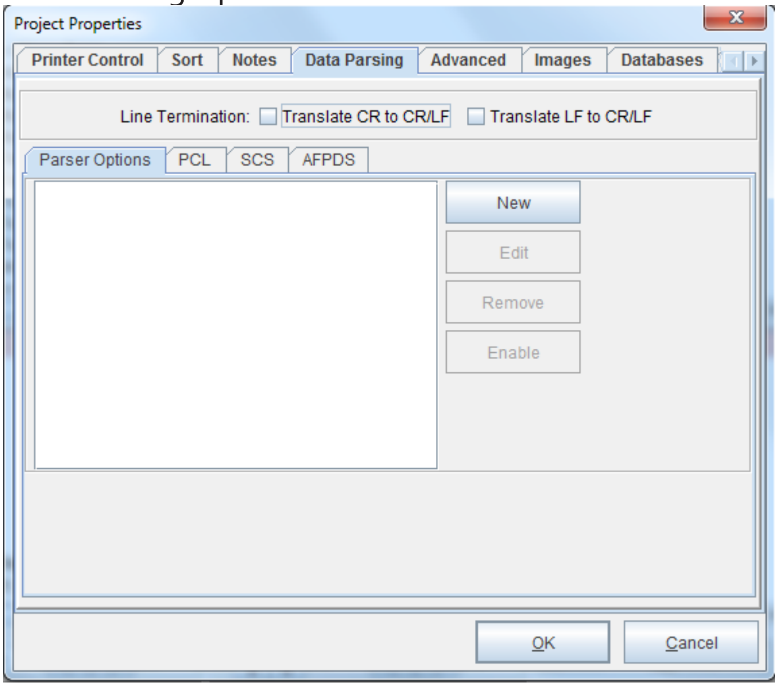
http://support.minisoft.com/index.php/adding-page-sort-to-an-eformz-project

Notes Options



This section is available for documenting changes and providing a general explanation of your process.

Data Parsing Options



Line Termination:

Translate CR to CR/LF

When selected, a data file containing only carriage returns is translated into a data file containing carriage returns and line feeds.

Translate LF to CR/LF

When selected, a data file containing only line feeds is translated into a data file containing carriage returns and line feeds.

Parser Options

Specific parser options for the following data parsers: PCL, PDF, AFPDS, ZPLII, eFORMz Document (.EFD), EPL2, IPL, RTF, SCS, XML, DPL and IPDS.

More Print Stream options:

PCL

For use with a Printer Command Language data stream.

Processed Control Codes

Contains a listing of possible control codes in your data file.

Ignore (>>)

Moves a selected control code to the Ignore Control Codes list.

Process (<<)

Moves selected ignored control code to the Process Control Codes list.

Ignore all

Moves all control codes listed to the Ignore list.

Process all

Moves all ignored control codes to the Process Control Codes list.

Ignored Control Codes

Contains a listing of all ignored control codes.

Suppressed Symbol Sets

(Advanced feature) Allows Softfont symbol sets to be suppressed from the incoming datastream.

SCS

For use with a System Network Architecture Character Stream, which contains SNA character string controls.

Processed Control Codes

Contains a listing of possible control codes in your data file.

Ignore (>>)

Moves a selected control code to the Ignore Control Codes list.

Process (<<)

Moves selected ignored control code to the Process Control Codes list.

Ignore all

Moves all control codes listed to the Ignore list.

Process all

Moves all ignored control codes to the Process Control Codes list.

Ignored Control Codes

Contains a listing of all ignored control codes.

AFPDS

For use with an Advanced Function Printing Data Stream.

Overlay library

For use with the `library-name` parameter in printer files.

Use overlays

When checked, enables the use of the `OVERLAY` record-level keyword.

Page Segment library

For use with page segments that are printed as part of an overlay resource or as part of the data through an `Include Page Segment` (IPS) structured field or an `Include Object` (IOB) structured field.

Use page segments

When checked, enables the use of page segments via `Include Page Segment` or `Include Object`.

Overlay/Page Segment Adjustments

Moves the overlay or page segment by left and top offsets.

Advanced Options

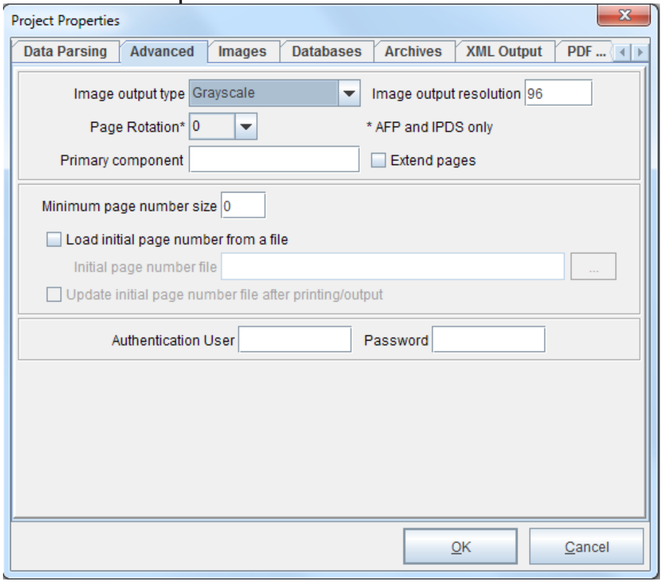


Image output type Grayscale

Image output resolution 96

Page Rotation* 0

* AFP and IPDS only

Primary component

□ Extend pages

Minimum page number size 0

□ Load initial page number from a file

Initial page number file

□ Update initial page number file after printing/output

Authentication User

Password

Image output type
When outputting an image, select from Grayscale, Black and White and Color options for the image output type.

Image output resolution
The image resolution. Default is 96.

Page Rotation
Positions the page by degrees for Advanced Function Printing and Intelligent Printer Data Stream applications only.

Primary component
For use with a composite data file. The <Component> tag is specified here in conjunction with the Output from Project Rule Action.

Minimum page number size
Minimum number of characters for page number. If the number of digits of the current page number is less then this value then it will be padded with leading zeroes up to the minimum character size.

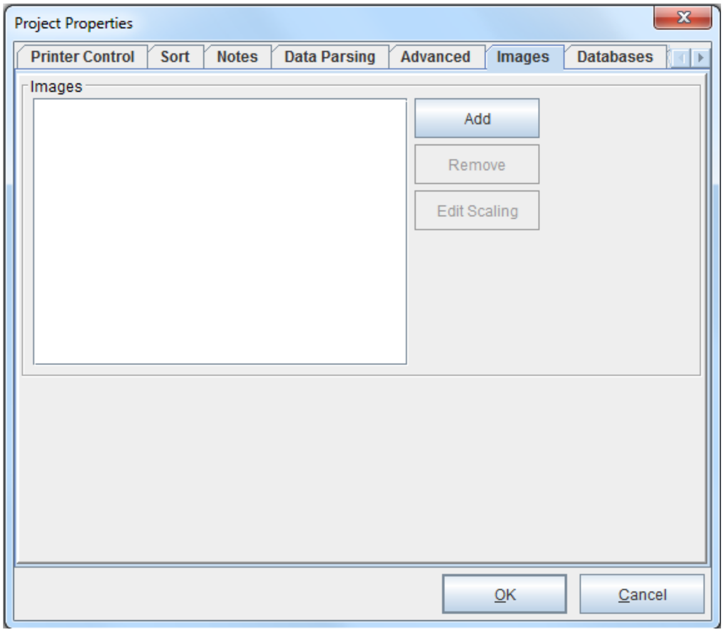
Load initial page number from a file
Loads a page number from an external file.

Initial page number file
Specified path to the external page number file.

Update initial page number file after printing/output
Updates the page number file automatically after each process.

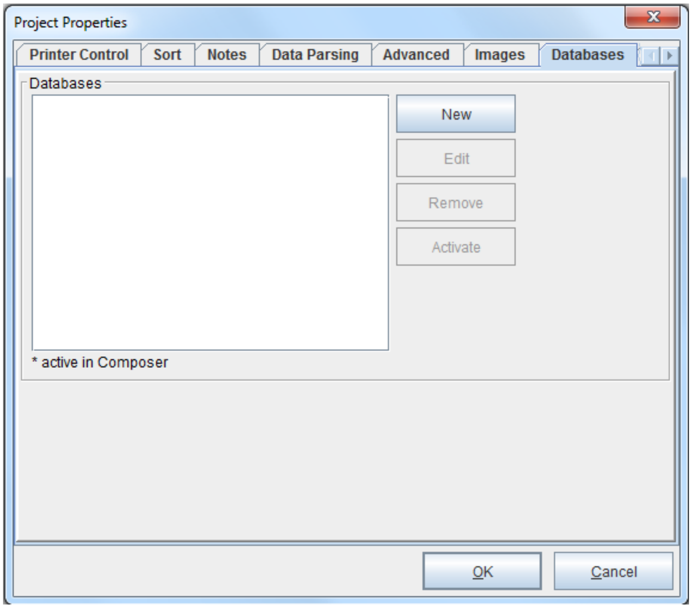
Authentication user/Password
Configure a username and password for the specific project file.

Images



The Images dialog box allows you to import images (jpg, gif, bmp, tiff, pdf, prn) into your project file to be used later in an action or variable. Note that all images added to a project are saved in the output in case they are referenced on any of the pages.

Databases Option



New
Allows you to configure and maintain database connections.

Note: The Driver Class and URL fields are case sensitive. To save the connection information select *Save to File* to create a text file of your connection information. When using the same database for a different project, click the *Load from File* button to select the text file that was created earlier.

If the database cannot be read, a qualifying record cannot be found, or the value of the column is NULL then the variable value will be set to the empty string.

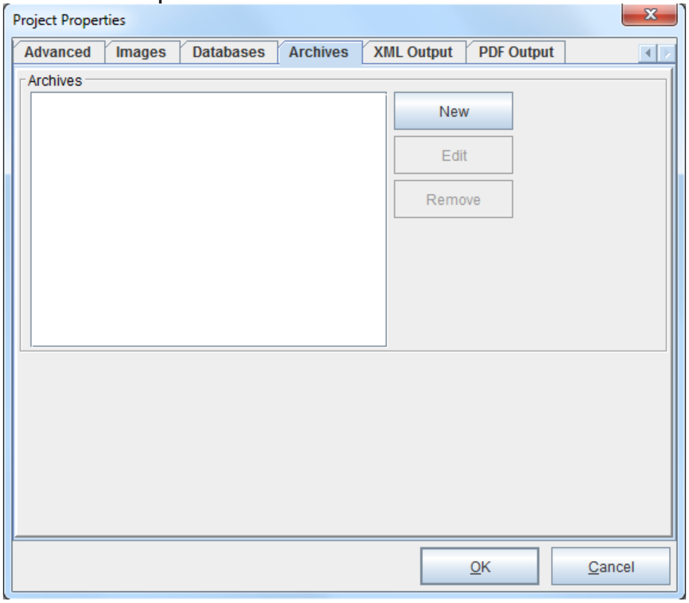
For supported database driver and url path specifications, see *Appendix B: Database URL and Driver Classes*.

Edit
Permits modifications to a database in the list.

Remove
Deletes a database entry from the list.

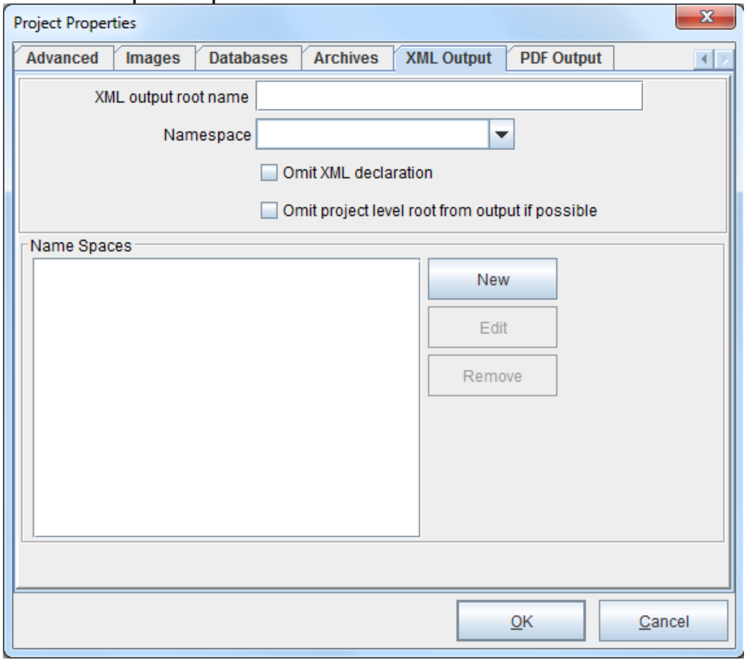
Activate / Deactivate
Enable or disable connectivity to the selected database when viewed from the Composer only.

Archives Option



The Archives tab works in conjunction with eDIRECT. The Archive can be configured from within the project or externally in the Archives.xml file. This configuration file consists of a name and a provider name and any other parameters specific to the provider.

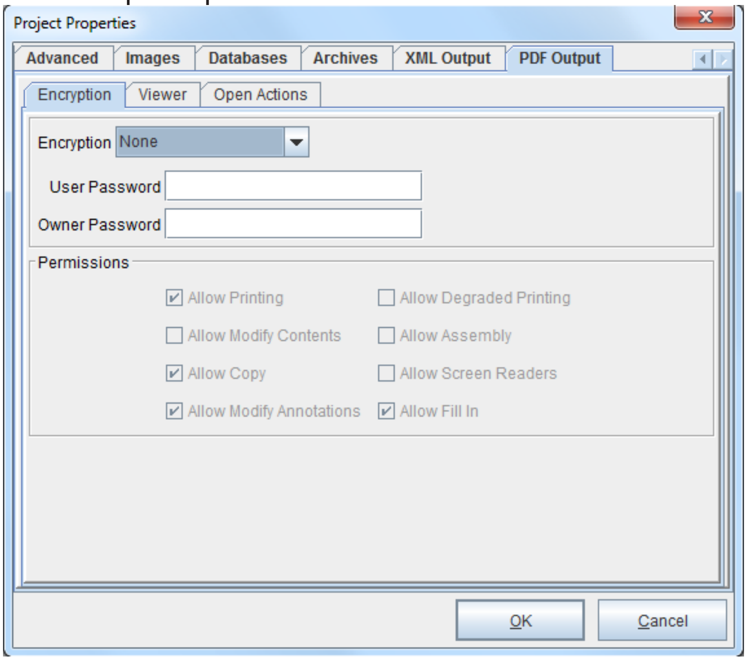
XML Output Option



The XML Output tab controls the name and namespace of a root element when doing XML output. It controls whether the "<xml?" declaration is included. It also allows the definition of namespaces. The namespaces can be specified on the root and any record elements.

