AutoFX

COLLABORATORS

	TITLE : AutoFX	

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Chapter 1

AutoFX

1.1 AutoFX Help System

AutoFX is the batch processor for point-and-click users. It could also be called AutoRexx, since it makes it possible for anyone to create a fairly complex custom processing script without ever writing a single line of ARexx code.

1.2 AutoFX Interface

Like IMP, AutoFX opens in a window on the Workbench. It is differently laid out and has a different set of features. The strength of AutoFX is in its directory full of ARexx command scripts and the ability to chain different scripts together.

Unlike IMP, AutoFX must have all images, or sequences of images, immediately available to it. IMP can wait for images to appear from other software if necessary.

AutoFX Panels

File Selection

Use this panel to locate and select files to be processed.

Image Files

This panel can hold two separate lists of files for processing as well as five gadgets for adding files to the list(s) and maintaining them.

Image Subpanel

This subpanel contains the actual list(s) of files selected. You can choose either Main or Swap buffers to prepare a batch processing queue of images.

Operations

This panel holds a list of commmands, or operations, to be performed on your list(s) of files. All operations must start with a LOAD command, AutoFX will default this to load.ifx which will load any file whose format can be automatically detected.

Operations Subpanel

The Operations subpanel contains a list of the ARexx scripts to be executed.

Click Add Command... to select a new script to add to the list.

Inserting a File into a List

1. Select a file by name from the File Selection List.
2. Click Insert File(s).
3. An insertion point appears in the File List. Point with the mouse where you wish to insert the file, then click.
4. The File List is updated, showing the new file in the new location.

Moving a Frame Within a List

1. Select the frame to move.
2. Click Insert File(s).
3. An insertion point appears in the File List. Point with the mouse where you wish to move the frame, then click.
4. The File List is updated, showing the file in the new location.

Moving a Command

1. Select the command to move.
2. Click Move Command(s).
3. Point with the mouse where you wish to move the command, then click.
4. The Operations List is updated.

AutoFX and Macros

ImageFX commands are ARexx commands. The manual can show you how to record control panel and drawing operations and how to save them as repeatable ARexx scripts. AutoFX provides a simple way to apply your recorded macros to a virtually unlimited number of images as you can select your macro-recorded ARexx script as one of your command list scripts.

AutoFX menus

Like IMP, AutoFX has pull down menus that appear at the top of the Workbench screen.

Project Menu

- New clears AutoFX to receive a new project.
- Open calls a file requester to select an existing project file.
- Save saves the current AutoFX settings as the active project file.
- Save As calls a file requester allowing you to name the project file.
- Open Command Set allows you to load just a list of command scripts without affecting the file lists.
- Save Command Set saves the current list of command scripts to a file for later retrieval.
- About produces a small window containing author and revision information about AutoFX.
- Quit exits AutoFX and closes ImageFX.

Sort Menu

- Sorts the selected files in alphabetical order.
  This allows you to batch non-sequentially numbered souce images.
- Sorts the selected files in numerical order.
  Note that this also allows you to select files that, though numbered, are not sequential.

Settings Menu

- Set ImageFilter allows you to supply a wildcard or wildcard + pattern, to help in selecting files.
- Set All Pattern allows you to supply a wildcard or wildcard + pattern to limit which files are selected when you click All.
- Supress Arexx Window disables the "Arexx macro in progress" window that ImageFX opens. (2.6)

Alpha Channels and Brushes

Although you can select a file list for Main and Swap buffers only, you can load individual files into either the Alpha Channel or Brush buffers via ARexx scripts supplied in the Operations list, or as specified in your own scripts.

1.3 Creating AutoFX Scripts

Creating AutoFX scripts
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AutoFX command scripts actually consist of up to three ImageFX Arexx programs. The main script is executed on every frame. There can also be a ".pre" script and a ".post" script associated with the main script. The .pre script is executed before any frames are processed; it is normally used to open a window and select options for the main script. The .post script is executed after all the frames are finished processing; it can be used to clean up anything done in the .pre or the main script (for example, closing an animation file).

AutoFX passes certain parameters to each script so that the script knows what files to process, which frame number it's working on, etc.:

The .pre script
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The .pre script gets the following parameters:

```
<sequence number> <total number of frames>
```

They can be retreived using the Arexx ARG() and WORD() functions. For example:

```
sequence_number   = WORD(ARG(1), 1)
total_frames      = WORD(ARG(1), 2)
```

The "sequence number" is the numeric position in the command script list that this script is at. Ie., the first command script has a sequence number of 1, the second command script has a sequence number of 2. This is useful when the same script is placed in a command list twice; you can use the sequence number to distinguish between the two when saving and retreiving parameters.

