

## What's new in ElmScript 5.2

This document is a summary of the major changes for ElmScript 5.2. Most current scripts should run without change if scripters followed the general guidelines. Of course, as we add new commands and new functionality, it is inevitable that some conflicts will occur. If a script uses one of the new reserved names as variable names, then there will be a problem. This is why we recommended that scripters not use any name that represents a real word or phrase. Many scripts have followed the convention of prefixing variable names with the letter "v". If you did this, it should solve most of the variable naming problems. In fact, using the "v" prefix will actually make scripts run faster. Using the "gv", "lv" and "pv" prefixes (for global variables, local variables, and parameters respectively) will improve performance even more.

The following is a very limited explanation of the new features. See the documentation (in the Doc folder) for the complete documentation on these features. At the end of this is list is the description of several scripts that demonstrate some of these new features.

### Build Log

These are minor bug fix builds.

- p229 Added the ability to use a document object as a parameter for the Update TextInset command to update all the automatic text insets in the specified document.
- p230 For FM90 the Loop ForEach(BookComponent) will now go through all the component types. Adobe changed the standard behavior for FM90.
- p231 Updated RunEslBatch.exe for FM 8.0 and FM9.0.
- p232 Change GetAssociatedEvent method due to error in FDK function
- p233 Add code to return the return value from Sw\_Convert and Sr\_Convert to FrameMaker when the event handler exits.
- p234 Add code for StructuredEntityDefT and GetEntityDef function
- p235 Add code to search current directory for <#Include 'Filename'>
- p236 Add code for the RunCommandExec event.
- p237 Fixed platform conversion when in UTF8 mode for Open TextFile. Also fixed the Expat object to handle properties on the new command.
- p238 Fixed bugs in RunEslBatch (introduced in p231)
- p239 Fixed bug in RunCommandExec (introduced in p236), not present error erroneously appearing
- p240 Fixed bug-Memory leak.
- p241 Updates for FrameMaker 10.
- p242 Fixes for the grid control
- p243 Unicode compare error fixed
- p244 Added the New AttrCondExpr command for Fm8 and greater
- p245 Fixes for a bug with the Find FromTextLoc command (finding objects). This bug was introduced in build p241.

### New Items for FM 10.0 in version 5.2R1p241

This FM 10.0 release contains the following items (see the documentation for more information on these additions:

- The Session object has 15 new properties.
- The Document object has 9 new properties.
- The Book, BookComponent, Pgf, PgfFmt, CharFmt, Inset, ElementDef and Element objects all have new properties.
- There are new Text properties (ReviewerName, etc.)
- There are more Find FromTextLoc options dealing with overrides
- There is a new data item for attributes called AttributesEx which has extended information.

- The Open Document command has a new option (VerifyInsets).
- The Save Document/Book command has some new options (SaveFmtInterchange100, SaveFmtBinary100) for the FileType and a new option DitavalCondTag.
- There are new utility methods (eUtl)
  - eUtl.TrackChangesAcceptAll{docObject};
  - eUtl.TrackChangesRejectAll{docObject};
  - eUtl.ConvertTiToText{textInsetObject};
  - eUtl.ForceUpdateXrefAltText{xrefObject};
  - eUtl.UpdateMenus{};
  - BookObject=eUtl.NewBook{};
  - int eUtl.DeleteUnusedFmts{docObject, objName};
  - int eUtl.AddNewBuildExpr{docObject, exprName, exprCond};
  - int eUtl.DeleteBuildExpr{docObject, exprName};
  - int eUtl.SetActiveBuildExpr{docObject, exprName};
  - String eUtl.GetActiveBuildExpr{docObject};
  - String eUtl.GetBuildExpr{docObject, exprName};
  - StringList eUtl.GetBuildExprCatalog{docObject};
- A new DocCompare option.
- New Import Formats options

## New Items for version 5.2R1p228

The EslSession object has a new property, **UserSettingsDir**, which provides the name of the directory where the user settings (fscript.ini) are kept.

## New Items for FM 9.0 in version 5.2R1p228

This FM 9.0 release contains the following items (see the documentation for more information on these additions:

- The New BookComponent command has a new option (CompType).
- The Save Document/Book command has some new options (SaveFmtInterchange90, SaveFmtBinary90, SaveFmtCompositeDoc, SaveFmtBookWithXml, and SaveFmtBookWithFM).
- There are three new eUtl methods (eUtl.MoveComponent, eUtl.UpdateXRef and eUtl.ApplyAttributeExpr).
- There are three new notification events (NoteDisplayClientXRefDialog, NotePostUpdateXRefs and NotePreUpdateXRefs).
- There are six new book component properties (FirstComponentInBookComponent, BookComponentParent, ExcludeBookComponent, BookComponentTemplatePath, BookComponentTitle and ComponentType).
- There are two new document properties (PdfGenerateForReview and PrintDitavalFilename).
- There is one new footnote property (FnAnchorString).
- There are four new XRef properties (XRefSrcElemNonUniqueId, XRefAltText, XRefClientName, and XRefClientType).