***Cross-Reference*:** For more on generating XML output with eFORMz, consult the following: http://support.minisoft.com/index.php/record-element/

PDF Output Option



Encryption: None

User Password

Owner Password

Permissions

☑ Allow Printing
☐ Allow Degraded Printing
☐ Allow Modify Contents
☐ Allow Assembly
☑ Allow Copy
☐ Allow Screen Readers
☑ Allow Modify Annotations
☑ Allow Fill In

Encryption

Encrypt your PDF documents in one of the following ways:

Encryption
Options include Standard 40-bit, Standard 128-bit and AES 128-bit encryption. Encryption is used to enforce restrictions on your document. The permissions that can be granted or restricted depend on the strength of the encryption (40-bit vs. 128-bit). If you are using 40-bit encryption, every permission that has the remark 128-bit below is granted automatically. If you want to revoke these permissions, you need to use 128-bit encryption.

User Password
Refers to the ‘open password’.

Owner Password
Refers to the ‘permissions password’.

The maximum password length is 32 characters. You may enter 32 characters or more but only the first 32 characters will be taken into account. One or both of the passwords fields can be empty. If a user password is not specified, all users will be able to open the document without being prompted for a password, but the permissions and restrictions (if any) will remain in place.

For a higher level of encryption for your document, choose 128-bit key length and always set both passwords, using different strings and all 32 characters for each one. If a password you choose is shorter than 32 characters, it will be padded with default padding.

Allow Printing
(Default checked) Printing the document.

Allow Degraded Printing
(128-bit) Printing the document, lesser quality printout than *Allow Printing*.

Allow Modify Contents
For example, changing page content, inserting or removing pages.

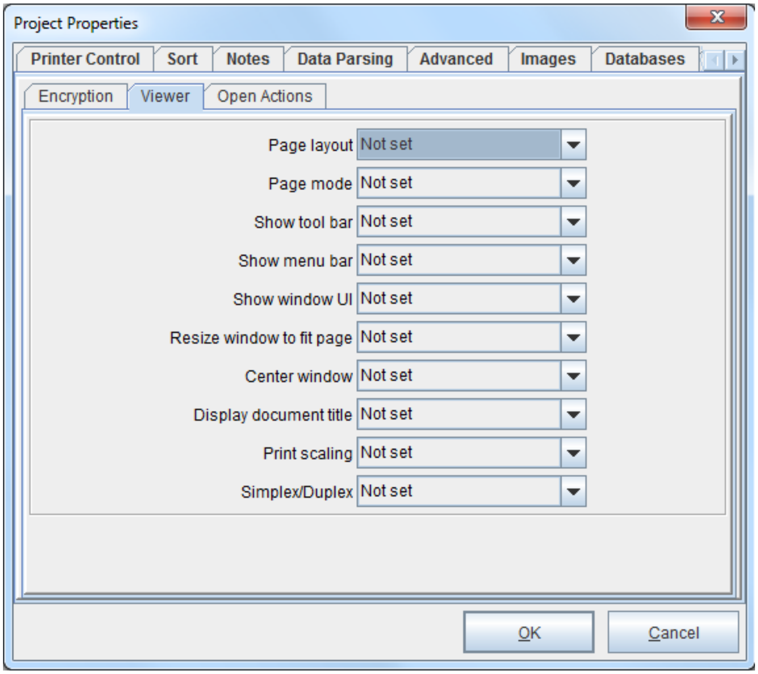
Allow Assembly
(128-bit) Inserting, removing, rotating pages and adding bookmarks are allowed. Contents of a page cannot be changed, unless *All Modify Content* is allowed.

Allow Copy
(Default checked) Copying or extracting text and graphics from the document, including technologies such as screen readers or other accessibility devices.

Allow Screen Readers
(128-bit) Extracting text and graphics from document using an accessibility devices.

Allow Modify Annotations
(Default checked) Adding or modifying text annotations and interactive form fields.

Allow Fill In
(Default checked) (128-bit) Filling form fields; adding or modifying annotations only if *Allow Modify Annotations* is granted.



Page layout: Not set
Page mode: Not set
Show tool bar: Not set
Show menu bar: Not set
Show window UI: Not set
Resize window to fit page: Not set
Center window: Not set
Display document title: Not set
Print scaling: Not set
Simplex/Duplex: Not set

Viewer

Adjust the options for viewing the PDF document:

Page layout
The page layout to be used when the document is opened. Options include:

Single page - Display one page at a time (default).
One column - Display the pages in one column.
Two columns, odd on the left - Display the pages in two columns, with odd-numbered pages on the left.
Two columns, odd on the right - Display the pages in two columns, with odd-numbered pages on the right.
Two pages, odd on the left - Display the pages two at a time, with odd-numbered pages on the left.
Two pages, odd on the right - Display the pages two at a time, with odd-numbered pages on the right.

Page mode
Sets how the document should be displayed when opened. Options include:

None - Neither document outline, nor thumbnail images visible (default).
Show Outlines - Document outline visible.
Show Thumbnails - Thumbnail images visible.
Full screen - Full-screen mode. No menu bar, window controls, or other windows will be visible.

Show tool bar
Displays (or hides) the toolbar.

Show menu bar
Displays (or hides) the menu bar.

Show window UI
Displays (or hides) the window user interface.

Resize window to fit page
Adjusts the window to fit the page.

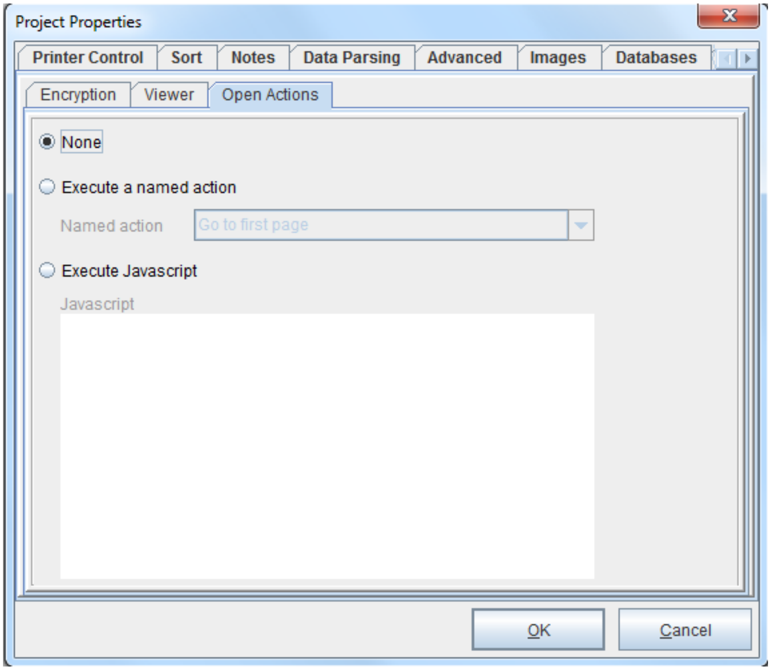
Center window
Centers the window.

Display document title
Displays the title of the PDF document.

Print scaling
The Default option scales the PDF to a printable area.

Simplex/Duplex
(Default checked) Adding or modifying text annotations and interactive form fields.

Allow Fill In
Printing options include Simplex, Short Edge Duplex, and Long Edge Duplex.



● None

○ Execute a named action

Named action: Go to first page

○ Execute Javascript

Javascript

Open Actions

Set an action to be performed at the opening of the document.

None
(Default) No action set.

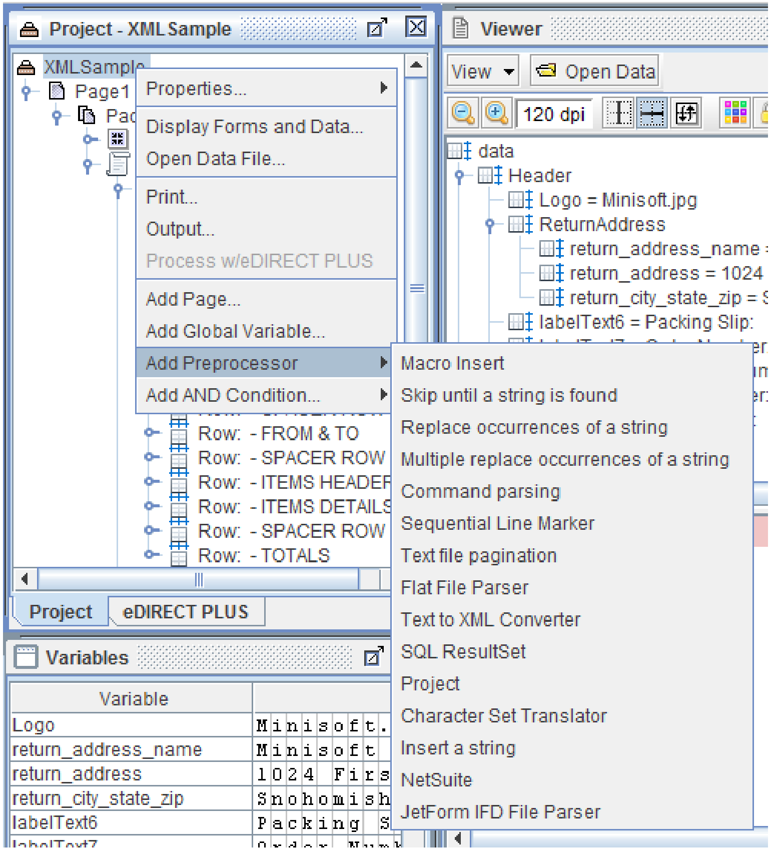
Execute a named action
Options include:

Open print dialog - Opens the print dialog upon opening the PDF.
Go to first page - Displays the first page of the PDF upon opening.
Go to last page -Displays the last page of the PDF upon opening.

Execute Javascript
Enter a Javascript statement to execute an action.

Preprocessors

Preprocessors parse incoming data in one of the following ways:



Variable	
Logo	Minisoft.
return_address_name	Minisoft
return_address	1024 Firs
return_city_state_zip	Snohomish
labelText6	Packing S
labelText7	Order Numb

Macro Insert - Permits the insertion of a macro into the file.

Skip until a string is found - Ignores incoming string commands until the specified string is found. Specify the number of occurrences the specified string should be skipped.

Replace occurrences of a string - Replaces a specified string with another.

Multiple replace occurrences of a string - Replaces multiple strings with another.

Command parsing - For custom command parsing.

Sequential Line Marker - Marks incoming data based on a search criteria.

Text file pagination - Searches for a string in a particular column and then issues a formfeed (\f) at the beginning of that line.

Flat file parser -
Ability to parse as input comma delimited or EDI formatted files.

Text to XML Converter -
Converts text files to XML.

Note: For Command File Processor Parameters and Preprocessor Data Parsing Control Codes, see *Appendix A: eFORMz Preprocessor*. For more on the Text to XML Converter, view the *Text to XML Manual*.

SQL ResultSet - The result set of an SQL statement is passed in XML format to the next preprocessor or to the main project.

Project - Processes the data file with a project. The output of the project is passed in efd format to the next preprocessor or to the main project.

Character Set Translator - Change from one character set to another.

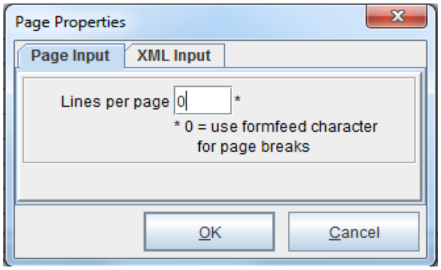
Insert a string - Allows the insertion of a string at a particular byte location.

NetSuite - For use with retrieving NetSuite data.

JetForm IFD File Parser - For use with parsing IFD files.

Page Properties

The *Page Properties* dialog box provides general information about your logical page. To open the Page Properties dialog box, select a project page from the Current Project window, *right click*, and select *Properties:*



Page Properties

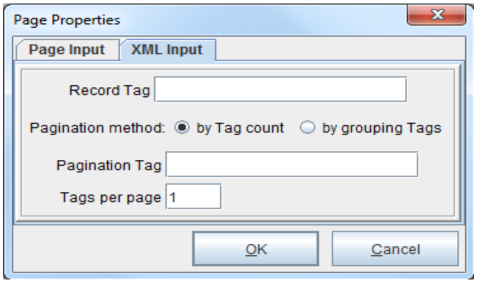
Lines per page 0 *

* 0 = use formfeed character for page breaks

Page Input:
Lines Per Page
Number of lines per each data page. Default settings:

Portrait = 66 lpi
Landscape = 51 lpi

*0=Use formfeed character for page breaks
Zero indicates that the data contains formfeeds. Page breaks will then be issued when a form feed appears in the merge process.



Record Tag

Pagination method: ● by Tag count ○ by grouping Tags

Pagination Tag

Tags per page 1

XML Input
Define an XML data source.

Record Tag
The Record Tag is the name of the tag in the XML data file that represents a new data page. The name is an absolute node name. If left blank the record tag will be the root.

Pagination method
Define how pages are set. Default is by *Tag count*.

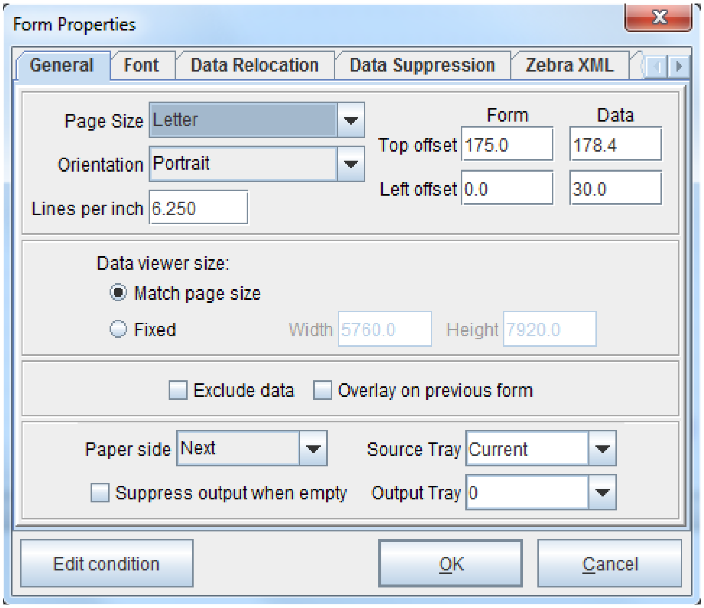
Pagination Tag and Tags Per Page
The *Pagination Tag* is the name of the tag to use for pagination. It is relative to the *Record Tag*. Multiple occurrences of the named tag within the tag named by the *Record Tag* will appear on separate data pages based upon the value of *Tags per page*. If *Pagination Tag* is blank, no pagination takes place.

Form Properties

The *Form Properties* controls the placement of the form and data. To access the *Form Properties*:

1. From the Current Project window select a project form, highlight *Properties* and select *General.*
2. The Form Properties dialog box will display with multiple tabs including *General, Font, Data Relocation, Data Suppression, Zebra XML, HTML Output* and *Test Data.*

General Tab



Page Size: Letter

Orientation: Portrait

Lines per inch: 6.250

	Form	Data
Top offset	175.0	178.4
Left offset	0.0	30.0

Data viewer size:

● Match page size

○ Fixed Width 5760.0 Height 7920.0

□ Exclude data □ Overlay on previous form

Paper side: Next

Source Tray: Current

□ Suppress output when empty

Output Tray: 0

Page Size
Available options are Executive, Letter, Legal, Ledger, Letter - no margins, Legal - no margins, Ledger - no margins, A5, A4, A3, Monarch, Com-10, DL, C5, and B5.

