
Minisoft® eFORMz™

Reference Manual

Version 10.01

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eFORMz 10.01 - March 2014

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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.

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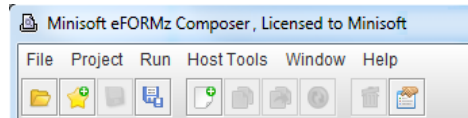
SECTION 1

Menus and Project Properties

Main Menu Options

The Composer menu bar has the following five menus:

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



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.

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 *eFORMz Mini-Manual: eFORMz Director*.

AS400

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

Unix

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

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

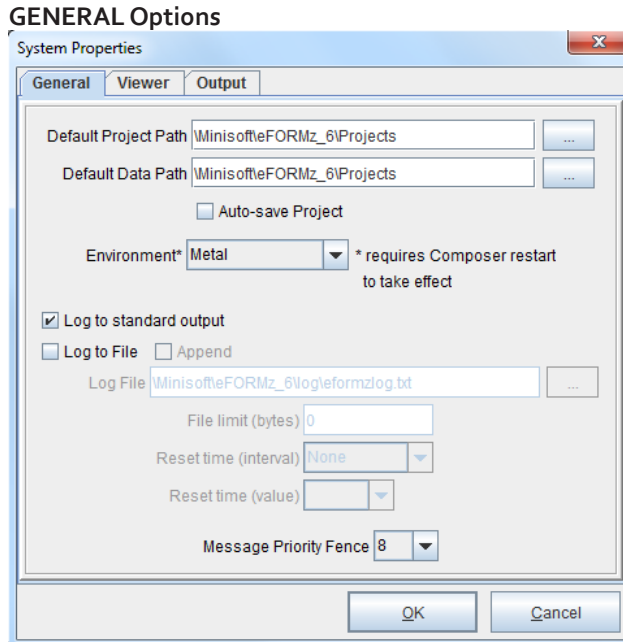
Displays the eFORMz copyright date and version number. Provides an activation license check.

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*.



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.

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*.

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.

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

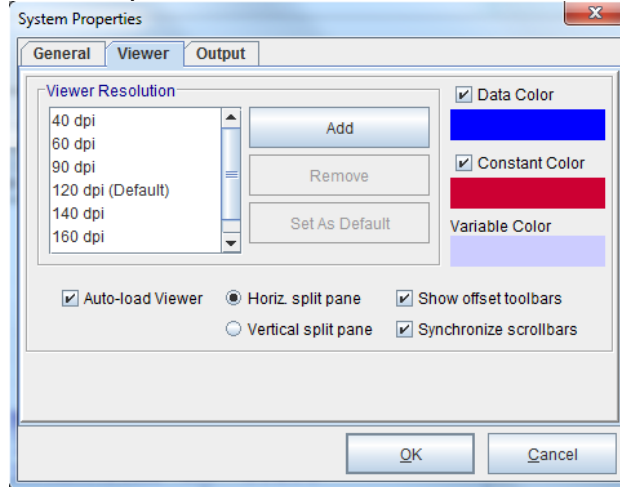
Permits log messages to be appended to the log file.

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 Options**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.

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.

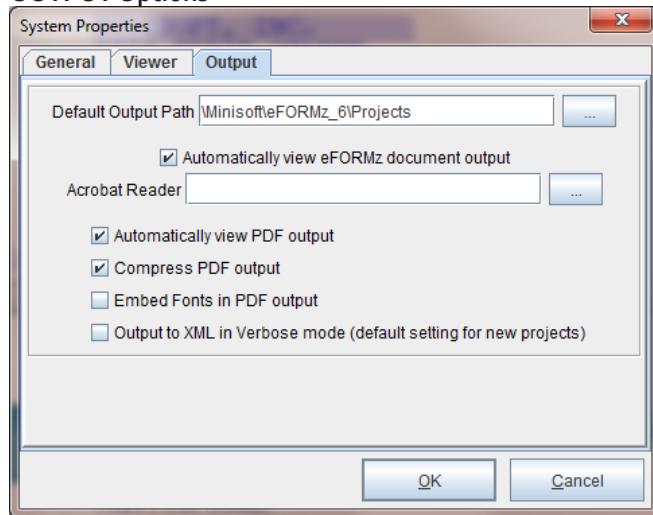
Show Offset Toolbars

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



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

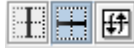
Default unchecked. When unchecked the XML output is condensed using token references. Checked will cause the XML output to be represented in full text XML verbiage.

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

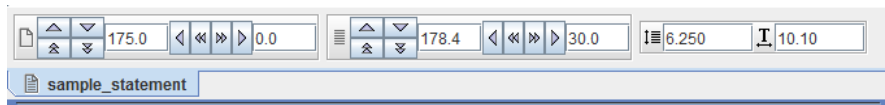
Allows you to move back and forth between data pages.

3408.0 : 1040.0

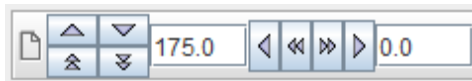
Row/Column Coordinates

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

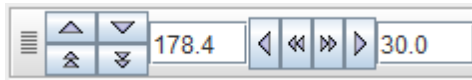
Offset Adjustment Toolbars



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.



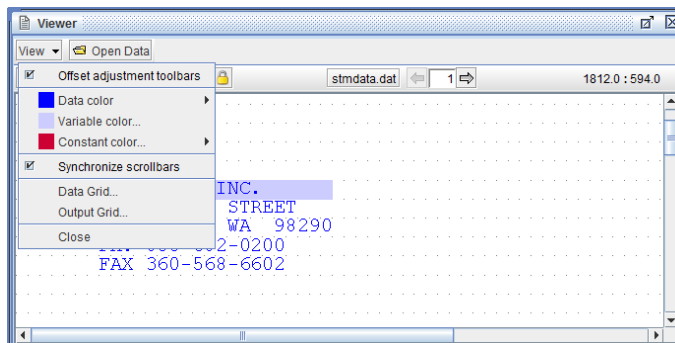
Characters Per Inch - The number of characters per inch horizontally. Used in conjunction with Fixed fonts.



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

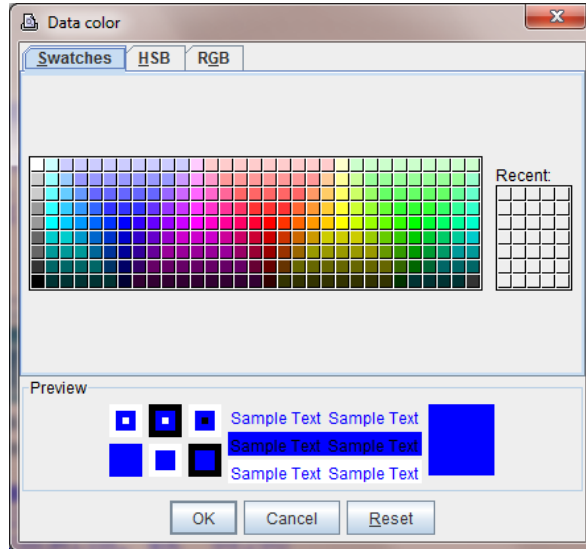
Viewer Menu Options

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

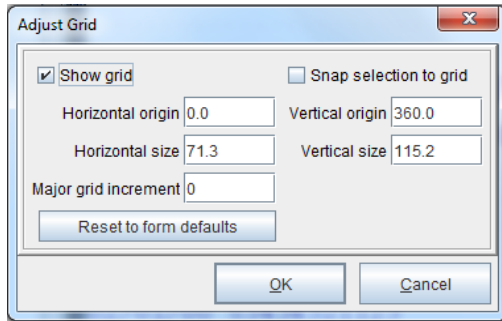
Allows you to change the constant colors displayed in the Viewer. Disable deactivates the color function. Enable is the default.

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.



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

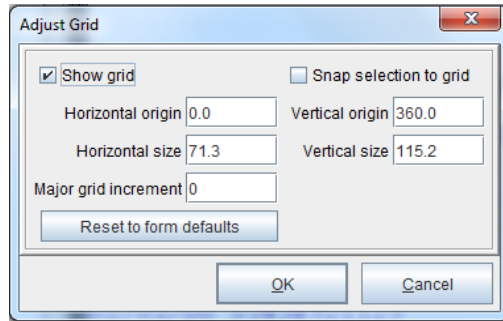
Sets the horizontal and/or vertical size between each line of the grid. Values are in decipoints.

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.



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.

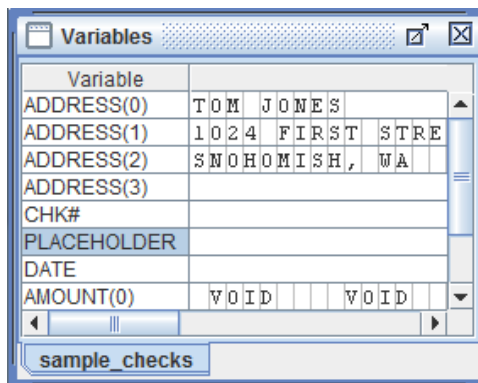
Variables Viewer

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.



The screenshot shows a window titled "Variables" with a table of data. The table has two columns: "Variable" and a data column. The data is as follows:

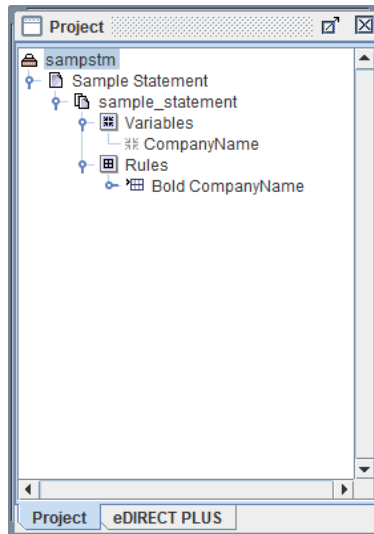
Variable	
ADDRESS(0)	TOM JONES
ADDRESS(1)	1024 FIRST STRE
ADDRESS(2)	SNOHOMISH, WA
ADDRESS(3)	
CHK#	
PLACEHOLDER	
DATE	
AMOUNT(0)	VOID VOID

At the bottom of the window, there is a button labeled "sample_checks".

Current Project Options

The Current Project window displays the entire project layout:

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

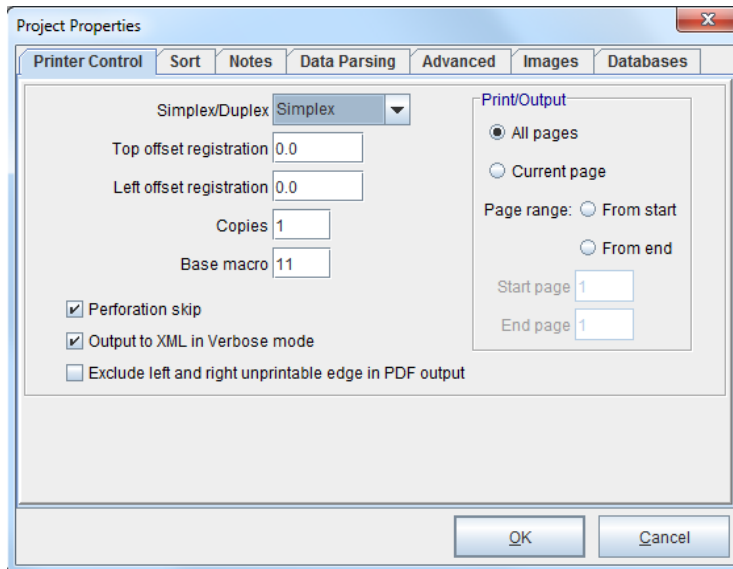


Project Properties

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*:



Printer Control Options

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.

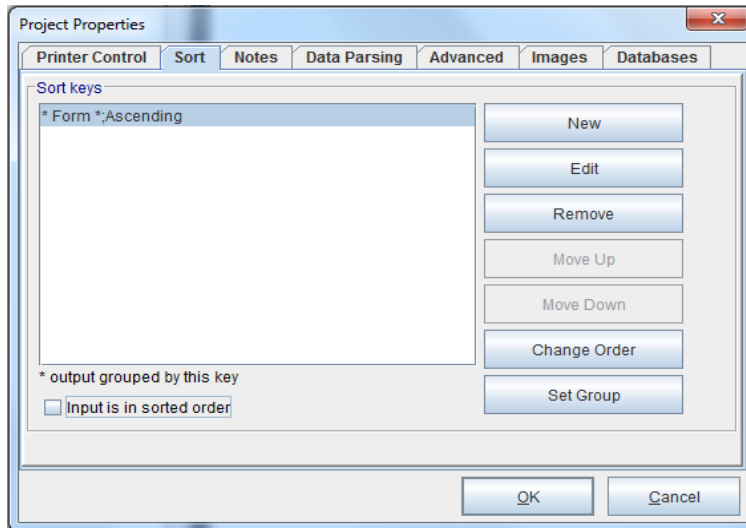
Print/Output - Current Pages

When specified, the current page being viewed within the eFORMz Viewer will be printed.

Print/Output - Range of Pages

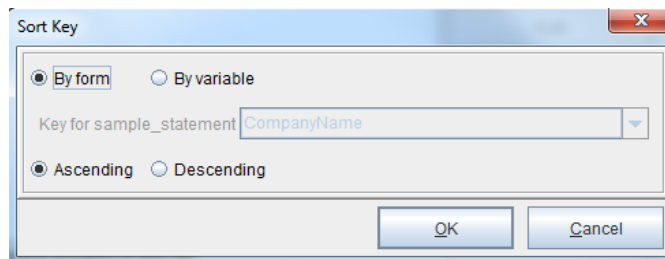
When selected, the Start Page and End Page fields will become available. Enter the range of pages you would like to print.

Sort Options



The *Sort* tab allows you to sort your data file based on a variable or form. To sort:

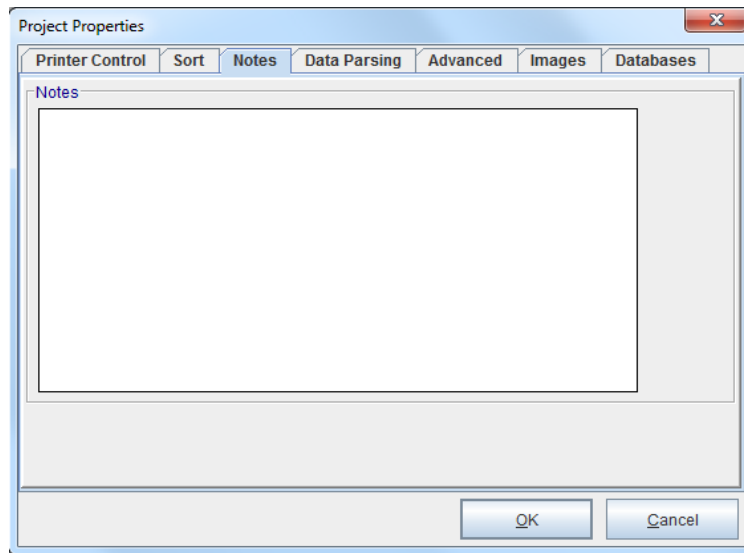
1. Select *New* and choose the variable or form you would like to sort by as well as the Sort Order. Then click *OK*.



2. The variable or form will appear in the 'Sort Keys' field.
3. To change the sort order highlight the variable or form and select *Change Order* (options: *Ascending* or *Descending*). The *Set Group* option will arrange the order sequence of multiple keys when a particular key is selected. The *Input is in Sorted Order*.
4. Use the *Remove* button to remove any variable or form from the 'Sort Keys' field.
5. The *Move Up* and *Move Down* options will allow you to change the 'Sort Keys' order.

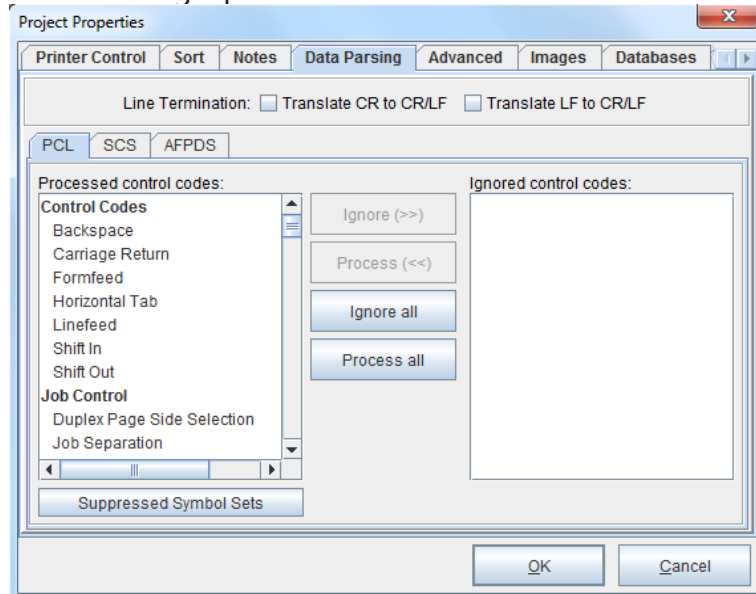
Note: Multiple variables or forms can be added.

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.

Print Streams:

PCL

For use with a Printer Command Language data stream.

SCS

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

AFPDS

For use with an Advanced Function Printing 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.

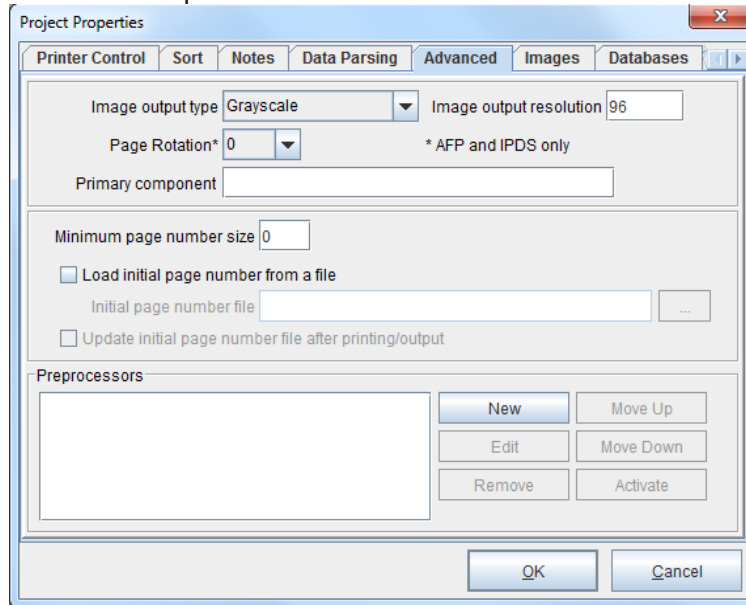
Ignored Control Codes

Contains a listing of all ignored control codes.

Suppressed Symbol Sets

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

Advanced Options

***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 than 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.

Preprocessors

Parses incoming data in one of the following ways:

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 -

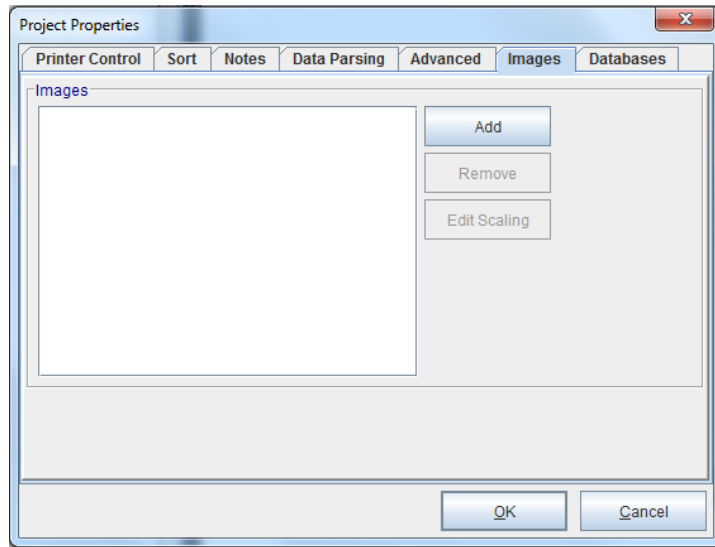
Converts text files to XML.

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.

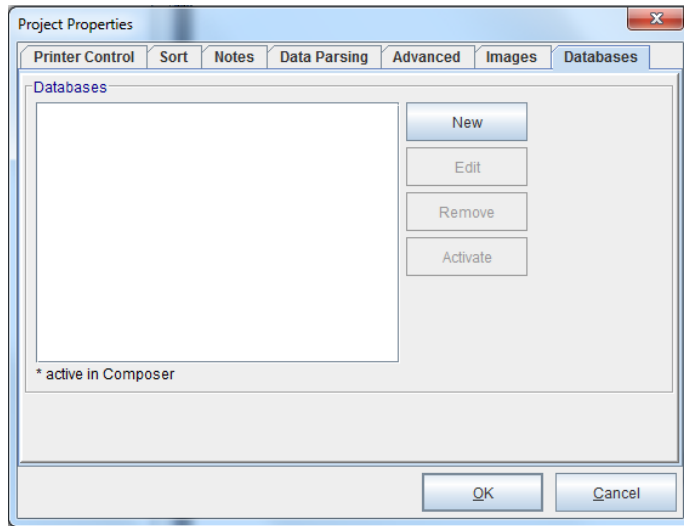
Project - Processes the data file with a project. The output of the project is passed in efd format to the next preprocessor or to the main project.

Images



The Images dialog box allows you to import images (jpg, gif, bmp, 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.

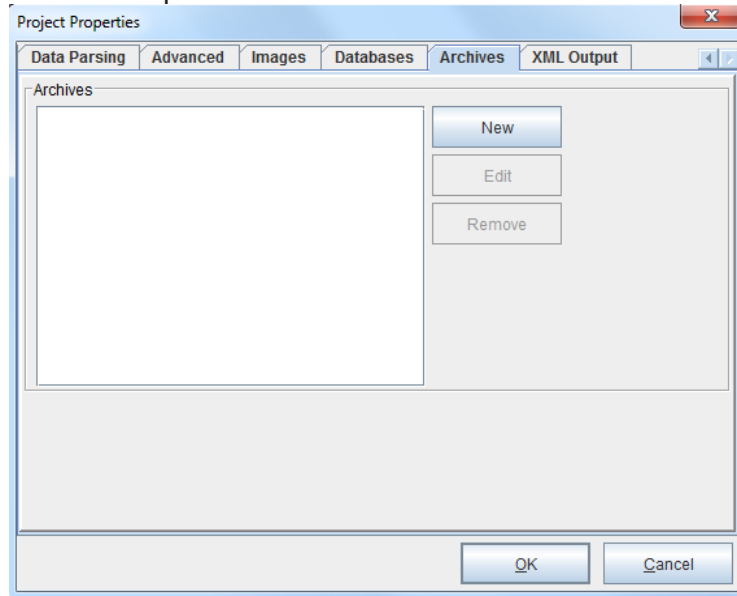
Remove

Deletes a database entry from the list.

Activate / Deactivate

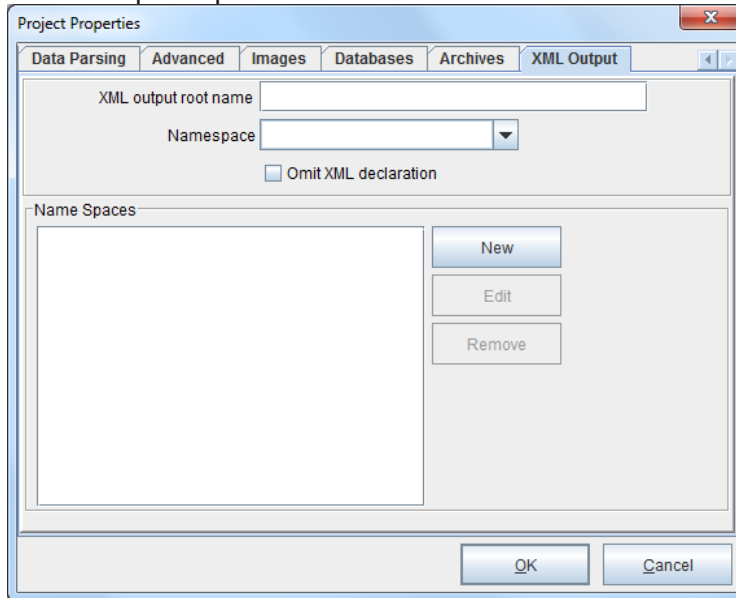
Enable or disable connectivity to the selected database when viewed from the Composer only.

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

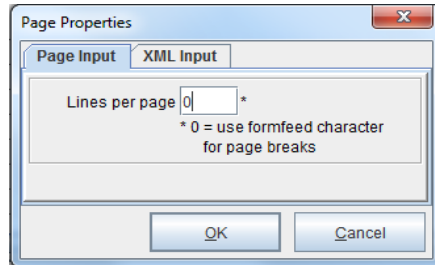


The XML Output tab controls the name and namespace of a root element when doing XML output. It controls whether the “<xml?” declaration is included. It also allows the definition of namespaces. The namespaces can be specified on the root and any record elements.

Cross-Reference: For more on generating XML output with eFORMz, consult the *Record Element Mini-Manual*.

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 Input:

Lines Per Page

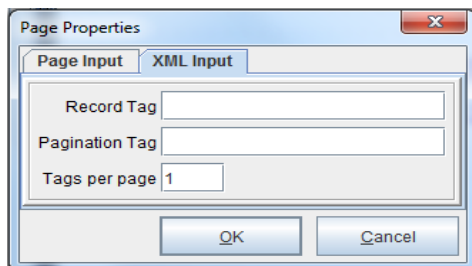
Number of lines per each data page. Default settings:

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.

