

## What's new in ElmScript 4.0

This document is a summary of the major changes for ElmScript 4.0. 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 list is the description of several scripts that demonstrate some of these new features.

### New items for version 4.0

The changes for Version 4.0 fall into the following categories.

- New Script Editor with syntax highlighting
- Interactive source code debugger.
- New EForm properties.
- New EForm controls (Tree, Images, DateTime and more).
- Updated EForm control features.
- Enhanced Printer control (This functionality requires FrameMaker 6.0 or greater).
- Performance enhancements.
- EActiveXObject (for accessing COM dispatch objects, e.g. MSXML)
- Additions to the eUtl Object (RGB functions, GetFilename from Search path)
- Automatically install scripts at startup without using the Initial script.
- Multiple Undo processing. *Frame 7.2 or greater*

## New Script Editor

The script editor is now a full featured editor with syntax highlighting.

### Color Syntax Highlighting

You can specify colors and fonts for many categories of text for a script. There are three lists of keywords which may be used. These should be sufficient because most identifier style categories are built in. This means that you do not have to provide lists of command names or FrameMaker property names, etc. You can still specify the style for these items however.

### Bookmarks

You can place bookmarks on lines and jump to them quickly. This is especially useful with long scripts.

### Group Folding

Blocks of commands (such as Subroutines, functions, Loop, Ifs etc) can be hidden (folded) for better viewing of other parts of the script.

## **Expand/Insert Abbreviations**

You can store and recall named strings of text.

## **Output window**

Error messages are shown in an output window. You can navigate to the errors.

## **Run Scripts in Debug mode**

From the text editor, you can run scripts in standard mode or in debug mode. See the next topic for more information on debug mode.

# **Interactive Source Code Debugger**

To use the source code debugger, you must first start a script in debug mode. This is a menu option on the script editor menubar. When you start a script in debug mode, the execution stops at the first command. From here you can set breakpoints in the source code and/or step through the script one command at a time.

## **Step Through a script.**

Press the F10 key to stop through a script one command at a time, skipping over subroutines and functions. Use the F11 key to go into a subroutine or function.

## **Set breakpoints in a script.**

Move the cursor to a line and select toggle breakpoint to set or reset a breakpoint at a command.

## **Examine variables**

The examine data dialog box shows the current value of the global, script, local or parameter variables. It also allows you to set watch expressions.

# **New EForm Properties**

The EForm has several new properties:

- EnableToolTips - True/False to allow or disallow tooltips for this form
- ClientHeight - Height (in pixels) of the client area of the form
- ClientWidth - Width (in pixels) of the client area of the form
- NcHeight - Height (in pixels) of the non-client area of the form
- NcWidth - Width (in pixels) of the non-client area of the form

# **New EForm Controls**

## **ETreeCtrl control**

The ETreeCtrl control allows you to have tree control similar to the one you find in the windows explorer.

## **EAnimateCtrl control**

The EAnimateCtrl control allows you to display a clip in AVI format.

## **EDateTimeCtrl**

The EDateTimeCtrl displays the date in calendar format and allows the user to select a date several ways.

## **ERectCtrl control**

The ERectCtrl displays a rectangle with various shadings.

## **EImageBox control**

The EImageBox control allows you to present an image (bmp, icon) on the dialog box.

## **Updated EForm Controls**

- Buttons can be multiline, have text aligned and have a picture.
- Checkboxes can have three states
- Listboxes allow group selection (Ctl Select)
- Edit boxes allow select all (Ctrl-A)
- The EDropdown control can now have an edit box as well.
- Many controls can tool tips
- There are two new events (OnSetFocus and OnKillFocus)

## **Enhanced Printer Control**

There are new eSys properties that allow you to set the current printer and various properties of that printer

- eSys.CurrentPrinter - Sets the current printer (similar to the SetPrint utility).
- eSys.CurrPrintOrientation - Portrait or Landscape
- eSys.CurrPrintPaperSize - Sets the paper size of the printer
- eSys.CurrPrintScale - sets the scale of the current printer
- eSys.CurrPrintNumCopies - sets the number of copies
- eSys.CurrPrintPaperSource - sets the paper source
- eSys.CurrPrintQuality - sets the print quality
- eSys.CurrPrintColor - sets the Color or Monochrome state

**IMPORTANT:** The Enhanced printer control functionality requires FrameMaker 6.0 or greater.

## **Performance Enhancements**

We've improved the performance of many operations, especially loop commands. The performance enhancement is particularly effective for scripters who followed the suggested naming conventions (Elmsoft uses gv, lv and pv prefixes for global variables, local variables and parameter variables, respectively, other scripters have used the v prefix and this is also effective.

