Inkscaping for Fun and Profit

INKSCAPE

Draw Freely.

Donna Benjamin
Linux Users of Victoria
May 2008

... in brief

- Inkscape is an Open Source scalable vector graphic (SVG) editor. Forked from SodiPodi in 2003, Version 0.46 was released in late March 2008. Despite the low version number Inkscape is strong, stable, intuitive and ready for Prime Time. Donna will showcase Inkscape art and practical applications, demonstrate Vector Drawing techniques, and provide pointers on where to go to learn more.
- Donna Benjamin runs her own business and procrastinates daily by exploring new features and bugs of the bleeding edge version of Inkscape. She has managed to find legitimate uses of the software for creating web graphics, re-recreating corporate logos and creating posters and banners. Creative Contingencies does customised web application development, hosting, research and meeting facilitation. Donna is also a board member of Open Source Industry Australia and was conference director for linux.conf.au 2008.

Gratuitous unrelated photo

http://www.flickr.com/photos/charliebrewer/197988512/

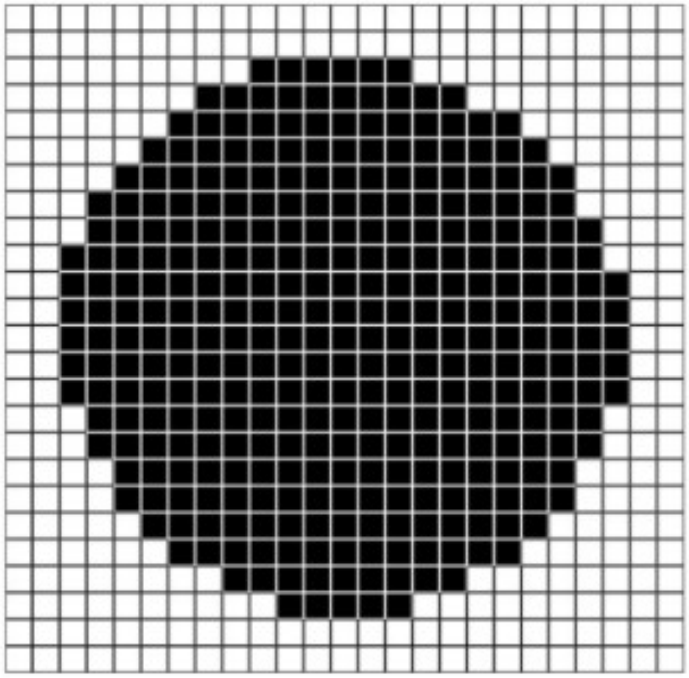
This talk ...

- starts with a brief description of Inkscape
  - what it is
  - what it does
  - how it does it
- and finishes off with pointers to help you do it too.

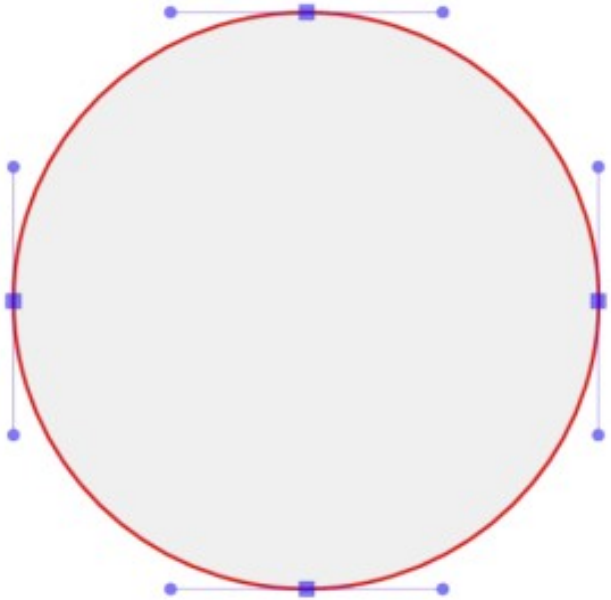
Scalable Vector Graphics

- **Native** File format is W3C SVG1.1
  - http://www.w3.org/Graphics/SVG/
  - SVG is a language for describing two-dimensional graphics and graphical applications in **XML**.
    SVG 1.1 is a W3C Recommendation and forms the core of the current SVG developments.
- Interoperable with a range of apps, and useful modern web browsers.
  (watch out for blurs, gradients & transparency)