***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 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

The screenshot shows the 'Form Properties' dialog box with the 'General' tab selected. The 'Page Size' is set to 'Letter', 'Orientation' to 'Portrait', and 'Lines per inch' to '6.250'. The 'Form' and 'Data' offset settings are: Top offset (175.0, 178.4) and Left offset (0.0, 30.0). The 'Data viewer size' is set to 'Match page size' with a width of 5760.0 and height of 7920.0. There are checkboxes for 'Exclude data' and 'Overlay on previous form'. The 'Paper side' is 'Next', 'Source Tray' is 'Current', and 'Output Tray' is '0'. There is also a 'Suppress output when empty' checkbox. At the bottom are 'Edit condition', 'OK', and 'Cancel' buttons.

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.

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.

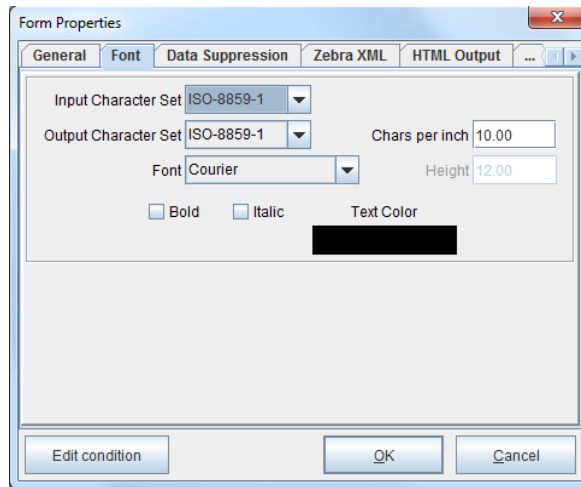
Output Tray

(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> & 1 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



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.

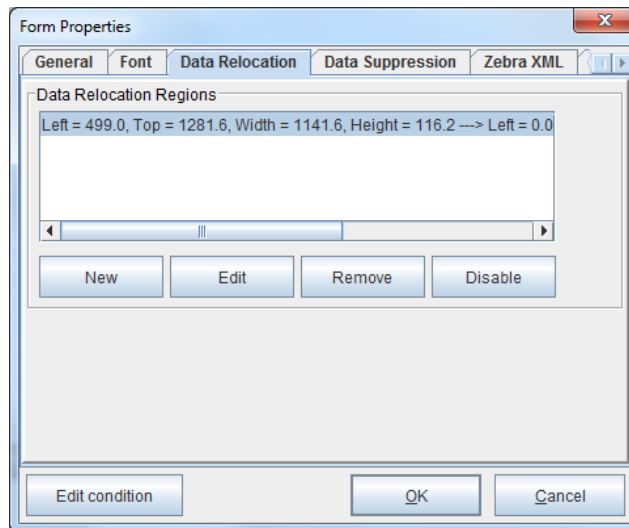
Italic

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

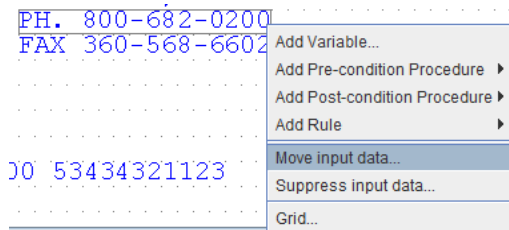
Text Color

Output data color when printed.

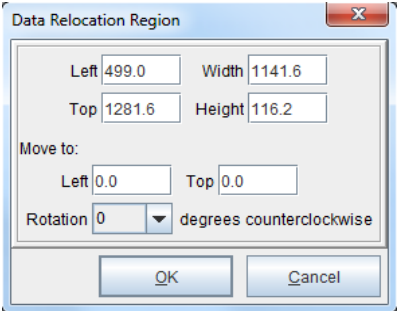
Data Relocation Tab



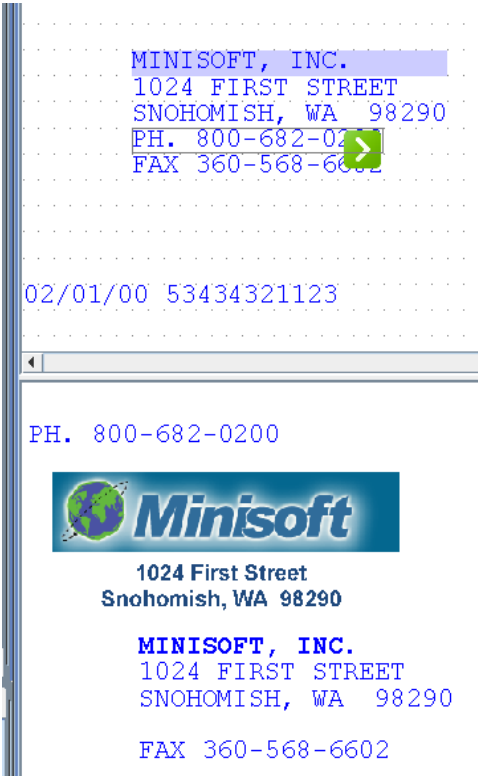
Data Relocation is the relocation of incoming data based on coordinate values. In the Input Data Viewer, the input data that is moved will be shown by a box with a green arrow. This data will be moved to appear in the specified coordinate location in the Form and Data Viewer. To relocate input data, define the coordinate values from the Data Relocation tab in the Form Properties, or right click and drag the incoming data region and select *Move input data*:



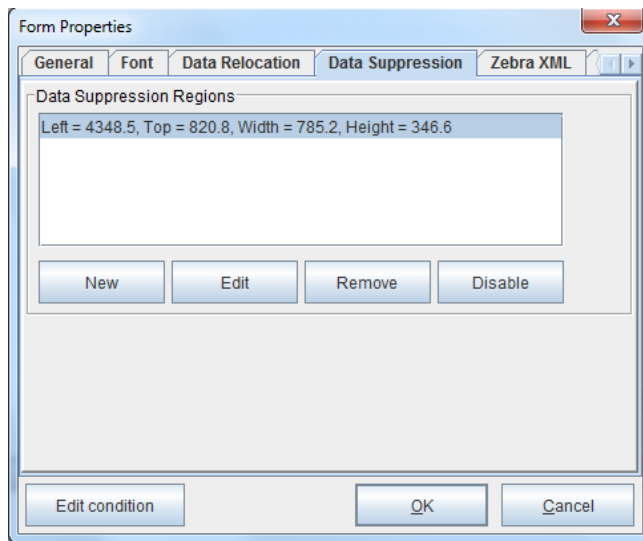
The *Data Relocation Region* dialog box will appear. Specify the coordinates, apply any rotation value and select OK.



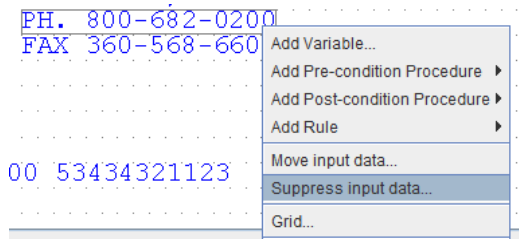
The input data that is moved will be shown by a box with a green arrow in the Input Data Viewer. This data will be moved to appear in the specified coordinate location in the Form and Data Viewer:



Data Suppression Tab



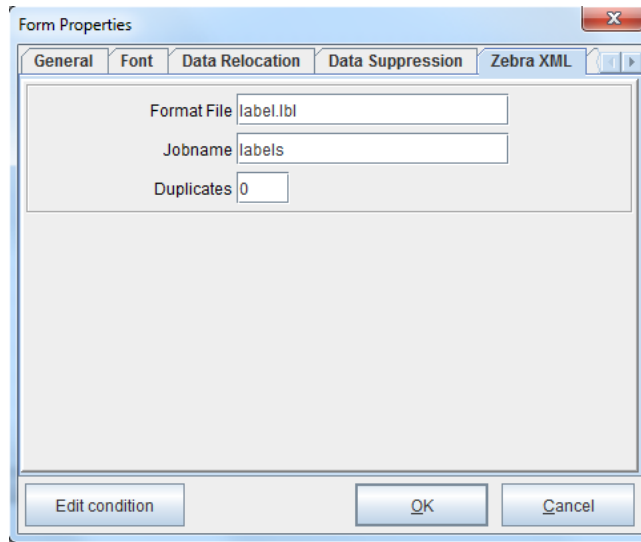
Incoming data can be suppressed based on coordinate values. Data within these regions will no longer appear in your Form and Data Viewer. Data suppression regions will appear as an outline with a red 'X' in the Input Data Viewer. To add a suppression region, define the coordinate values from the Data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



The Data Suppression Region in the Input Data Viewer:



Zebra XML Tab

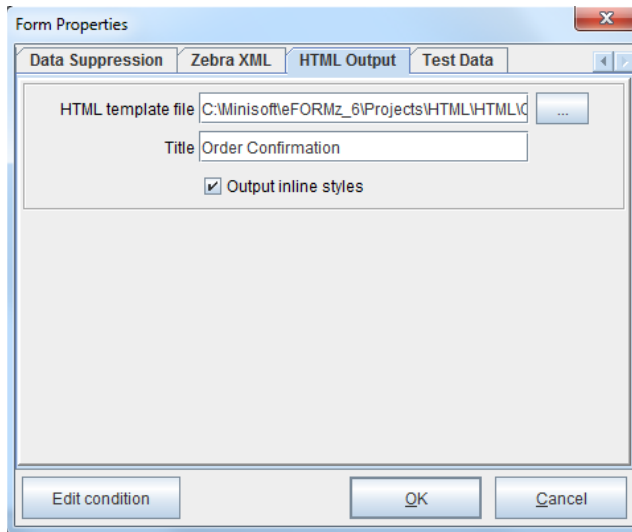


The screenshot shows a dialog box titled "Form Properties" with a close button (X) in the top right corner. The dialog has five tabs: "General", "Font", "Data Relocation", "Data Suppression", and "Zebra XML". The "Zebra XML" tab is selected and active. Inside the dialog, there are three input fields: "Format File" with the value "label.lbl", "Jobname" with the value "labels", and "Duplicates" with the value "0". At the bottom of the dialog, there are three buttons: "Edit condition", "OK", and "Cancel".

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.

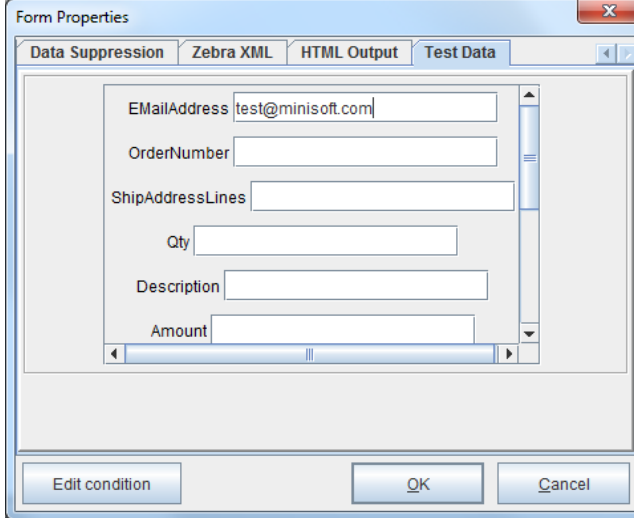
HTML Output Tab



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 additional detail, see the *Document Template Mini-Manual*

Test Data Tab



The screenshot shows a 'Form Properties' dialog box with the 'Test Data' tab selected. The dialog contains several input fields for specifying constant values for variables. The 'EMailAddress' field is pre-filled with 'test@minisoft.com'. Other fields include 'OrderNumber', 'ShipAddressLines', 'Qty', 'Description', and 'Amount'. At the bottom of the dialog, there are three buttons: 'Edit condition', 'OK', and 'Cancel'.

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

SECTION 2

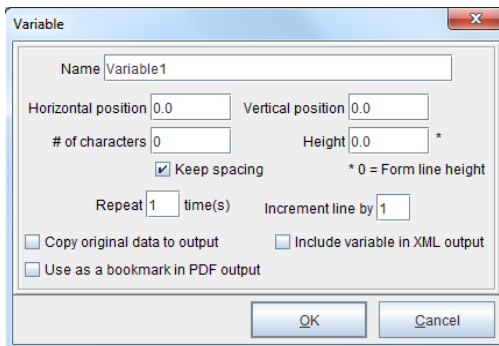
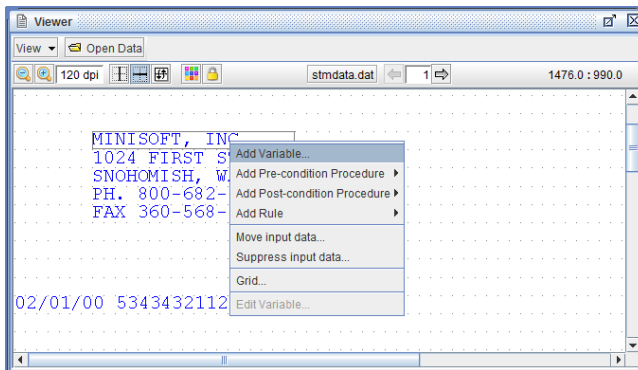
Data Customization

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 options include:

Name

Variable name as displayed in the project layout.

Horizontal/Vertical Position

The variable location in decipoints (180 decipoints = 1/4 inch).

of characters

The number of characters included in a variable.

Height

Variable height. Allows you to customize the variable line height.

**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 will be implemented.

Increment line by

Enables the skipping of lines. A value of one (1) applies a rule or function 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.

Include variable in XML output

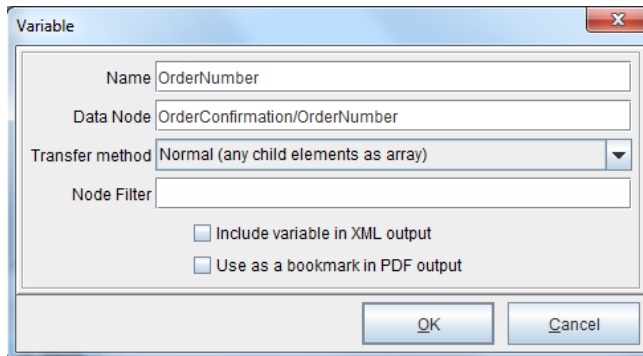
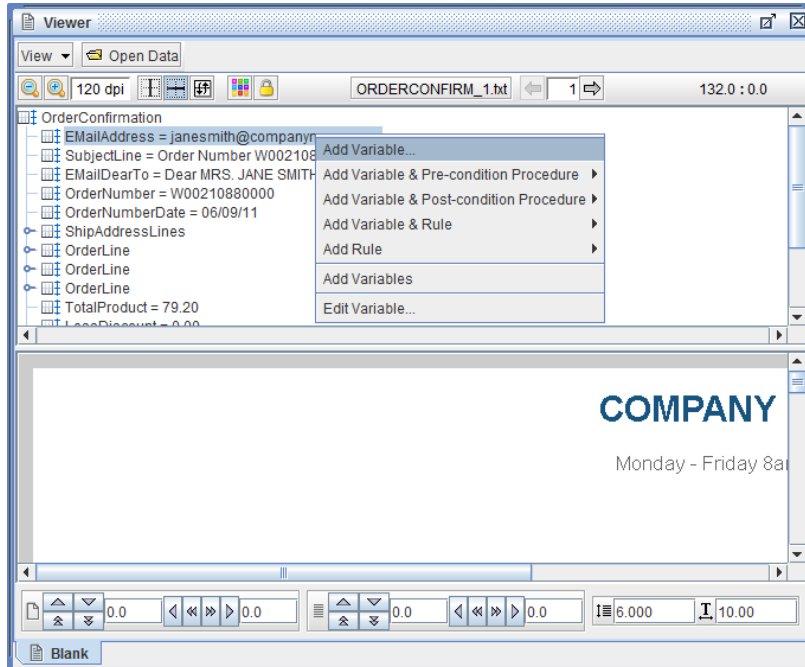
For use with eDIRECT when checked, default unchecked. Variable names cannot include special characters such as !, @, \$, &, * when this option is selected. This selection option only pertains to projects configured using the 'old' eDIRECT Wizard method of generating output.

Use as a bookmark in PDF output

Variable will be bookmarked for pdf file output.

Node Data Block Variables

For use with Extensible Markup Language (XML) data, this Form Variable is taken from the node location of the data 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*.



Variable options include:

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 six 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 (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 Filter

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

Include variable in XML output

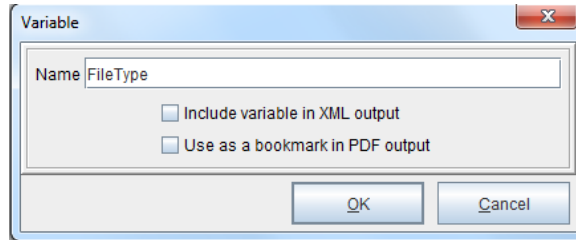
For use with eDIRECT output. The default is unchecked. If checked, Variable names cannot include special characters such as !, @, \$, *.

Use as a bookmark in PDF output

Variable will be bookmarked for PDF file output.

For 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 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 options include:

Include variable in XML output

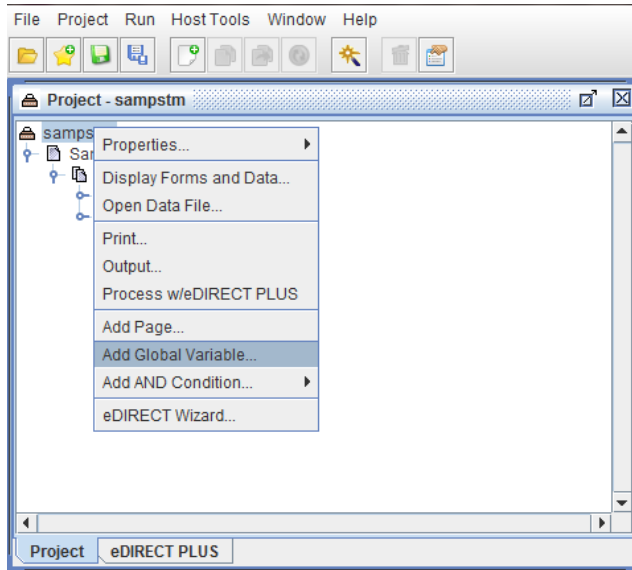
For use with eDIRECT output. The default is unchecked. If checked, Variable names cannot include special characters such as !, @, \$, *.

Use as a bookmark in PDF output

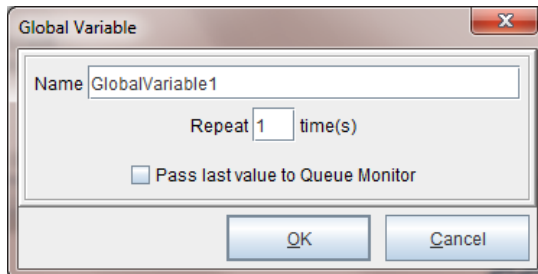
Variable will be bookmarked for PDF file output.

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. To add a Global Variable to a project, right click the Project name and select *Add Global Variable*:



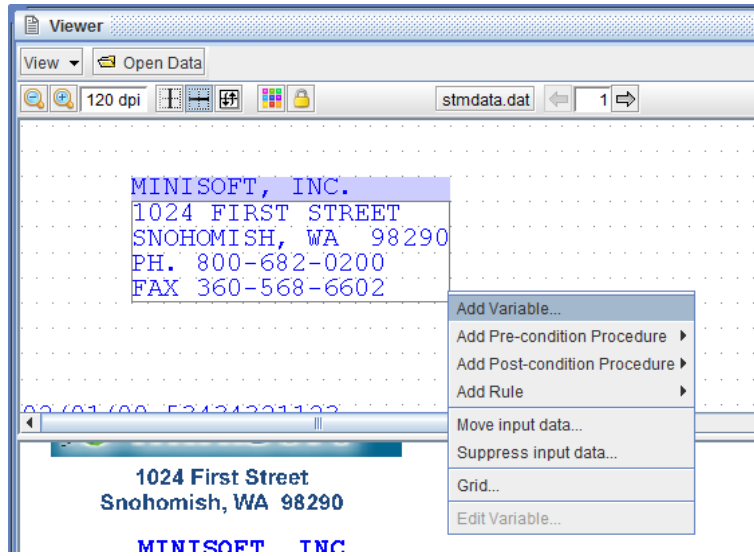
The Global Variable dialog box appears. Enter the global variable name and then enter the number of lines the global variable will need to repeat.



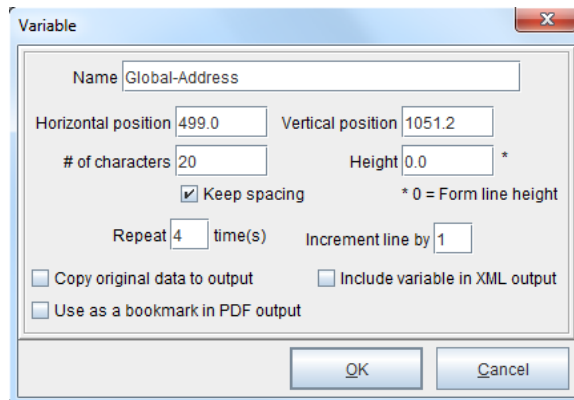
How to implement

The global variable can be populated with a form variable and/or add customized function.

1. Create a form variable to implement as a global variable from the Viewer window by right-mouse clicking and selecting *Add Variable*.

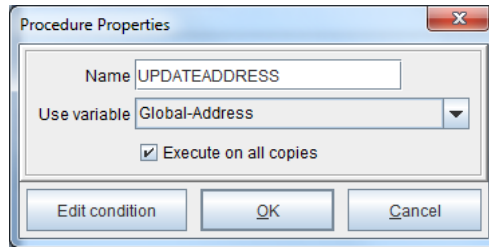


2. Enter a variable name and select *OK*.

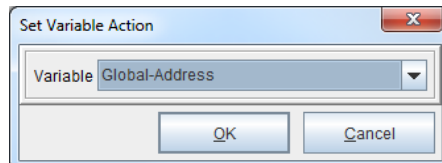


3. Create a procedure that sets the value of the global variable to your new form variable. From the Current Project window *right click* your selected form and select *Add Pre-condition Procedure > Set Variable*.

- The Procedure Properties dialog box displays. Enter a procedure name and select the form variable you created earlier. Select *OK*.

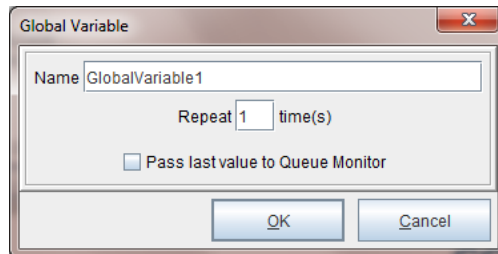


- The Set Variable Action dialog box displays. Select the global variable created earlier.



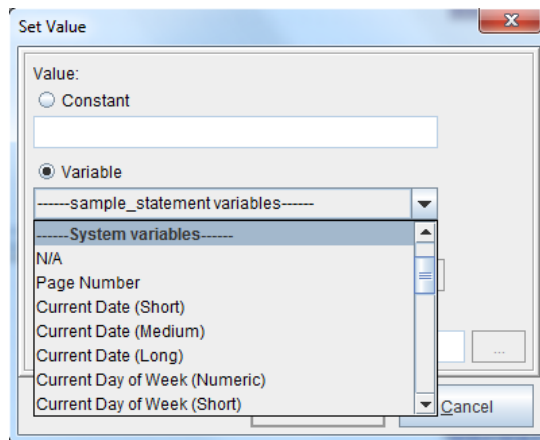
The procedure now sets the global variable. A *condition* on the procedure must also be set in order for the procedure to implement across multiple pages. The condition must match only on the first page.

- If you would like to implement an action based on the global variable, proceed with creating an action using the global variable on the selected form.