## New Items for version 5.2R1

This release contains the following items:

- The location of some of the ElmScript support files, such as fscript.ini and the .properties files, are now located in the user documents area.  
For Windows XP and earlier the location is now:

C:\Documents and Settings\\Application Data\ElmSoft\Esl\v5\FmXX  
For Windows Vista, the location is now:

C:\Users\\AppData\Roaming\ElmSoft\Esl\v5\FmXX

- Support for Windows Vista
- There are new menu command properties (CmdSrcType, ScriptName, ScriptFileName and AlwaysInstall) that are valid when the menu command is associated with installed (event or standard) ElmScript scripts.
- There are new eUtl utility methods (GetCmdSrcType, GetScriptCommandObject, GetScriptFileName and IsScriptAlwaysInstalled) that can be used when you know the name of the installed ElmScript script (event or standard).
- There are two new predefined named constants, InstalledEventScriptList and InstalledStandardScriptList.
- Find String bug fix when using the UTF-8 character set on FM 8.0.
- New SetCheck method for the ETreeCtrl forms control.

## **New Items for version 5.1R3**

This release contains the following bug fixes:

- Missing text property names fixed (e.g. LineAscent, LineDescent, LineBaseline)
- License Menu item names are not saved.
- The PreviewState property value names were unavailable.
- The Xml/Sgml FslStruct application would crash FrameMaker if the document was opened or saved via a script.

## **New Items for version 5.1R2**

This release contains:

- Various bug fixes.
- The CmpType option on the Sort Command.
- The FslBuildNumber global variable.

## **New Items for version 5.1R1**

The changes for Version 5.1R1 are for the Unicode functionality of FrameMaker 8. There is one new string method eStr.ConvertText which allows a script to convert text to and from various encoding types. The system method eSys.SetDefFontEncoding has been upgraded for FM version 8 to put FrameMaker into Unicode mode when the encoding type is 'UTF-8'.

Summary:

- Support for the FrameMaker 8 Unicode mode.
- The eStr.ConvertText method converts to and from various text encodings
- The eSys.SetDefFontEncoding puts FrameMaker into or out of Unicode mode
- Allow reading and writing of UTF-8 text files.
- eUtl.CPToString and eUtl.StringToCP to convert from code point to string and string to code point.
- eUtl.ItoS and eUtl.StoI methods converts from integer to string and string to integer with an optional base.

## **New items for version 5.0R1**

The changes for Version 5.0R1 fall into the following categories.

- Structured Import/Export functionality.
- ElmStudio Script Editor now has a standalone version.
- ScriptBuilder functionality for ElmStudio
- ExPat Xml input reader interface (EExPatXml Object).
- Text Parser (ETextParser Object)
- New EForm Control Tab Control (ETabCtrl Object).
- New EForm Control Grid Control (EGridCtrl Object).
- New EForm Images (standard icons, Exclamation, Question, Error, Information)
- New Data type (DataList)
- New Data type (DataRecord)
- Updated array features.
- New eUtl functions (GetPropertyValue, SetPropertyValue, FormatString)
- New Global variables ThisProc, TextItemNameList, NotificationNameList, CharPropChangeNameList.

## ElmStudio Standalone Script Editor

The ElmStudio script editor is now available as a stand-alone program. You can edit scripts outside of the FrameMaker environment. You can also run script from there using the RunEslBatch program.

Since this editor is based on the SciTE editor, you can also edit other types of text files with syntax highlighting.

## ScriptBuilder

The script builder is a window that provides lists of ElmScript related items, such as list of properties, list of commands, etc. Instead of typing in commands and property names, you can select them from a list and insert them directly into the script file. The ScriptBuilder works with both the ElmStudio from within FrameMaker and the stand-alone ElmStudio editor.

## Structured Import/Export

FrameMaker has the ability to import XML/SGML documents and convert them to FrameMaker structured documents. It also has the ability to export FrameMaker structured documents to XML/SGML documents. FrameMaker has the limited ability to modify/transform these documents as they are imported/exported. For simple modifications, you may create a ReadWrite Rules file that allows you modify the names of elements and the names and values of attributes. For more complicated transformations, FrameMaker also has an API that allows you to control the import/export process. Until now, this requires programming (using C/C++). With ElmScript 5.2, you can write a custom import/export client using the scripting language instead of C/C++: There is a tutorial that demonstrates some of the features in a ElmScript import/export client. The tutorial scripts are located in the StructTutorial folder.