## **Additional Utility Functions**

The eUtl object is a set of utility functions. The evaluate function allows you to evaluate an expression and returns its value. The RGB functions are useful for EForm controls.

```
Set fullFileName = eUtl.GetFilenameFromSearchPath{fileName}
Set rgbValue = eUtl.GetRGB{red, green, blue}
Set rgbRed = eUtl.GetRGBRed{rgbValue}
Set rgbGreen = eUtl.GetRGBGreen{rgbValue};
Set rgbBlue = eUtl.GetRGBBlue{rgbValue};
```

## **Installed Script Enhancement**

When you install a script, you now have the option of having that script installed each time FrameMaker starts without having to use the Initial Script feature.

## **Demonstration Scripts**

### **AnimateCtrlDemo.fsl**

This script demonstrates the use of the new EAnimateCtrl control. When you run this script, a form appears with the animate control in the middle and some checkboxes (showing some style options) on the left side along with some buttons. Check or uncheck the checkboxes to change the style of the EAnimateCtrl control. Press the Open button to open an avi file to load into the control. Press Play to start the movie, press stop to stop it and press close to unload the file. The autoplay checkbox allows the movie to play repeatedly. Press the close box to end the form and the script.

### **ButtonDemo.fsl**

This script demonstrates some new features of the EButton control. When you run this script, a form appears with a series of buttons down the left side of the form. These show buttons with various alignment styles. The last one has text that extends for several lines. The first control is a tri-state checkbox. You may click on this to change its state. The second control is a button with a graphic. If you click on this the alignment will toggle to the top then back to being centered. Press the close box to end the form and the script.

### **DateTimeCtrlDemo.fsl**

This script demonstrates the use of the new EDateTimeCtrl control. When you run this script, a form appears with a style checkbox on the left side of the form, a EDateTimeCtrl control on the right, a group of radio buttons show various date styles below. There are also two buttons that illustrate how to set the date manually. Press the arrow part of the date control to display a calendar. This is used to select a new date. If you check the UpDown checkbox, the date control changes to one that allows you to click to make the date go up for down. Press the close box to end the form and the script.

### **DateDiffDemo.fsl**

This script is an example of using the new EDateTimeCtrl control. There are two EDateTimeCtrl controls. Select a different date in each one. Press the button and a count of the number of days between the two dates will appear. Press the close box to end the form and the script.

### **DropDownDemo.fsl**

This script demonstrates some new features of the EDropDown control. The EditBox option declares a drop down control with an edit box. When you run this script, a form appears with two style checkboxes and two buttons down the left side of the form. Select an item or type in the box (using EditBox style). Press the close box to end the form and the script.

### **ImageBoxdemo.fsl**

This script demonstrates the new EImagebox control.

### **LabelDemo.fsl**

This script demonstrates various new styles of the ELabel control.

### **RectCtrlDemo.fsl**

This script demonstrates various styles of the new ERectCtrl control.

### **TreeCtrlDemo.fsl**

This script demonstrates the use of the new ETreeCtrl control. When you run this script, a form appears with the treeview control in the middle and some checkboxes (showing some style options) on the left side along with some buttons. Check or uncheck the checkboxes to change the style of the ETreeCtrl control. Press the Add button to add a new item to the tree, press the delete button to delete the current item. There are two tree nodes that have special handling events. One tree node allows you to select it but you cannot expand it. Another lets you expand it but not select it. Press the close box to end the form and the script. Also there is one tree node item that will not allow you to rename it.

### **FormPropsDemo.fsl**

This script demonstrates the new form properties and the control tool tips property. When you start the script, a form appears with a button and 6 ELabel controls showing the current values of the form height, form width, client height, client width, non-client height and non-client width. Resize the form and the values will automatically be updated. Rest the mouse over the button for a few seconds and the tool tip will appear.

### **XmlToFmConsole.fsl**

This script demonstrates the new EActiveXObject object. It uses this object to create an MSXML object representing an xml document (the enclosed sample xml document). It then navigates through this document and writes out the nodes to the FrameMaker console.

### **UndoDemo.fsl**

This script demonstrates the new multiple undo feature of FrameMaker 7.2. This script creates a new empty document, then adds some text in two different undo groups. The history palette is also displayed. This is included with ElmScript 4.0 for FrameMaker 7.2 only.