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:



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

SECTION 2

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
Raw Page Data	Contains all the data from the input page concatenated together. The variable contents are not calculated unless they are actually used

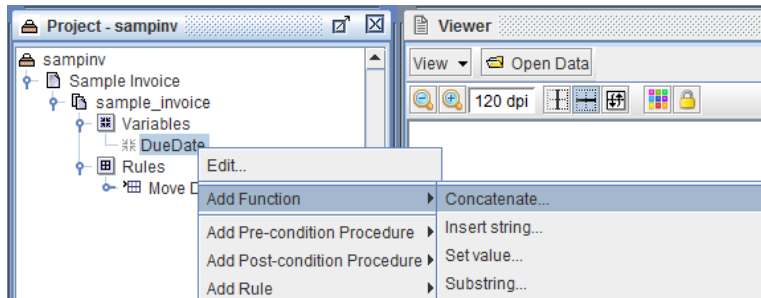
Variable Functions

eFORMz supports the following variable functions:

- ◆ Concatenate
- ◆ Insert String
- ◆ Set Value
- ◆ Substring
- ◆ Replace
- ◆ 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
- ◆ eVS Barcode Data Generator
- ◆ SmartLabel Barcode Data Generator
- ◆ Bulk Concatenate
- ◆ Base64 Decode

Concatenate

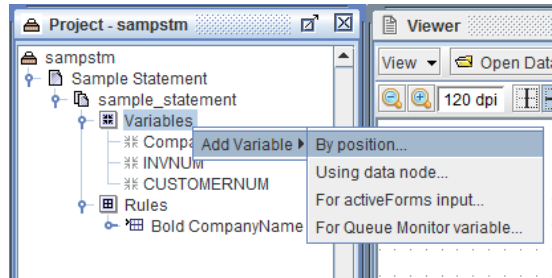
Concatenate allows the user to combine two or more character strings to make one:



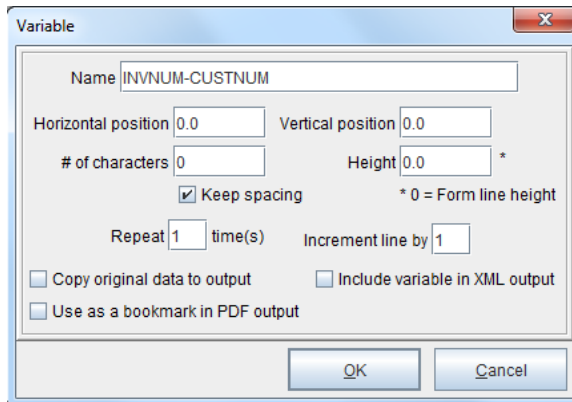
How to implement

Concatenate will allow you to combine two or more character strings to make one. To implement a concatenate function:

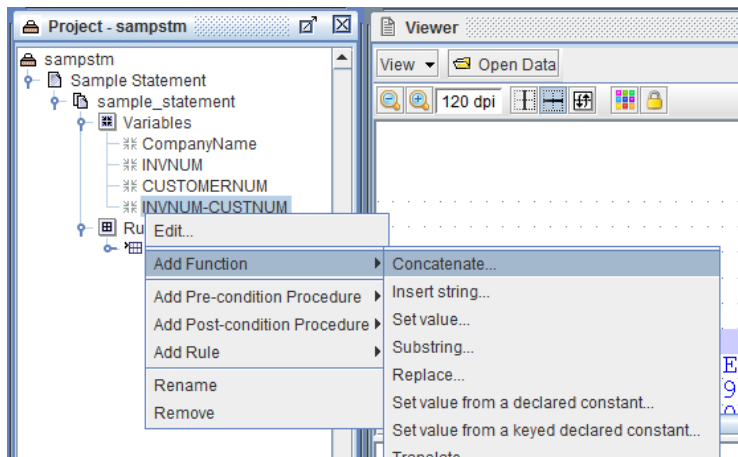
1. From the eFORMz Input Data Viewer, create a variable for each string that will make up the concatenated string.
2. A third variable can be created to combine the two variables together if you wish to use each of the first two separately and for other rule options. From the Variables placeholder, right click, select *By Position*:



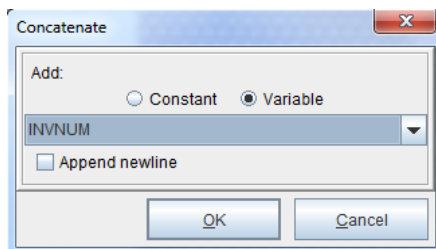
3. Enter a new variable name and then select *OK*.



4. From the Current Project window right click your newly created variable and select *Add Function > Concatenate*:



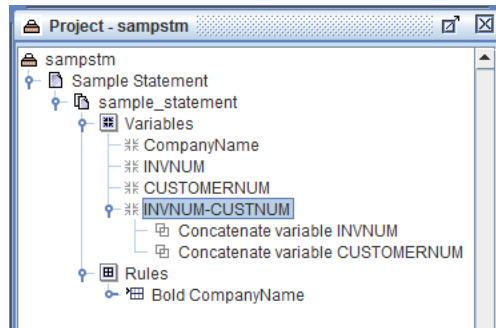
5. From the Concatenate dialog box select the Variable option and then select the first variable you would like to join together.



Select *OK*.

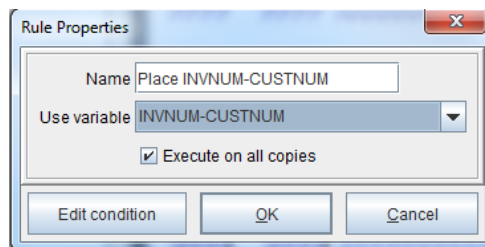
NOTE: The *Append newline* feature will only work in conjunction with the Wordwrap option of the Place Text action.

6. Follow the same procedure for concatenating the second variable.
7. When complete your newly created variable will display both concatenated variables.

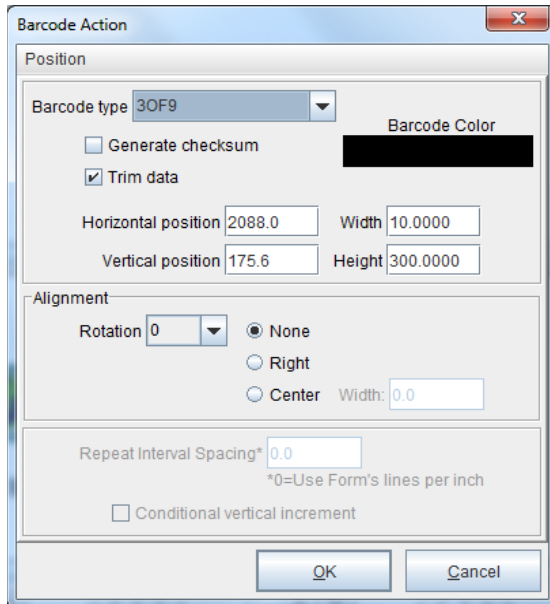


TIP: To create a continuous string that combines multiple variables, create a single variable that contains multiple concatenate functions. By default, a variable containing multiple concatenates functions as one continuous string. To allow for line breaks between the concatenate functions select the *Append newline* option. The *Append newline* option works in conjunction with the wordwrap option of the Place Text Rule.

8. Next, create a new rule to display your newly configured string. From the eFORMz Form Viewer, *right click* and select *Add Rule > 1D Barcode (or another rule type)*.
9. The *Rule Properties* dialog box will display. Enter a new rule name and click *OK*.



- The *Barcode Action* dialog box will display. Select the a barcode type and enter the desired width and height. Once complete, click *OK*.



The image shows the 'Barcode Action' dialog box in a software application. The dialog has a title bar with a close button (X). It is divided into several sections:

- Position:** Contains a 'Barcode type' dropdown menu set to '3OF9'. Below it are two checkboxes: 'Generate checksum' (unchecked) and 'Trim data' (checked). To the right is a 'Barcode Color' field with a black color swatch. At the bottom of this section are four input fields: 'Horizontal position' (2088.0), 'Width' (10.0000), 'Vertical position' (175.6), and 'Height' (300.0000).
- Alignment:** Contains a 'Rotation' dropdown menu set to '0'. Below it are three radio buttons: 'None' (selected), 'Right', and 'Center'. To the right of the 'Center' radio button is a 'Width' input field set to '0.0'.
- Repeat Interval Spacing*:** Contains an input field set to '0.0'. Below it is a small text note: '*0=Use Form's lines per inch'.
- Conditional vertical increment:** Contains an unchecked checkbox.

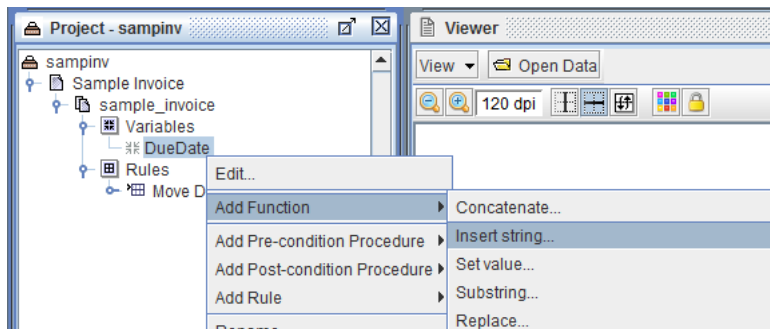
At the bottom of the dialog are two buttons: 'OK' and 'Cancel'.

- A barcode will display in the eFORMz Form Viewer. The new barcode is the concatenated string created earlier with the variable containing the multiple functions.

Insert String

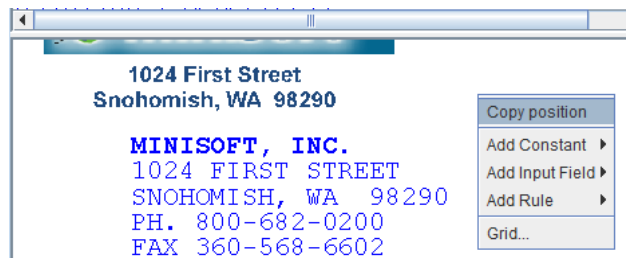
Insert a String will insert a certain number of characters into a Variable in one of two ways:

- ◆ 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.



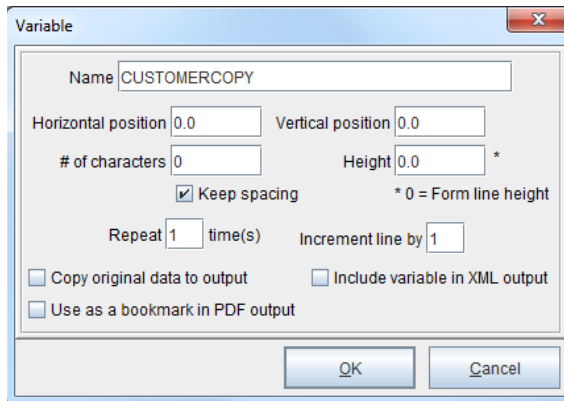
How to implement

1. In the eFORMz Form Viewer, locate a specified position for the data string to be placed, *right click* and select *Copy Position*.



2. From the Project window *right click* the form and select *Add Variable > By Position*.

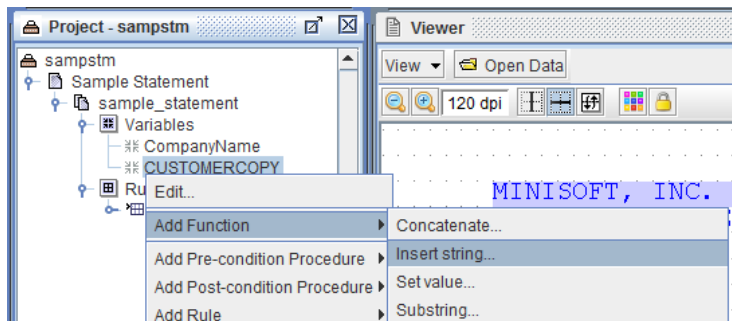
- The Variable dialog box will display. Enter a new variable name and click *OK*.



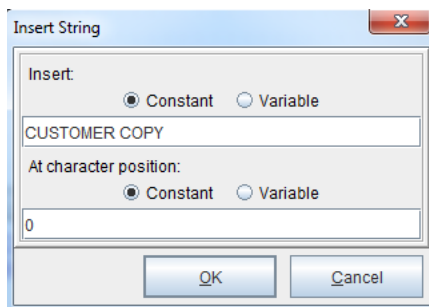
The Variable dialog box is shown with the following fields and options:

- Name: CUSTOMERCOPY
- 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
- Buttons: OK, Cancel

- The new variable will appear in the Current Project window. Using your mouse, *right click* the new variable name and select *Add Function > Insert string*.



- The *Insert String* dialog box will display. Enter a *Constant* value, for example, CUSTOMER COPY in the *Insert > Constant* field. In the *At character position* field enter zero (0).



The Insert String dialog box is shown with the following fields and options:

- Insert:
 - Constant
 - Variable
- CUSTOMER COPY
- At character position:
 - Constant
 - Variable
- 0
- Buttons: OK, Cancel

Click *OK*.

6. Select the newly created rule from the Current Project window and then select *Add Rule > Place Text*.
7. The *Rule Properties* dialog box will display. Enter a new rule name and select the previously created variable for the *Use variable* field.

Rule Properties

Name: Place CUSTOMERCOPY

Use variable: CUSTOMERCOPY

Execute on all copies

Edit condition OK Cancel

Once complete, click *OK*.

8. From the *Place Text* dialog box select *Position > Paste*. The position previously selected will be pasted into the *Horizontal* and *Vertical* position fields.

Select *Change Font* if you would like any font changes to be applied.

Place Text Action

Position

Copy

Paste

Horizontal position: 735.0

Vertical position: 839.1

Text Color

Horizontal Alignment Vertical Alignment

Rotation: 0

None Right Left Center

Width: 0.0

Wordwrap

Enable wordwrap

Line Width: 0.0 Line Spacing*: 0.0

Suppress blank lines

Repeat Interval Spacing*: 0.0

*0=Use Form's lines per inch

Conditional vertical increment

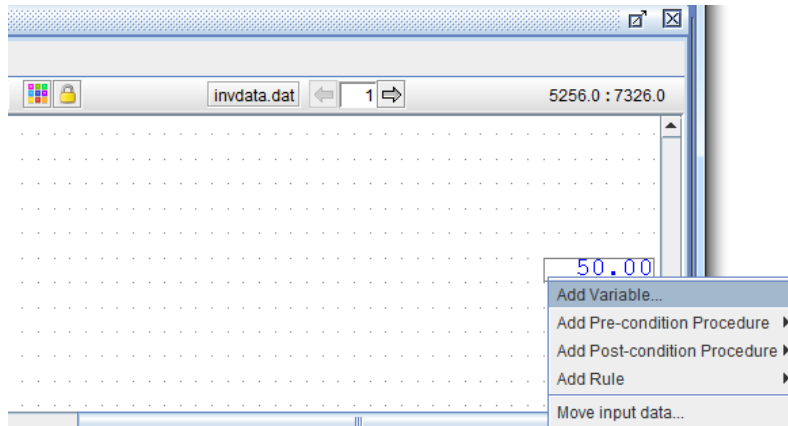
Change font OK Cancel

Click *OK*.

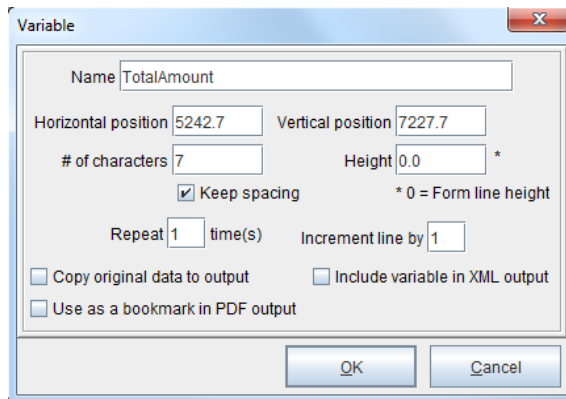
9. The text string will appear in the eFORMz Viewer, Form and Data Viewer.

Attach String to Existing Data

1. From the eFORMz Viewer, Input Data Viewer, select the data you would like to add a string to, *right click*, and select *Add Variable*.



2. The *Variable* dialog box will display. Enter a new variable name and click *OK*.

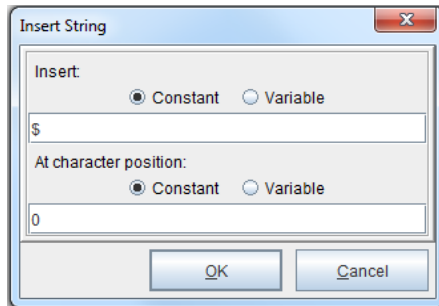


3. The newly created variable will display in the Project window. *Right click* the variable and select *Add Function > Insert String*.

4. The *Insert String* dialog box will display. Enter the character string you would like to attach to the selected variable in the *Insert > Constant* field. Enter the starting character position in the *At character position > Constant* field. Examples:

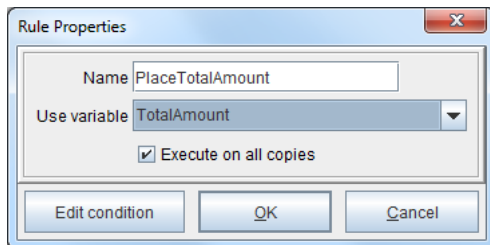
Character String	Character Position	Output
\$	0	\$999,999.00
/	2	
/	5	03/15/05
.00	7	999,999.00

Note: Character positioning starts at zero (0).



Once complete, click *OK*.

5. From the eFORMz Viewer, Form and Data Viewer, *right click* in the position you would like your new string to appear and select *Add Rule > Place Text*.
6. From the *Rule Properties* dialog box enter a new rule name and select the previously created variable. Once complete, click *OK*.



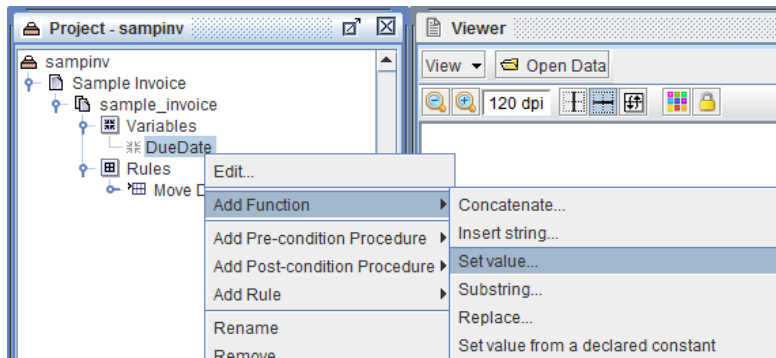
7. The *Place Text Action* dialog box will display. Click *OK* if you are complete with the Place Text Action dialog box.

8. Your new rule will appear in the Current Project window and in the eFORMz Viewer, Form and Data Viewer. If the newly created string needs adjusting in the Form and Data Viewer, using your mouse, drag-and-drop the new string into position.

Variable	Value
DueDate	D T T E 0.2 / 2.0 / 0.2
TotalAmount	\$ 50.00.00

Set Value

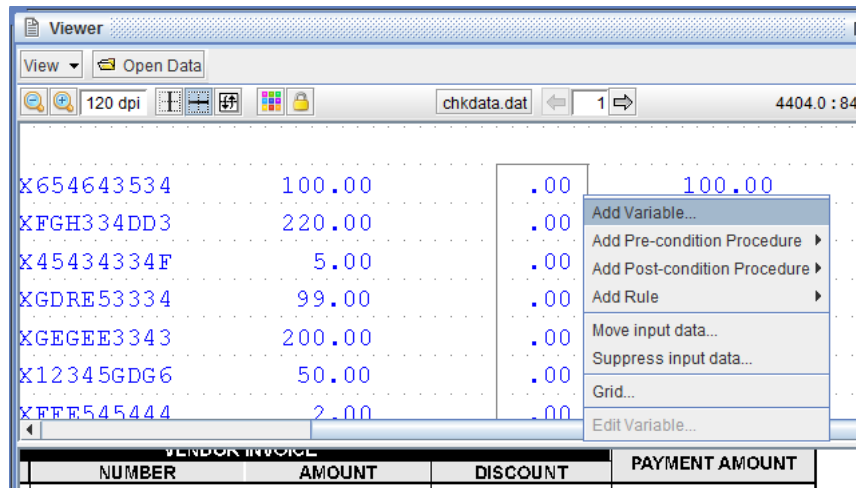
A Variable can be set to a particular value (*Constant, Variable, Image from Project & Image from File*). The newly set value will override any preceding Function or value being picked up by the Variable.



How to implement

To change the value of a set of characters:

1. From the eFORMz Viewer, Input Data Viewer, select the characters you would like to change. *Right click* and select *Add Variable*.



- The *Variable* dialog box will display. Enter a new variable name and click *OK*.

The Variable dialog box contains the following fields and options:

- Name: DISCOUNT
- Horizontal position: 4015.4
- Vertical position: 702.9
- # of characters: 6
- Height: 0.0 *
- Keep spacing
- * 0 = Form line height
- Repeat: 7 time(s)
- Increment line by: 1
- Copy original data to output
- Include variable in XML output
- Use as a bookmark in PDF output

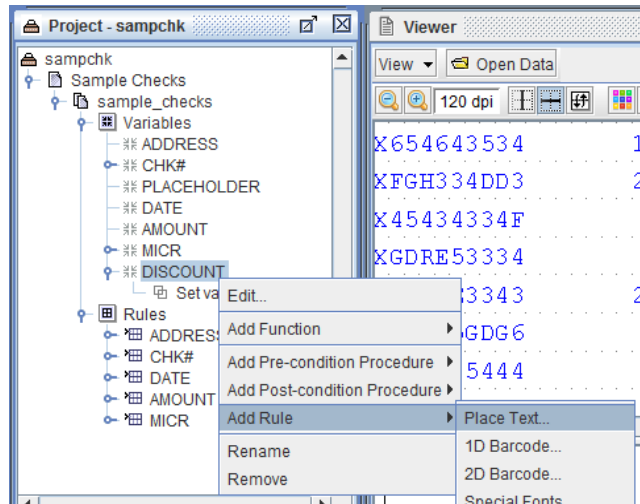
- The newly created variable will display in the Current Project window. Using your mouse, *right click* the new variable from the Current Project window and select *Add Function > Set Value*.
- The *Set Value* dialog box displays. For the *Value type* select *Constant* and enter a value you would like to set the characters to in the constant value field.

The Set Value dialog box contains the following options and fields:

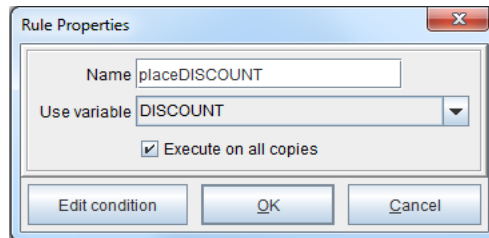
- Value:
 - Constant
 - Variable
 - Image from Project
 - Image from File
- Text field: **
- Image from Project: Image [dropdown]
- Image from File: File Name [text field] [browse button]

Once complete, click *OK*.

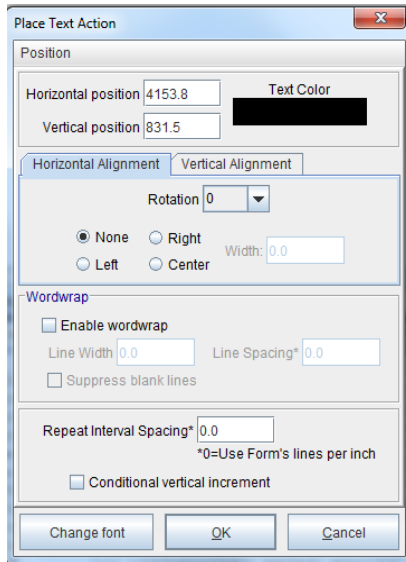
- The Set Value function will display in the Current Project window. From the Current Project window select the new variable, *right click*, and select *Add Rule > Place Text*.



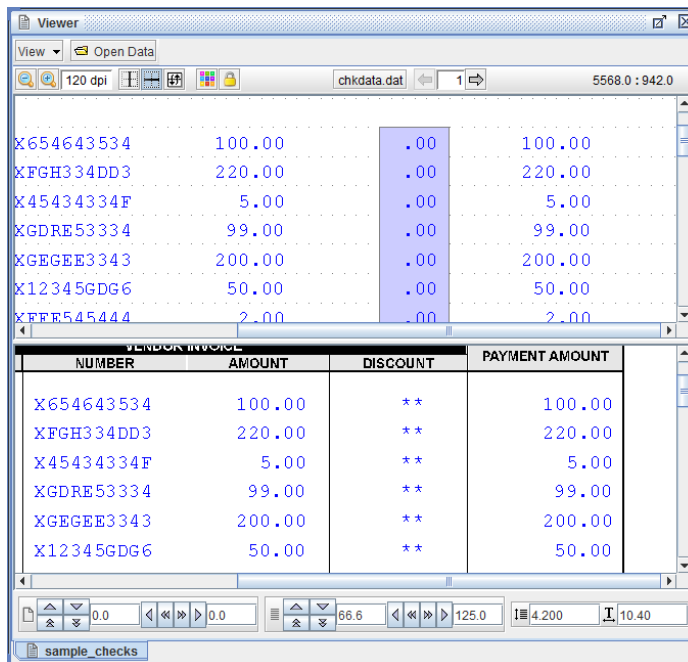
- The *Rule Properties* dialog box will display, enter a new rule name and click *OK*.



- The *Place Text Action* dialog box will display. Without making any changes click *OK*.



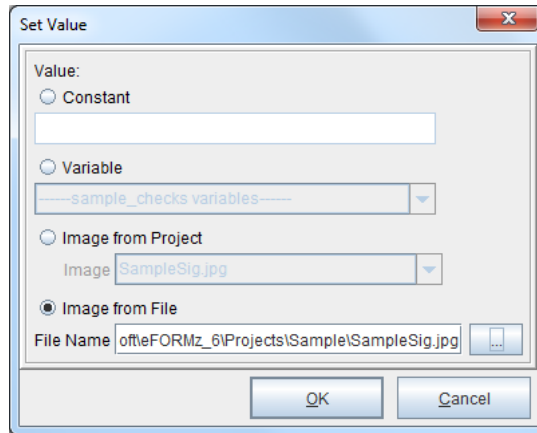
- The eFORMz Form Viewer displays the character change while the Input Data Viewer displays the original data format.



Setting an Image Value

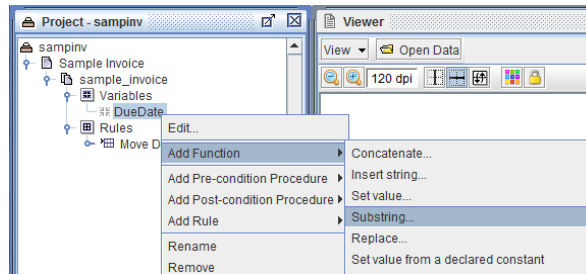
The Set Value function can also be set to an image. Apply an image in one of the following ways:

- ◆ *Image from project* loads a previously saved image that was imported into the project using the *Project Properties > Images* option.
- ◆ *Image from file* loads an image from a specified folder. The image will not be stored in the project file.