Note: For custom page dimension specification, user-specific specifications can be added to the eFORMzCfg_User.xml file. For further information see *Appendix A: User Configuration Files*.

Orientation
Available options are Portrait, Landscape, Reverse Portrait and Reverse Landscape.

Form Layout
Configure customized layout lines in the Composer, which is particularly useful for creating DuplexPackSlip® laser forms in eFORMz.

Lines Per Inch
The number of data lines to every vertical inch (default 6.0).

Form - Top and Left offsets
Controls the top and left starting position of a project form (values in decipoints).

Data - Top and Left offsets
Controls the top and left starting position of a data file (values in decipoints).

Data Viewer Size
Adjusts the Data Viewer window display to match that of the form (*Match page size*) or a customized view (*Fixed*) for data that extends beyond the form boundaries.

Exclude Data
When selected, the data output will be excluded from the form in display and printed output.

Overlay on Previous Form
Form overlay. When selected, the form will be placed on top of the previous form in the Project Tree.

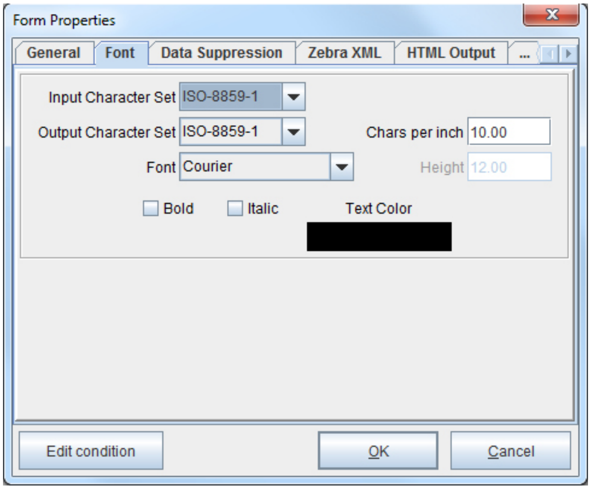
Paper side
Sets the order of the forms when printed. Options: Next, Front, and Back.

Source Tray
(Default is Current Tray) Allows you to specify the tray from which the form will be pulled (i.e. Tray 1, Tray 2, Tray 3, and Tray 4). Based on the escape codes for your printer, the associated tray will need to be specified. For example, <ESC> & 1 x H, where 'x' is the value represented by the tray on the specific printer. For exact escape codes pertaining to your printer, please refer to your printer manual.

Output Tray
(Default is Current Tray) Allows you to specify the tray the form will reside in after being printed. Based on the escape codes for your printer, the associated number will need to be specified. For exact escape codes pertaining to your printer, please refer to your printer manual. <ESC> & l x G where 'x' is the value represented by the destination tray value. Note: 'l' = lower case 'L'.

Suppress output when empty
When selected, empty and/or blank pages are not printed. Default is unchecked.

Font Tab



Input Character Set ISO-8859-1

Output Character Set ISO-8859-1

Chars per inch 10.00

Font Courier

Height 12.00

□ Bold □ Italic

Text Color

Character Set
(Default is Roman 8) All numbers, letters, and symbols associated with a given coding system.

Font
(Default is Courier) Collection of letters, numbers, and symbols that share a distinctive appearance.

Chars per inch
Sets the number of characters per inch horizontally. Used in conjunction with fixed fonts.

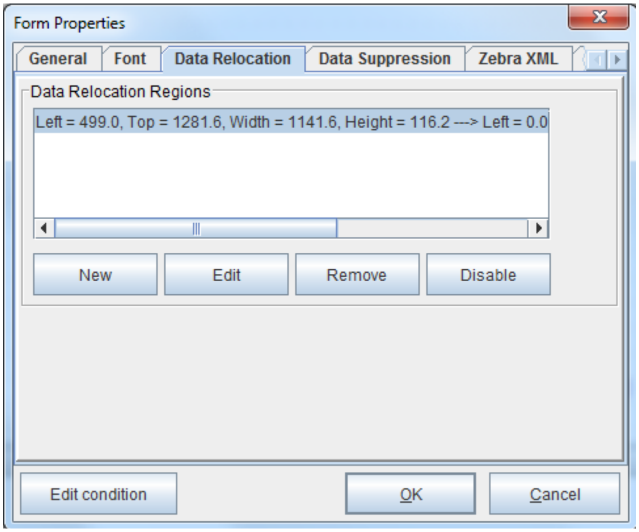
Height
Vertical size of a character. Used in conjunction with proportional fonts.

Bold
Changes character(s) to appear heavy with a dark typeface.

Italic
Changes character(s) to appear with a slant upward and to the right.

Text Color
Output data color when printed.

Data Relocation Tab

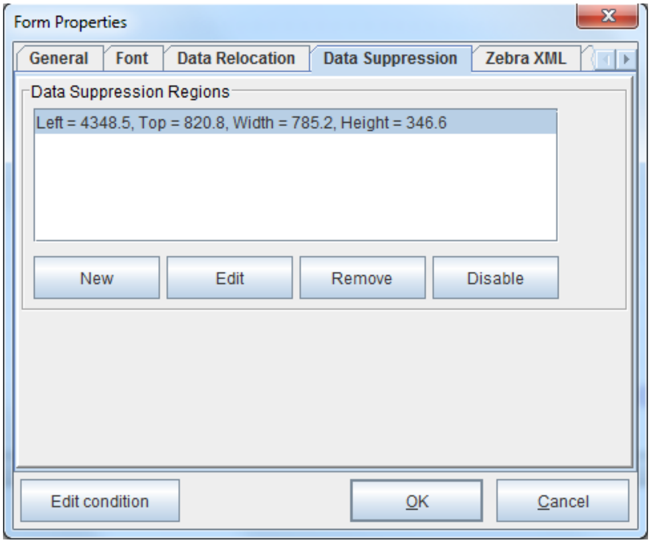


Left = 499.0, Top = 1281.6, Width = 1141.6, Height = 116.2 ---> Left = 0.0

Data Relocation is the relocation of incoming data based on coordinate values. In the Input Data Viewer, the input data that is moved will be shown by a box with a green arrow. This data will be moved to appear in the specified coordinate location in the Form and Data Viewer.

***Cross-Reference*:** For more information on relocating data, view the following tutorial: http://support.minisoft.com/index.php/data-relocation/

Data Suppression Tab

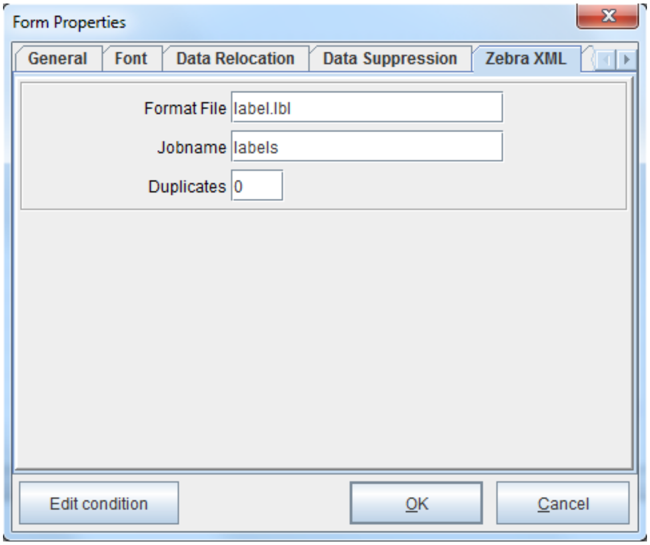


Left = 4348.5, Top = 820.8, Width = 785.2, Height = 346.6

Incoming data can be suppresed based on coordinate values. Data within these regions will no longer appear in your Form and Data Viewer. Data suppression regions will appear as an outline with a red ‘X’ in the Input Data Viewer. To add a suppression region, define the coordinate values from the Data Suppression tab in the Form Properties, or right click and drag the incoming data region and select *Suppress input data*:

Cross-Reference**:** For more information on suppressing data, view the following tutorial: http://support.minisoft.com/index.php/data-suppression/

Zebra XML Tab



Format File label.lbl

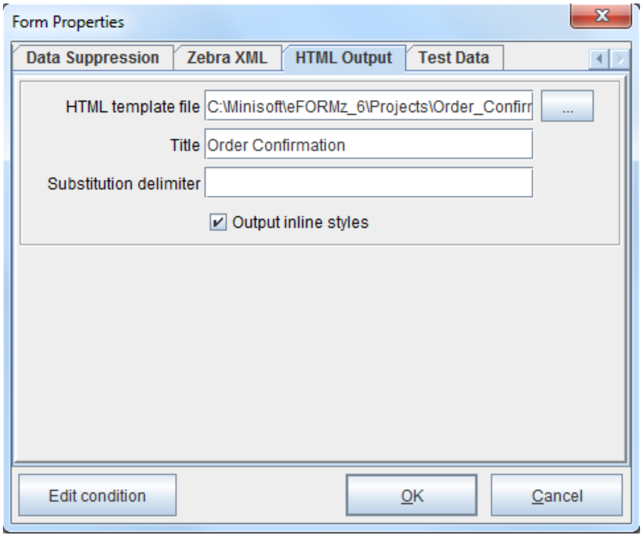
Jobname labels

Duplicates 0

The Zebra XML tab allows you to generate output in Zebra XML format to send to a Zebra XML supported printer.

When the output file from eFORMz is sent to the Zebra printer it uses the *Format File* name as the reference to which template file to use within the printer (similar to macros in a laser printer). Create the label design using Zebra's XML Designer software and transfer the label design to the printer prior to printing. From the eFORMz project file create the xml tagged values that are referenced in the Zebra template file. *Jobname* is a unique name assigned to the output and *Duplicates* is the number of copies to print.

HTML Output Tab



HTML template file: C:\Minisoft\eFORMz_6\Projects\Order_Confirr

Title: Order Confirmation

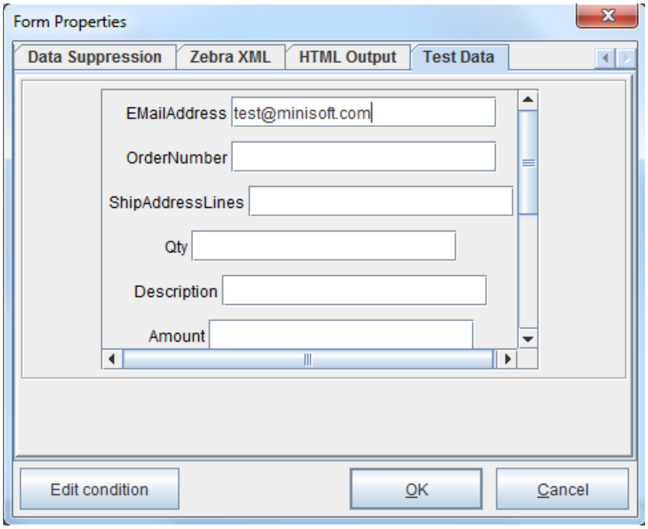
Substitution delimiter:

☑ Output inline styles

The HTML Output tab references an external HTML file as a template for project creation. It is used exclusively with eDIRECT PLUS.

> ***Cross-Reference*:** For more information on referencing an external HTML file, view the following tutorial:
>
> http://support.minisoft.com/index.php/referencing-external-html-files/

Test Data Tab



EMailAddress test@minisoft.com
OrderNumber
ShipAddressLines
Qty
Description
Amount

The Test Data tab allows the user to specify a constant value to act as sample data for a given variable.

> ***Cross-Reference*:** For more information on using test data, view the following tutorial: http://support.minisoft.com/index.php/test-data/

SECTION 2

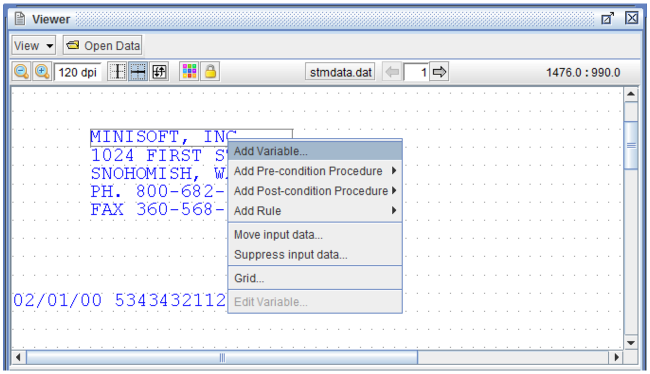
Data Customization

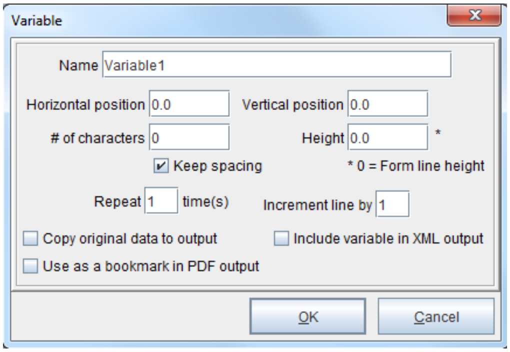
Variables

Variable Types

Positional Data Block Variables

From the eFORMz Input Data Viewer, select a string of characters (left click + drag), right click and select Add Variable.




Variable

Name Variable1

Horizontal position 0.0 Vertical position 0.0

# of characters 0 Height 0.0 *

☑ Keep spacing * 0 = Form line height

Repeat 1 time(s) Increment line by 1

☐ Copy original data to output ☐ Include variable in XML output

☐ Use as a bookmark in PDF output

Attributes of positional data block variables:

Name
Variable name as displayed in the project layout.

Horizontal Position, Vertical Position
The variable's starting location in decipoints (180 decipoints = 1/4 inch).

# of characters
The number of characters included in a Variable.

Height
Variable height. The selectable area is on a fixed grid, which can mean you select more text than you intend. Adjust this setting to change the height of the selected area to select only the intended text.
**o=Form line height*
Sets the line height to the default of the form.

Keep Spacing
When checked, eFORMz inserts spaces in the variable value. This occurs when things on the same line are positioned by a cursor command other than spaces, and there is empty space between them. When *Keep spacing* is unchecked, no spaces are inserted in the empty space.

Repeat
The number of data lines a variable is iterated..

Increment line by
Enables the skipping of lines. A value of one (1) applies a rule or runction to every line selected, a value of two (2) applies a rule or function to every other line, and so on.