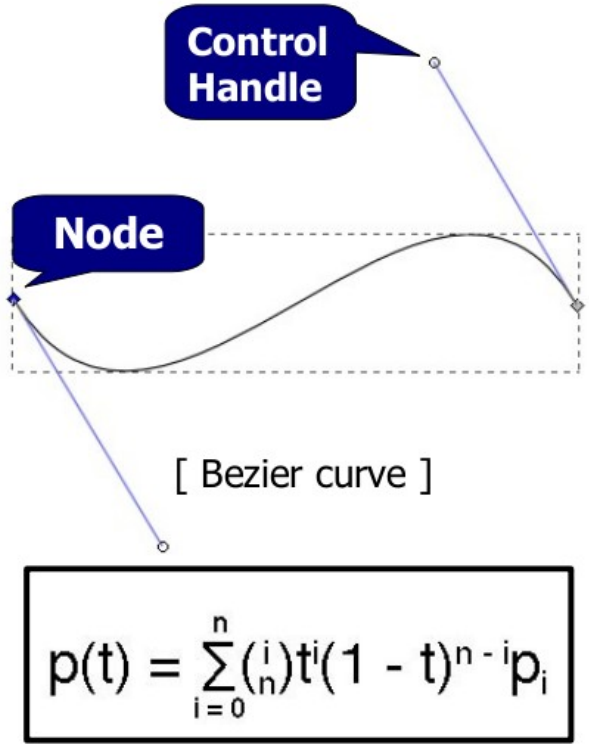
Raster and Vector



Bitmap / Raster



Vector



[Bezier curve]

$$p(t) = \sum_{i=0}^{n} \binom{i}{n} t^i (1 - t)^{n - i} p_i$$

... for art's sake

http://klowner.deviantart.com/art/Emerald-Hunter-9487349

Inkscaping for
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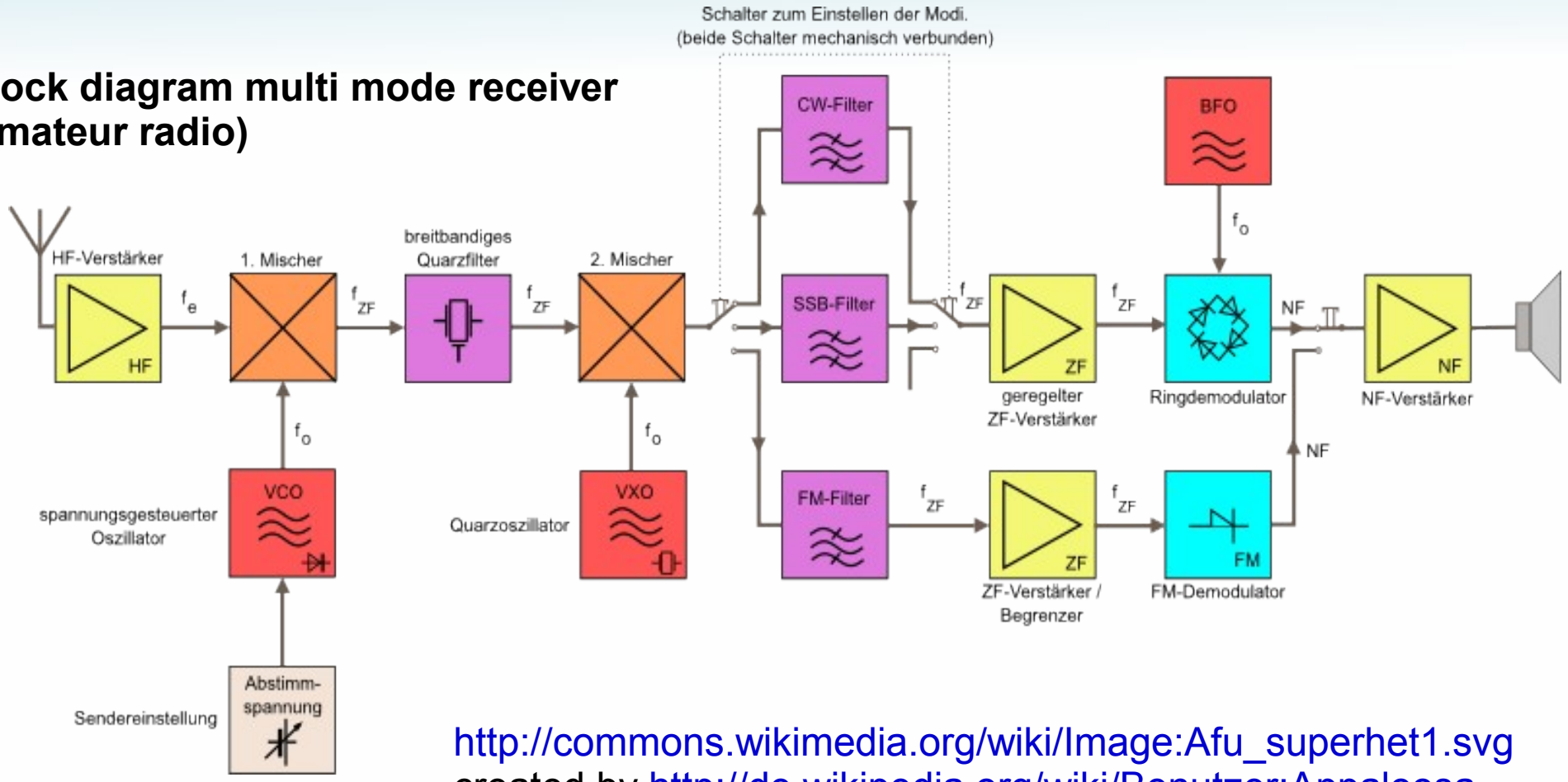
... for diagrams