**IMPORTANT:** Xml processing is not available on FrameMaker+SGML 6.0.

## ExPat Xml Parser Object

The ExPat Xml parser is a popular xml parser that is used in the Mozilla project and Perl's XML::Parser object. With ElmScript 5.2, you can use this parser to read xml documents. See the XmlViewDemo.fsl script for an example of using this parser. Also, see the ExPatParserDemo.fsl for a script that dumps the parsed xml pieces to the FrameMaker console.

## Text Parser Object

The ElmScript 5.2 text parser (ETextParser) allows you to view a text file as a series of tokens of various types (Character strings, quoted strings, and delimiters).

## New EForm Controls

### ETabCtrl control

The ETabCtrl control allows you to choose options in a tabbed format. This is also used in the Options window.

### EGridCtrl control

The EGridCtrl control allows you to display data. See the BookProps.fsl and DisplayFormats.fsl sample scripts for examples.

## New Images

The EImageBox and EButton controls can now have one of four standard images (Warning, Question, Error, Information).

## New Data Type--DataList

The DataList is similar to the EVector object except that it is a data item instead of an Object. This means that you do not have to delete a datalist (unless you want to free up some memory). When you copy a datalist (via assignment) the entire datalist is copied.

## New Data Type--DataRecord

The DataRecord is similar to the EStructure object except that it is a data item instead of an Object. This means that you do not have to delete a DataRecord (unless you want to free up some memory). When you copy a DataRecord (via assignment) the entire DataRecord is copied.

## Updated Array operations

The standard arrays (StringList, IntList, etc) can now be accessed by negative subscripts. A negative subscript accesses a member from the end of the list, so a subscript of -1 will return the last member in the list. You can also add members to the arrays by assigning a value with a subscript of 0, to add a member at the beginning of the list and with a subscript of count+1 to add one to the end.

## New eUtl methods

There are three new eUtl methods.

**GetPropertyValue** - Gets any property value

**SetPropertyValue** - Sets any property value

**FormatString** - Creates formatted a output string.

## **New Global Variables**

**ThisProc** - Gives the name of the current sub, function or event.

**TextItemNameList** - Returns a StringList of the names of the available text items.

**NotificationNameList** - Returns a StringList of the names of the available notifications.

**CharPropChangeNameList** - Returns a StringList of the names of the available char props change names.

## **New Demonstration Scripts**

### **ExPatParserDemo.fsl**

This script demonstrates some new features of the EExPatXml Object. The script reads an Xml file and writes the parsed Xml pieces to the FrameMaker console. Since writing to the console is slow, you should not try this with a large Xml file.

### **GridCtrlDemo.fsl**

This script demonstrates the use of the new EGridCtrl control. When you run this script, a form appears with the grid control in the middle and some checkboxes (showing some style options) on the top of the form along with some drop down boxes. Check or uncheck the checkboxes to change the style of the EGridCtrl control. Type in some text in the cells. Click the top of the columns to sort the rows by column value.

### **TextToSpeechDemo.fsl**

This script speaks the text of the current paragraph using Microsoft's voice API.

### **TabCtrlDemo.fsl**

This script demonstrates the use of the new ETabCtrl control. When you run this script, a form appears with the tab control in the middle and some checkboxes (showing some style options) on the top of the form along. Check or uncheck the checkboxes to change the style of the ETabCtrl control.

### **TextParserDemo.fsl**

This script is an example of using the new ETextParser. It parses a typical XPath string and writes the results to the FrameMaker console.

### **XmlViewDemo.fsl**

This script demonstrates some new features of the ETreeCtrl, EExPatXml and EGridCtrl objects. When you run this script, a form appears with a tree control and a grid control with two buttons at the bottom of the form. Press the browse button to select an Xml file. The file will be loaded using the ExPatXml object. The tree control will show the elements and the text nodes, and the grid control will show the attributes for the selected element or the text of a text node.

## **New Sample Scripts**

### **BookProps.fsl**

This script uses the new EGridCtrl control to show the various numbering properties of the book components and the open documents that are part of the book. Open a book and the documents in the book, then run this script. It will show

you the ChapterNumbering, PageNumbering, VolumeNumbering, PgfNumbering and Footnote numbering information of the book components as well as in the individual documents.

### **DisplayFormats.fsl**

This script uses the new EGridCtrl control to show the properties of all the paragraph formats, character formats, etc, of the active document. You choose the format types you wish via a drop down box. You can also determine whether to the format names appear as rows or columns.

### **PropertyDisplayGrid.fsl**

This script is the same as the old PropertyDisplay.fsl script, except that it uses the EGridCtrl instead of a scrollbar.