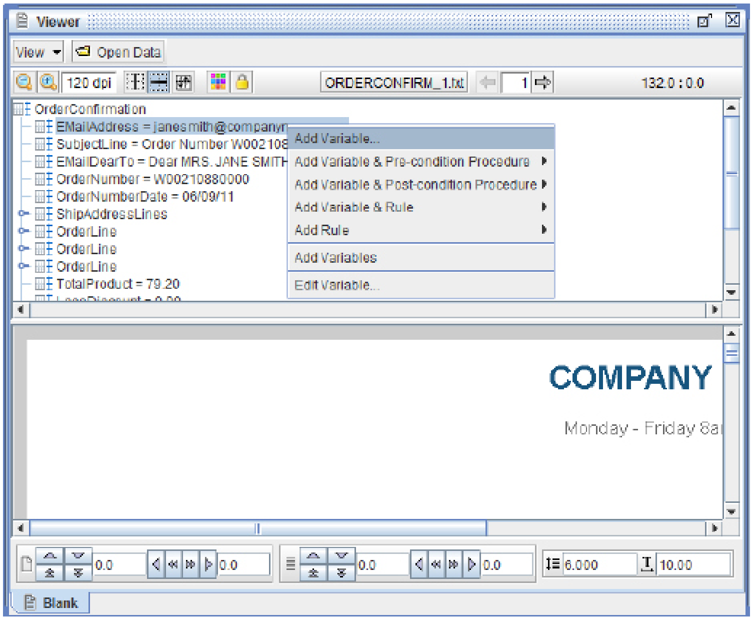
Copy original data to output
(Default is unchecked) When checked leaves the selected characters in their original position in the eFORMz Viewer. If unchecked, the variable is not on the output without a specific rule or placement within a document template..

Include Variable in XML output
For use with eDIRECT when checked, default unchecked. Variable names cannot include special characters such as !, @, $, &, * when this option is selected. This selection option only pertains to projects configured using the 'old' eDIRECT Wizard method of generating output.

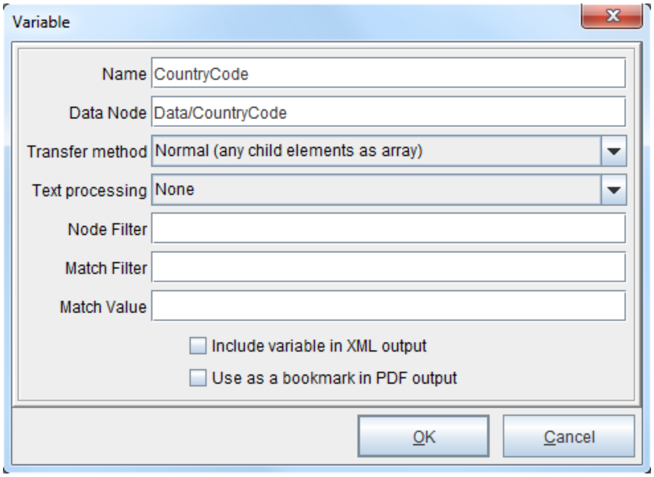
Use as a bookmark in PDF output
When you create PDF output, a bookmark is created where the variable is used..

Node Data Block Variables

This variable type is used with Extensible Markup Language (XML) data. The value of the variable comes from the location of the data node in relation to parent or child elements in the data node tree. From the eFORMz Input Data Viewer, select the node, *right click* and select *Add Variable*.



OrderConfirmation
EMailAddress = janesmith@company
SubjectLine = Order Number W002108
EMailDearTo = Dear MRS. JANE SMITH
OrderNumber = W00210880000
OrderNumberDate = 06/09/11
ShipAddressLines
OrderLine
OrderLine
OrderLine
TotalProduct = 79.20



Variable

Name	CountryCode
Data Node	Data/CountryCode
Transfer method	Normal (any child elements as array)
Text processing	None
Node Filter	
Match Filter	
Match Value	

□ Include variable in XML output

□ Use as a bookmark in PDF output

Attributes of node data block variables:

Name
Variable name as displayed in the project layout.

Data Node
The node location of the variable in relation to parent or child elements in the data node tree.

Transfer method
There are seven options:

Normal (any child elements as array)
(Default) Will display any child elements as their own array, or indexed row of data within the parent element.

Count of child elements
Provides a count of the child elements contained within the parent element.

Sum of child elements' data
Calculates the sum of the child elements's data contained within the parent element.

Concatenation of child elements' data
Concatenates all of the child elements's data contained within the parent element.

Concatenation of child elements' data (comma delimited)
Concatenates all of the child elements's data contained within the parent element. Each element's value is delimited by a comma.

Concatenation of child elements' data (new line delimited)
Concatenates all of the child elements's data contained within the parent element. Each element's value is delimited by a new line.

Value of child node of a parent node

Node and all subnodes
Creates a deep copy of the desired XML subnode.

Text Processing
There are two options:

Trim
Left and right trims a string of characters.

Normalize
Trims space between strings, leaving one space between each string.

Node Filter
The node filter filters for an element's descendants. It allows grandchildren and great grandchildren to be parsed out.

Match Filter
Matches against the child node to retrieve the value of an XML node conditionally.

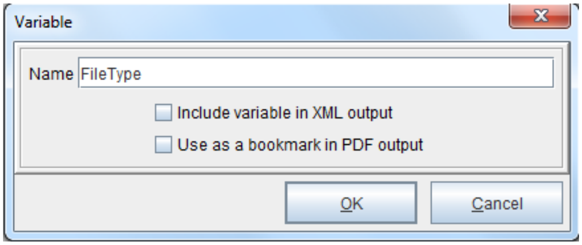
Match Value
Match value is a wildcard to match against to retrieve the value of an XML node conditionally. When a match is found, the corresponding node value from *Node Filter* is used, with the exception of *Value of child node of parent node*.

Include Variable in XML output
Check this if you are creating eDIRECT output to XML. The default is unchecked. If checked, Variable names cannot include special characters such as !, @, $, *.

Use as a bookmark in PDF output
When you create PDF output, a bookmark is created where the variable is used.

For activeForms Input

Used in conjunction with activeForms, this Form Variable allows the bypass of setting the "ID" property of a Document Template input field.



Variable

Name FileType

□ Include variable in XML output
□ Use as a bookmark in PDF output

Variable options include:

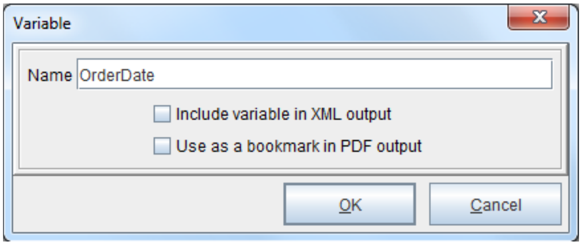
Include Variable in XML output
For use with eDIRECT output. The default is unchecked. If checked, Variable names cannot include special characters such as !, @, $, *.

Use as a bookmark in PDF output
Variable will be bookmarked for PDF file output.

Queue Monitor Variable

This Form Variable is used to retrieve data from a specified queue. The data node name is inferred from the Variable name i.e.: “Parameters/<Variablename>”

“<root>/QMVariables/<Variablename>”


Variable

Name: OrderDate

□ Include variable in XML output

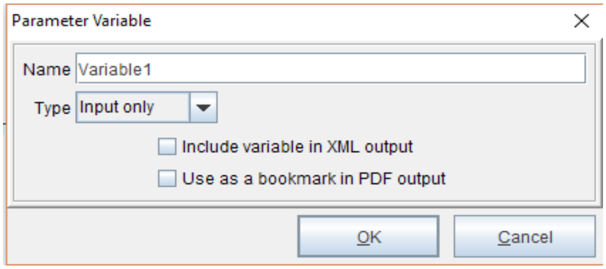
□ Use as a bookmark in PDF output

Variable options include:

Include Variable in XML output
For use with eDIRECT output. The default is unchecked. If checked, Variable names cannot include special characters such as !, @, $, *.

Use as a bookmark in PDF output
Variable will be bookmarked for PDF file output.

For Parameter Variable


Parameter Variable

Name: Variable1

Type: Input only

□ Include variable in XML output

□ Use as a bookmark in PDF output

Variable options include:

Type
Input only, Output only, Input/Output.

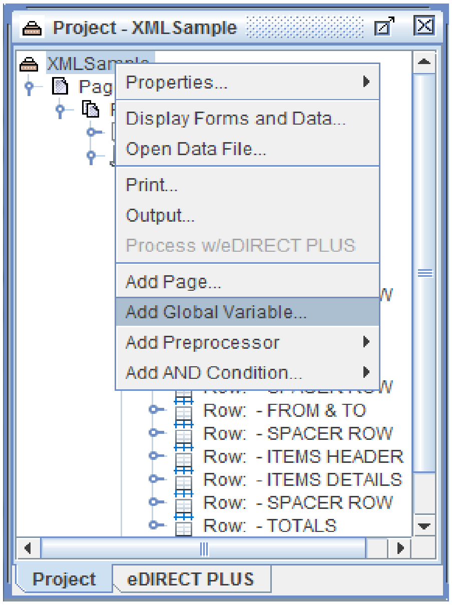
Include Variable in XML output
For use with eDIRECT output. The default is unchecked. If checked, Variable names

cannot include special characters such as !, @, $, *.

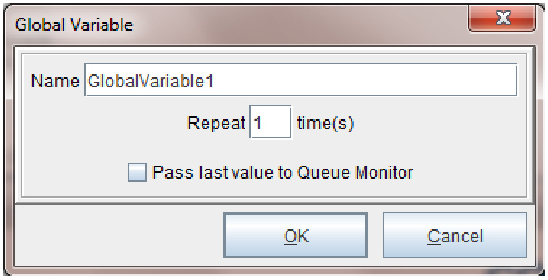
Use as a bookmark in PDF output
Variable will be bookmarked for PDF file output.

Global Variables

A Global Variable is a Project-level Variable. It is capable of capturing and applying text and/or numeric values from one page across multiple pages of output. The Global Variable can be populated with a form Variable and/or add customized Function. To add a Global Variable to a project, right click the Project name and select *Add Global Variable*:



The Global Variable dialog box appears. Enter the global Variable name and then enter the number of lines the global Variable will need to repeat.



Global Variable

Name GlobalVariable1

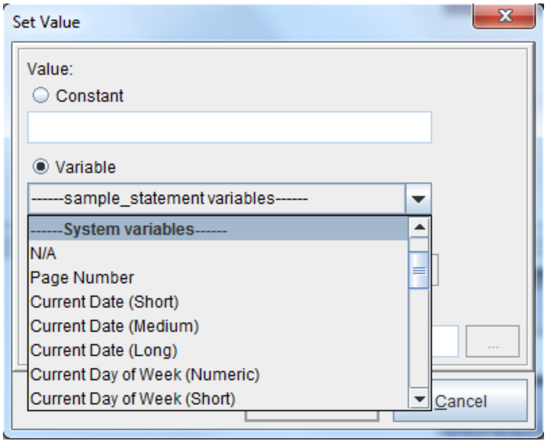
Repeat 1 time(s)

□ Pass last value to Queue Monitor

***Cross-Reference*:** For more information on Global Variables, view the following tutorial: http://support.minisoft.com/index.php/global-variables/

System Variables

System Variables are dynamic and implemented at runtime. System Variables can be added using Procedures and Functions. After a Variable has been created use a Set Value to implement a System Variable:



Set Value

Value:

○ Constant

● Variable

------sample_statement variables------

------System variables------
N/A
Page Number
Current Date (Short)
Current Date (Medium)
Current Date (Long)
Current Day of Week (Numeric)
Current Day of Week (Short)

Available system Variables:

System Variables	
N/A	Inserts an empty string
Page Number	Example: xx
Current Date (Short)	Example: mm/dd/yy
Current Date (Medium)	Example: mmm dd, yyyy
Current Date (Long)	Example: m...m dd, yyyy
Current Day of Week (Numeric)	Sunday = 1, Tuesday = 3
Current Day of Week (Short)	Example: Mon, Tue, Wed, Thu, Fri, Sat, Sun
Current Day of Week (Long)	Example: Monday, Tuesday, Wednesday, etc...
Current Day of Month	Example: dd
Current Month (Numeric)	Example: mm
Current Month (Short)	Example: mmm
Current Month (Long)	Example: m...m
Current Year	Example: yyyy
Current Time (Short)	Example: hh:mm am\pm
Current Time (Medium)	Example: hh:mm:ss am\pm
Current Time (Long)	Example: hh:mm:ss am\pm timezone
Current Hour (24)	Example: hh
Current Hour (12)	Example: hh
Current Minute	Example: mm
Current Second	Example: ss
Current Millisecond	Example: mm
AM/PM	Example AM or PM
TimeZone (Short)	Example: PDT
TimeZone (Long)	Example: Pacific Daylight Time
TimeZone (RFC 822)	GMT representation
Current Time (Timestamp)	Returns the current time as the number of milliseconds since 1/1/1970
Data File Name	Incoming data file name, for example: stmdata.dat
Full Data File Name	Incoming data file name including data file path, for example: path....\stmdata.dat
Data File Timestamp	Returns the data files last modified time as the number of milliseconds since 1/1/1970
true	Sets the value to “true”.

Current Repeat Index	When an array variable in a procedure is going through its list, the pointer into the list (the index) it is currently using is repeated
Raw Page Data	Contains all the data from the input page concatenated together. The Variable contents are not calculated unless they are actually used

Variable Functions

eFORMz supports the following standard Variable Functions:

- Concatenate
- Insert String
- Set Value
- Substring
- Replace
- Choose one of
- Set Value from a Declared Constant
- Set Value from a Keyed Declared Constant
- Translate
- Parse Date
- Right Trim
- Left Trim
- Uppercase
- Lowercase
- URL Encoder
- URL Decoder
- UPC-EAN Check Digit
- Table Lookup
- SQL Lookup
- Does File Exist

eFORMz supports the following advanced Variable Functions:

- eVS Barcode Data Generator
- SmartLabel Barcode Data Generator
- Bulk Concatenate
- Base64 Decode
- Base64 Encode
- Regex Replace
- Modulo
- HashSHA1
- String Length
- String Position
- String to HEX
- HEX to String
- XML to JSON
- JSON to XML
- Load From File
- Write To File
- Rename to Unique
- Number to Dollars
- Split String
- Weighted Check Digit
- Even Odd Check Digit
- Decrypt
- NetSuite XML Passport Generator
- NetSuite XML Passport TBA Generator

Standard Functions

Concatenate

Concatenate allows the user to combine two or more character strings to make one:

***Cross-Reference*:** For more information on Concatenate, view the following tutorial: http://support.minisoft.com/index.php/concatenate

Insert String

Insert a String will insert a certain number of characters into a Variable in one of two ways:

- Place and insert a string of characters in a specified position.
- Insert a string of characters attached to an existing string of data from the incoming data file.

***Cross-Reference*:** For more information on Insert String, view the following tutorial: http://support.minisoft.com/index.php/insert-string/

Set Value

A Variable can be set to a particular value (*Constant*, *Variable*, *Image from Project* & *Image from File*). The newly set value will override any preceding Function or value being picked up by the Variable.

***Cross-Reference*:** For more information on Set Value, view the following tutorial: http://support.minisoft.com/index.php/set-value/

Substring

Substring extracts a string of characters from an incoming data file or a custom-built Variable.

Cross-Reference: For more information on Substring, view the following tutorial: http://support.minisoft.com/index.php/substring/

Replace

Replace a character or string of characters with another:

Cross-Reference: For more information on Replace, view the following tutorial: http://support.minisoft.com/index.php/replace-function/

Choose One Of

The Choose One Of Function can be used to choose a specific occurrence from an occurring Variable by index or by matching against a parallel occurring Variable.