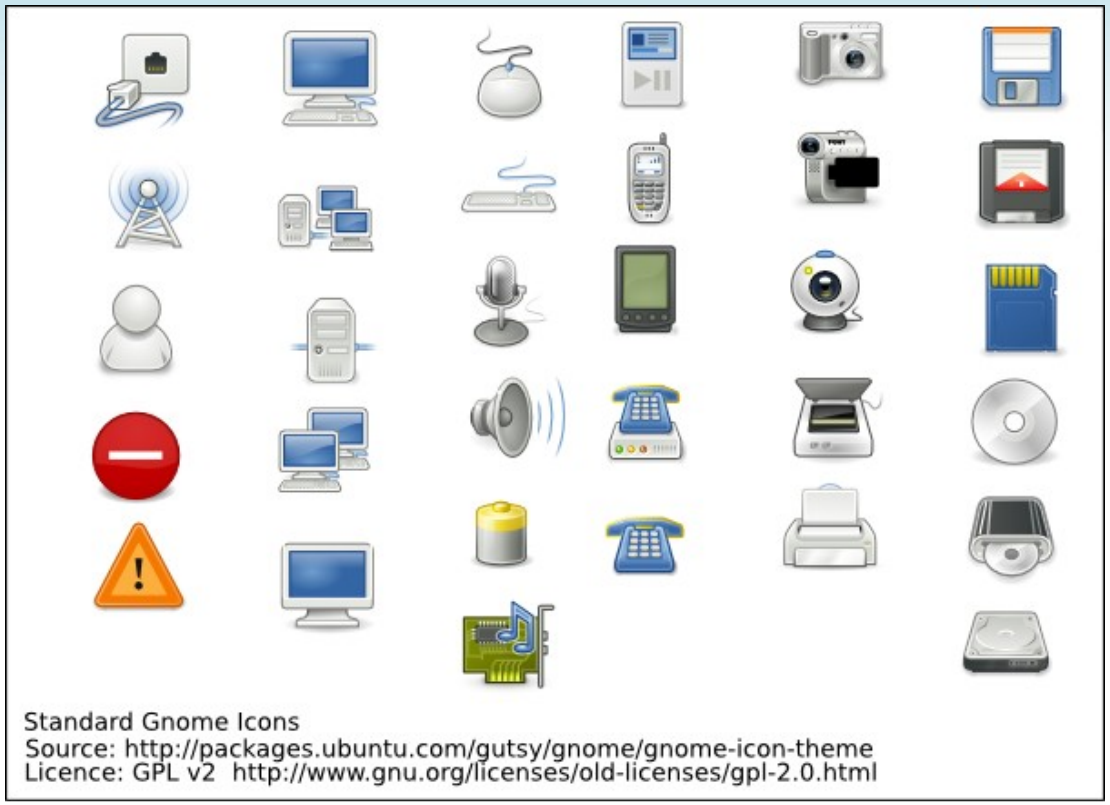
Block diagram multi mode receiver (amateur radio)



http://commons.wikimedia.org/wiki/Image:Afu_superhet1.svg
created by http://de.wikipedia.org/wiki/Benutzer:Appaloosa