Substring

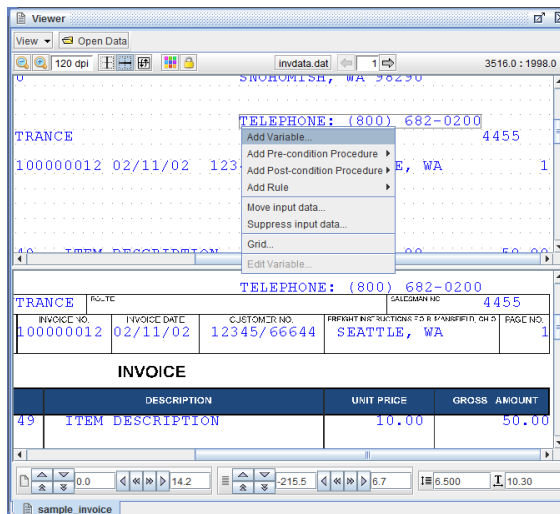
Substring extracts a string of characters from an incoming data file or a custom-built Variable:



How to implement

Extract a string of characters using the substring function from your incoming data file or a custom built variable. For example, to extract a string of characters from your incoming data file:

1. From the eFORMz Viewer, Input Data Viewer, select the data you would like to extract. Once selected, *right click* your mouse and select *Add Variable*.



- From the *Variable* dialog box enter a new variable name. If you would like the original data to appear in your output select *Copy original data to output*. Click *OK*.

Variable dialog box configuration:

- Name: dataExtract
- Horizontal position: 3495.1
- Vertical position: 1910.8
- # of characters: 25
- Height: 0.0 *
- Keep spacing
- 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

- Right click the newly created variable and select *Add Function > Substring*.
- From the *Substring* dialog box enter the starting position of the string you would like to extract. Note, for this example we are extracting the entire data. Set the number of character to be extracted.

Substring dialog box configuration:

- Starting character position:
 - Constant: 11
 - Variable
- Number of characters:
 - Constant: 14
 - Variable

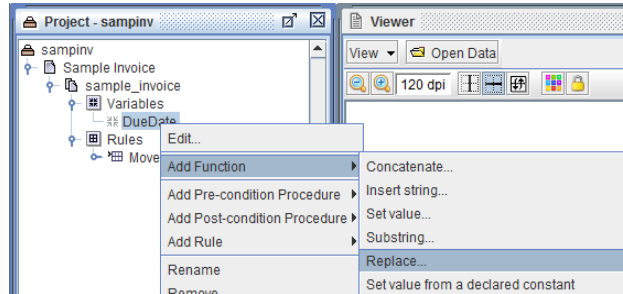
TIP: Specifying a negative value (-1) in the *Starting Character Position* field indicates to start from the end of the string. '0' is the starting position of the string.

Once complete, click *OK*.

- The new function will display in the Project window.

Replace

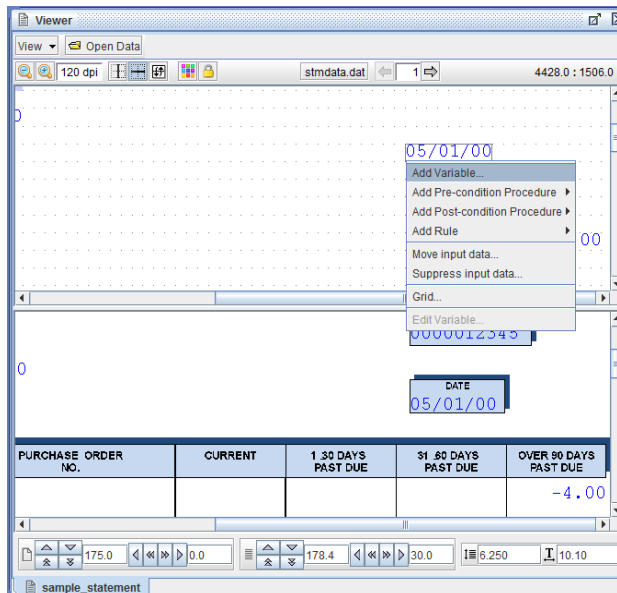
Replace a character or string of characters with another:



How to implement

To replace a character or string of characters with another:

1. From the eFORMz Data Viewer, select the block of characters you would like to do a search and replace on. Once the characters have been selected, *right click* using your mouse and select *Add Variable*.



- The *Variable* dialog box will display. Enter a new variable name and click *OK*.

Variable dialog box showing configuration for a new variable named "DATE".

Name: DATE

Horizontal position: 4419.8 Vertical position: 1396.8

of characters: 8 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

Buttons: OK, Cancel

- From the Project window select the newly created variable, *right click*, and select *Add Function > Replace*.
- The *Replace Text* dialog box will display. From the *Replace all occurrences of > Constant* field enter the character(s) you would like to replace.

From the *with > Constant* field enter the character you would like the above character(s) to be replaced with.

Replace dialog box showing configuration for replacing text.

Replace all occurrences of:

Constant Variable

/

with:

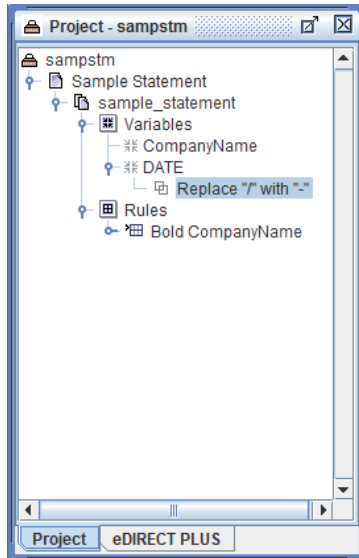
Constant Variable

-

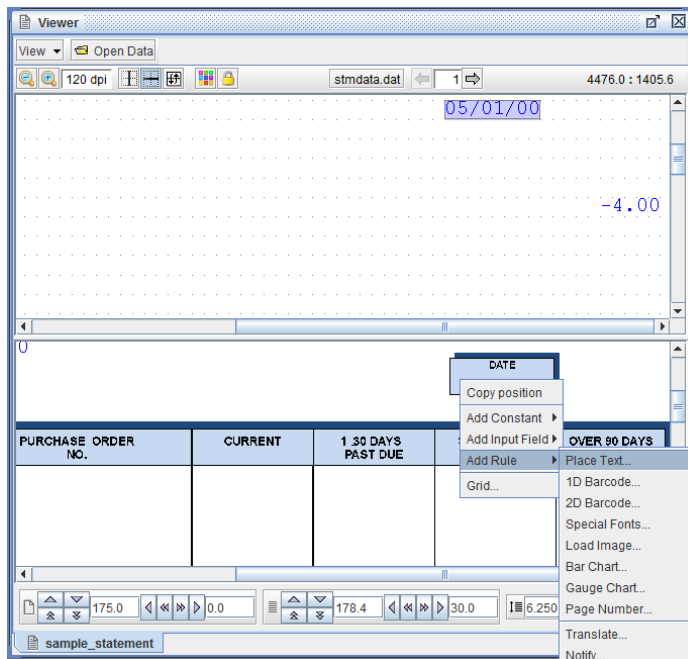
Buttons: OK, Cancel

Click *OK*.

- The *Replace* function will display in the Current Project window:



- From the eFORMz Viewer, Form and Data Viewer, *right click* in the area you would like your new string of data to appear. Select *Add Rule > Place Text*.



7. The *Rule Properties* dialog box will display. Enter a new rule name and select the newly created variable from the *Use variable* field.

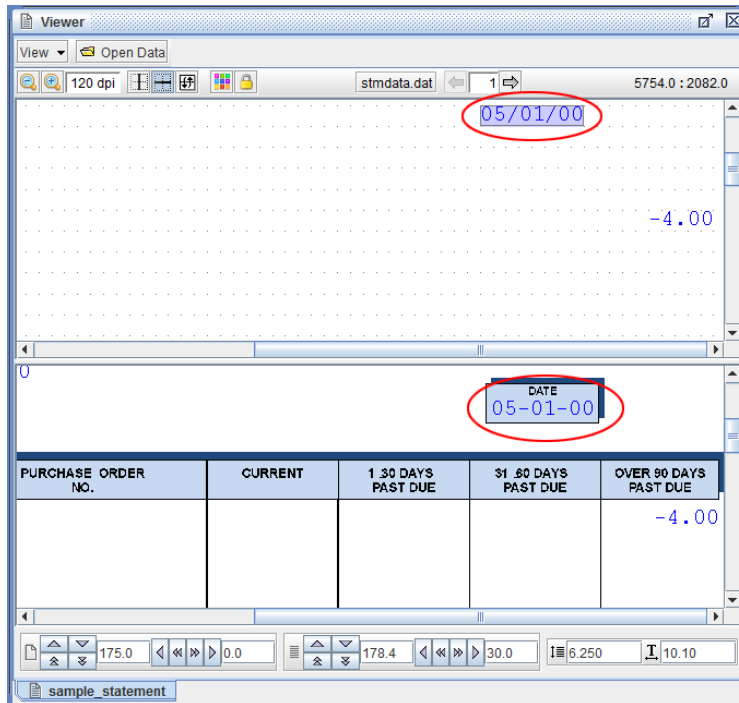
The screenshot shows the 'Rule Properties' dialog box. The 'Name' field is filled with 'PlaceDate'. The 'Use variable' dropdown menu is set to 'DATE'. There is a checked checkbox for 'Execute on all copies'. At the bottom, there are three buttons: 'Edit condition', 'OK', and 'Cancel'.

Once complete, click *OK*.

8. The *Place Text Action* dialog box displays. Make the necessary changes and click *OK*.

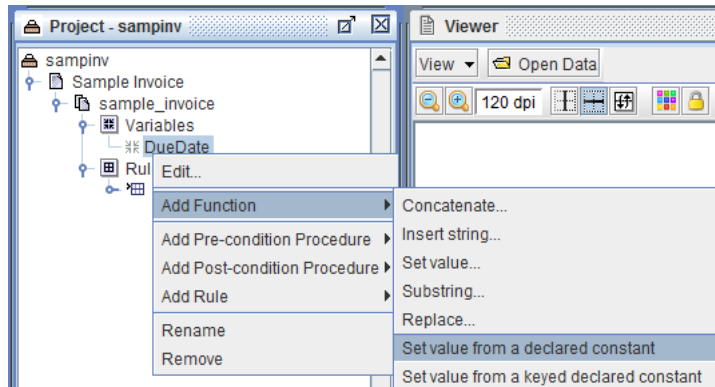
The screenshot shows the 'Place Text Action' dialog box. In the 'Position' section, 'Horizontal position' is 2904.0 and 'Vertical position' is 769.6. The 'Text Color' is black. The 'Horizontal Alignment' tab is selected, showing a 'Rotation' of 0 and radio buttons for 'None', 'Right', 'Left', and 'Center'. The 'Width' field is 0.0. The 'Wordwrap' section has 'Enable wordwrap' checked, with 'Line Width' at 0.0 and 'Line Spacing*' at 0.0. There is also a 'Suppress blank lines' checkbox. The 'Repeat Interval Spacing*' field is 0.0, with a note '*0=Use Form's lines per inch' and a 'Conditional vertical increment' checkbox. At the bottom, there are three buttons: 'Change font', 'OK', and 'Cancel'.

- The new rule action will display in the Current Project window and in the eFORMz Viewer, Form and Data Viewer.



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>
```

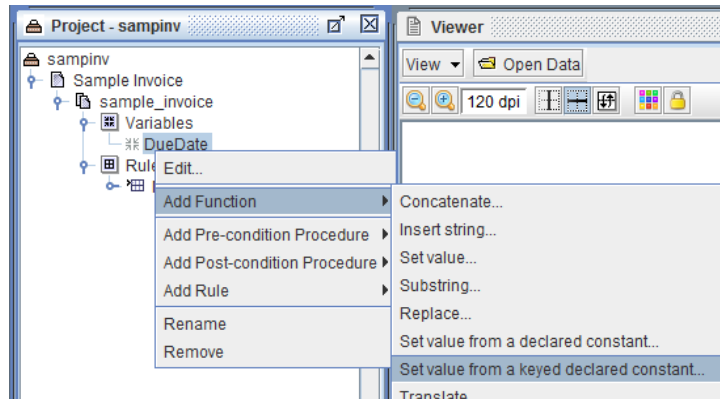
If this Function is used in a number of Projects to refer to the same Declared Constant, when the Declared Constant must change, only the eFORMzCfg_User.xml file needs to be modified, not each Project.

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

Cross-Reference: For a tutorial on using the *Set Value from a Declared Constant* Function, see the Language Substitution part of the *Document Template Mini-Manual*.

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>
```

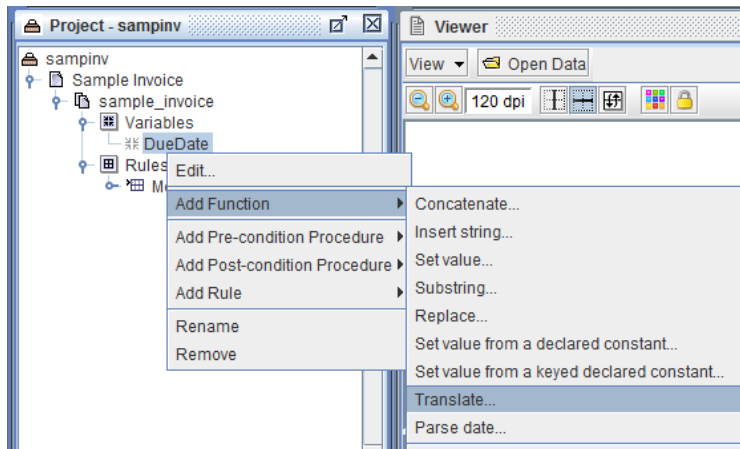
If this Function is used in a number of Projects to refer to the same Keyed Declared Constant, when the Keyed Declared Constant must change, only the eFORMzCfg_User.xml file needs to be modified, not each Project.

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

Cross-Reference: For a tutorial on using the *Set Value from a Keyed Declared Constant* Function, see the Language Substitution part of the *Document Template Mini-Manual*.

Translate

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



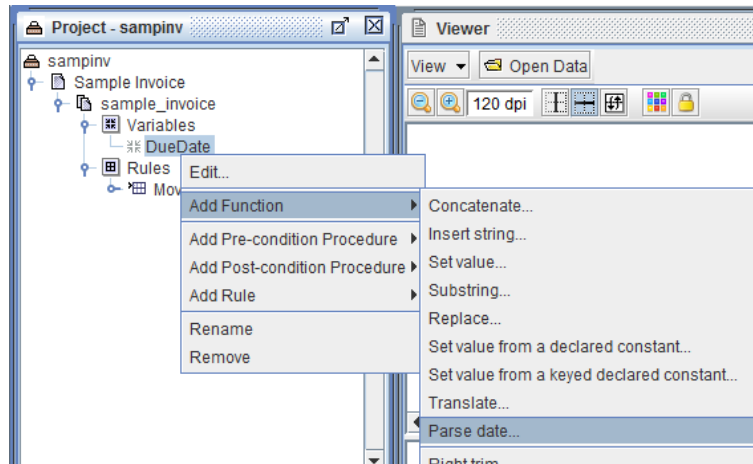
The form of a declaration is:

```
<Dictionary Name="GE">
  <Entry Key="Order Number">
    <![CDATA[German Order Number]]>
  </Entry>
</Dictionary>
```

Cross-Reference: For a tutorial on using the Translate Function, see the *Translate Mini-Manual*.

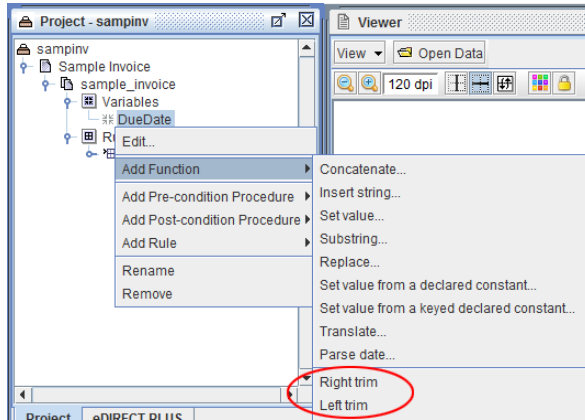
Parse Date

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



Right and Left Trim

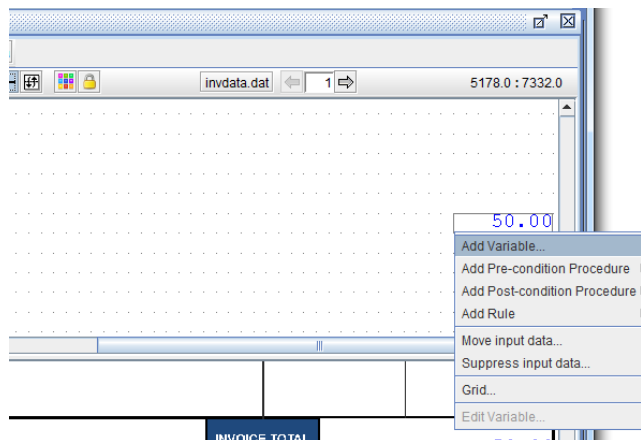
Trim extra blank spaces from the right or left of a Variable using the Right and Left Trim Functions.



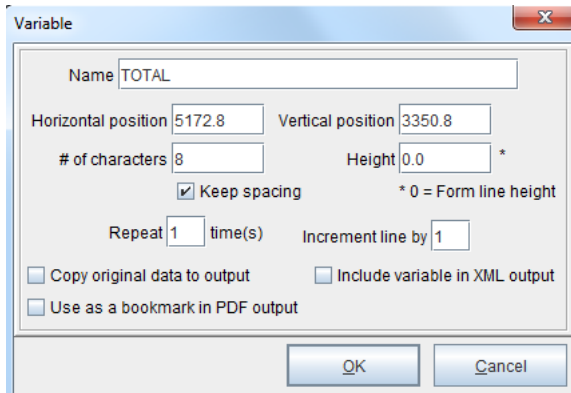
How to implement

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

1. From the eFORMz Data Viewer, select the data you would like to apply a trim format to.



- Once the string of characters has been selected, using your mouse, *right click* and select *Add Variable*.
- The *Variable* dialog box will display. Enter a new variable name and click *OK*.

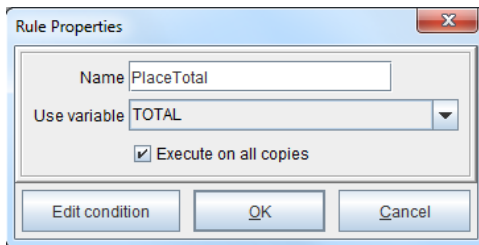


The Variable dialog box is shown with the following settings:

- Name: TOTAL
- Horizontal position: 5172.8
- Vertical position: 3350.8
- # of characters: 8
- 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

Buttons: OK, Cancel

- The new variable will appear in the Project window. Using your mouse, *right click* the variable and select *Add Function > Left Trim* (or *Right Trim*).
- Select the newly created variable from the Project window. *Right click* and select *Add Rule > Place Text*.
- The *Rule Properties* dialog box displays. Enter a new rule name and click *OK*.

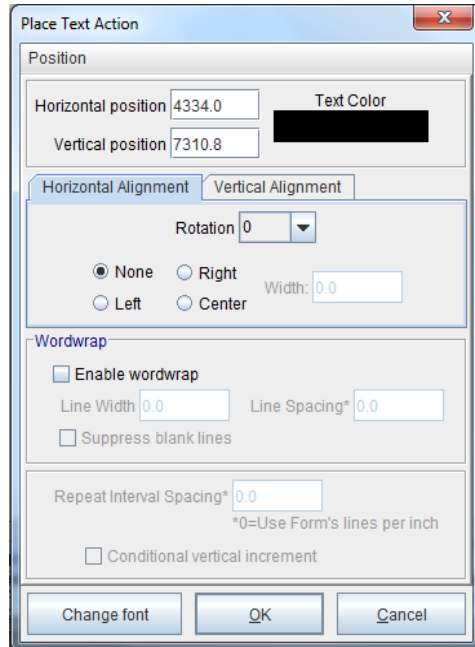


The Rule Properties dialog box is shown with the following settings:

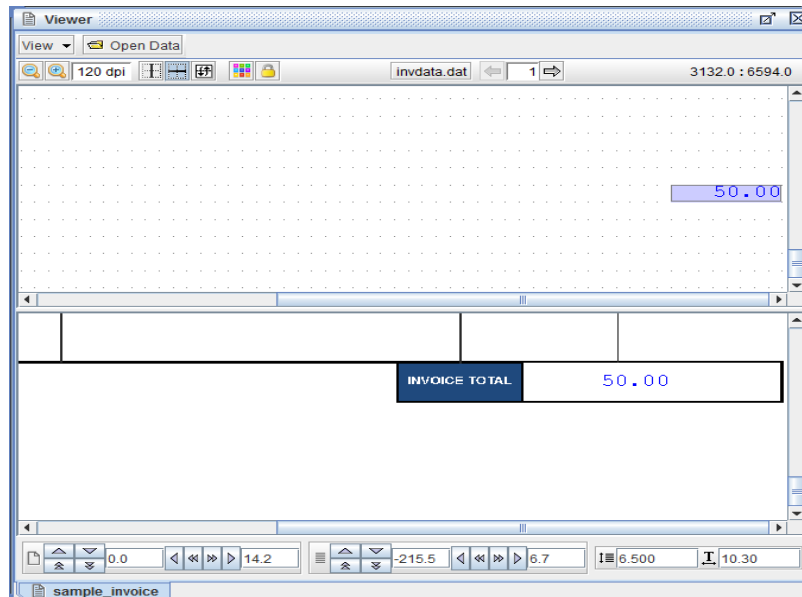
- Name: PlaceTotal
- Use variable: TOTAL
- Execute on all copies

Buttons: Edit condition, OK, Cancel

7. Without changing the horizontal and vertical positions, click *OK*.



8. The string adjustment will display in the eFORMz Viewer Form Viewer.



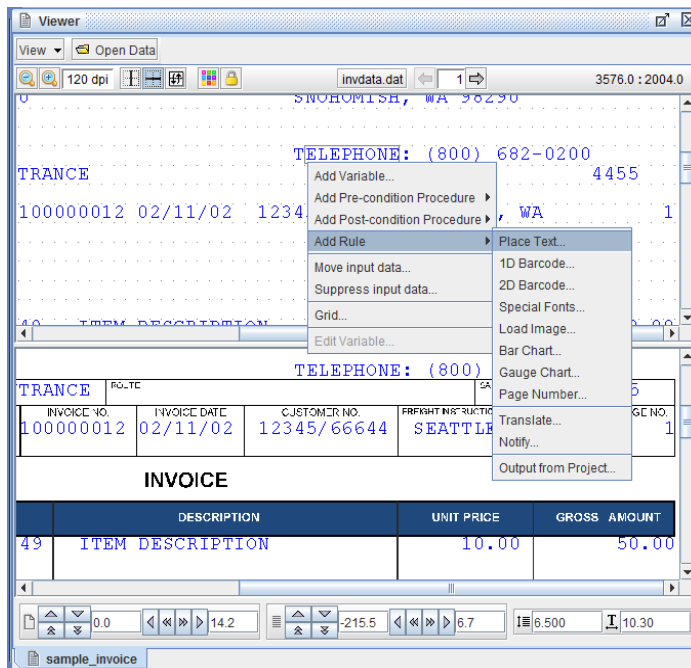
Lowercase and Uppercase

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

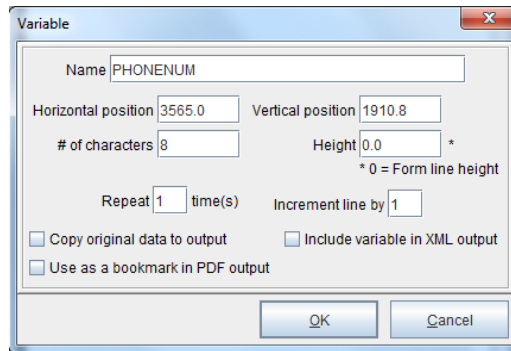
How to implement

To implement a lowercase or uppercase function to a variable:

1. From the eFORMz Data Viewer, select the range of data you would like to transform. Using your mouse *right click* and select *Add Rule > Place Text*.



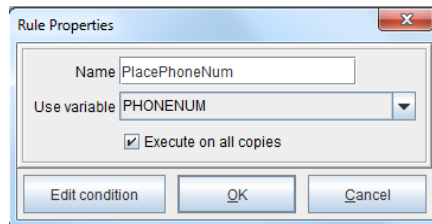
- The *Variable* dialog box will display. Enter a new variable name and click *OK*.



