GIMP

Animation

©Meghna Singh
Animation Methods

- Using Layers
  - Tedious (and frustrating!).

- Using GAP (GIMP Animation Package)
  - Much easier.
Animation using layers

Timing information

demo
Animation using Layers

- Becomes incredibly cumbersome to do more complicated animations.
Animating logos

Fear the Cow

demo
GAP: GIMP animation package

- Windows user: installer available

- Red Hat user: There is an RPM package.

- If you have development files installed on your system, you may be able to compile and install it from source.
GAP vs. GIMP layer animation

- Gimp treats each layer of a multi-layer image as a frame of an animation.
  
  ![One image-multiple layers](image1)
  
  Layer=frame

- GAP treats each Gimp XCF file as a multi-layered frame of a single animation.
  
  ![Many XCF files, XCF itself can have many layers](image2)
  
  Each XCF=frame
XCF?? eXperimental Computing Facility

- The native image format of the GIMP image-editing program.
- It supports saving each layer, the current selection, channels, transparency, paths and guides.
- However the undo history is not saved in an XCF file.
After installing GAP
Example 1

Animating
Example 2
Example 3

Where the world meets.
Scripting
Write plug-ins

- Scripting extension Script-Fu – Scheme (programming language used in Script-Fu)
- Plug-ins in C
- Gimp-Perl
- Gimp-Python
Script-Fu Console

Welcome to SIOD, Scheme In One Defun
(C) Copyright 1993-1994 Paradigm Associates Inc.

Script-Fu Console - Interactive Scheme Development
Browse

1010 Procedures

- extension-gap-ENC-PAR-QUERY-plugin-gap-enc-av
- extension-gap-ENC-PAR-QUERY-plugin-gap-enc-fm
- extension-gap-ENC-PAR-QUERY-plugin-gap-enc-si
- extension-gap-encpar-singleframes
- extension-gimp-help
- extension-gimp-help-browser
- extension-script-fu
- file-bmp-load
- file-bmp-save
- file-bz2-load
- file-bz2-save

extension-gap-ENC-PAR-QUERY-plugin-gap-enc-av1

**GIMP Plug-In**

Get GUI Parameters for GAP avi video encoder

**Parameters**

- param_name STRING name of the parameter, supported:
  - menu_name, video_extension

**Return Values**

- param_value STRING parameter value

**Additional Information**

This plugin returns avi encoder specific parameters.

**Author:** Wolfgang Hofer (hof@gimp.org)

**Date:** 2.1.08; 2004/10/07

**Copyright:** Wolfgang Hofer
Commands in the Console

Welcome to SIOD, Scheme In One Defun
(C) Copyright 1998-1994 Paradigm Associates Inc.

Script-Fu Console - Interactive Scheme Development

=> (gimp-image-new 256 256 RGB)
(306)

=> (gimp-layer-new 306 256 256 RGB IMAGE "foobar" 100 NORMAL-MODE)
(1717)

=> (gimp-image-add-layer 306 1717 -1)
()

=> (gimp-display-new 306)
(35)

=> (gimp-drawable-fill 1717 BG-IMAGE-FILL)
()
Writing down Script-Fu

1. A file where your script is written down, that file should be placed in ~/.gimp-1.1/scripts/.

2. A function, which does all the image manipulation.

3. You need to have a call to *script-fu-register* to make your script visible from inside the Gimp.
Empty function

(define (my-dummy-function a b)
  (print "Do nothing"))

(script-fu-register "my-dummy-function" "<Toolbox>/Xtns/Script-Fu/My Stuff/Dummy..."
  "Do nothing" "Joey User"
  "Joey User"
  "August 2000"
  ""
  SF-ADJUSTMENT _"Width" '(400 1 2000 1 10 0 1)
  SF-ADJUSTMENT _"Height" '(30 1 2000 1 10 0 1))
New function

(define (my-make-new-image)
  (let* ((image (car (gimp-image-new 256 256 RGB)))
         (layer (car (gimp-layer-new image 256 256 RGB-IMAGE "foobar" 100 NORMAL-MODE)))))
    (gimp-drawable-fill layer BG-IMAGE-FILL)
    (gimp-image-add-layer image layer 0)
    (gimp-display-new image) image))

car function is used to return the head of the list
Local variables are declared through the let keyword
Function with arguments

(define (my-duplicate-layer image layer)
  (let* ((dup-layer (car (gimp-layer-copy layer 1))))
    (gimp-image-add-layer image dup-layer 0)
    dup-layer))
Together

(define (function1))
(define (function2))
(gimp PDB function call)
(script-fu-register "my-function"
    "<Toolbox>/Xtns/Script-Fu/Logos/Metal Font..."
    "Create an example image of a custom gradient"
    "Federico Mena Quintero" "Federico Mena Quintero"
    "June 1997" "" SF-STRING "Text"
    "The GIMP" SF-FONT "Font"
    "-*-blippo-*r-*-*-24-*-*-*-p-*-*-*" SF-VALUE "Font Size" "50"
)