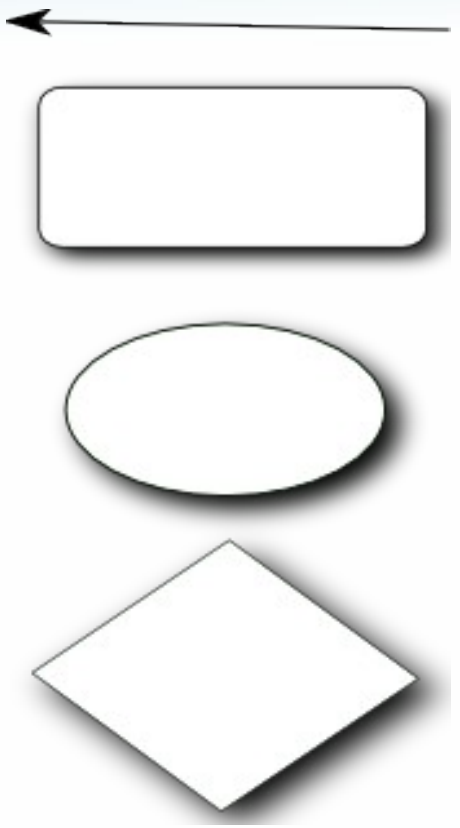
Inkscaping for
Fun and Profit

... for diagrams



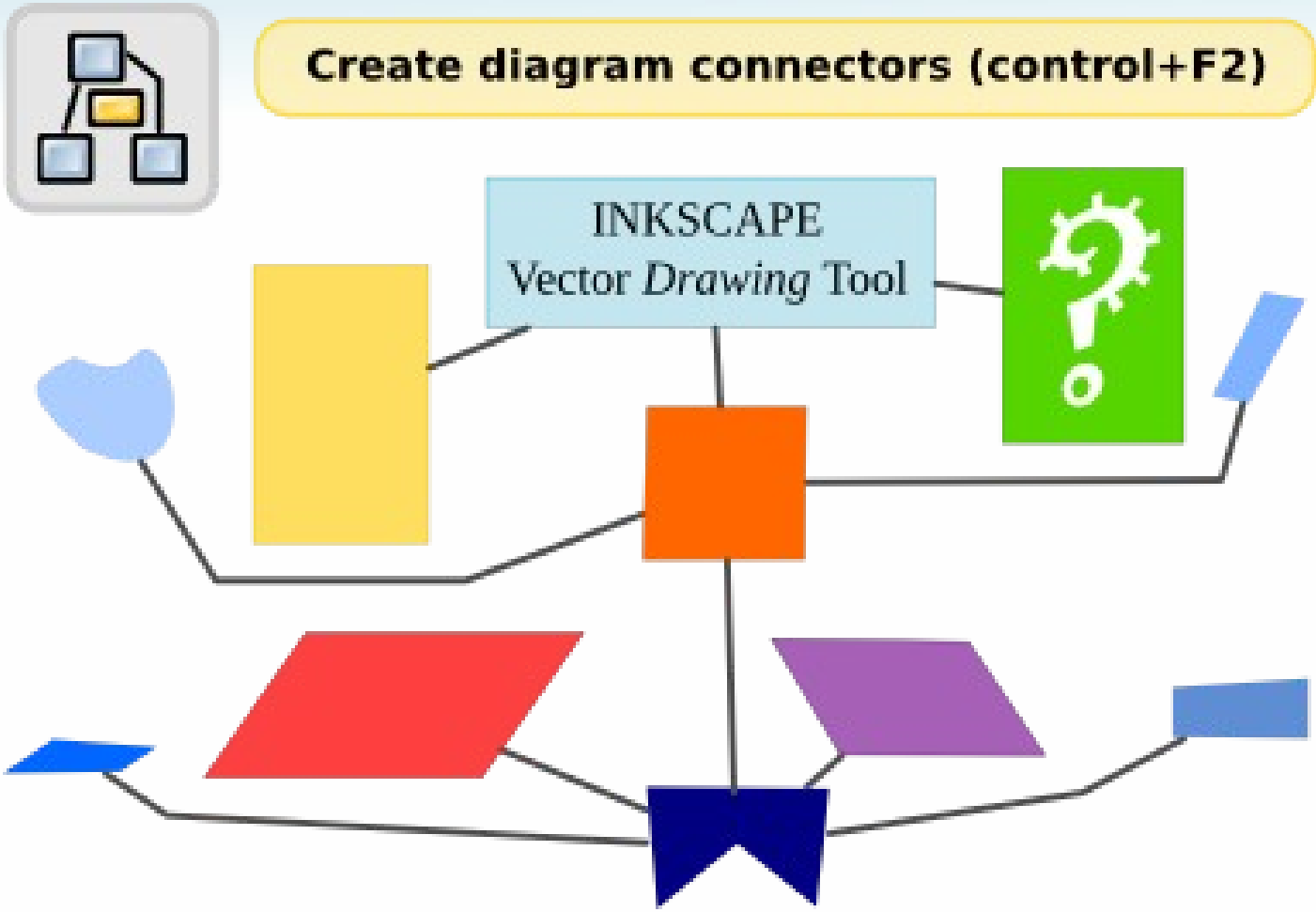
Standard Gnome Icons
Source: http://packages.ubuntu.com/gutsy/gnome/gnome-icon-theme
Licence: GPL v2 http://www.gnu.org/licenses/old-licenses/gpl-2.0.html