Cross-Reference: For more information on Choose One Of, view the following tutorial: http://support.minisoft.com/index.php/choose-one-of/

Set Value from a Declared Constant

A Declared Constant from an eFORMzCfg_User.xml file provides the value for this Variable Function. The form of a declaration is:

```
<Constant Name="OrderNbr">
    <![CDATA[Order Number]]>
</Constant>
```

If this Function is used in a number of Projects to refer to the same Declared Constant, when the Declared Constant must change, only the eFORMzCfg_User.xml file needs to be modified, not each Project.

Note: Changes to the eFORMzCfg.xml will get overwritten as this file is updated or overwritten on upgrades and installs.

Cross-Reference: For more information on using Set Value from a Declared Constant, view the following tutorial: http://support.minisoft.com/index.php/set-value-from-a-declared-constant/

Set Value from a Keyed Declared Constant

A Keyed Declared Constant from an eFORMzCfg_User.xml file provides the value for this Variable Function. The form of a declaration is:

```
<KeyedConstant Name=“OrderNbrLabels”>
    <Entry Key=“EN”>
            <![CDATA[Order Number]]>
    </Entry>
    <Entry Key=“FR”>
            <![CDATA[French Order Number]]>
    </Entry>
 </KeyedConstant>
```

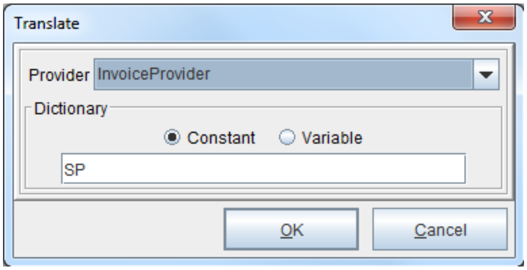
If this Function is used in a number of Projects to refer to the same Keyed Declared Constant, when the Keyed Declared Constant must change, only the eFORMzCfg_User.xml file needs to be modified, not each Project.

Note: Changes to the eFORMzCfg.xml will get overwritten as this file is updated or overwritten on upgrades and installs.

Cross-Reference: For more information on using Set Value from a Keyed Declared Constant, view the following tutorial: http://support.minisoft.com/index.php/set-value-from-a-keyed-declared-constant/

Translate

The Translate Function uses a dictionary of values set in a declared constant (Translation Provider) from an eFORMzCfg_User.xml file to automatically update a value based upon a conditional flag in a project.



Provider: InvoiceProvider

● Constant ○ Variable

SP

The form of a declaration is:

<Translator Name="InvoiceProvider" Class="com.minisoft.efzUtils.XMLFileTranslationProvider"
FileName="C:\Minisoft\eFORMz_6\Projects\Dictionaries.xml"/>

Cross-Reference: For more information on using Translate, view the following tutorial: http://support.minisoft.com/index.php/using-the-eformz-translation-file-editor-video-only/

Parse Date

The Parse Date Function parses text representing a date/time into a timestamp (number of ms since 1/1/1970). The "Date format" field specifies the format of the text. It is described in detail here: docs.oracle.com/javase/6/docs/api/java/text/SimpleDateFormat.html

Cross-Reference: For more information on using Parse Date, view the following tutorial: http://support.minisoft.com/index.php/parse-date-function/

Right and Left Trim

Trim extra blank spaces from the right or left of a Variable using the Right and Left Trim Functions. To implement a trim:

***Cross-Reference*:** For more information on Right and Left Trim, view the following tutorial: http://support.minisoft.com/index.php/right-left-trim/

Lowercase and Uppercase

The Lowercase Function makes all text characters in a Variable lowercase, while the Uppercase Function makes all text characters in a Variable uppercase.

***Cross-Reference*:** For more information on Lowercase and Uppercase, view the following tutorial: http://support.minisoft.com/index.php/uppercase-lowercase/

URL Encoder

URL encoding converts the characters of a URL into a format that can be transmitted over the Internet. This is often used in conjunction with the Call a Web Service Procedure.

URL Decoder

URL Decoder decodes a string that has been URL-encoded. This is often used in conjunction with the Call a Web Service Procedure.

UPC-EAN Check Digit

If the data for a UPC-A, UPC-E, EAN8 or an EAN13 barcode doesn't have a check digit, it can be calculated with the UPC-EAN Check Digit Function:

***Cross-Reference*:** For more information on UPC-EAN Check Digit, view the following tutorial: http://support.minisoft.com/index.php/upc-ean-check-digit/

Table Lookup

Table Lookup is a simple way to get one value from a row of a relational database. If you require multiple values, use SQL Lookup.

***Cross-Reference*:** For more information on Table Lookup, view the following tutorial: http://support.minisoft.com/index.php/eformz-table-lookup/

SQL Lookup

The purpose of an SQL Lookup is to return additional data to an eFORMz project based upon a value in a data file. Normally this value is an indexed item to a table in a database.

***Cross-Reference*:** For more information on SQL Lookup, view the following tutorial: http://support.minisoft.com/index.php/sql-lookup/

Does File Exist

Add this Function to a Variable to determine whether a given file exists or does not exist.

***Cross-Reference*: For more information on determining if a file exists, view the following tutorial: http://support.minisoft.com/index.php/does-file-exist/**

Advanced Functions

eVS Barcode Data Generator

The Electronic Verification System (eVS), also know as the USPS PRS barcode, allows high-volume package mailers and package consolidators to document and pay postage, including special service fees, using electronic manifest files. The files are transmitted over the Internet to a Postal Service™ database. eVS is designed to make it easy for high-volume package mailers to take advantage of destination entry rates.

Cross-Reference: For more information on EVS, view the following reference: http://support.minisoft.com/index.php/evs-barcode-data-generator/

SmartLabel Design and Barcode

SmartLabel is an intelligent pre-paid, pre-addressed return-shipping label integrated onto the order summary and shipped with the consumer's merchandise. SmartLabel's dynamic bar code links the package to the customer's original order and provides returns information links vital to both the customer and the retailer.

Cross-Reference: For more information on SmartLabel, view the following reference: http://support.minisoft.com/index.php/evs-barcode-data-generator/

Bulk Concatenate

Bulk concatenation refers to the ability to search large sections of text or to display specified text in a string format.

***Cross-Reference*:** For more information on Bulk Concatenate, view the following tutorial: http://support.minisoft.com/index.php/bulk-concatenate

Base64 Decode

Base64 encodes binary data by treating it numerically and translating it into a base 64 representation. To decode data in a base 64 representation, use Base64 Decode.

Base64 Encode

Base64 encodes binary data by treating it numerically and translating it into a base 64 representation. To encode data in a base 64 representation, use Base64 Encode.

Regex Replace

The *Regex Replace* Function in eFORMz allows you to search and replace parsed data in the eFORMz Composer using regular expressions.

***Cross-Reference*:** To learn more about regular expressions, consult the following entry on the Minisoft Support Wiki: http://support.minisoft.com/index.php/regular-expressions-2/

***Cross-Reference*:** For more information on Regex Replace, view the following tutorial: http://support.minisoft.com/index.php/regex-replace-video-only/

Modulo

Use the *Modulo* Function to find the remainder after division of one number by another.

> ***Cross-Reference*:** For more information on using Modulo, view the tutorial: http://support.minisoft.com/index.php/modulo-video-only/

HashSHA1

SHA-1 (secure hash algorithm), is a cryptographic hash Function commonly used in security applications and protocols.

String Length

String Length determines the total length of a Variable's string of characters.

String Position

String Position determines the first occurrence of a character or a string of characters in a string.

String to HEX

String to Hex converts a string into hexadecimal characters.

HEX to String

Hex to String converts a hexadecimal value into a string.

XML to JSON

XML to JSON converts data from XML format to JSON format.

> ***Cross-Reference*:** For an implementation of XML to JSON, view the following tutorial: https://www.minisoft.com/support/index.php/processing-json-data-in-eformz-projects/

JSON to XML

JSON to XML converts data from JSON format to XML format.

Load from File

Using *Load from File*, a variable from a value in a file can be loaded. The file can be a constant name or a variable name.

> ***Cross-Reference*:** For an implementation of Load from File, view the following tutorials:
> http://support.minisoft.com/index.php/set-a-variable-from-file-content-with-load-from-file/
> http://support.minisoft.com/index.php/web-service-post-call-output/

Write to File

Using *Write to File,* a constant value or a variable value can be written to a file. One popular use would be to write in the output data from an eFORMz project that a web service calls.

Cross-Reference**:** For an implementation of Write to File, view the following tutorial: http://support.minisoft.com/index.php/web-service-post-call-output/

Rename to Unique

Rename to Unique renames a file to a unique name. It does this by appending an underscore and the timestamp to the end of the filename, before the file extension.

Cross-Reference**:** For more information on using Rename to Unique, view the tutorial: http://support.minisoft.com/index.php/rename-to-unique/

Number to Dollars

As of eFORMz version 11.08, there is a *Number to Dollars* function which converts a decimal amount to a textual amount. There are two formats. The "Decimal Cents" currency type consists of the following syntax: written dollar amount + "dollars" + "and" + decimal cent amount. In this case, the value 2.22 would become "two dollars and twenty two cents." The other format is the "Fractional Dollars" currency type. The syntax is: written dollar amount + "and" + fractional cent amount + "dollars." In this instance, 2.22 would become "two and 22/100 dollars."

Cross-Reference**:** For more information on using Number to Dollars, view the tutorial: http://support.minisoft.com/index.php/number-to-dollars-function/

Split String

Split String is used for splitting a string into its substrings based on a given delimiter/ regular expression.

***Cross-Reference*:** For more information on using Split String, view the tutorial: http://support.minisoft.com/index.php/split-string/

Weighted Check Digit

Similar to the UPC-EAN Check Digit Function, the Weighted Check Digit Function only differs in that it allows the user to define different weights for each number position and define a custom modulo.

Even Odd Check Digit

Similar to the Weighted Check Digit Function, the Even Odd Check Digit Function allows the user to define different weights for each number position, setting a custom even weight and a custom odd weight, along with a custom modulo.

Decrypt

Decrypt is used to decrypt token data used in conjunction with NetSuite token-based authentication.

***Cross-Reference*:** For more information on token-based authentication, view the following resource: https://www.minisoft.com/support/index.php/configuring-netsuite-for-token-based-authentication/

NetSuite XML Passport Generator

***Cross-Reference*:** For more information on NetSuite integration, view the following resource: https://www.minisoft.com/support/index.php/netsuite-integration/

NetSuite XML Passport TBA Generator

***Cross-Reference*:** For more information on NetSuite integration, view the following resource: https://www.minisoft.com/support/index.php/netsuite-integration/

Procedures

eFORMz supports the following Procedures:

- Calculation
- Set Variable
- Sum
- Date Calculation
- Sort
- Numeric Format
- Date Format
- Time Interval Format
- SQL Load
- SQL Update
- SQL End Transaction
- Load Variable from a Declared Constant
- Load Variable from a Keyed Declared Constant
- Load Variable from a Variable
- Load Variable from Project Output
- Execute Project Properties
- Execute a Project
- XML File Load
- Load Variable from XML Node
- Create XML
- Create JSON
- Load a Component
- Call a Web Service
- Call a Dynamic Service
- File List
- Printer List
- Write to Log
- Write to iSeries Data Queue
- No Action

By default, all procedures are ‘Pre-condition.’ These procedures are executed before the form condition is evaluated. ‘Post-condition’ procedures are only executed if the form condition evaluates to true.

Calculation

Calculation implements numeric math calculations.

Actions include:

- Add
- Subtract
- Subtract From
- Multiply
- Divide by
- Divide into
- MOD (Integer Modulus)
- DIV (Integer Divide)

> ***Cross-Reference*:** For more information on Calculation, view the following: http://support.minisoft.com/index.php/calculation-sum-procedures/

Set Variable

Set a variable using a procedure. For example, a procedure that is running a calculation, when completed, will place the total into another variable. Sum provides an ample illustration.

> ***Cross-Reference*:** For more information on Set Variable, view the following tutorial: http://support.minisoft.com/index.php/set-variable/

Sum

Sum adds the value of one variable to another variable.

***Cross-Reference*:** For more information on Sum, view the following resource: http://support.minisoft.com/index.php/calculation-sum-procedures/

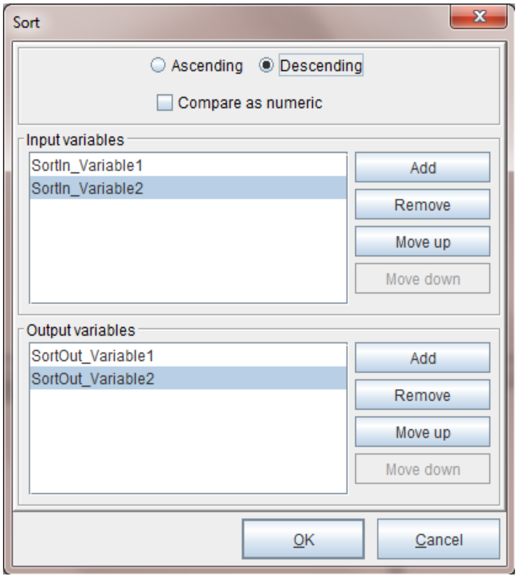
Date Calculation

Date Calculation adds or subtracts a time interval (years, months, days, hours, minutes, seconds) to or from a timestamp.

***Cross-Reference*:** For more information on Date Calculation, view the tutorial: http://support.minisoft.com/index.php/date-calculation-procedure-video-only/

Sort

Multiple sorts, in either Ascending or Descending order, can be performed on Variable input values. The order is important as the values in the example below for 'SortIn_Variable1' will be sorted and placed into 'SortOut_Variable1'.



○ Ascending ● Descending

□ Compare as numeric

Input variables
- SortIn_Variable1
- SortIn_Variable2

Output variables
- SortOut_Variable1
- SortOut_Variable2

Numeric Format

Format a procedure to a numeric value using decimals, group separators, and currency symbols. To implement a numeric format:

1. From the Project window select the Procedure you would like to add the numeric format option to. Right click *Action* and select *Numeric Format*.
2. The Numeric Format dialog box displays. Specify your options and then select *OK*.

Options include:

Decimal Places
Determines the location of the decimal separator in the result string.

Decimal Point Symbol
Default is a (.) period. Customize your decimal point using this option.

Group By Thousands
Serves as both a group separator and a number scaling specifier. As a group separator, it inserts a localized group separator character between each group. As a number scaling specifier, it divides a number by 1000 for each comma specified.

Thousands Symbol
Default separator is a (,) comma. Customize your separator using this option.

Currency and *Currency Symbol*
Default currency sign ($). Sets the numeric value to currency. Set a custom sign in the Currency Symbol field.

Negative Symbol and *Leading negative symbol*
Default symbol (-). Sets the numeric value to negative by adding a negative symbol. To set the negative symbol at start of value select *Leading negative symbol*.

Minimum Integer Size
Placement holder for integer value.