AutoFX also stores the sequence number and total frames in the clip variables "AUTOFX_CNUMBER" and "AUTOFX_FRAMECOUNT". You can retreive them using the Arexx GETCLIP() command.

The ".pre" script is normally used to ask the user for parameters for the main script. These parameters can then be saved using the Arexx SETCLIP() function so that the main script can retreive them with GETCLIP().

The ".pre" script should return a non-zero exit code if there is some kind of error. This will cancel the rest of the AutoFX batch operation.

The main processing script
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The main script gets these parameters:

```
<frame number> <main filename> <swap filename> <sequence number> <total frames>
<alpha filename (2.5 only)>
```

They can be retreived using the Arexx ARG() and WORD() functions. For example:

```
frame_number      = WORD(ARG(1), 1)
main_filename     = WORD(ARG(1), 2)
swap_filename     = WORD(ARG(1), 3)
sequence_number   = WORD(ARG(1), 4)
total_frames      = WORD(ARG(1), 5)
alpha_filename    = WORD(ARG(1), 6)
```

AutoFX also stores these parameters in clip variables. This is very useful if,

```
for example, any of the filenames contain spaces (eg. "Ram Disk:myfile").   ↩
   Normally
it would be difficult to parse out the correct filename, but using the clip
variables it is painless.  (See the Load.ifx script for an example.)  Here are
the clip variable names for the above arguments:

   frame_number         AUTOFX_FRAME
   main_filename        AUTOFX_MAIN
   swap_filename        AUTOFX_SWAP
   sequence_number      AUTOFX_CNUMBER
   total_frames         AUTOFX_FRAMECOUNT
   alpha_filename       AUTOFX_ALPHA

You can retreive the contents of the clip variables using the Arexx GETCLIP()
command.

The script should return a non-zero exit code if there is some
kind of error.  This will cancel the rest of the AutoFX batch operation.

The .post script
~~~~~~~~~~~~~~~~
The .post script gets the same parameters as the .pre script:

   <sequence number> <total number of frames>

They can be retreived using the Arexx ARG() and WORD() functions.  For example:

   sequence_number   = WORD(ARG(1), 1)
   total_frames      = WORD(ARG(1), 2)

AutoFX also stores the sequence number and total frames in the clip variables
"AUTOFX_CNUMBER" and "AUTOFX_FRAMECOUNT".  You can retreive them using the Arexx
GETCLIP() command.

AutoFX.ifx.pre and AutoFX.ifx.post
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In addition, AutoFX attempts to execute "AutoFX.ifx.pre" before executing
any other scripts, and "AutoFX.ifx.post" after it has finished executing
all other scripts.  They can be used to set global states such as turning
off redraw for the entire duration of the processing.  They don't get any
meaningful arguments.

Example operation
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Suppose the following files are selected by the user:

Main Frames:
   "red.001"
   "red.002"
   "red.003"

Swap Frames:
   "green.001"
   "green.002"
   "green.003"

Command List:
```

```
   "Load.ifx"
   "Blur.ifx"
   "SaveBufferAs_ILBM.ifx"

Here are the scripts AutoFX will attempt to run, along with their arguments:

   - "AutoFX.ifx.pre"

   - "Load.ifx.pre" 1 3
   - "Blur.ifx.pre" 2 3
   - "SaveBufferAs_ILBM.ifx.pre" 3 3

   - "Load.ifx" 1 red.001 green.001 1 3 -
   - "Blur.ifx" 1 red.001 green.001 2 3 -
   - "SaveBufferAs_ILBM.ifx" 1 red.001 green.001 3 3 -

   - "Load.ifx" 2 red.002 green.002 1 3 -
   - "Blur.ifx" 2 red.002 green.002 2 3 -
   - "SaveBufferAs_ILBM.ifx" 2 red.002 green.002 3 3 -

   - "Load.ifx" 3 red.003 green.003 1 3 -
   - "Blur.ifx" 3 red.003 green.003 2 3 -
   - "SaveBufferAs_ILBM.ifx" 3 red.003 green.003 3 3 -

   - "Load.ifx.post" 1 3
   - "Blur.ifx.post" 2 3
   - "SaveBufferAs_ILBM.ifx.post" 3 3

   - "AutoFX.ifx.post"
```