Network Icons from Quantum Bits
Source: http://www.quantum-bits.org/?p=57
Licence: CC Share Alike: http://creativecommons.org/licenses/by-sa/2.5/



http://www.lynchconsulting.com.au/blog/index.cfm/2008/2/12/Pretty-network-diagrams-and-flow-charts-with-Open-Source-software

... for diagrams



Inkscaping for
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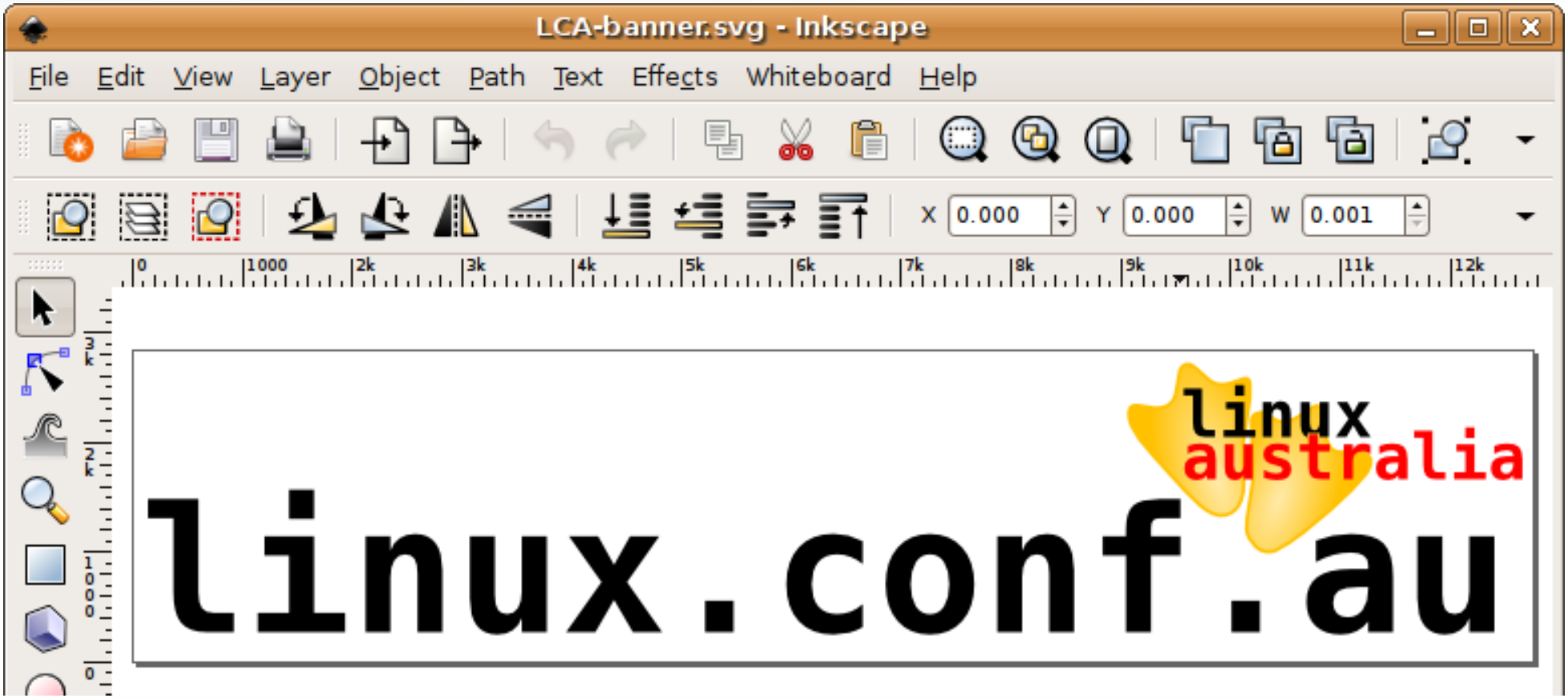
... for signs & logos