Date Format

The *Date Format* feature converts a date from Epoch time (# of milliseconds since 1/1/1970). This is often used in conjunction with the Current Time (Timestamp) system variable, which returns the current time in the number of milliseconds since January 1, 1970.

Format options include:

Short date, *Medium date*, *Long date*, *Numeric day of the week*, *Day of the week abbreviation*, *Day of the week*, *Day of the month*, *Numeric Month*, *Month abbreviation*, *Month*, *Year*, *Short time*, *Medium time*, *Long time*, *Hour (24 hour format)*, *Hour (12 hour format)*, *Minute*, *Second*, *Millisecond*, *AM/PM*, *Hour (24 hour format)*, *Short timezone*, *Long timezone*, *RFC822 timezone*.

***Cross-Reference*:** For more information on Date Format, consult the tutorial: http://support.minisoft.com/index.php/converting-unix-time-to-other-formats/

Time Interval Format

The *Time Interval Format* feature converts a time from Epoch time (# of milliseconds since 1/1/1970). This is often used in conjunction with the Current Time (Timestamp) system variable, which returns the current time in the number of milliseconds since January 1, 1970.

Format options include:

Hours:Minutes:seconds.milliseconds, *Hours:minutes:seconds*, *Hours:minutes*, *Hours*, *Minutes:Seconds.milliseconds*, *Minutes:Seconds*, *Minutes*, *Seconds.ms*, *Seconds*, *milliseconds.*

SQL Load

The *SQL Load* feature will load variables with values from an SQL query. This is particularly useful for returning arrays. The variables will occur the same number of times as there are rows returned from the query.

***Cross-Reference*:** For more information on SQL Load, consult the tutorial: http://support.minisoft.com/index.php/loading-multiple-rows-with-sql-load/

SQL Update

SQL Update will return a single record from an SQL database. For returning arrays, use *SQL Load*.

***Cross-Reference*:** For more information on SQL Update, consult the tutorial: http://support.minisoft.com/index.php/sql-update/

SQL End Transaction

The *SQL End Transaction* feature is used in conjunction with the *SQL Update* Procedure to set AutoCommit to off. There are two options: *commit* and *rollback*. *Commit* marks the end of a successful transaction by making all data modifications performed since the start of the transaction a permanent part of the database. *Rollback* rolls back a transaction to the beginning in order to erase all data modifications made from the start of the transaction.

Load Variable from a Declared Constant

This procedure loads a variable from a constant declared in the eFORMzCfg_User.xml file. The repeat of the variable will be set to the number of values in the declaration.

***Cross-Reference*:** For more information on using Set Value from a Declared Constant, view the following tutorial: http://support.minisoft.com/index.php/set-value-from-a-declared-constant/

Load Variable from a Keyed Declared Constant

This procedure loads a variable from a keyed constant declared in the eFORMzCfg_User.xml file.

***Cross-Reference*:** For more information on using Set Value from a Keyed Declared Constant, view the following tutorial: http://support.minisoft.com/index.php/set-value-from-a-keyed-declared-constant/

Load Variable from a Variable

This procedure loads a variable with the values of another variable. The repeat of the destination variable will be set to number of values of the source variable.

***Cross-Reference*:** For an implementation of Load Variable from a Variable, view the following tutorial: http://support.minisoft.com/index.php/processing-xml-data-that-is-outside-of-xml-tags/

Load Variable from Project Output

Load Variable from Project Output is a procedure action with a variety of potential uses, as the following examples illustrate:

- Pass XML data to a project to transform into some other XML format.
- Given an order ID, look up the order details from a database, returning the order information in XML format.
- Given an error code, call a subproject to convert it into an error message. This encapsulates the details of obtaining the error message into that one project.

***Cross-Reference*:** For more information on using Load Variable from Project Output, view the following tutorial: http://support.minisoft.com/index.php/load-variable-from-project-output/

Execute Project Properties

Unlike other methods of calling projects, Execute Project Procedures works in conjunction with the "For Parameter" variable type to enable specific variables to be passed between projects. This is particularly useful for creating multiple third-party dropship packing lists.

***Cross-Reference*:** For more information on using Execute Project Procedures, view the following tutorial: http://support.minisoft.com/index.php/execute-project-procedures/

Execute a Project

Execute a Project is a procedure which calls another project and outputs that project to a file, to a printer or with eDIRECT.

***Cross-Reference*:** For more information on using Execute a Project, view the following tutorial: http://support.minisoft.com/index.php/execute-a-project/

XML File Load

XML File Load fills one or more variables based on XML elements/attributes in a file either with a constant or variable name.

***Cross-Reference*:** For more information on using XML File Load, view the following tutorial: http://support.minisoft.com/index.php/xml-file-load/

Load Variable from XML Node

This procedure is useful for loading a Variable from XML in another Variable, using the same techniques as loading a Variable from an XML data file. This is useful when needing information from XML data returned from a database query or web service call.

***Cross-Reference*:** For more information on using Load Variable from XML Node, view the following tutorial: http://support.minisoft.com/index.php/count-the-number-of-lines-in-an-xml-array-variable/

Create XML

The Create XML action is used to create XML data that can be passed between projects, which is useful for Calling Sub-Projects or Returning XML from a Project. It's also similar to Record Element in that created XML data can be sent to a file.

***Cross-Reference*:** To implement Create XML, consult the following tutorial: http://support.minisoft.com/index.php/create-xml/

Create JSON

The Create JSON action is used to create JSON data that can be passed between projects, which is useful for Calling Sub-Projects or Returning JSON from a Project.

Load a Component

This procedure is useful for loading a component from a file or a URL.

***Cross-Reference*:** For a use of Load a Component, consult the following tutorial: http://support.minisoft.com/index.php/output-from-project/

Call a Web Service

This procedure is used for calling and retrieving data from an 'http' accessible web service. The URL can be a constant string or a variable created earlier in the project. The parameters are submitted with either a GET or POST request. The data can be in any combination of URL Encoded or MIME input and output. The data returned from the web service is parsed for return values in the form "tag=value". The current value of the procedure is set to the return code of the request.

***Cross-Reference*:** To implement Call a Web Service, consult the following tutorial: http://support.minisoft.com/index.php/web-service-post-call-output/

Call a Dynamic Service

This procedure is used for calling custom code running under the Dynamic Service.

File List

File List will display files from an archive.

Printer List

Printer List will display a list of printers in a variable.

Write to Log

Write to Log is a procedure which builds a complex string for logging.

***Cross-Reference*:** To implement Write to Log, consult the following tutorial: http://support.minisoft.com/index.php/write-to-log/

Write to iSeries Data Queue

Users can define a new Queue and access either a local or remote DTAQ. Local access would be from a copy of eFORMz running on an iSeries host. Remote access can be from any server type running eFORMz (Windows, Linux, iSeries, etc.) A project can now write to a Local or Remote DTAQ.

***Cross-Reference*:** To implement Write to iSeries Data Queue, consult the following tutorial: https://minisoft.com/support/index.php/iseries-data-queue/

No Action

“No action” is a procedure that is useful for creating a Pre-Condition or Post-Condition procedure that will feature a number of actions and functions inside of it. Consider that when a complex procedure needs to be implemented, it can be challenging figuring out which action or function will be the first to be called and selected from the popup list. So, by selecting “No action”, the procedure is created with no contents.

Rule Actions

Once a variable has been created a *Rule Action* can be implemented to transform the look of your output and enhance its function or appearance.

Available rule actions include:

- Place Text
- 1D Barcode
- 2D Barcode
- Special Fonts
- Load Image
- Bar Chart
- Gauge Chart
- Page Number
- Translate
- Notify
- Output from Project

***Cross-Reference*:** For information on 1D Barcodes, 2D Barcodes and Special Fonts, consult the following: http://support.minisoft.com/index.php/barcodes/

For more information on Bar Charts and Gauge Charts, consult the following: http://support.minisoft.com/index.php/graphical-charting/

Place Text Action

Use Place Text actions to put custom and system variables in a specified location on your output. You can create Place Text actions using the following methods:

- ♦ Right click a variable from the Project Window and selecting *Add Rule > Place Text*.
- ♦ Direct reference, bypassing variables and directly placing a particular string of characters. Right click data from the eFORMz Data Viewer and select *Add Rule > Place Text*.
- ♦ Scrolling to the location in the eFORMz Form Viewer where the text should appear, Right clicking and selecting *Add Rule > Place Text*.
- ♦ Selecting a string of characters in the eFORMz Data Viewer *(left click + drag)*, right clicking and selecting *Add Rule > Place Text*.

Page Selection

To specify what page(s) of output the Rule will display on:

Options include *First Page, Last Page, nth page, Every Page, First through nth page, nth through last page, First through nth to last page*, and *nth to last through last page* followed by the specified page number.

For example:

♦ "First through nth page" where nth = 5, the Rule will display on the first five pages.

♦ "nth through last page" where nth = 5, all pages except the first 4 will display the Rule.

♦ "First through nth to last page" where nth = 5, all pages except the last 5 will display the Rule.

♦ "nth to last through last page", where nth = 5, the Rule will display on the last 6 pages.

Text Rotation

Options available: 0, 90, 180, or 270 degrees

Text Word Wrapping

To enable line wrapping, check the *Enable wordwrap* box. Options available:

Line Width - Specifies the wordwrap width in decipoints (720 dec = 1in).

Line Spacing and Repeat Interval Spacing - Specifies the distance between lines. Specify zero (0) if you would like to use the default form's lines per inch.

Conditional vertical increment - When set, the vertical coordinates for actions using repeating variables only gets incremented when the action is actually executed.

Suppress blank lines - When set, it removes space in between wrapped lines. Default is unchecked.

> ***TIP***: The *Append newline* feature found in the Concatenate Function options will only work in conjunction with the Wordwrap option.

Place Text Direct Reference

Placing text can be done without the creation of variables. This method is similar to selecting data from the Data Viewer and creating a variable, as a direct reference places a given string of characters in a specified location of the output.

> ***Cross-Reference***: For a tutorial that utilizes placing input strings directly, view the "Place a Barcode from Input" video here:
>
> http://support.minisoft.com/index.php/place-a-barcode-from-input-video-only/

Load Image

Place a .jpg, .gif, .bmp, .tif, .prn, .pdf, .png, or .frm image file using the *Load Image* action. Conditions can be used to allow the image to only appear when called for. Images can be loaded in one of seven ways:

- *Project* loads a previously saved image that was imported into the project using the *Project Properties* > *Images* option. Images stored in the project will cause larger project file sizes. View a tutorial here:

http://support.minisoft.com/index.php/adding-an-image-from-a-project-video-only/

- *Project using Rule Variable* loads a specified image from the *Project Properties* > *Images* based on a variable.

- *File* loads an image from a specified folder. The image will not be stored in the project file.
- *File using Rule Variable* loads a specified image from a folder based on a specified variable. View a tutorial here:

http://support.minisoft.com/index.php/adding-an-image-from-file-using-a-variable/

- *PDF file* loads a pdf file from a specified folder. The image will not be stored in the project file.
- *PDF file using the Rule Variable* loads a pdf file from a folder based on a specified variable.
- *Component* loads a .png, .jpg, .gif, .bmp, .tif or .pdf file from a composite data file.

Options include:

Desired width and height are configured in decipoints (720 decipoints = 1 in). Set the width and height for the *shrink to desired size* or *fit to desired size* options.

Scaling options include *None*, *Shrink to desired size*, *Fit to desired size*.

None leaves the size as is. *Shrink to desired size* will reduce the size of the image if it does not fit in the desired width and height specified. *Fit to desired size* will change the size of the image to match the desired width and height specified. The *Lock aspect ratio* option, when true, will keep the ratio of the images dimensions the same when scaling. This option figures which ratio (desired width / image width or desired height / image height) is needed for scaling both dimensions of the image to make it shrink or fit within the desired rectangle.

Cropping is enabled for images from a file. Images loaded from URLs or loaded directly into the project cannot be cropped.

Lock aspect ratio will keep the ratio of the image dimensions when scaling.

Conditional Vertical Increment when set, the vertical coordinate for actions using repeating variables only gets incremented when the action is actually executed.

Default resolution sets the resolution of the incoming image file.

***TIP*:** If the image doesn't appear in the exact location you would like it to appear, use your mouse to drag and drop it into position.

Load Image Based on a Condition

***Cross-Reference*:** For various methods of conditionally placing images, view the "Supporting Multiple Brands with eFORMz" video here: http://support.minisoft.com/index.php/supporting-multiple-brands-video-only/

Page Number

Place the page number of a form based upon the number of pages it contains or its location within a series of pages. Options include: *Page number within group*, *Number of pages in group*, *Page number within document* and *Page number in document.* The *Starting number* sets where the page count begins.

> ***Cross-Reference*:** For more information on adding page numbers, view the following resource: http://support.minisoft.com/index.php/page-number/

Translate

To translate or convert data in a selected range.

> ***Cross-Reference*:** For more information on adding page numbers, view the following resource: http://support.minisoft.com/index.php/page-number/

Notify

Setup a rule action to notify an individual or multiple individuals via email when a process is ran. The *Notify* action can be conditionally based.

> ***Cross-Reference*:** For more information on adding page numbers, view the following resource: http://support.minisoft.com/index.php/page-number/

Output from Project

Output from Project is used to retrieve output from a separate project, that uses an independent data file, and include that output in the current project.

An XML (Extensible Markup Language) file with a "cdf" extension can also be used to specify all the separate data files for a project that uses this procedure:

```
<?xml version="1.0" encoding="UTF-8"?>
<CompositeData>
        <Component Name="PackingSlip">
                <InputData filename="projects/WMI/Collate/PackingSlip.scs"/>
        </Component>
        <Component Name="ShippingLabel">
                <InputData filename="projects/WMI/Collate/UPS.scs" />
        </Component>
        <Component Name="ShippingLabel1">
                <InputData filename="projects/WMI/Collate/Fedex1.scs" />
        </Component>
</CompositeData>
```

When using a composite data file (.cdf), the primary component is configured on the "Advanced" tab of the Project Properties.

***Cross-Reference*:** For a use of the Output from Project rule, follow along with the following tutorial: http://support.minisoft.com/index.php/output-from-project/

Constant Actions

Creating a Constant

eFORMz allows you to add constant values to your data output. Apply a constant value to your form that will display on every page. To create a constant value:

1. *Right click* in the eFORMz Form Viewer and select *Add Constant*.

TIP: If the position of the constant value needs to be adjusted simply drag the element into position using your mouse.

The options are as follows:

- Image, Text, 1D Barcode, 2D Barcode, Special Fonts, Line and Box

Image

Right click in the eFORMz Form Viewer and select *Add Constant* > *Image*. The Image Element dialog box will display. To load an image into a project, *right click* the project and select *Properties* > *Images*.

Options:

Name the image element with a descriptive value (optional).

Horizontal/Vertical Position sets the constant location (in decipoints).

Desired width and height are configured in decipoints (720 decipoints = 1 in).

Scaling options include *None*, *Shrink to desired size* and *Fit to desired size.*
None leaves the size as is. *Shrink to desired size* reduces the size of the image if it doesn't fit in the specified width and height. *Fit to desired size* will change the size of the image to match the specified width and height.

