

### (and smart ones, too)

### Akkana Peck **shallowsky.com gimpbook.com** @akkakk

for SCALE 14x, January 2016

Next: gimp



#### **G**NU Image Manipulation Program

for editing raster images

... like my bad photos!

Next: brightness-contrast

## Easiest way to adjust brightness:

#### Colors→ Brightness-Contrast

But that's not enough for complex images.

Next: layer-masks-better

## A better way: layer masks

Make your new layer: Duplicate Layer then Brightness/Contrast

Right-click in Layers dialog → Add Layer Mask

Paint on the mask

Next: layer-mask-paint

## **Painting on Layer Masks**

Paint WHITE to show the top

layer.

## Paint **BLACK** to show layers below.

Try using a big fuzzy brush

Next: selecting-skies

## **Selecting Skies**

#### Try Select by Color

Do this with the mask still active

to illustrate how easy that is to do.

Next: mask-selected

## **Oops! the mask is active.**

You can tell whether the layer or mask is active: the one that's active has a thick white border.

Mode:	lormal		
Opacity Lock:	2 55	1	00.0
•		<b>T</b> st	ream-l
۲	79.	monrovi	a-strea
	2941		

Next: selecting-skies2

## **Selecting Skies**

Try Select by Color (again)

Drag up+left to select *less*, down+right to select *more* 

... with Select by: Value

... but still not good enough!

Next: decompose

## Colors → Components → Decompose

Gives a new image with layers for **Red, Green, Blue** or **Hue, Saturation, Value** (or other color models)



## **Decompose to HSV**

Hue: the color, e.g. more reddish,

#### more blueish Saturation: color

intensity **Value:** brightness (like converting to black & white.)

Next: levels

## **Levels Tool**

Use *Input levels* to adjust brightness.

-	Levels _ = ×
	st Color Levels ria-stream.jpg-2 ([monrovia-stream] (importe
Pre <u>s</u> ets:	▼ 4 3
Cha <u>n</u> nel:	Value 🔻 Reset Channel
Input Le	evels
2 Output	0 # 255 # Levels
0	255 🕏
All Channe	els midtone (gray) slider <u>Auto</u> 2 2 2
	Edit these Settings as Curves
✓ Previe	w
🗌 Gamm	a hack (temp hack, please ignore)
Help	o <u>₹2</u> Reset <u>%C</u> ancel <u>₹20</u> K

Next: paste-into-mask

## **Pasting into Layer Masks**

#### Click the Anchor button

### J

#### after pasting into a mask.

Next: activeborder

Where are you painting?

The white border indicates which is active: the layer, or its layer mask.



Next: hue-saturation

### **Hue-Saturation**

Fiddle with *Hue* (green? purple?), *Lightness* (how pale it is) or *Saturation* (how colorful).

Fun for skies.



# Pasting from one image to another

## Selecting an object to copy

Initial selection with Lasso or Color

Tune with the QuickMask

...but



## A Quicker Way

Make a quick, ragged selection; then erase the edges later.

(Make the initial selection a little too large.)

Next: scale-tool



Use *Keep aspect* option to maintain the same width/height.

Change Number of lines to No guides to get rid of visual clutter.

Next: anti-erase



You can often (not always) fix erasing mistakes with *anti-erase* in the eraser tool's options.

(Quickie alternative to a layer mask. The mask is more flexible.)

> Next: perspectiveshadow

## **Perspective shadow**

Perspective shadow is way too complicated! (and has issues)

Use **Drop Shadow** + **Perspective** tool instead.

Angle:		0.0
		0.0
Relative distance of horizon:	5.0	
Relative length of shadow:	1.0	
Blur radius:		3
Color:		
Opacity:		80 ‡
Interpolation:	Linear	[+
☐ Allow resizing		
Help	<u>X</u> Cancel	∉∂ок

Next: perspectiveopacity

## **Transform tool opacities**

- Two opacities:
- 1. In the Layers dialog, for the layer
- 2. In the Tool Options, for the preview



Next: save-export

Save vs. Export

#### Save to XCF (or .xcf.gz):

Files with GIMP-specific changes: layers, text, etc.

#### **Export:**

Any other format (JPG for web, PNG for archived photos, GIF etc.) Not going to talk much about formats -- more fun to show demos of neat GIMP tricks. But glad to answer questions.

I've seen 1700 messages so far on the save-export split.

Next: saver

## If you don't like the Save/Export split...

I have a plug-in called

Saver

(google for GIMP saver)

Name: m	notoshadow.xcf	
Save in <u>f</u> older:	🛅 akkana Docs gimp talks	scale14x slides <b>pix</b>
<u>P</u> laces	Name	Modified 🔺
🔍 Search	tmp	16:17
🕙 Recently Used	pix 🔚	16:12
🛅 akkana	📄 akkana	13:41
🛅 Desktop	▼  scale14x	12:16
	Action	12:16
	l 🖻 huv	11.41
Export a copy to:	motoshadow.jpg	
Scale the copy:	Percent: 100 🛉 Width: 80	0 🔹 Height: 600

Talk about plug-ins and scripting: C, Python, and now (again) Perl.

You can bind Saver to Ctrl-S and pretend the save-export split never happened.