The Variable dialog box is shown with the following settings:

- Name: PHONENUM
- Horizontal position: 3565.0
- Vertical position: 1910.8
- # of characters: 8
- Height: 0.0 * (where * 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

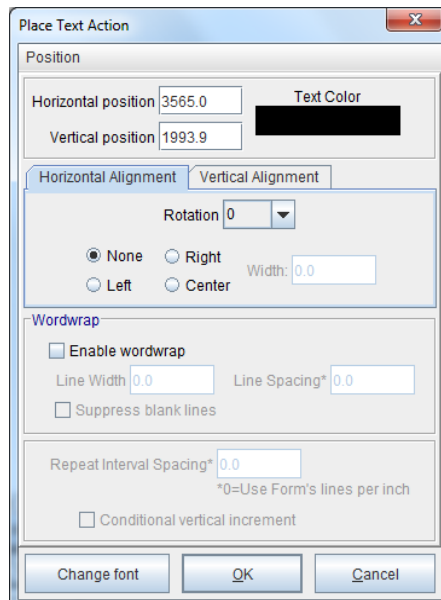
- From the Rule Properties dialog box enter a new rule name and click *OK*.



The Rule Properties dialog box is shown with the following settings:

- Name: PlacePhoneNum
- Use variable: PHONENUM
- Execute on all copies

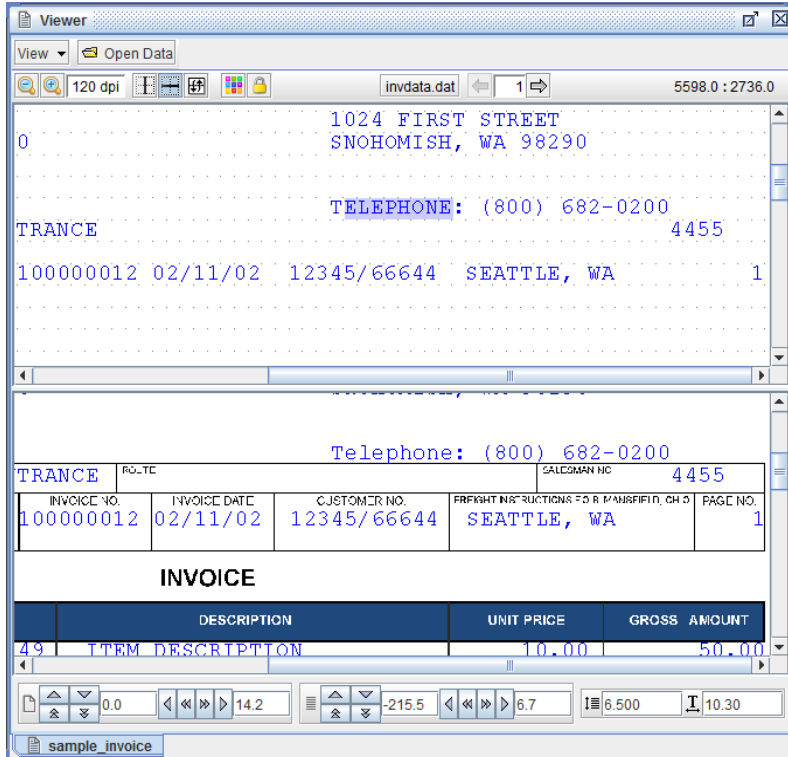
- From the *Place Text Action* dialog box, keep the existing Horizontal and Vertical position and click *OK*.



The Place Text Action dialog box is shown with the following settings:

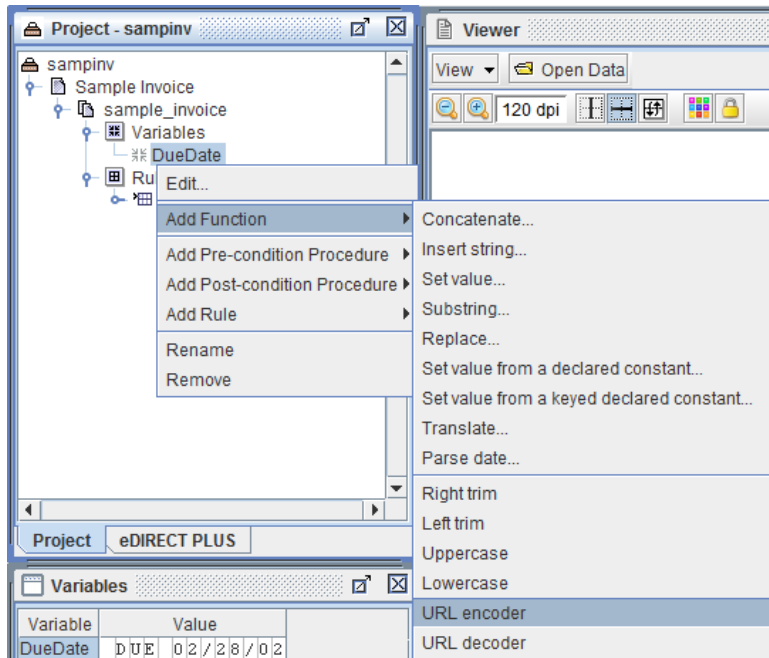
- Position:
 - Horizontal position: 3565.0
 - Vertical position: 1993.9
 - Text Color: [Black]
- Horizontal Alignment: [None]
- Vertical Alignment: [None]
- Rotation: 0
- Width: 0.0
- Wordwrap:
 - Enable wordwrap
 - Line Width: 0.0
 - Line Spacing*: 0.0
 - Suppress blank lines
- Repeat Interval Spacing*: 0.0 (where *0=Use Form's lines per inch)
- Conditional vertical increment

5. From the Project window, the new variable will display. Using your mouse *right click* the variable name and select *Add Function > Lowercase* (or *Uppercase*).
6. The Uppercase (or Lowercase) function will be added to the Current Project window. From the eFORMz Viewer, Form and Data Viewer, the function change will display.



URL Encoder

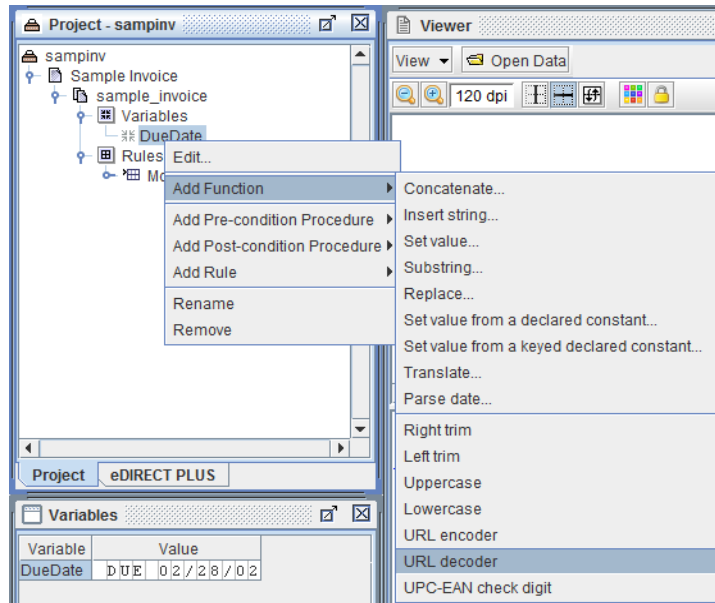
URL encoding converts the characters of a URL into a format that can be transmitted over the Internet. This is used in conjunction with the *Call a Web Service Procedure*:



Cross-Reference: For a tutorial on using the *URL Encoder* Function, see the *UPC-EAN Check Digit* part of the *Barcodes Mini-Manual*.

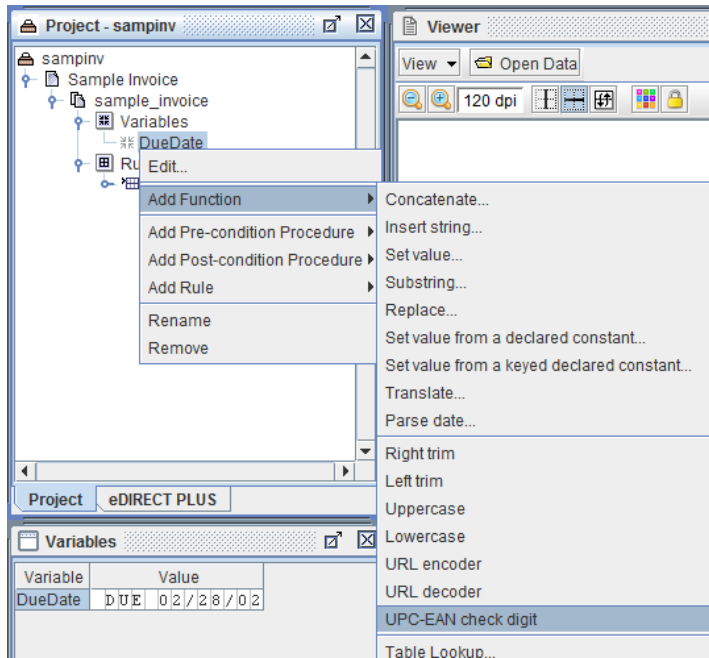
URL Decoder

URL Decoder decodes a string that has been URL-encoded. This is 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:



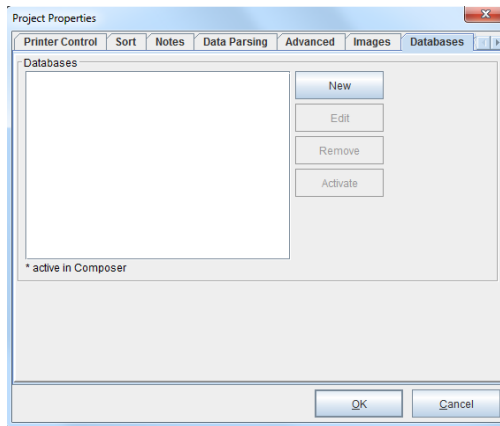
Cross-Reference: For a tutorial on using the *UPC-EAN Check Digit* Function, see the *UPC-EAN Check Digit* part of the *Barcodes Mini-Manual*.

Table Lookup

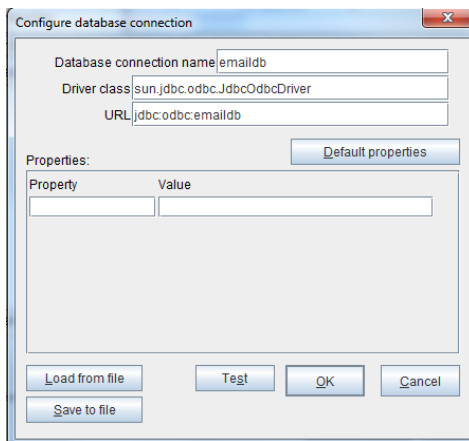
How to implement

To implement a database table lookup within the eFORMz Composer:

1. From the *Project Properties > Database* tab add a new database reference by selecting *New*.

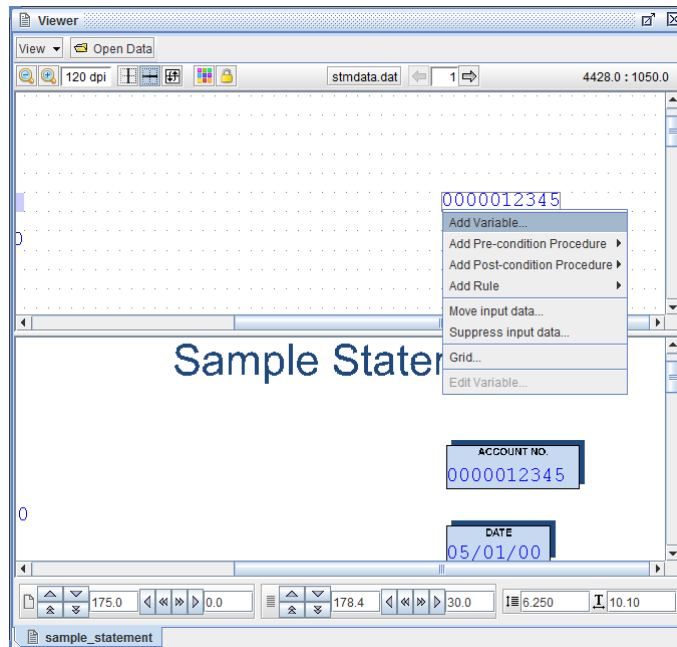


2. The *Configure Database Connection* dialog box displays. Enter the *database name*, *driver class*, and *url*.



NOTE: For further detailed information on supported url and driver classes, see *Appendix B*.

- Once the database has been configured select *Test* to confirm the connection. Once complete, click *OK*.
- The database name will display on the *Project Properties > Database* tab. Select *Activate* so that the information from the database becomes “real-time” data in eFORMz. Once complete, click *OK*.
- From the eFORMz Data Viewer, select the database key (for example, account number) that you would like to do a database lookup on. *Right click* and select *Add Variable*.



6. The Variable dialog box will display. Enter a new Variable name and click *OK*.

Variable dialog box showing configuration for a new variable named ACCTNUM. The dialog includes fields for Name, Horizontal position (4419.8), Vertical position (936.0), # of characters (10), and Height (0.0). It also features a checked 'Keep spacing' checkbox, Repeat (1) time(s), and Increment line by (1). Three checkboxes are present: 'Copy original data to output', 'Include variable in XML output', and 'Use as a bookmark in PDF output'. The OK and Cancel buttons are at the bottom.

7. Once the new variable displays in the Project window, *right click* the new variable name and select *Add Function > Table Lookup*.
8. The Table Lookup dialog box will display. From the Database drop down field select the database you would like to use.

Once a database has been selected the Table, Key, and Column fields will become available.

Table Lookup dialog box showing configuration for a table lookup. The Database is 'emaildb*', Table is 'EmailAddresses', Key is 'AccountNumber', and Column is 'EmailAddress'. The OK and Cancel buttons are at the bottom.

9. Once the selections have been made, click *OK*.
10. The variable will now display the Table Lookup function. A rule can be added to the variable with the database lookup by *right clicking* the variable and selecting *Add Rule*.

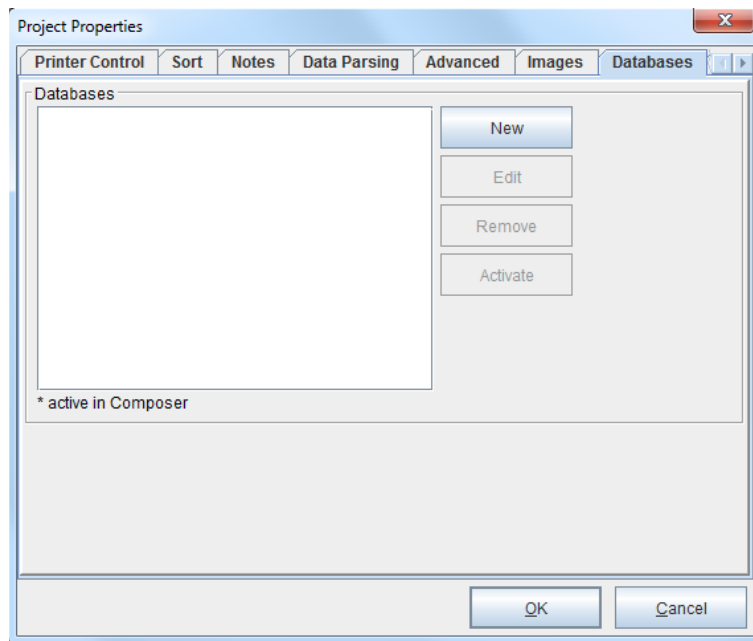
SQL Lookup

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.

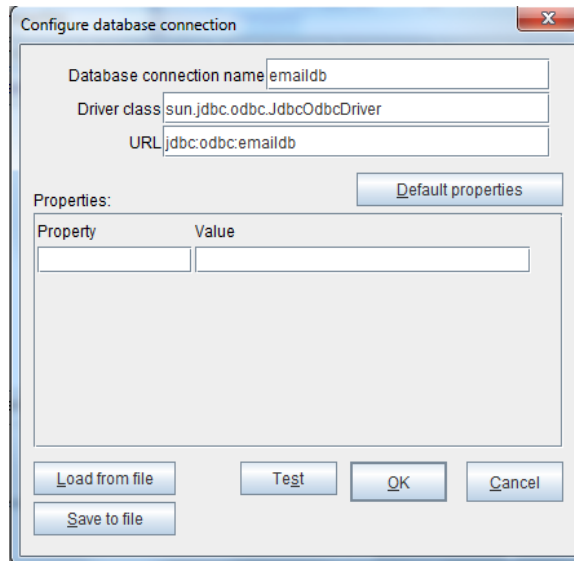
How to implement

To implement an SQL Lookup:

1. If you haven't done so already, from the *Project Properties > Database* tab add a new database reference by selecting *New*.



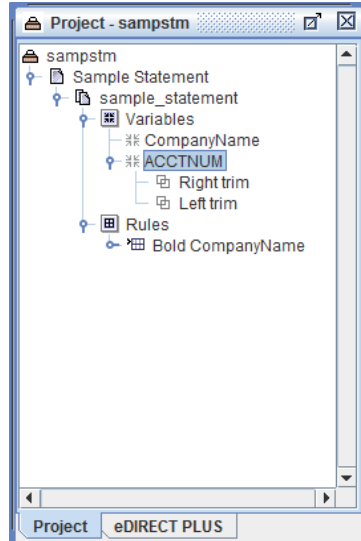
- The *Configure Database Connection* dialog box displays. Enter the *database name*, *driver class*, and *url*.



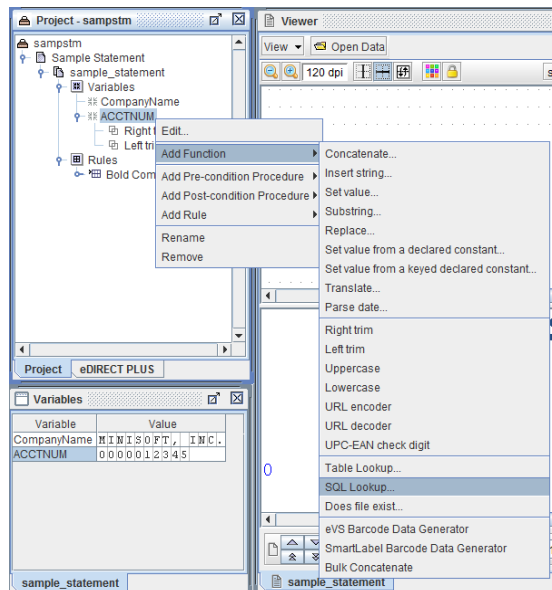
NOTE: For further detailed information on supported url and driver classes, see *Appendix B*.

- Once the database has been configured select *Test* to confirm the connection. Once complete, click *OK*.
- The database name will display on the *Project Properties > Database* tab. Select *Activate* so that the information from the database becomes "real-time" data. Once complete, click *OK*.
- Create a variable containing the value you want to find in your database.
- Add the functions *Right Trim* and *Left Trim* to the variable. This removes any possible leading and trailing spaces that would cause your lookup to fail.

TIP: To confirm the value, view the results in the Variables Viewer window.



7. Create a second variable to be populated by the first item in your SELECT statement. If more than one column of data will be returned create those variables now. From the variables placeholder right click and select *Variables > By Position*.
8. Give your new variable a name and then select *OK*.
9. Select your newly created variable, *right-click*, and select *Function > SQL Lookup*.



10. The SQL Lookup dialog box appears. In the database dropdown box, select the database you want to access.
11. Enter the SQL Statement you want executed. Use "?" as replacement characters for parameters you want to pass to the statement.
12. Add parameters in the order you want the "?" replaced in your statement.
13. If you are returning more than one column of data, add the additional columns, selecting the variable you want the returned value stored in the 'Additional columns assigned to' field.

NOTE: For complex queries write a stored procedure and execute it. The stored procedure must return a result set, not just a value.

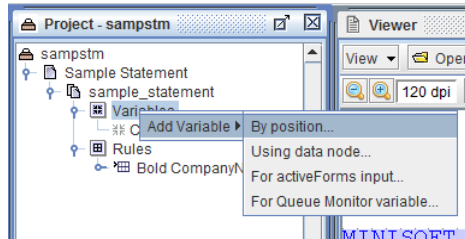
14. Once complete select *OK*.

Does File Exist

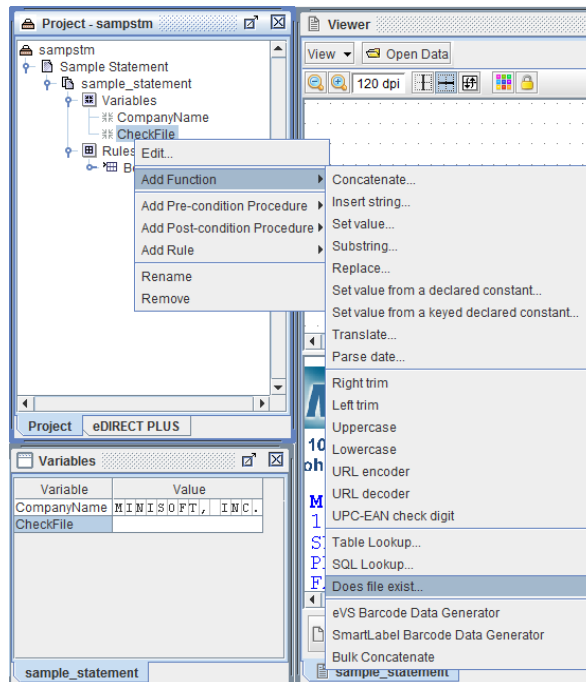
Add this function to a variable to determine whether a given file exists or does not exist.

How to implement

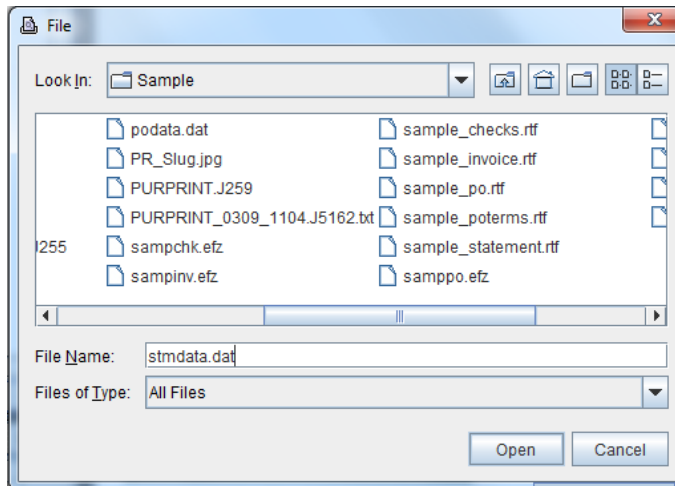
1. To verify if a specific file exists, create a variable *By position*.



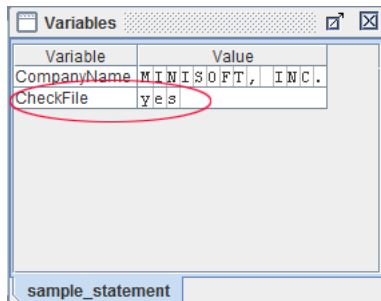
2. Assign the variable a name and select *OK*.
3. *Right click* the variable and select *Add Function > Does file exist...*



4. Type in the name of the file.



5. The answer will display in the Variable Window.



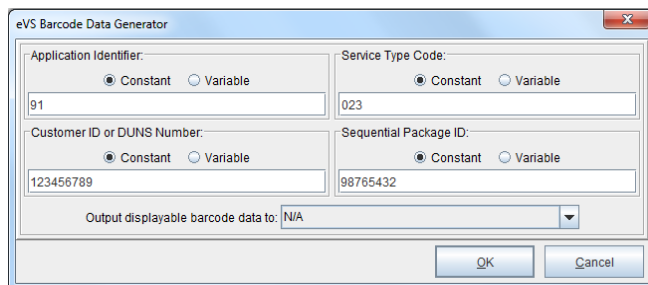
eVS Barcode Data Generator

The Electronic Verification System (eVS), also known 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.

eFORMz provides the ability to generate this barcode using either hard-coded 'constant' values and/or referencing data within the print file using variable assignments.

In the example below, the following values are assigned accordingly:

- ◆ Application Identifier
- ◆ Service Type Code
- ◆ Customer ID or DUNS number
- ◆ Sequential Package ID



The screenshot shows a dialog box titled "eVS Barcode Data Generator". It contains four input fields, each with a "Constant" (selected) and "Variable" radio button. The fields are: Application Identifier (91), Service Type Code (023), Customer ID or DUNS Number (123456789), and Sequential Package ID (98765432). At the bottom, there is a dropdown menu for "Output displayable barcode data to:" set to "N/A", and "OK" and "Cancel" buttons.

Application Identifier: The Application Identifier (AI) is a 2-digit code used within UCC/EAN Code 128 that identifies the barcode as a postal barcode. The AI values for Confirmation Services are 91 and 420, and appear as part of the human-readable printed data. If concatenation is used to include the postal routing code (destination ZIP Code), then both the AI of 91 and 420 must appear as part of the human-readable print for the routing barcode component. Neither Application Identifier 91 nor 420 may appear in parentheses

Service Type Code: Service Type Codes (STCs) are three-digit designators included in the Confirmation Services barcode to identify the class of mail and/or type of Extra Services included on that specific mail item. See Table 1 in Appendix G for the Service Type Codes.

Customer ID/Dun & Bradstreet Number (DUNS): A customer ID number provided by the Postal Service or a DUNS number must be used in the barcode to identify the mailer or the mailer's client. A DUNS number uniquely identifies businesses at specific geographical locations. Mailers or their clients who need to obtain their DUNS may request it by contacting Dun & Bradstreet at (800) 333-0505 or via the Internet at <http://www.dnb.com> . Mailers with special ID requirements can contact the eVS program office via eVS@usps.gov.

Sequential Package ID: Customers assign a 7-digit Sequential Package Identifier. This string of numbers may be a variable length field of 2 to 7 digits using the UCC/EAN Code 128 symbology.