... for signs & logos

http://www.flickr.com/photos/chrissamuel/2222027499

Inkscaping for
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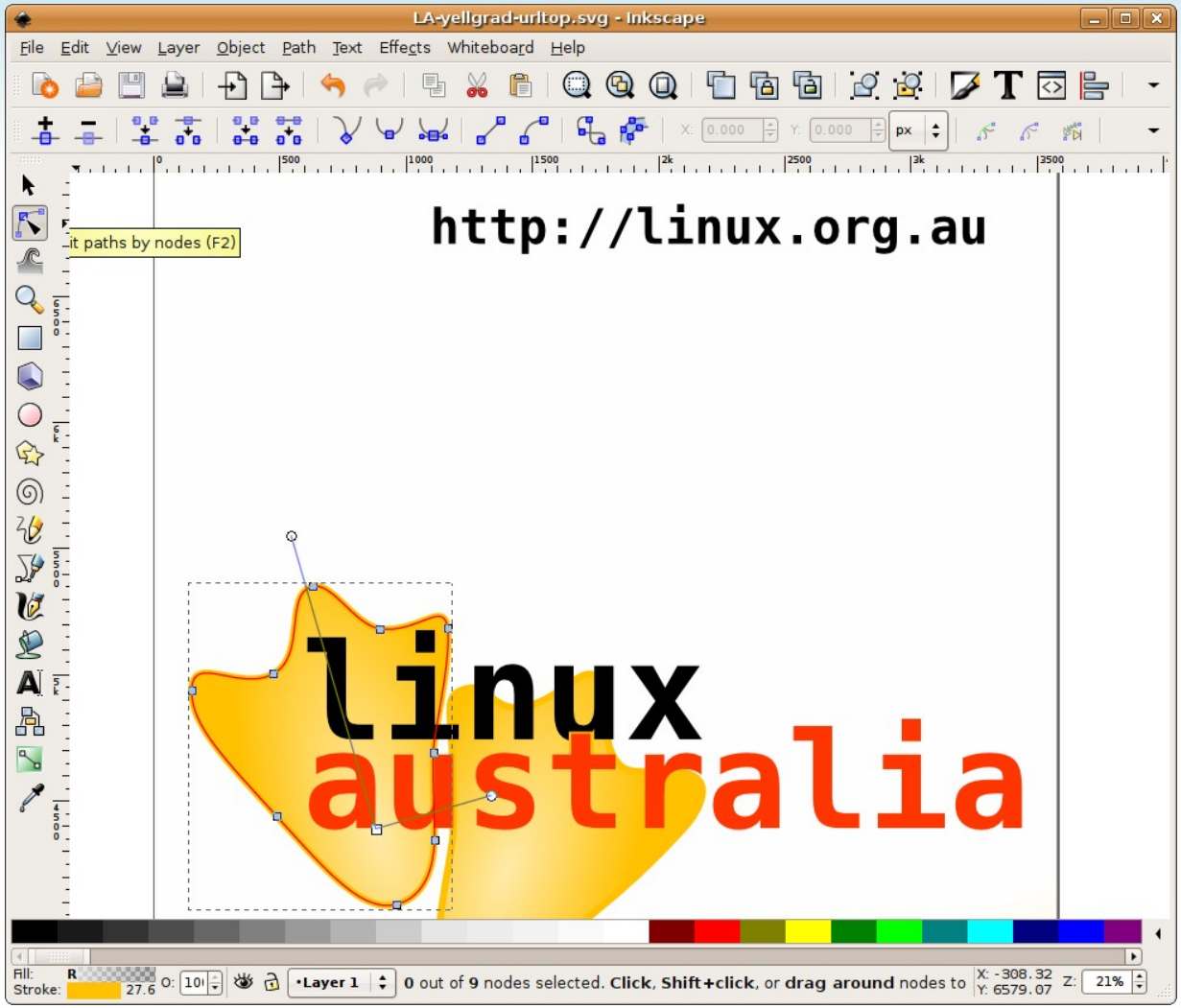
... for trade banners