Cropping is enabled for images from a file. Images loaded from URLs or loaded directly into the project cannot be cropped.

Default resolution sets the image resolution. The *Lock aspect ratio* option, when checked, will keep the ratio of the image's dimensions the same when scaling. It figures which ratio (desired width / image width or desired height / image height) is needed for scaling both dimensions of the image to make it shrink or fit within the desired rectangle. *Load from* options include:

Project
Select an image previous loaded into the project file through the *Project Properties > Image* dialog box.

File
Use the browse button to select the image you would like to add to your form as a constant value.

PDF File
Use the browse button to select a PDF file, then in the *Load Page* field, specify the page you would like to add to your form as a constant value.

Text

Right click in the eFORMz Form Viewer and select *Add Constant* > *Text*. The Text Element dialog box will display. Enter the text string you would like to have added to your form as a constant value. Also, if needed, set the character alignment and font style. Once complete, click *OK.*

Options:

Name enter a descriptive name for the constant value (optional).

Text enter the text string.

Horizontal/Vertical Position the constant location in decipoints (180 decipoints = 1/4 inch).

Text Color adjusts the color of the text string (Color specifications: Swatches, HSV, HSL, RGB & CMYK).

Underline offers two styles: *single solid* and *double solid*. The thickness of the line and its offset from the value can be configured.

Alignment rotate text 90, 180 and 270 degrees (Default is 0). The location can be shifted left, right or center (Default is none).

Change Font adjusts the font style.

1D Barcode

Right click in the eFORMz Form Viewer and select *Add Constant > 1D Barcode*. The Barcode Element dialog box will display. Enter the characters or numeric values you would like to barcode into the *Text* field. From the *Barcode type* drop down box select the barcode type you would like to use. Adjust the width, height, and alignment if needed. Once complete click *OK*.

Options:

Name enter a descriptive name for the constant value (optional).

Text enter the string.

Barcode Type
Types include: 3OF9, 3OF9EXT, 2OF5, CODABAR, CODE 11, CODE 128, EAN8, EAN13. JAN8, JAN13, MSI, UPCA, UPCE, POSTNET, USER-DEFINE and INTELLIGENT MAIL.

Generate Checksum when checked, generates a checksum.

Optimize barcode length optimizes the length associated with Code128 barcodes.

Trim Data when checked, trims the string.

Barcode Color adjusts the color of the barcode.

Horizontal/Vertical Position the constant location in decipoints (180 decipoints = 1/4 inch).

Width/Height default width is 10 and height is 300. Configured in decipoints (720 decipoints = 1 in).

Alignment rotate barcode 90, 180 and 270 degrees (Default is 0). The orientation can be left, right or center (Default is none).

2D Barcode

Right click in the eFORMz Form Viewer and select *Add Constant > 2D Barcode*. The 2D Barcode Constant dialog box will display. Enter the characters or numeric values you would like to barcode into the *Text* field. From the *Barcode type* drop down box select the barcode type you would like to use. Adjust the height and alignment if needed. Once complete click *OK*.

Options:

Name enter a descriptive name for the constant value (optional).

Text enter the string.

Barcode Type
Types include: MaxiCode, Aztec, Data Matrix, PDF417 and Quick Response (QR).

Horizontal/Vertical Position the constant location in decipoints (180 decipoints = 1/4 inch).

*Rotation r*otate barcode 90, 180 and 270 degrees (Default is 0).

Special Fonts

Right click in the eFORMz Form Viewer and select *Add Constant > Special Fonts*. The Special Fonts Element dialog box will display.

Options:

Name enter a descriptive name for the constant value (optional).

Text enter the string.

Barcode Type
Types include: MICR13B, MICRCMC7, OCRA and SECURE AMOUNT.

*Horizontal/Vertical Position t*he constant location in decipoints (180 decipoints = 1/4 inch).

*Special Fonts Color a*djust the color of the barcode.

Alignment rotate barcode 90, 180 and 270 degrees (Default is 0). The location can be shifted left, right or center (Default is none).

Line

Right click in the eFORMz Form Viewer and select *Add Constant > Line*. The Line Element dialog box will display. Adjust the position, length and thickness as needed. If necessary, update the plane (horizontal or vertical) and/or the color (Default is black). Once complete, click *OK.*

Options:

Name
Enter a descriptive name for the constant value (optional).

Horizontal/Vertical Position
The constant location in decipoints (180 decipoints = 1/4 inch).

Length
Adjust the length of the line (in decipoints). Default is 720 (1 inch).

Thickness
Adjust the thickness of the line (in decipoints). Default is 10.

Line Color
Adjust the color of the line.

Horizontal/Vertical
The orientation of the line.

Box

Right click in the eFORMz Form Viewer and select *Add Constant > Box*. The Box Element dialog box will display. Adjust the position, width and height as needed. If necessary, update the border thickness and/or the border color (Default is black). To add a fill color, check the *Fill* box. Update the fill color as seen fit (Default is white). Once complete, click *OK.*

Options:

Name enter a descriptive name for the constant value (optional).

Horizontal/Vertical Position the constant location in decipoints (180 decipoints = 1/4 inch).

Width adjust the width of the box (in decipoints). Default is 720 (1 inch).

Height adjust the height of the box (in decipoints). Default is 720 (1 inch).

Border Thickness adjust the thickness of the border.

Border Color adjust the color of the border.

Fill when checked, fills the box with a specified color (default unchecked).

Fill Color adjust the fill color.

Conditional Processing

eFORMz allows you to place conditions on rules and procedures. Setting a condition on a rule/procedure determines whether or not the action associated with the rule/procedure is processed.

eFORMz supports these logical operators:

- AND
- OR
- NOT

And the following data conditional operators:

Is equal to
Is not equal to
Is less than
Is greater than
Starts with
Ends with
Contains
Matches
Is a number
Names a file that exists

***Cross-Reference*:** For a number of use cases, consult the following resource: http://support.minisoft.com/index.php/eformz-conditional-logic/

SECTION 3

Document Template Reference

***Cross-Reference*:** For more information on the Document Template, view the following: http://support.minisoft.com/index.php/document-template-reference/

Components

A Document Component is a descriptor that defines particular layout properties. There are four Document Components: Paragraphs, Tables, Boxes and External Document Templates.

Paragraph

To add a Paragraph, right click the form and select Add Document Component > Paragraph.

***NOTE*:** Paragraphs can be added to a Table. The result is to create a Row for each line in the Paragraph.

Table

To add a Table, right click the form and select Add Document Component > Table.

Box

Right click the form, highlight Add Document Component and pick the Box option.

Elements

Document Elements are part of a Document Component. A Document Element can be dynamic or static content, such as Text, Variables or Barcodes.

General References

Alignment

The alignment of the Paragraph. Options include Left, Centered, Right, Justified and None (Default).

Background Color

The Automatic box, when checked, will adopt the color designated as the default color configuration. If unchecked, the color can be altered.

Borders

Single Border

Style
The drop-down menu has Solid, Double, Dotted and Dashed options.

Thickness
Adust the thickness level in decipoints. 1 pixel is the equivalent of 7.5 decipoints. 720 decipoints is the equivalent of 1 inch.

Color
Left click the color bar to modify the border color.

Separate borders

Top style
The drop-down menu that contains style options related to the top border.

Bottom style
The drop-down menu that contains style options related to the bottom border.

Left style
The drop-down menu that contains style options related to the left border.

Right style

The drop-down menu that contains style options related to the right border.

Box Propeties (General)

Positioning

Within Document
(Default) When checked, the position is set within the document.

Absolute Positioning
When checked, the position is defined by horizontal and vertical position, by page.

Horizontal/Vertical position
Sets the horizontal and vertical positioning. Values are in decipoints.

Page
Options include First Page, Last Page, nth page, Every Page, First through nth page, nth through last page, First through nth to last page, and nth to last through last page followed by the specified page number.

For example:

- "First through nth page" where nth = 5, the box will display on the first five pages.
- "nth through last page" where nth = 5, all pages except the first 4 will display the box.
- "First through nth to last page" where nth = 5, all pages except the last 5 will display the box.
- "nth to last through last page", where nth = 5, the box will display on the last 6 pages.

Size

Height
The Automatic option will retain the default setting for Box height. The Fixed option will adjust the Box height to the value entered into the adjacent field.

Width
The Automatic option will retain the default setting for Box width. the Fixed option will adjust the Box width to the value entered into the adjacent field. The Ratio option will adjust the Box width to be at least the value entered into the adjacent field while varying with other elements.

Background Color

The Automatic box, when checked, will adopt the color designated as the default color configuration. If unchecked, the color can be altered by left clicking the color bar next to the Automatic box.

Cell Properties (General)

Cell Width
The Automatic option will retain the default setting for Cell width. The Fixed option will adjust the Cell width to the value entered into the adjacent field. The Ratio option will adjust the Cell width to be at least the value entered into the adjacent field while varying with other Cells.

Background Color
The Automatic box, when checked, will adopt the color designated as the default color configuration. If unchecked, the color can be altered by left clicking the color bar next to the Automatic box.

Vertical Alignment
Options include baseline, top, middle, and bottom.

First line indent

The indentation of the first line in decipoints. 1 pixel is the equivalent of 7.5 decipoints. 720 decipoints is the equivalent of 1 inch.

Font

The Font field contains the following options:

Automatic
(Default checked) Applies the default text configuration.

Character Set
Applies the selected character set from the drop-down menu for text values.

Font
Applies the selected font from the drop-down menu for text values.

Chars per inch
Specifies the characters per inch of the text values.

Height
Specifies the height of the text values.

Bold
When checked, the text values are bolded.

Italic
When checked, the text values are italicized.

Text Color
The Automatic box, when checked, will adopt the color designated as the default color configuration. If unchecked, the color can be altered.

Margins

Automatic Margins
(Default) When checked, the configured settings will be implemented. When unchecked, individual Margins can be modified.

Top
Defines the top space between a border and other outer elements.

Left
Defines the left space between a border and other outer elements.

Bottom
Defines the bottom space between a border and other outer elements.

Right
Defines the right space between a border and other outer elements.

Padding

Automatic Padding
(Default) When checked, the configured settings will be implemented. When unchecked, Padding can be modified.

Top
Defines the top space between border and element content.

Left
Defines the left space between border and element content.

Bottom
Defines the bottom space between border and element content.

Right
Defines the right space between border and element content.

> ***NOTE*:** When elements need space between them, it is better to use Margins. When an inner element, such as text, needs space between the parent element and itself, utilization of Padding is advised.

Row Properties (General)

Use as

Normal row
(Default checked) The Row is to be used in its declared position in the table.

Page header
When checked, acts as the first Row on the page when a table is split because of pagination.

Page footer
When checked, acts as the last Row on the page when a table is split because of pagination.

Repeat using

No repeat
(Default) This setting will not repeat any instance of a Row in relation to a specified Variable or Constant value.

Constant
When checked, any instance of a Row will repeat in accordance with the given Constant value.

Repeat of variable
When checked, any instance of a Row will repeat in relation to the given Variable value.

Row Height

The Automatic option will retain the default setting for Row height. The Fixed option will adjust the Row height to the value entered into the adjacent field. The Minimum option will adjust the Row height to be at least the value entered into the adjacent field.

Background Color

The Automatic box, when checked, will adopt the color designated as the default color configuration. If unchecked, the color can be altered by left clicking the color bar next to the Automatic box.

Appendix A

Advanced Processing

Command File Processor

Script Example

```
java -jar Run.jar - com.minisoft.HostTools.Local.eFORMz -d c:\Minisoft\eFORMz_6\input -f
*.dat:rename -p project.efz -t PrinterA
```

Parameters

In this example, the java executable is assumed to be in the path of the dos shell. The printer name is PrinterA as defined in the Printers.xml file. The project file (project.efz) is in the current directory.

-v	Log to stdout
-l <filename>	Log to new <filename>
-a <filename>	Append log to <filename>
-g <number>	Log priority fence
-d <directory>	Specify input directory
-f <filename[:disposition>]	Specify file selection and optionally disposition
-p <project>	Specify project
-t <printer>	Print (Black and White PCL)
-tc <printer>	Print (Color PCL)
-tp <printer>	Print (Postscript)
-o <filename>	Output to file
-u <basefilename>	Output to file with unique name
-e <basedirectory>	Process with eDIRECT
-x <command>	Execute external command after output
-c <directory>;<filemask>;<copy to directory>	Copy files after output
-r <directory>;<filemask>	Delete files after output
-n <directory>;<filemask>;<printer>	Print files after output
-help	

Preprocessor Data Parsing Control Codes

\b	backspace
\t	tab
\n	linefeed
\r	carriage return
\f	formfeed
\\	backward slash
\a<3 decimal digits>	character represented by its decimal value (000-255)
\x<2 hexadecimal digits>	character represented by its hexadecimal value (00 - ff)

eSUBMIT Command Processing

Overview

This utility of eFORMz permits host-independent redirection of application data. Originally designed to simply write data destined for standard output device to unique file names in a local directory for processing by the eFORMz local queue monitor.

While still accomplishing the original goal, eSubmit has been expanded to handle a variety of file redirection tasks independent of host operating system or third party subsystems.

Details

For parameters with characters that may be handled by the host command processor (such as semicolons on UNIX, use double quotes around the parameter value:

```
java -jar jars/eSubmit.jar -lpr “FILEPRINT;TITLEA;lphost”
```

Commands

File Name (-f)

Specify file selection and optionally disposition. Optional dispositions include: rename and delete

Example: -f ”inv.data:rename”

Output Directory (-d)

Specify input directory.

Example: -d ”/minisoft/salesorders”

MQ Queue (-mq)

This option directs the data to an IBM© MQ Queue on a remote system.

Message Queue Format (-mqm)

Specify message format.

Secure FTP (-rd)

This option has five parameters; remote directory, host, port, user name, password.

Use the File Name (-f) option to set the file name mask.

Project (-p)

Specify project file.

Example: -p ”sampinv.efz”

LPR (-lpr)

Send data to an LPD service. Three required parameters.

The first parameter is the queue name on the remote host.

The second parameter is used in the naming of the file on the receiving host. Use it to direct the queue monitor in what project to use. The title can also be used in defining which output device eFORMz will use.

The fourth parameter, used to define the port to connect to, is optional.

Secure LPR (-slp)

Send data securely to an LPD service. Eight required parameters.

The first parameter is the queue name on the remote host.

The second parameter is used in the naming of the file on the receiving host. Use it to direct the queue monitor in what project to use. The title can also be used in defining which output device eFORMz will use.

The fourth parameter, used to define the port to connect.

PCL Print, Black and White (-t)
PCL Print, Color (-tc)

Printer name.

Example: -t ”LJ5si” or -tc “LJ3800DN”

Output to File (-o)

Output to file. Output file extension options include: .pdf, .prn, .pcl, .xml.

Example: -o ”inv.pdf”

Output to unique file name (-u)

Output to file with unique names. Output file extension options include: .pdf, .prn, .pcl, .xml.

Example: -u ”inv_.pdf”

Process with eDirect (-e)

Process with eDirect. The base directory will be the directory the eDirect output will be sent to.