Check Digit – MOD 10: The MOD 10 check digit validates the barcode authenticity. This value is automatically calculated using the barcode generator and is the last (single digit) value of the barcode.

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.

Transporter Code: This two-digit code indicates the front-end carrier and the service used to induct the package into the Newgistics return network. It occupies positions 2 and 3 within the SmartLabel barcode.

<i>Code</i>	<i>Description</i>
21	USPS First Class
25	USPS Return Delivery Unit

Service Code: This two-digit code the Newgistics service requested and the request mechanism. It occupies positions 4 and 5 of the SmartLabel barcode.

<i>Code</i>	<i>Description</i>
00	SmartLabel (in box generated by client)
01	Direct label (pre-printed)
10	CSR SmartLabel (generated by Shipment Manager)
20	Consumer SmartLabel (generated by Shipment Manager)

Origin ZIP: This is the 5-digit postal ZIP of the point of origin for the return.

Disposition Rule Set Name: This is the last two characters of the merchant specific Disposition Rule Set name used to determine the sort (disposition) of the package. The set name occupies positions 11-12.

Newgistics Merchant ID: Four character identifier assigned by Newgistics. This identifier may be alphanumeric and occupies position 13-16.

Client Service Flags: These flags indicate order (returns vs exchange) or charge status. They occupy either position 17.

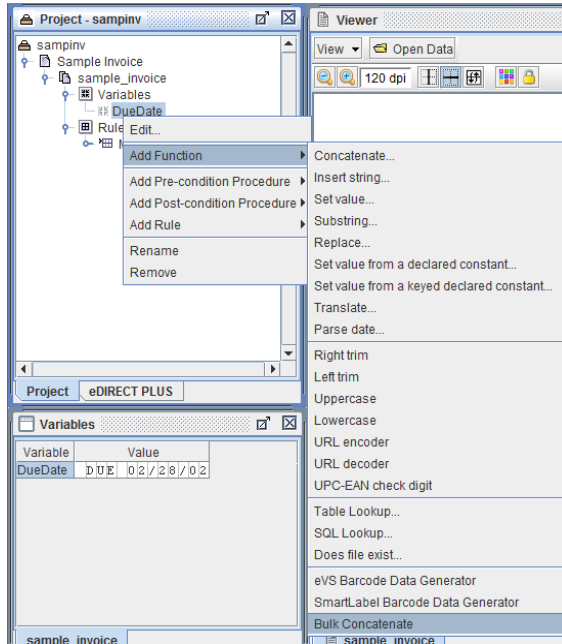
<i>Code</i>	<i>Description</i>
0	Standard
1	Complimentary
2	Exchange

Client Data Version: This is a version indicator for client-specified data. During your initial SmartLabel implementation, this value is set to 1. In subsequent revisions to the SmartLabel barcode, the field is incremented. This occupies position 18.

Client Data: This is serialized client data structure. This is composed of the mandatory Return Identifier fields and any other fields identified by your version. The length of this field will be fixed for any particular client version of the barcode. It occupies either position 19-47.

Bulk Concatenate

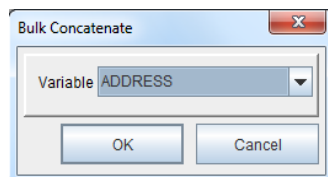
Bulk concatenation refers to the ability to search large sections of text or to display specified text in a string format.



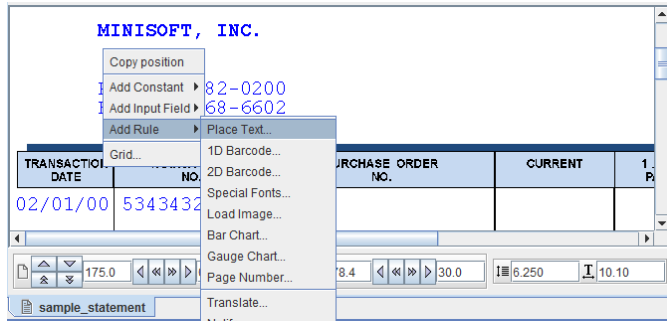
How to implement

To implement a Bulk Concatenate function:

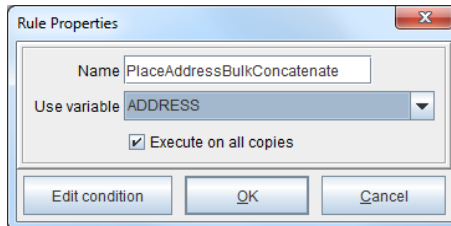
1. From the Current Project window choose a variable, *right click*, and select *Add Function > Bulk Concatenate*.
2. The *Bulk Concatenate* dialog box displays. Select a variable, or choose from the range of System Variables.



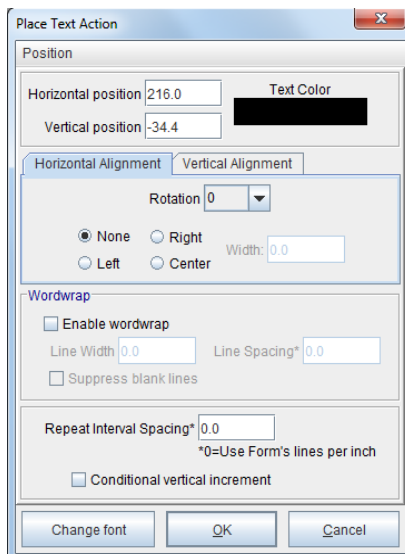
3. The chosen variable will now display the *Bulk Concatenate* function.
4. From the eFORMz Form Viewer, *right click* and select *Add Rule > Place Text*.



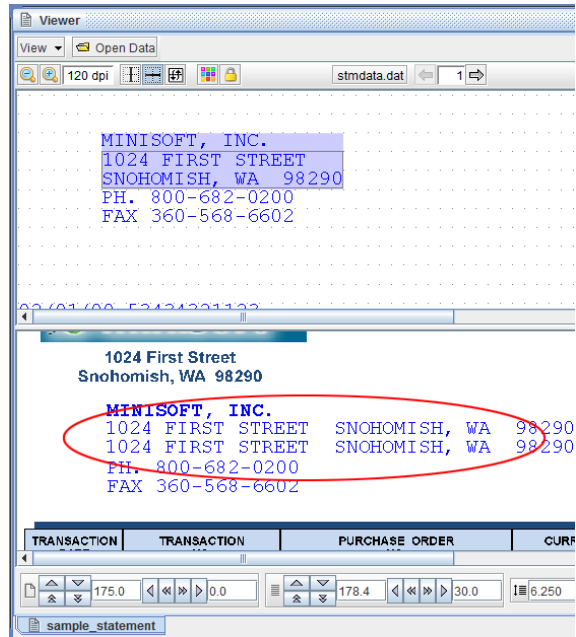
5. From the Rule Properties dialog box enter a new rule name and click *OK*.



6. From the *Place Text Action* dialog box, keep the existing Horizontal and Vertical position and click *OK*.



7. The variable is displayed in a string format in the Form and Data Viewer.



Procedures

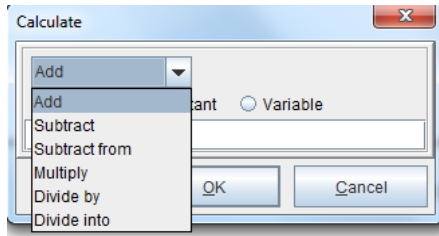
eFORMz supports the following Procedures:

- ◆ 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
- ◆ Call a Web Service
- ◆ Call a Dynamic Service
- ◆ File List
- ◆ Printer List

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.



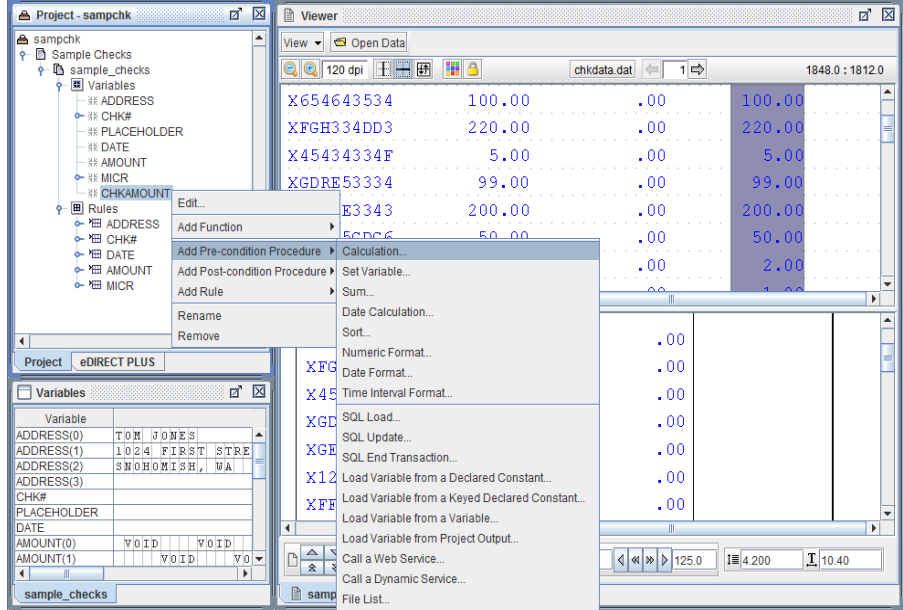
Actions include:

- ◆ Add
- ◆ Subtract
- ◆ Subtract From
- ◆ Multiply
- ◆ Divide by
- ◆ Divide into

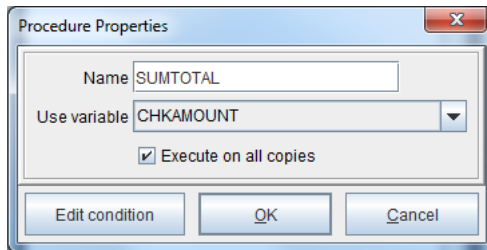
How to implement

The following example will demonstrate the use of the *Add* and *Sum* actions with math calculations. To create a math calculation:

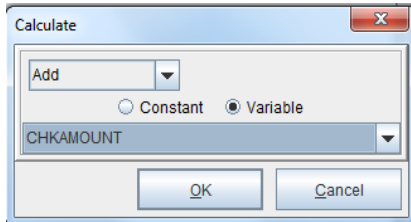
1. Create a variable that encompasses the value(s) you would like to calculate.
2. From the Current Project window *right click* the form you would like to add the Procedure to and select *Add Procedure > Calculation*.



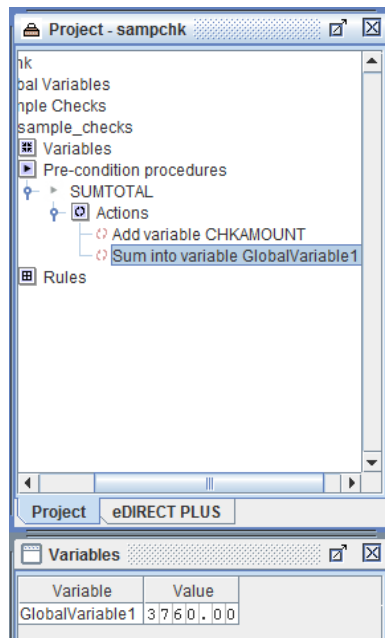
3. The Procedure Properties dialog box will display. Enter a procedure name and then select the variable you created earlier. Select **OK**.



4. The Calculation dialog box displays. Select an action from the drop down box. Options available are *add*, *subtract*, *subtract from*, *multiply*, *divide by*, *divide into*.



- To sum the calculation, create a Global Variable by *right clicking* the project name and selecting *Add Global Variable*. *Right click* the calculation procedure (SUMTOTAL) and select *Add Action > Sum*. From the Variable drop-down menu, select the Global Variable created earlier (GlobalVariable1). Click *OK*.



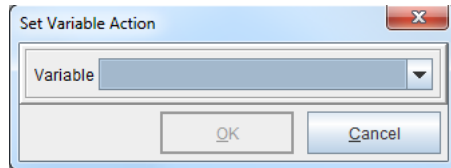
- To place the calculation, *right click* the location in the eFORMz Form Viewer where it should be placed and select *Add Rule > Place Text*. From the Use variable drop-down menu, select the Global Variable (GlobalVariable1). Click *OK*. The value will display:

	.00
TOTAL AMOUNT PAID	3760.00

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.

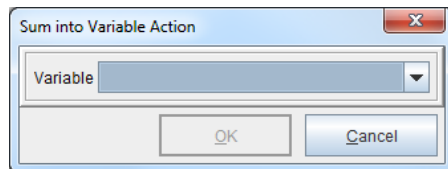
To set the value of a variable from a procedure, use *Set Variable*.



An example of this might be taking the results of a *Calculation*, and using the *Set Variable* Procedure, placing the total into another variable.

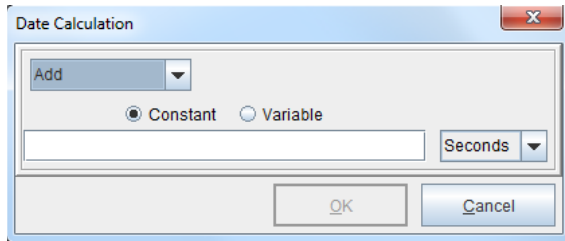
Sum

Sum a column of numbers using the following method: See step #5 from the Calculation tutorial.



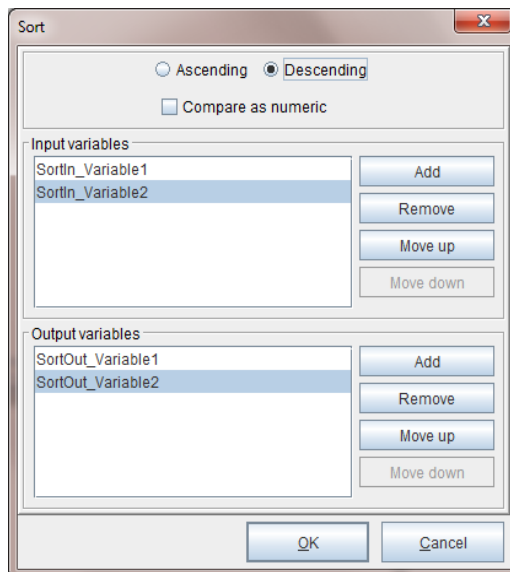
Date Calculation

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



Sort

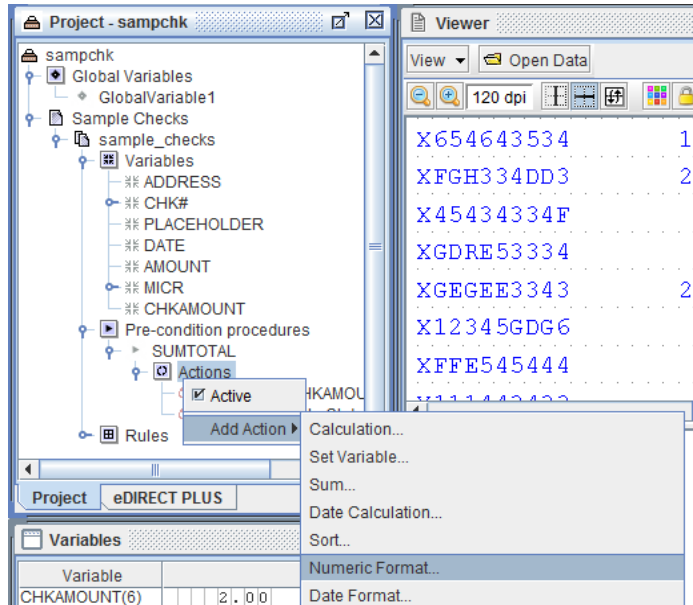
Multiple sorts, in either Ascending or Descending order, can be performed on Variable input values. The order is important as the values in the example below for 'SortIn_Variable1' will be sorted and placed into 'SortOut_Variable1'.



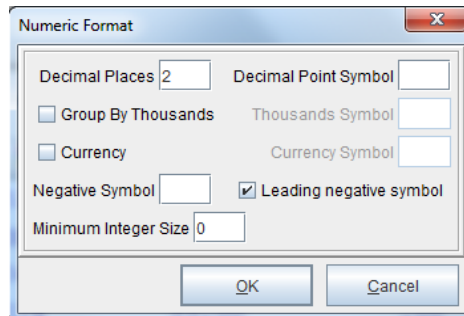
Numeric Format

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

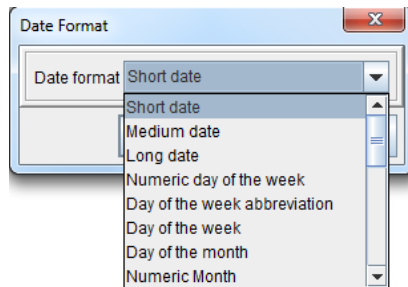
Default symbol (-). Sets the numeric value to negative by adding a negative symbol. To set the negative symbol at start of value select *Leading negative symbol*.

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.

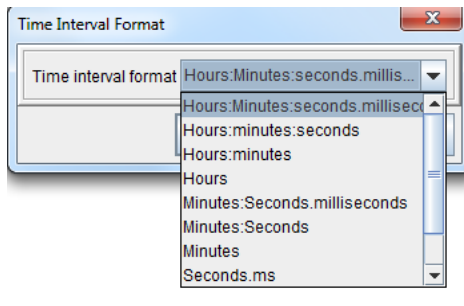


Format options include:

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.

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.

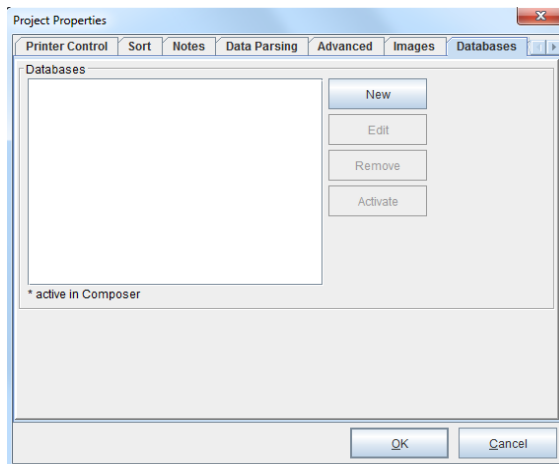
SQL Update

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

How to implement

To implement a database SQL update within the eFORMz Composer:

1. From the *Project Properties > Database* tab add a new database reference by selecting *New*.



- The *Configure Database Connection* dialog box will display. Enter the *database name*, *driver class*, and *url*.

Configure database connection

Database connection name: emaildb

Driver class: sun.jdbc.odbc.JdbcOdbcDriver

URL: jdbc:odbc:emaildb

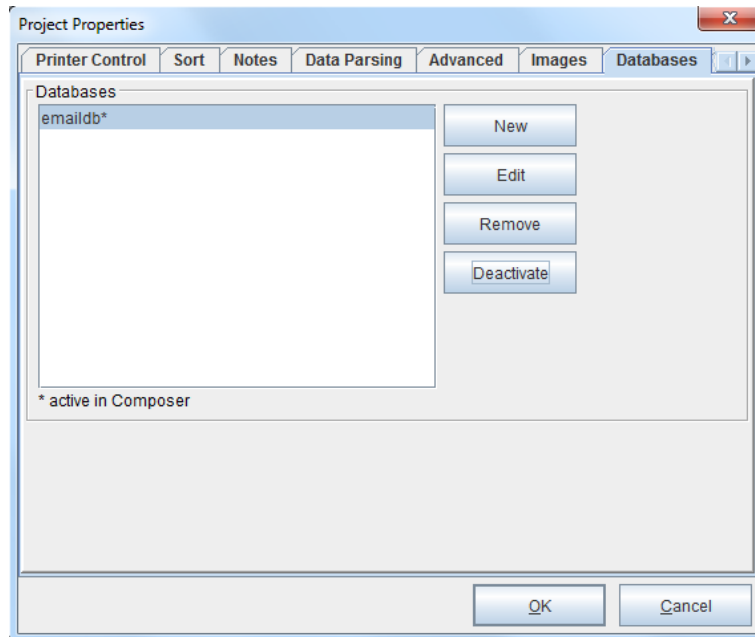
Properties:

Property	Value

NOTE: For further detailed information on supported url and driver classes, see *Appendix B*.

- Once the database has been configured select *Test* to confirm the connection and then click *OK*.

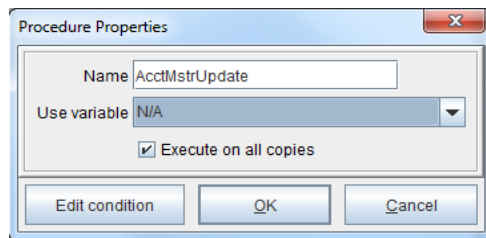
4. The database name will display on the *Project Properties > Database* tab. Select *Activate* so that the information from the database becomes "real-time" data in the eFORMz Viewer, Form and Data Viewer.



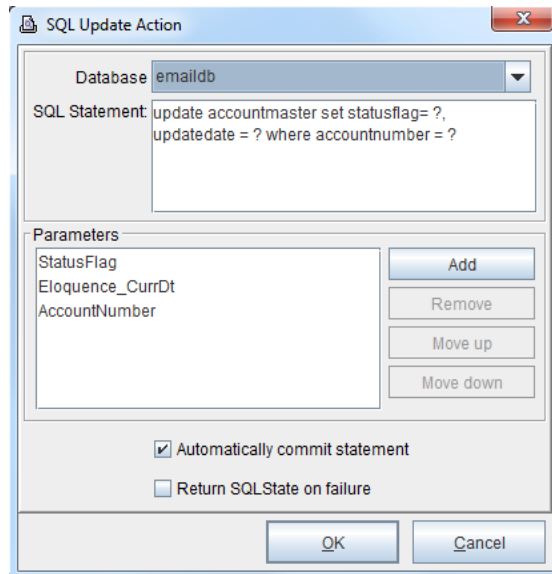
Once complete, click *OK*.

To create the *SQL Update* statement create a new procedure. Note that the new procedure does not need to be attached to a variable:

1. From the Project window *right click* the form and select *Add Procedure > SQL Update*.
2. From the *Procedure Properties* dialog box enter a procedure name and select a variable or N/A for a variable option. Click *OK*.



3. The SQL Update Action dialog box appears:



4. From within the SQL Update dialog box, enter the appropriate SQL statement to either UPDATE, DELETE or INSERT values within your database. In the example above, each question mark (?) is represent by the sequential list of parameters associated with eFORMz variables.

<i>SQL Parameter</i>		<i>eFORMz Variable</i>
statusflag	=	StatusFlg
updatedate	=	Eloquence_CurrDT
accountnumber	=	AccountNumber

New parameter-variable assignments can be made by clicking on the *Add* or *Delete* button. To delete a parameter-variable simply select the variable you would like to remove from the list and click *Remove*. There is also the option to rearrange the order by using the *Move up* or *Move down* button.

NOTE: Special caution is advised when specifying a select statement to update a database. Once the database is defined and information is entered in the statement field, real time updates will occur if a data file is processed. This will reflect in immediate changes to your database. Only persons familiar with database design should be permitted to enter this information into the statement field. Minisoft will not be held responsible for information entered resulting in database changes.

5. Once complete, click *OK*.

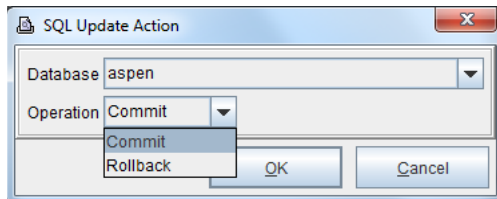
SQL Load

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.

The screenshot shows the 'SQL Load' dialog box. At the top, the 'Database' is set to 'Sample_eFORMz_emailDb'. Under 'SQL Statement', the 'Constant' radio button is selected, and there is an empty text area for the statement. The 'Variable' radio button is unselected, and a dropdown menu shows 'sample_checks variables'. Below this are two sections: 'Parameters' and 'Columns assigned to:'. Each section has a list box and four buttons: 'Add', 'Remove', 'Move up', and 'Move down'. At the bottom, there is a checkbox labeled 'First result column contains row index' which is currently unchecked. The dialog has 'OK' and 'Cancel' buttons at the bottom.

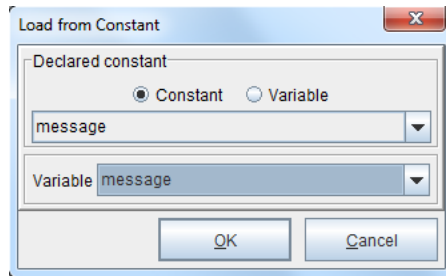
SQL End Transaction

The *SQL EndTransaction* 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. For example:



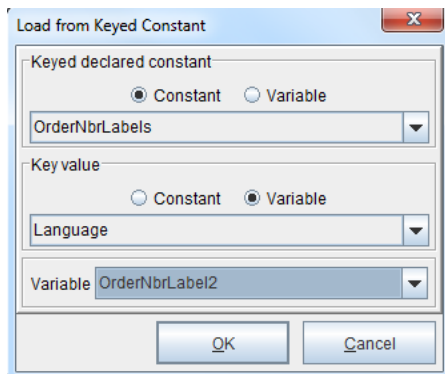
```
<Constant Name="message">
  <![CDATA[Shipping and Delivery]]>
  <![CDATA[Request Order Changes]]>
  <![CDATA>Returns and Replacements]]>
  <![CDATA[Payment and Billing]]>
  <![CDATA[Product/General Questions]]>
  <![CDATA[Site Help]]>
</Constant>
```

The repeat of the variable will be set to 6.