Much more productive than flaming on the GIMP lists.

Next: dpi

## **Image size and DPI**

GIMP edits images made of pixels ("raster").

"8 inches" doesn't mean anything. "2400 pixels" does.

Next: dpi2

Too few pixels + too big = blurry or pixellated.

## How many pixels do you need?

DPI = "Dots (pixels) Per Inch".

Common guideline is 300 dpi for printing ...

but it depends on your taste! 150 may be fine.



## Vector formats → !GIMP

GIMP can *import* vector formats (e.g. PDF, SVG).

If you *export* them from GIMP, they turn into raster images.

Very inefficient, and you lose information.

Inkscape is a good option if you need to edit vectors.

Good time to compare to Adobe, and tell the story about a speaker not being able to give his talk because Adobe Creative Suite wouldn't let him work without a license check.

Free software is Next: removing

## **Removing things from images**

Lots of ways! Two easy ones:

• Clone tool

 Select, move selection, copy, paste, move back

Next: cool-2.8-features

### **Cool GIMP 2.8 Features**

(that you might not have seen yet)





Next: layer-groups

## **Cool 2.8 Features:** Layer Groups

Group layers that belong together.

Show / hide them as a group, use transform

tools, or copy them all at

once to paste into another image.



Without hassling with turning eyeballs on and off all the time.

> Next: moving-layergroups

## **Moving Layer Groups**

Move a layer group using the Move tool with *Move the active layer* option.



Next: math-in-entries

## **Cool 2.8 features: Math in Size Entries**



Propeller beanie ("geeky feature" alert!) from *OpenClipArt via Wikimedia Commons*.

An easy way to scale up and down

(faster than changing *px* to %)

ж.	Scale Image	- • ×
	lmage 25] (imported)-3	*
Image Siz	e	
<u>W</u> idth:	3648 / 4	
H <u>e</u> ight:	2736 <b>•</b> px •	
	3648 × 2736 pixels	
<u>X</u> resolu	ition: 180.000 🗧	
<u>Y</u> resolu	ntion: 180.000 📫 👖 pixels/in 🔻	
Quality		
I <u>n</u> terpol	ation: Cubic	<b>•</b>
Hole	Reset Cancel	Scale
🔀 <u>H</u> elp		<u>s</u> cale

Next: paint-dynamics

## **Cool 2.8 Features: Paint Dynamics**

Lots of fun brush effects for painting.

Get tablet effects even if you don't have a tablet.



Next: coming-in-2.9

### **GIMP 2.9 Features**

COMMENCESODI

Image: *Mjw064 at en.wikipedia [CC0], via Wikimedia Commons* 

Next: gegl

## **Coming in 2.9: GEGL**

GEneric Graphics Library: a new

backend for GIMP.

But it really stands for "Genetically Engineered Goat, Large".



Next: colorspaces



<u>Image L</u> ayer <u>C</u> olors <u>T</u> ools Filte <u>r</u> s <u>W</u> i	n
Duplicate Ctrl+D	
<u>M</u> ode	
Pr <u>e</u> cision )	• 8 bit integer
Color Ma <u>n</u> agement	16 bit integer
<u>T</u> ransform ) <u>+</u> Can <u>v</u> as Size Fit Canvas to L <u>a</u> yers Fit Canvas to Selection	32 bit integer 16 bit floating point 32 bit floating point 64 bit floating point
Print Size  Shift+S	• Perceptual gamma (sRGB) Linear light

GIMP 2.9 now supports high-color images!

## *Guide to high bit depth editing* on *pixls.us*



## **Coming in 2.9: Warp Tool**

Finally -- a tool version of iWarp!

With a full-sized preview, on canvas!



Trump image (before iWarping) by *Boss Tweed [CC BY 2.0 (http://creativecommo via Wikimedia Commons* 

Next: unified-transform

## In 2.9: Unified transform tool

Hover the mouse over a handle to see what it does.



Rotate handles are outside the image.

Next: text-search

## In 2.9: Text Search



#### Propeller beanie from *OpenClipArt via Wikimedia Commons*.

Much faster than Plugin Browser, and more complete: shows tools as well as plug-ins.



Next: mypaint-brushes

## In 2.9: MyPaint Brushes

Use fancy brushes designed for the MyPaint program.

Adds a new drawing



tool in the Toolbox.



This unfortunately makes GIMP more difficult to build.

See the *GIMP Wiki build page* for instructions. You'll need to pull libmypaint from git and use scons to build it.

Next: gimp-perl

## **Coming in 2.9: GIMP-Perl**

GIMP-Perl is back:

now you can write scripts in Perl as well as C, Python and Script-Fu.

Next: moretools

But they're slow and crashy at this point.

## More tools coming!

- N-Point Deformation
- Cage Transform
- Handle transform



Next: conclusion

## **Thank you! Questions?**

#### Slides for this talk: gimpbook.com/talks/scale14x

...Akkana Peck shallowsky.com gimpbook.com Twitter: @akkakk If there's extra time, some things to show:

- Use dodge mode to eliminate white bg
- colorize car with layer modes
- leopard sqrl
- transform GIMP.xcf layers all together
- lighting effects to
  build gime vef
  The end