Example: -e ”/minisoft/invoice/output”

Process with eDirectPlus (-ep)

Process with eDirectPlus. The base directory will be the directory the eDirectPlus output will be sent to.

Example: -ep ”/minisoft/invoice/output”

Execute external command after output (-x)

Execute external command after output. Command options: mv - move command

Example: -x ”mv /minisoft/input/*.hld /minisoft/backup”

Copy files after output (-c)

Copy files after output.

Example: -c ”/minisoft/input/*.hld /minisoft/backup”

Delete files after output (-r)

Delete files after output.

Example: -r ”/minisoft/input/*.hld”

Print files after output (-n)

Print files after output.

Example: -n “/minisoft/output/*.prn roadrunner”

Static input file (-i)

This option is used to read from a fixed file in place of the standard input device. It is useful to simulate input during testing.

Log file location and name (–l)

This option has two required parameters, the directory in which to create log files and the file mask used to create log files.

Example: -l ”/minisoft/log;eformzlog.txt”

Verbose tracing (-v)

Use this option at the direction of Minisoft support to identify configuration issues.

Timeout in seconds (-w)

While reading stdin (or a static file) time to wait for data or EOF.

Execute after data is copied (-exe)

It will launch a local queue monitor to execute against the copied file using the configuration set by the other arguments or configuration file.

So if you used the arguments:

-d <directory> -f<file> -p<project> -t <printer>

eSubmit would copy the stdin to a unique file in <directory> and execute a queue monitor to execute a project against that file to print to <printer>

If you used the arguments:

<iqname> -exe

eSubmit would use the settings in the configuration file for <iqname> to copy the file and execute a queue monitor to process the file using those same settings, except the file selection will be set to the destination file name.

eFORMz is needed with a valid license.

Configuration (-cfg)

Use configuration file. Defaults to eSubmit.cfg. The configuration is based upon the monitor object and read looking for a matching InputQueue. The queue name to match is the parameter if only one bare (without a leading hyphen) parameter is supplied.
If there is not a single bare parameter, an attempt will be made to locate a blank (no characters) queue name.

Help (-help)

Display utility parameter usage.

Quick Reference Guide

-f <filemask[:disposition]>	Specify file name
-d <directory>	Specify output directory
-mq <host>;<port>;<channel>;<queue manager>;<message queue>	Specify MQ queue
-mqm <file format>	Specify message format
-rd <remote directory>;<host>;<port>;<user>,<password>	Specify remote (SFtp) output directory
-p <project>	Specify project
-lpr <queue>;<title>;<host>[;<port>]	Send data to an LPD service

-slp <queue>;<title>;<lpd host>;<lpd port>;<ssh host>;<sshport>;<user>;<password>	Send data to an LPD Service via SSL
-t <printer>	Print (Black and White PCL)
-tc <printer>	Print (Color PCL)
-tp <printer>	Print (Postscript)
-o <filename>	Output to file
-u <basefilename>	Output to file with unique name
-e <basedirectory>	Process with eDIRECT
-ep <basedirectory>	Process with eDirectPlus
-x <command>	Execute external command after output

-c <directory>;<filemask>;<directory>	Copy files after output
-r <directory>;<filemask>	Delete files after output
-n <directory>;<filemask>;<printer>	Print files after output
-i <filename>	Specify static input file (in place of stdin)
-l <directory:filemask>	Specify logfile location and name
-v	Verbose (stdout) tracing
-w <number>	Time in seconds to wait for more data (default 30)
-exe	Execute after the data is copied
-cfg	Configuration filename (defaults to eSubmit.cfg)
-help	

User Configuration Files

Site specific configuration files available:

eFORMzCfg_User.xml
FontSpecs_User.xml

The above files are not installed with an eFORMz installation to insure that the files are never overwritten. Files with the above naming convention should be placed in the following directory:

C:\Minisoft\eFORMz_6\

Custom Form Sizes

Site specific custom form sizes can be added to the *eFORMzCfg_User.xml*, for example:

```
<PageDimension Name=”B6” PCLNumber=”1” PortraitA=”5250” PortraitB=”7560” PortraitC=”4860”
PortraitD=”7560” PortraitE=”180” PortraitF=”0” PortraitG=”120” PortraitH=”360” LandscapeA=”7560”
LandscapeB=”5250” LandscapeC=”7272” LandscapeD=”5250” LandscapeE=”144” LandScapeF=”0”
LandscapeG=”120” LandscapeH=”360” />
```

Contact Minisoft (support@minisoft.com) for custom form sizes.

> ***Cross-Reference*****:** For more information on adding a custom form or label size, view the following tutorial:
>
> http://support.minisoft.com/index.php/custom-form-and-label-sizes/

Preprocessors and External Functions

Place preprocessors and/or external function references in the following file:

eFORMzCfg_User.xml

Minisoft will provide a user with the custom file reference and external files needed, for example:

```
<?xml version=”1.0” encoding=”UTF-8”?>
<eFORMzConfiguration>
<Preprocessor Name=”Macro Insert“ Class=”com.sample.MacroInsertPreprocessor“ />
<ExternalFunction Name=”eVS Barcode Data Generator“
   Class=”com.minisoft.ExternalFunctions.eVSBarcodeDataGenerator“ />
</eFORMzConfiguration>
```

Font Configuration

Site-specific font configurations can be placed in a file referred as follows:

FontSpecs_User.xml

Example:

```
<?xml version=”1.0” encoding=”UTF-8”?>
<Fonts>
  <Font Name=”Arial Black” PCLTypeface=”-1” Spacing=”Proportional”
    PitchFactor=”0.008332330903266” ViewerFont=”Arial Black” PDFFont=”fonts/ariblk.ttf”>
  <Style Style=”4” Factor=”.66667” />
  <Style Style=”5” Factor=”.66667” BaseStyle=”1” />
  <Style Style=”8” Factor=”.5” />
  <Style Style=”24” Factor=”1.5” />
  </Font>
  <RTFInputFonts>
    <Font InputName=”Arial Black” FontName=”Arial Black” />
  </RTFInputFonts>
</Fonts>
```

***Cross-Reference*:** For more information on adding a font to eFORMz, view the following tutorial:

http://support.minisoft.com/index.php/adding-a-font-to-eformz/

Appendix B

Database URL and Driver Classes

Supported URL and Driver Classes

DB2 (iSeries)

Database name:
Connection name. Actual database name not needed in this field.

Driver Class:
com.ibm.as400.access.AS400JDBCDriver

URL:
jdbc:as400://123.456.78.90

Add the following properties and their values:
user
password
databasename

If you do not know the database name, logon to your AS/400 and run WRKRDBDIRE from the command line. Only the database marked *LOCAL is the local database that resides on the AS/400 system.

Image and Eloquence

Database name:
Connection name. Actual database name not needed in this field.

Driver Class:
com.minisoft.jdbc.MSJDBCDriver

URL:
Write access:
jdbc:MSJDBC:///?Server=xxx.xxx.xx.xxx&ServerPort=30007&User=xxx&UserPassword=xxx&Group=xxx&Account=xxx&ImageDatabase0=eformz,WRITE,0,1,0

Read access:
jdbc:MSJDBC:///?Server=xxx.xxx.xx.xxx&ServerPort=30007&User=xxx&UserPassword=xxx&Group=xxx&Account=xxx&ImageDatabase0=eformz,READALL,0,5,0

Note: Requires Minisoft's JDBC (Java Database Connectivity) driver.

Informix

Driver Class:

com.informix.jdbc.IfxDriver

URL:

jdbc:informix-sqli://<IP address of host machine>:<port no>/<database>:
INFORMIXSERVER=<server_name>;user=<user_name>;password=<password>

Example:

jdbc:informix-sqli://Sturgeon:9088/stores_demo:
INFORMIXSERVER=informix_server;user=admin;password=xxx

Microsoft Access

Driver Class:

net.ucanaccess.jdbc.UcanaccessDriver

URL/Connection String:

jdbc:ucanaccess://[database name]

JAR Files:

From your UCanAccess installation folder copy the following files into the C:\Minisoft\eFORMz_6\jars\Local\folder:

ucanaccess-X.X.X.jar
commons-lang-X.X.jar
commons-logging-X.X.X.jar
hsqldb.jar
jackcess-X.X.X.jar

More information for Connection String Properties: http://ucanaccess.sourceforge.net/site.html#examples

Download Link: http://ucanaccess.sourceforge.net/site.html#home

MySQL

Driver Class:

com.mysql.jdbc.Driver

URL:

jdbc:mysql://[host name or ip address]/[database name]?user=[user name]&password=[user password]

jdbc:mysql://123.456.78.90/eformz?user=eformz&password=eformz

Note: When referencing the database URL address in the web.xml file, the user name and password values can be excluded. For example:

jdbc:mysql://123.456.78.90/eformz

You must copy your MySQL jdbc driver class into your eFORMz jar folder for eFORMz to connect to your MySQL database.

Copy:
\sqlDriver\mysql-connector-java-xxxx\mysql-connector-java-xxxxx-bin.jar

to the following directory:
C:\Minisoft\eFORMz_6\jars\Local

Oracle

Driver Class:

oracle.jdbc.driver.OracleDriver

URL:

jdbc:oracle:thin:[user]/[password]@[hostname or ip address]:[Listener Port]:[SID – Database Name]

Example:
jdbc:oracle:thin:@123.456.78.90:1521:emaildb

Note: In order for eFORMz to connect to your Oracle database, you will need to copy your oracle jdbc driver class into your eFORMz jar folder:

Copy:
[Oracle_Home]\jdbc\lib\classesXXX.zip

to the following directory:
C:\Minisoft\eFORMz_6\jars\Local

and then rename the classesXXX.zip to classesXXX.jar

Oracle Cluster

JDBC URL for Oracle RAC (Real Application Cluster)

```
jdbc:oracle:thin:[user]/[password]@(DESCRIPTION=(LOAD_BALANCE=on)
(ADDRESS=(PROTOCOL=TCP)(HOST=host1) (PORT=1521))
(ADDRESS=(PROTOCOL=TCP)(HOST=host2) (PORT=1521))
(CONNECT_DATA=(SERVICE_NAME=service)))
```

Progress

Driver Class:
com.ddtek.jdbc.openedge.OpenEdgeDriver

URL:
jdbc:datadirect:openedge://*servername*:*10005*;databaseName=*c:\progressdb\sportstest*;user=*username*;password=*password*;defaultschema=*pub*

JAR Files:

From your *Progress* installation folder copy the following files into the C:\Minisoft\eFORMz_6\jars\Local\ folder:

```
base.jar
openedge.jar
util.jar
```

SQL Server

Driver Class:

```
com.microsoft.sqlserver.jdbc.SQLServerDriver
```

URL:

```
jdbc:sqlserver://12.34.567.899:1433;databaseName=ECOMVER;
user=minisoft;password=minisoft2007;selectMethod=cursor;
parametersAsUnicode=false
```

Note, you will need to specify the correct IP address, port (if different), database name, user, and password.

Sybase

Driver Class:

```
com.sybase.jdbc3.jdbc.SybDriver
```

URL:

```
jdbc:sybase:Tds:localhost:2638
```

Parameters:

```
SERVICENAME=demo
HOSTNAME=localhost
```

```
user=DBA
password=sql
STREAM_CACHE_SIZE=10000
LITERAL_PARAMS=false
CURSOR_ROWS=0
SESSION_TIMEOUT=300
JCONNECT_VERSION=6
CANCEL_ALL=true
DYNAMIC_PREPARE=true
LANGUAGE_CURSOR=false
SEND_LONG_PARAMS_REGARDLESS_OF_CAPABILITIES=false
IGNORE_DONE_IN_PROC=false
REQUEST_HA_SESSION=false
ELIMINATE_010SM=true
GET_BY_NAME_USES_COLUMN_LABEL=false
ESCAPE_PROCESSING_DEFAULT=false
```

JAR File:

Place the Sybase jar file into the C:\Minisoft\eFORMz_6\Local\ folder:

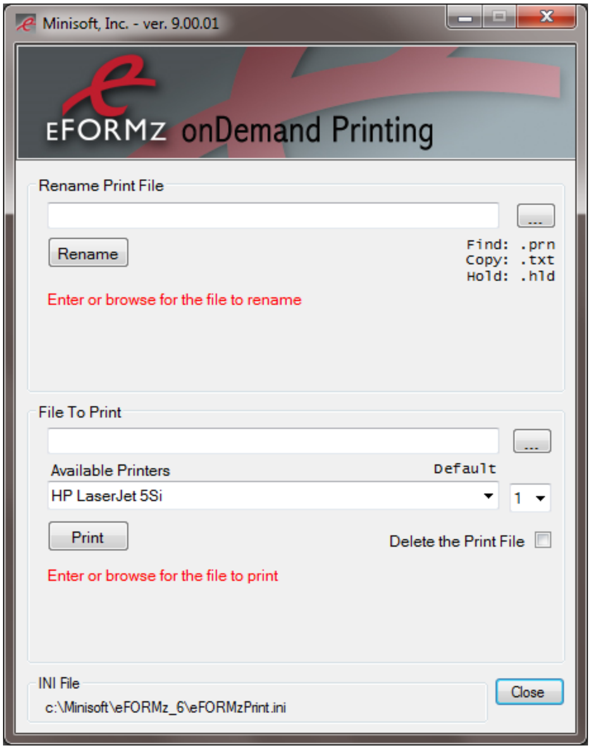
jconn3.jar

Appendix C

OnDemand Print Utility

OnDemand Print

The OnDemand Print utility, which is included with Minisoft eFORMz, lets you enter data as a value through a keyboard entry or a scanner. It also includes an option to use a browse button to select files from specific folders. There are two sections within this utility. One is to rename the extension of a print file, which is often used for the later capture and processing of the a print file by the eFORMz print monitor. The other is to simply select and print a file.



```
Find: .prn
Copy: .txt
Hold: .hld
```

Enter or browse for the file to rename

Available Printers: HP LaserJet 5Si

Default: 1

Delete the Print File □

Enter or browse for the file to print

INI File: c:\Minisoft\eFORMz_6\eFORMzPrint.ini

The .ini file, eFORMzPrint.ini, lets you configure the project directory path, a specific *find* extension, a *renamed* extension and an extension for files that have already been processed. The default processed file extension is .hld.

For example, if a match is found this utility renames the .prn extension to .rdy or .dat. The eFORMz Local Director Toolkit can then be modified to look for .rdy or .dat files. After the eFORMz Director selects and processes these files, it changes the extension back to .hld (hold).

eFORMzPrint.ini

```
[eFORMzPrint Options]
;DirectoryPath: Path to the print files to be renamed
;FindExtension: File extension of the file to be renamed
;CopyExtension: File extension of the renamed file
;HoldExtension: File extension of already processed print files
;BrowseOnlyFind: 0=false 1=true. When set to 0 all files are displayed when browsing
; and hold files can be reprinted.
; When set to 1 only files with the find extension are
; displayed when browsing and only files with the find
; extension will be printed - no reprinting of hold files.

DirectoryPath=c:\
FindExtension=.prn
CopyExtension = .rdy
HoldExtension=.hld
BrowseOnlyFind=0
```

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