Cross-Reference: For a detailed example, see the *Language Substitution* Part of the *Document Template Mini-Manual*.

Load Variable from a Keyed Declared Constant

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

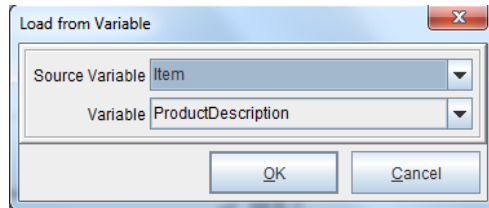


```
<KeyedConstant Name="OrderNbrLabels">
  <Entry Key="EN">
    <![CDATA[Order Number]]>
  </Entry>
  <Entry Key="FR">
    <![CDATA[French Order Nbr]]>
  </Entry>
  <Entry Key="GE">
    <![CDATA[German Order Number]]>
  </Entry>
</KeyedConstant>
```

Cross-Reference: For a detailed example, see the *Language Substitution* Part of the *Document Template Mini-Manual*.

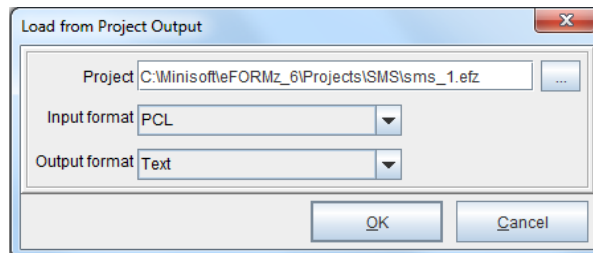
Load Variable from a Variable

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.



Load Variable from Project Output

This procedure is useful for retrieving text or XML output from another project and placing it into a variable.



Call a Web Service

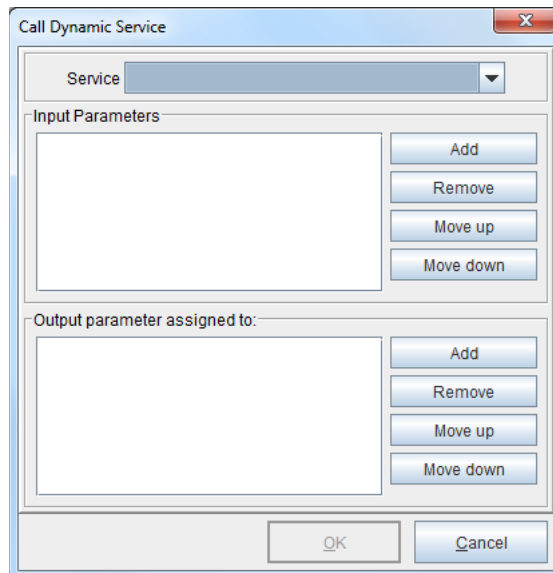
This procedure is used for calling and retrieving data from an 'http' accessible web service. The URL can be a constant string or a variable created earlier in the project. The parameters are submitted with either a GET or POST request. The data can be in any combination of URL Encoded or MIME input 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.

The screenshot shows a dialog box titled "Call a Web Service". At the top, there are radio buttons for "Request verb": GET and POST, with POST selected. Below that, under "URL:", there are radio buttons for "Constant" and "Variable", with "Constant" selected. A text box is present next to the "Constant" radio button. Below the "Variable" radio button, there is a dropdown menu showing "sample_checks variables". Under "Input Data:", there are radio buttons for "URL Encoded" and "MIME", with "URL Encoded" selected. Below this is a section for "Input Parameters" with a list box and buttons for "Add", "Edit", and "Remove". Under "Output Data:", there are radio buttons for "URL Encoded" and "MIME", with "URL Encoded" selected. Below this is a section for "Output Parameters" with a list box and buttons for "Add", "Edit", and "Remove". At the bottom of the dialog are "OK" and "Cancel" buttons.

Cross-Reference: For a tutorial on implementing *Call a Web Service*, see the *Web Services Mini-Manual*.

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.

Document List Action

Archive
 Constant Variable
Archive

Folder
 Constant Variable
CurrentFolder

Qualifier
 Constant Variable
FileMask

Search Operation Files

File information

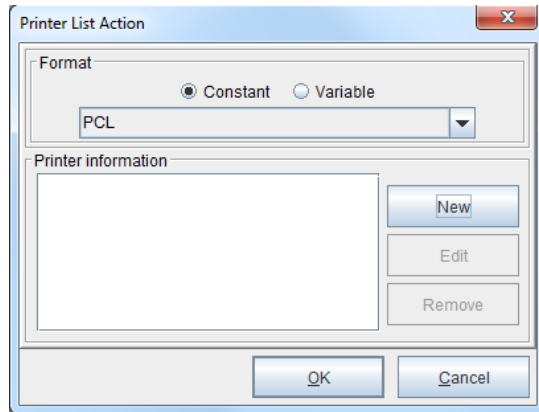
- File name --> DisplayFileName
- Type --> DisplayFileType
- Relative Name --> RelativeFileName

New
Edit
Remove

OK Cancel

Printer List

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



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 *Barcodes Mini-Manual*. For more information on Bar Charts and Gauge Charts, refer to the *Graphical Charting Mini-Manual*.

Place Text Action

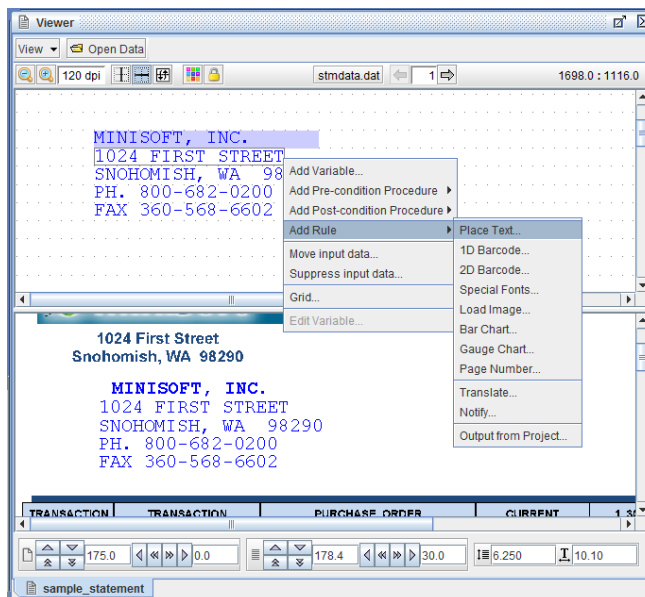
Place Text allows variables, custom or system, to be placed in a specified location on your output. Place Text actions can be created using multiple methods:

- ◆ *Right clicking* a variable from the Project Window and selecting *Add Rule > Place Text*.
- ◆ Direct Reference, which bypasses variables and directly places 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*.

How to implement

The following example shows the fourth method listed above.

1. From the eFORMz Data Viewer, select the data to copy or move (*left click + drag*). *Right click* and select *Add Rule > Place Text*.



- The *Variable* dialog box will display, enter a new variable name and select *Copy original data to output*.

Variable dialog box showing the following settings:

- Name: ADDRESS
- Horizontal position: 499.0
- Vertical position: 1051.2
- # of characters: 17
- Height: 0.0 *
- Keep spacing
- 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

Once complete, click *OK*.

TIP: Selecting *Copy original data to output* produces a copy of the selected variable leaving the original in place on the output window (eFORMz Viewer). Not selecting this option removes the original placement in the output window and places the selected text in the position supplied in the Place Text dialog box.

- From the *Rules Properties* dialog box enter a new rule name and click *OK*.

Rule Properties dialog box showing the following settings:

- Name: copyADDRESS
- Use variable: ADDRESS
- Execute on all copies

4. The Place Text dialog box will display. If a position was selected earlier, select *Position > Paste*. If not, keep the existing horizontal and vertical positions - exact placement can be edited from the eFORMz Viewer later.

TIP: If you would like to change the font style for the copied selection, select *Change Font*. The Font properties dialog box will display.

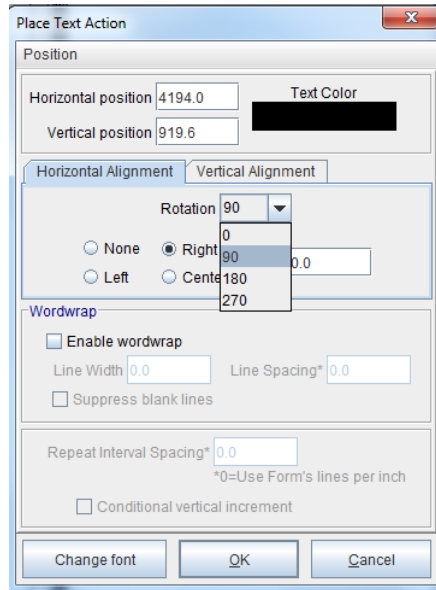
6. Once complete, click *OK* from the *Place Text Action* dialog box.
7. The copied data will now appear in the Form Viewer. To place the copied data in the desired position, using your mouse, drag and drop the data into place in the Form Viewer.

Text Rotation

To rotate the characters used for a Place Text action:

1. From the *Place Text Action* dialog box select the rotation angle from the *Alignment > Rotation* field. 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.

Place Text Action

Position

Horizontal position 3467.3 Text Color [Black]

Vertical position 1433.5

Horizontal Alignment Vertical Alignment

Rotation 0

None Right Width: 0.0

Left Center

Wordwrap

Enable wordwrap

Line Width 1000.0 Line Spacing* 10.0

Suppress blank lines

Repeat Interval Spacing* 0.0

*0=Use Form's lines per inch

Conditional vertical increment

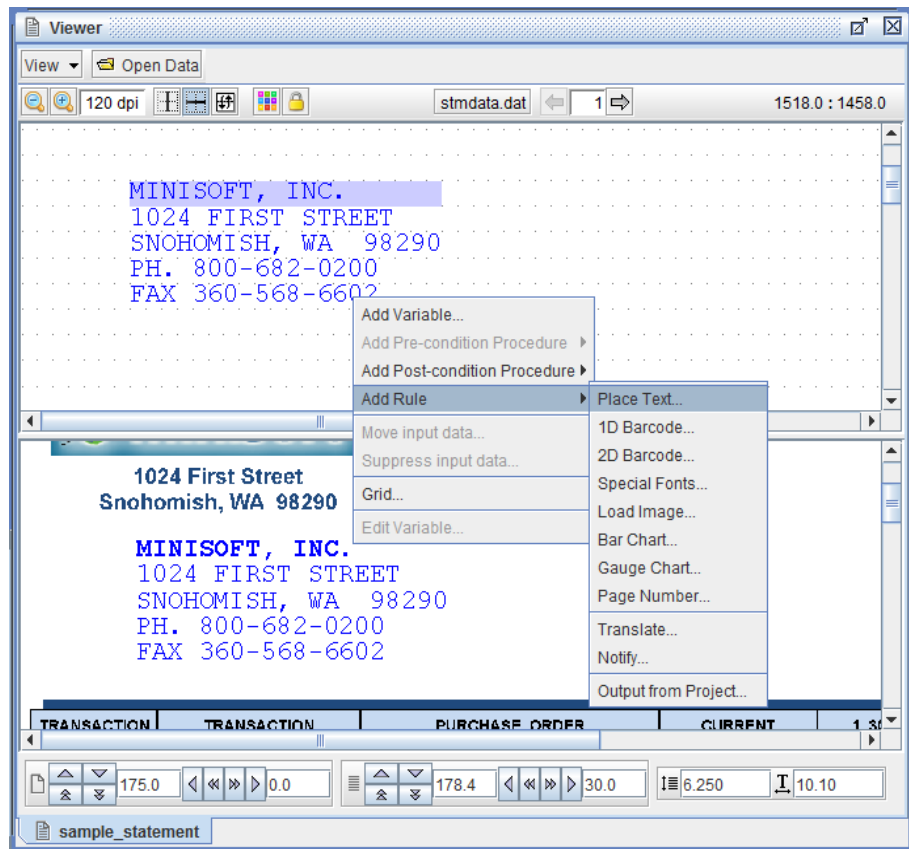
Change font OK Cancel

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. The following is an illustration.

1. From the eFORMz Data Viewer, *right click* the string of characters that are to be placed on the form and select *Add Rule > Place Text*.



- The Rule Properties dialog box will display. Enter a value for the *Name* field and click *OK* to proceed.

Rule Properties

Name: PlaceFAX

Horizontal position: 0.0 Vertical position: 1483.2

Offset: 499.0 Height: 93.4 *

Rotation: 0 * 0 = Form line height

Repeat: 1 time(s) Increment line by: 1

Execute on all copies

Buttons: Edit condition, OK, Cancel

- The Place Text Action dialog box will display. Click *OK* to continue.

Place Text Action

Position

Horizontal position: 499.0 Text Color: [Black]

Vertical position: 1483.2

Horizontal Alignment Vertical Alignment

Rotation: 0

None Right Width: 0.0

Left Center

Wordwrap

Enable wordwrap

Line Width: 0.0 Line Spacing*: 0.0

Suppress blank lines

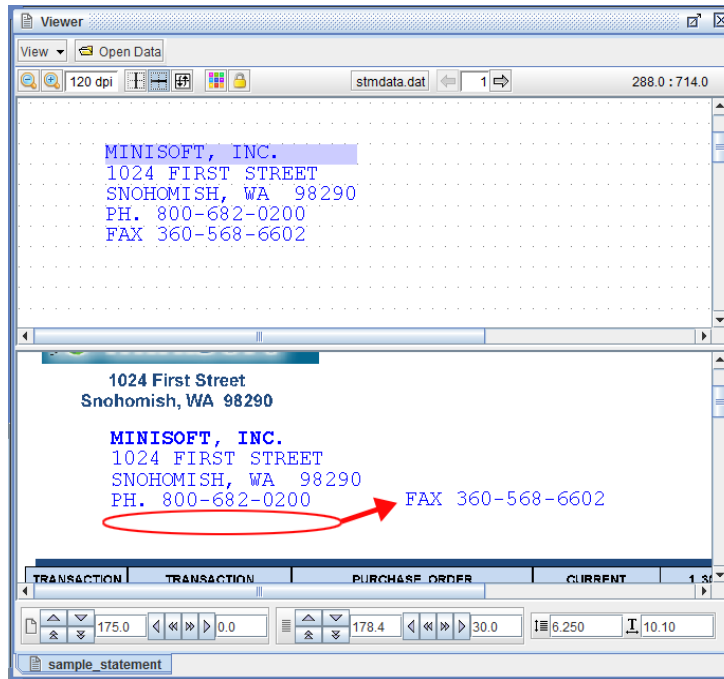
Repeat Interval Spacing*: 0.0

*0=Use Form's lines per inch

Conditional vertical increment

Buttons: Change font, OK, Cancel

- The string of characters will be placed according to its location in the Data Viewer, but like a variable, it can be dragged and dropped.



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 six ways:

- ◆ *Project* loads a previously saved image that was imported into the project using the *Project Properties > Images* option.
- ◆ *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.
- ◆ *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.

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.

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.

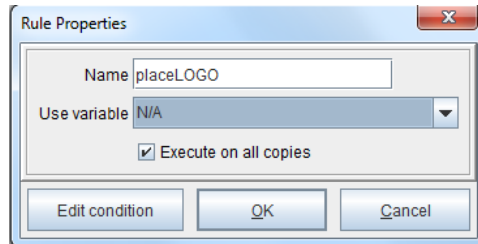
Default resolution sets the resolution of the incoming image file.

NOTE: Images stored in the project will cause larger project file sizes.

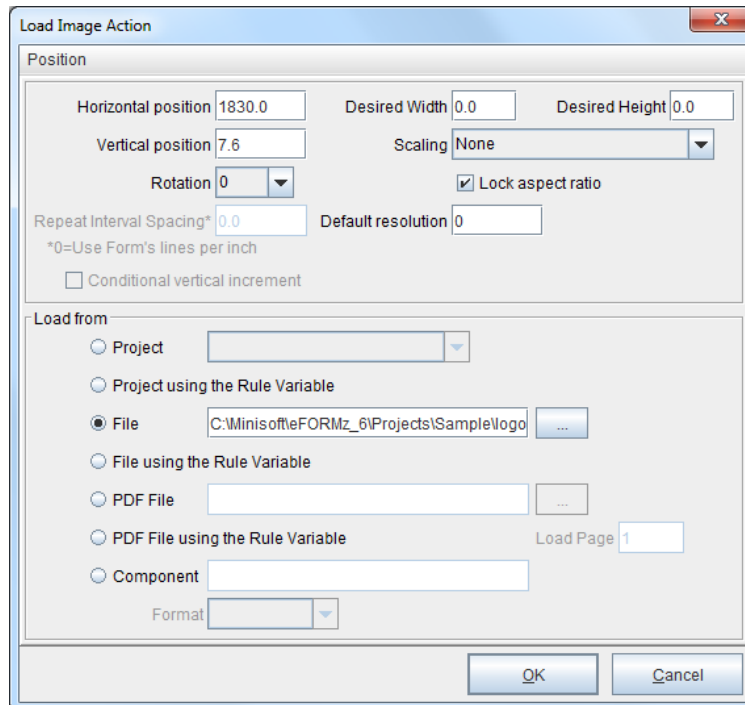
How to implement

To load an image into an eFORMz project:

1. From the eFORMz Viewer, Form and Data Viewer, *right click* near the position you would like the image to appear. Select *Add Rule > Load Image*:
2. The Rule Properties dialog box will appear. From the *Use variable* drop-down menu, select the *N/A System Variable*.



3. The Image Element dialog box will display. Select *Load Image from Project* or *Load Image from File*. For this example we will be loading an Image from a file.



To specify the image from a file folder select the browse (...) button.

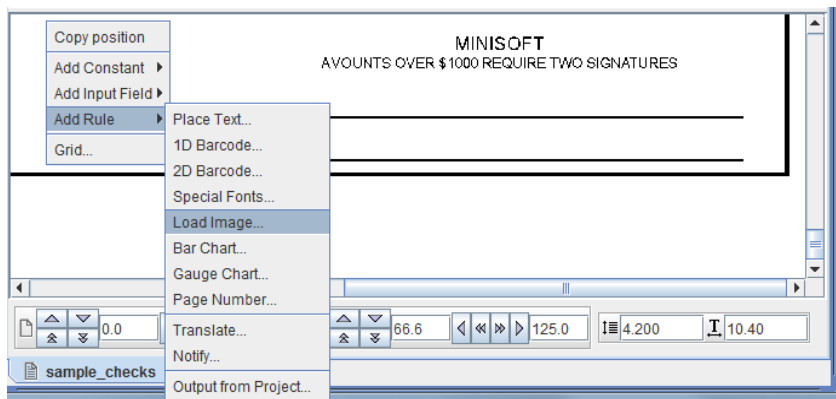
- Once complete, click *OK*.

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

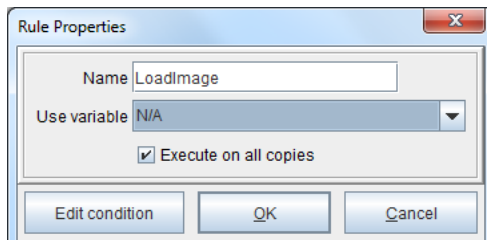
Load Image Based on a Condition

In the following example (SAMPCHK.efz) a signature will be added based on the contents of the data file. For example, if the check number appears in the data page, a signature will be applied.

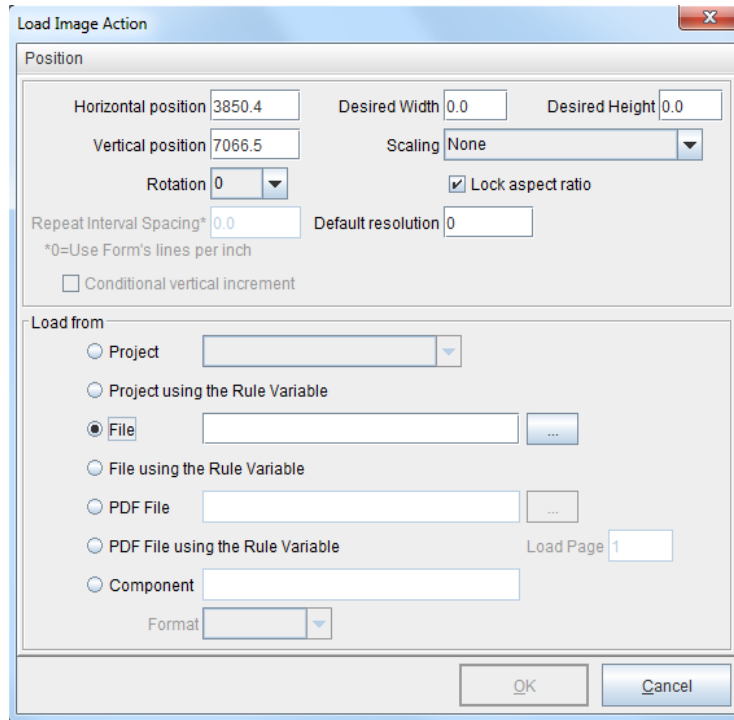
- Right click* and select *Add Rule > Load Image* from the eFORMz Form Viewer.



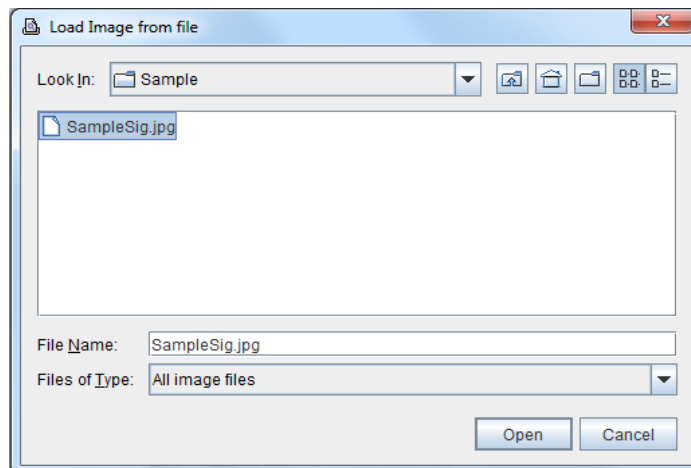
- From the Rule Properties dialog box enter a new rule name and select the *N/A* System Variable. Click *OK*.



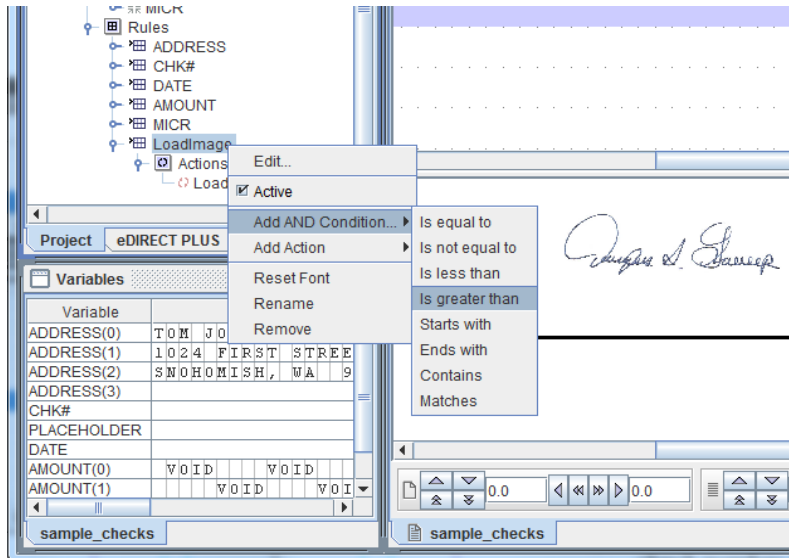
- From the Load Image Action dialog box select *Load Image from Project* or *Load Image from File*. This example uses *Load Image from File*.



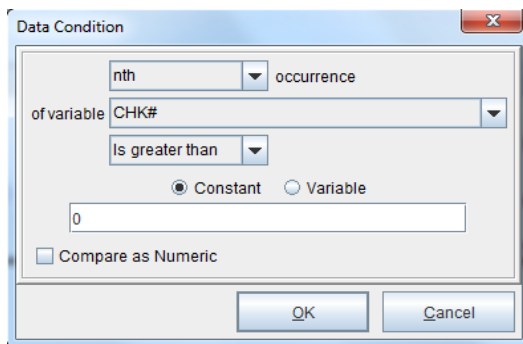
- Select *Load Image from File* and using the browser button (...) select the signature image you would like to appear.



5. Once the image has been selected, the path specifications will display in the Load Image Action dialog box. Adjust the scaling as necessary, and make any other needed modifications. Once complete, click *OK*.
6. Create a condition for the new Load Image action that applies the signature only when a check number is present in the data file.
7. From the Project Window *right click* the rule for the image (LoadImage) and select *Add AND Condition > Is greater than*.



8. The Data Condition dialog box will display. From the *Use variable* field select the check number variable (CHK#). In the Constant field, enter an amount to be compared to.



Once complete, click *OK*.

9. The image will only appear on pages containing a check number.

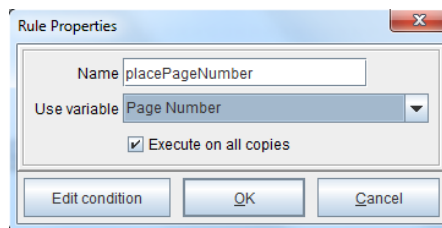
Page Number

Place the page number of a form based upon the number of pages it contains or its location within a series of pages.

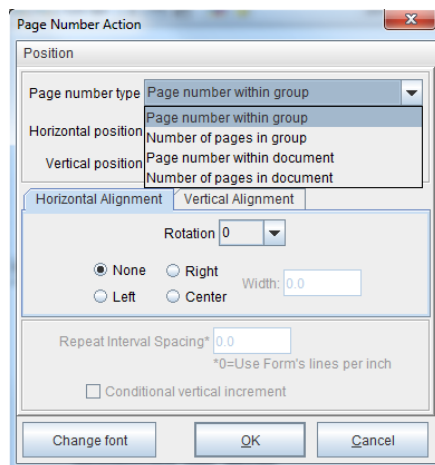
Options include: *Page number within group*, *Number of pages in group*, *Page number within document* and *Page number in document*. The *Starting number* sets where the page count begins.

How to implement

1. *Right click* in the Form and Data Viewer and select *Add Rule > Page Number*.
2. The Rule Properties dialog box will appear. Enter a new rule name and select the System Variable *Page Number*.

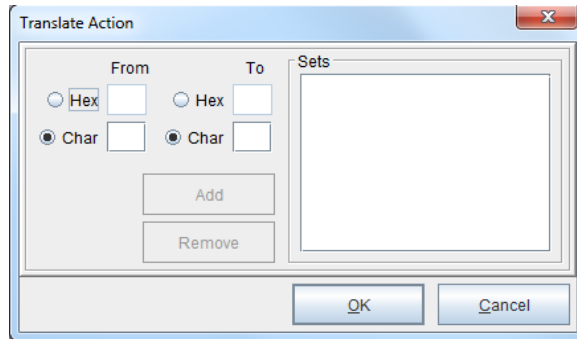


3. The Page Number Action dialog box will display. Choose the desired option from the *Page number type* field. Once complete, click *OK*.



Translate

Translate characters in a custom variable or specified range in a data file.



How to implement

To translate or convert data in a selected range:

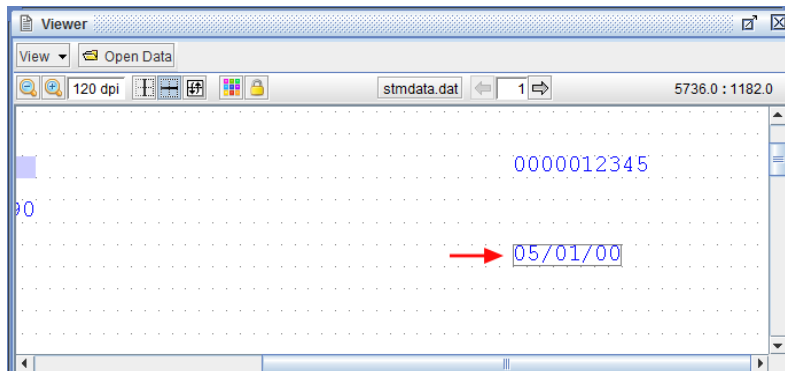
1. From the eFORMz Viewer, *Input Data Viewer*, highlight the selected range that contains the data you would like to translate. For example, translate the forward slash (/) contained in the date to dashes (-):

Change:

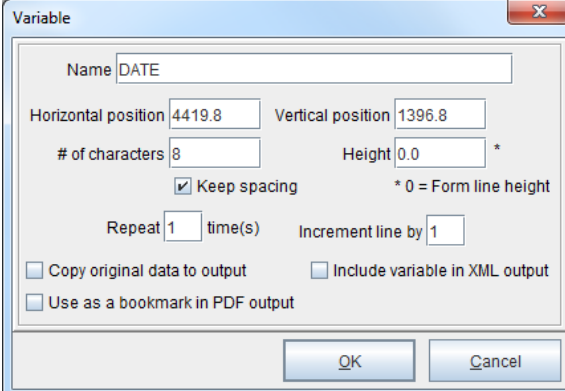
05/01/00

To:

05-01-00



2. Right click and select *Add Rule > Translate*.
3. The Variable dialog box will display. Enter a new variable name and click *OK*.

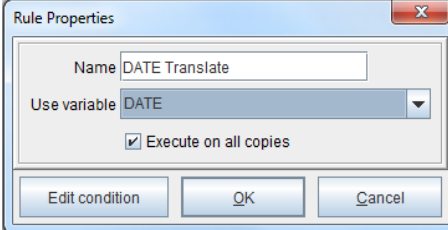


The Variable dialog box is shown with the following fields and options:

- Name: DATE
- Horizontal position: 4419.8
- Vertical position: 1396.8
- # of characters: 8
- 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

Buttons: OK, Cancel

4. The Rule Properties dialog box will display. Enter a new rule name and click *OK*.

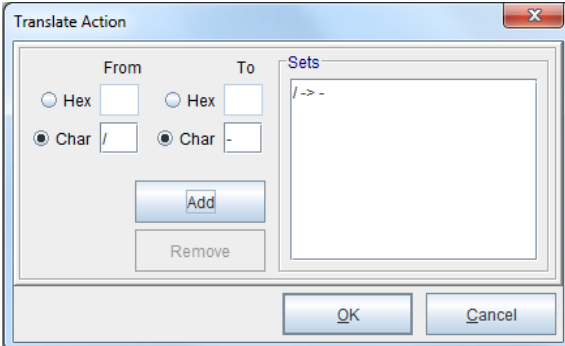


The Rule Properties dialog box is shown with the following fields and options:

- Name: DATE Translate
- Use variable: DATE
- Execute on all copies

Buttons: Edit condition, OK, Cancel

5. From the Translate dialog box, select *Char* for character change and then enter the translation in the *From* and *To* fields. When complete, click *Add* to add the translation set to the *Sets* field:



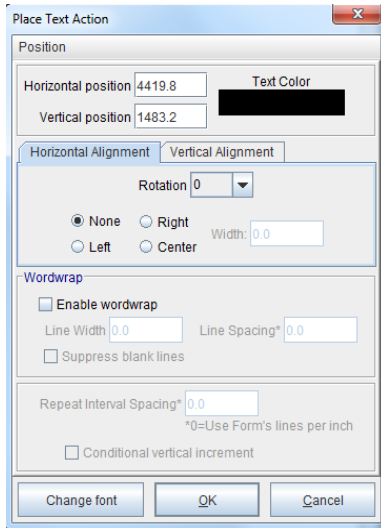
The Translate Action dialog box is shown with the following fields and options:

- From: Char /
- To: Char -
- Hex
- Char
- Sets: /->-

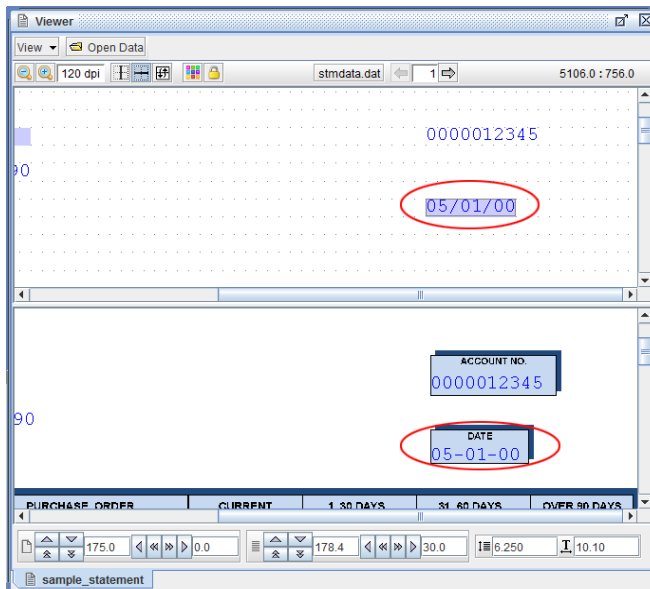
Buttons: Add, Remove, OK, Cancel

Once complete, click *OK*.

- To view the newly formatted data in the eFORMz Viewer, create a *Place Text* rule by selecting the same rule created for Translate (DATE Translate). *Right click* the *DATE Translate* rule and select *Add Action > Place Text*.
- The Place Text dialog box will display. In the horizontal and vertical position fields, the original position of the translated data will appear.



- Once complete, click *OK*. The translation will display in the eFORMz Form Viewer. To change the position, drag and drop the data in the eFORMz Form Viewer.

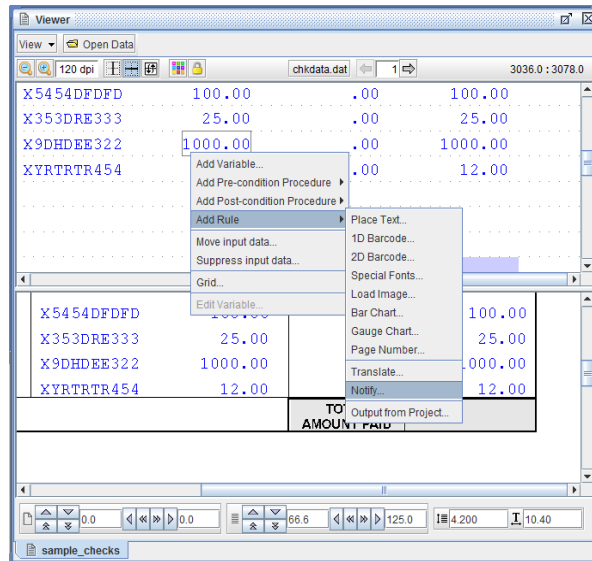


Notify

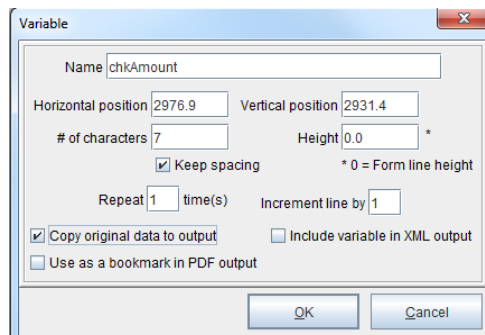
Setup a rule action to notify an individual or multiple individuals via email when a process is ran. The *Notify* action can be conditionally based.

How to implement

1. From the Data Viewer select the string of characters you would like to monitor, *right click*, and select *Add Rule > Notify*.



2. The Variable dialog box will display. Enter a new variable name. To keep the existing data in place select *Copy original data to output*. Once complete, click *OK*.



3. The Rules Properties dialog box displays. Enter a new rule name and click *OK*.

The screenshot shows a dialog box titled "Rule Properties". It has a close button (X) in the top right corner. The "Name" field contains the text "amountNotify". Below it, the "Use variable" dropdown menu is set to "chkAmount". There is a checked checkbox labeled "Execute on all copies". At the bottom of the dialog, there are three buttons: "Edit condition", "OK", and "Cancel".

4. From the Notify Action dialog box enter the necessary information:

SMTP Host is your email server.

User is the username to connect to your email server.

Password is your password to connect to the SMTP Host.

To is the intended recipient of the email.

From is the company email address.

Subject is the description of the specified email.

Include page data as message body includes the data page in the body of the email.

The screenshot shows a dialog box titled "Notify Action". It has a close button (X) in the top right corner. The "SMTP Host" field contains "192.168.39.98". The "User" field contains "johndoe". The "Password" field is filled with dots. The "To" field contains "janedoe@minisoft.com". The "From" field contains "johndoe@minisoft.com". The "Subject" field contains "Check Amount over \$120.00". There is an unchecked checkbox labeled "Include page data as message body". At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

Once complete, click *OK*.

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.

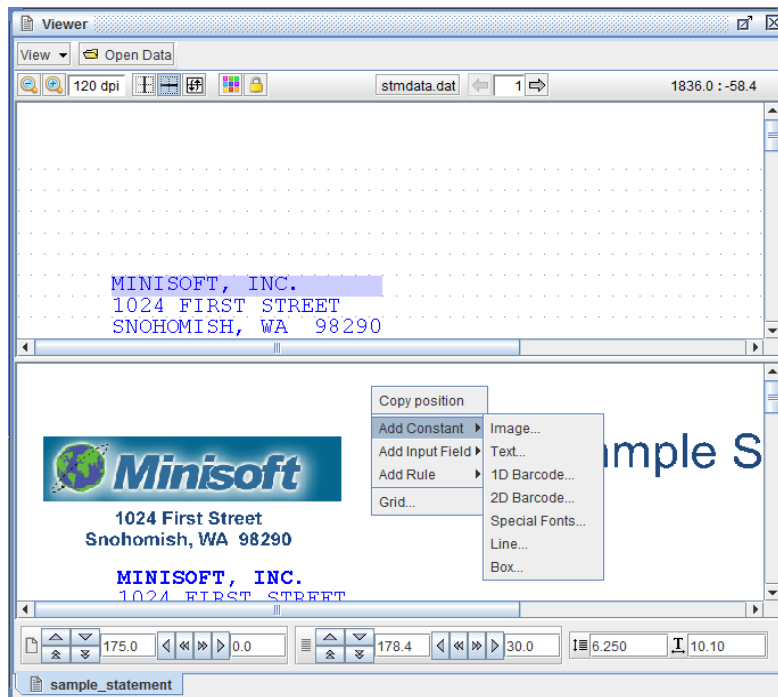
Constant Actions

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:

In this example, a Minisoft logo from the project was loaded as a constant image. 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.

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).

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.

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).

Cross-Reference: For more information, see the 1D Barcodes part of the *Barcodes Mini-Manual*.

2D Barcode

Right click in the eFORMz Form Viewer and select *Add Constant > 2D Barcode*. The 2D Barcode Constant dialog box will display:

The screenshot shows a dialog box titled "2D Barcode Constant". It has a close button in the top right corner. The dialog is divided into a "Position" section and a bottom area with buttons. The "Position" section contains the following fields:

- Name:** SPECIAL CODE
- Text:** 29385493
- Barcode type:** MaxiCode (selected from a dropdown menu)
- Horizontal position:** 2046.0
- Vertical position:** 329.0
- Rotation:** 0 (selected from a dropdown menu)

At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

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 rotate barcode 90, 180 and 270 degrees (Default is 0).

Cross-Reference: For more information, see the 2D Barcodes part of the *Barcodes Mini-Manual*.

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

Special Fonts Color adjust 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).

Cross-Reference: For more information, see the Special Fonts part of the *Barcodes Mini-Manual*.

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:

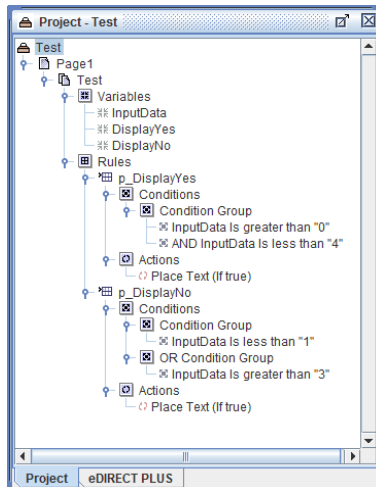
- ◆ AND
- ◆ OR
- ◆ NOT

And the following data conditional operators:

Is equal to	Starts with
Is not equal to	Ends with
Is less than	Contains
Is greater than	Matches

How to implement

eFORMz allows you to place conditions on Rules and Procedures. In the below example the word "YES" is displayed (variable DisplayYes) if the value of the variable InputData is equal to 1, 2, or 3. The word "NO" is displayed if the value if InputData is not 1, 2, or 3.



Adding a Condition

The following example will demonstrate how a project can be implemented for conditional logic. Let's say, there is a need to add special wording to an output file based on the state (Colorado or Oklahoma) and if it is the last page of the order:

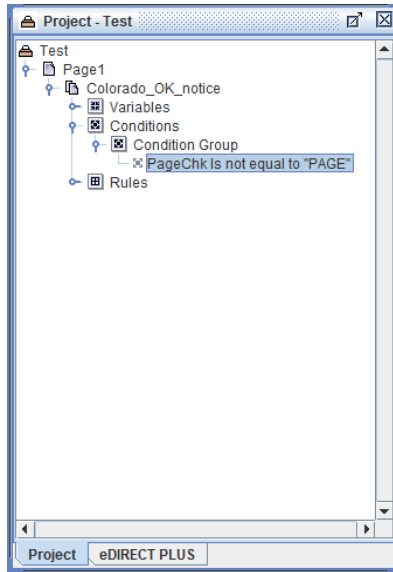
1. Create two variables, one looking at your state check and another looking for a check if it is the final page of the order. In this example we will be using the following variables:

PageChk and *State_Chk*

2. Right click your form and select *Add AND Condition*, followed by selecting the data conditional operator you would like to work with. For this example, the conditional operator used for our first variable will be '*Is not equal to*'. Once selected the *Data Condition* dialog box displays.
3. Select the variable you would like the condition to be based on (*PageChk*) and then confirm your conditional operator along with your comparison value. For this example, the comparison value will be on the word '*PAGE*':

Once complete, select *OK*.

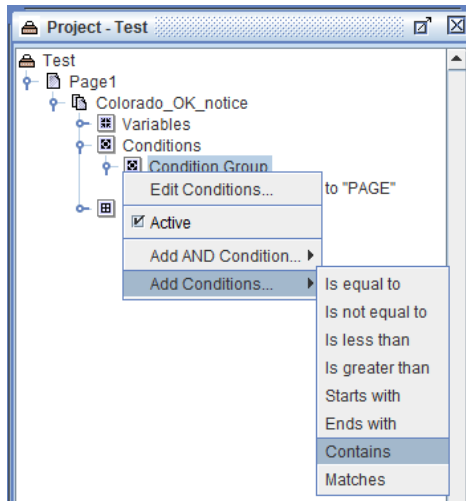
4. Your new condition will now appear under *Condition > Condition Group*:



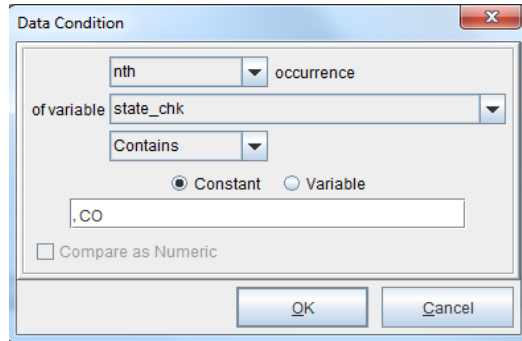
Next, add the second conditional check (*State_Chk*). Since the second conditional check has multiple options (Colorado OR Oklahoma) the condition becomes an 'AND Condition Group'.

To create an 'AND Condition Group' containing OR conditions:

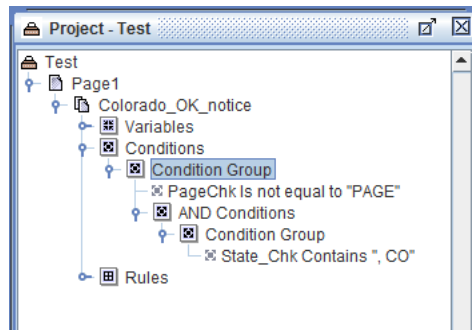
1. Right click *Condition Group* and select *Add Conditions*. Select a conditional type, for example *Contains*:



- The Data Condition dialog box displays. Select the variable you would like the condition to be based on (*State_Chk*) and then confirm your conditional operator along with your comparison value. For this example, the comparison will be on the state of Colorado (*CO*):

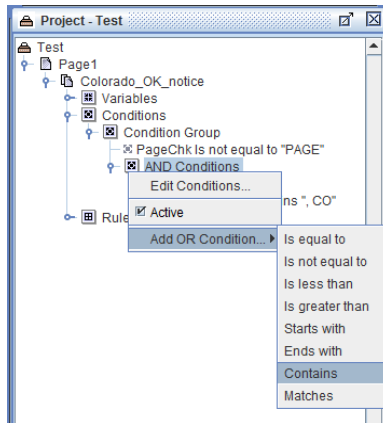


- Your new condition will now appear under *AND Condition Group*, as show below:

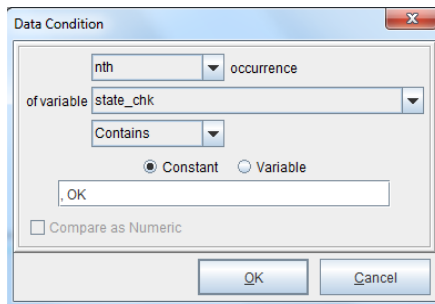


- The next step is to create the second conditional check, causing the AND Condition Group to contain an OR option since we are looking for multiple comparisons (Colorado *OR* Oklahoma).

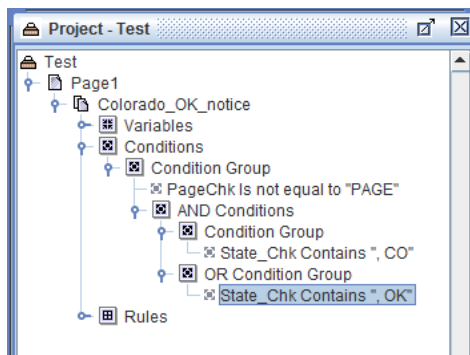
- Right click '*AND Condition Group*' and select *Add OR Condition*. Select a conditional type, for example *Contains*:



- The Data Condition dialog box displays. Select the variable you would like the condition to be based on (*State_Chk*) and then confirm your conditional operator along with your comparison value. For this example, the comparison will be on the state of Oklahoma (*OK*):



- An *OR* condition will then appear with your '*AND Condition Group*', as shown below:



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

<code>\b</code>	backspace
<code>\t</code>	tab
<code>\n</code>	linefeed
<code>\r</code>	carriage return
<code>\f</code>	formfeed
<code>\\</code>	backward slash
<code>\a<3 decimal digits></code>	character represented by its decimal value (000-255)
<code>\x<2 hexadecimal digits></code>	character represented by its hexadecimal value (00 - ff)
<code>\u<value></code>	character represented by it's Unicode value

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;iformzlog.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:

```
\\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.

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>
```

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&ImageDatabaseo=eformz,WRITE,0,1,0`

Read access:

`jdbc:MSJDBC:///?Server=xxx.xxx.xx.xxx&ServerPort=30007&User=xxx&UserPassword=xxx&Group=xxx&Account=xxx&ImageDatabaseo=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:

```
sun.jdbc.odbc.JdbcOdbcDriver
```

URL direct path example:

```
jdbc:odbc:DRIVER={Microsoft Access Driver (*.mdb)};  
DBQ=c:\\Minisoft\\eFORMz_6\\Projects\\eDirect\\Sample3\\emaildb.mdb
```

Note: Path specification is case sensitive.

URL using system DSN:

```
jdbc:odbc:[database name]
```

Example:

```
jdbc:odbc:emaildb
```

Create a System DSN

1. From your Start menu, select *Settings > Control Panel*.
2. The Control Panel dialog box appears. Select *Administrative Tools* and *ODBC Data Source*.
3. The ODBC Data Source Administrator window appears. Select the *System DSN* tab and then click *Add*.

APPENDIX B

4. The Create New Data Source dialog box appears. Select *Microsoft Access Driver (*.mdb)* from the list of drivers. Click *Finish*.
5. The ODBC Microsoft Access Setup dialog box appears.
6. From the Database section click on *Select* to establish the path to your database, located on your PC.
7. Once the Database path has been established, enter a database reference name in the Data Source Name field.
8. Enter a database description, if needed, in the Description field. Once complete click *OK*.
10. Your newly created database reference will appear in the ODBC Data Source Administrator dialog box under the System DSN tab. Click *OK*.

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`

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

Copy:

`\sqlDriver\mysql-connector-java-xxx\mysql-connector-java-xxxx-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_o1oSM=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:

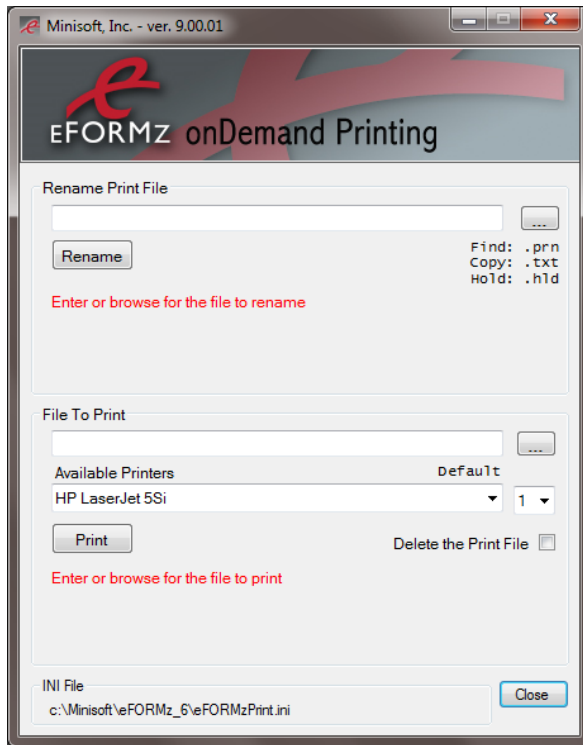
```
jconn3.jar
```


Appendix C

OnDemand Print Utility

OnDemand Print

The OnDemand Print utility, which is included with the install, allows one to enter data as a value via keyboard entry and/or a scanner. It also includes an option to use a browse button to select file(s) 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.



An .ini file is included which allows one to configure the directory path, a specific 'find' extension, a 'renamed' extension and an already processed extension (.hld) which matches your needs.

For example, if a match is found this utility will rename the present .prn extension to .rdy or .dat. The eFORMz Local Toolkit can then be modified to look for .rdy /.dat files. Once the eFORMz monitor selects and processes these files it will automatically change 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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