Inkscaping for
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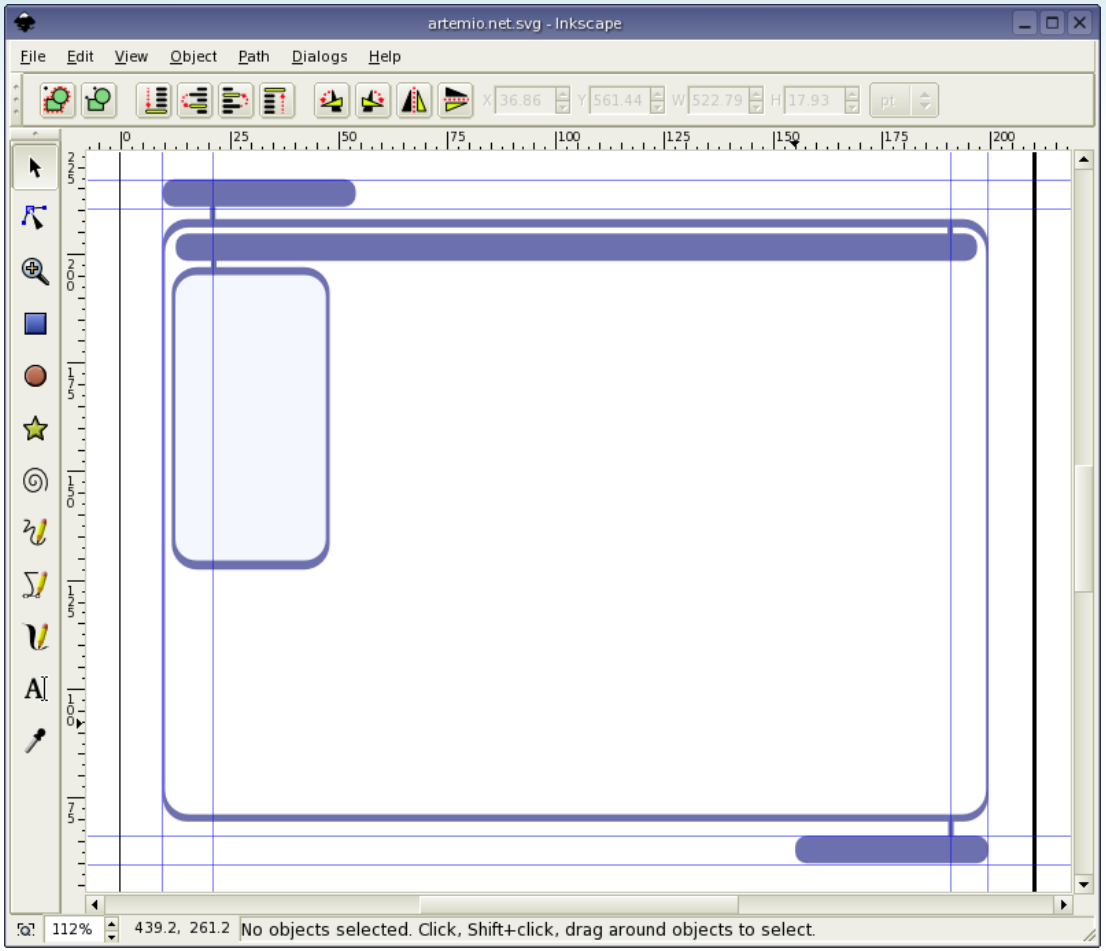
... for websites



http://www.inkscape.org/showcase/web_design/index.php?lang=en

Inkscaping for Fun and Profit

... and databases

corporate_report_page4.xsl - Bluefish 1.0.7

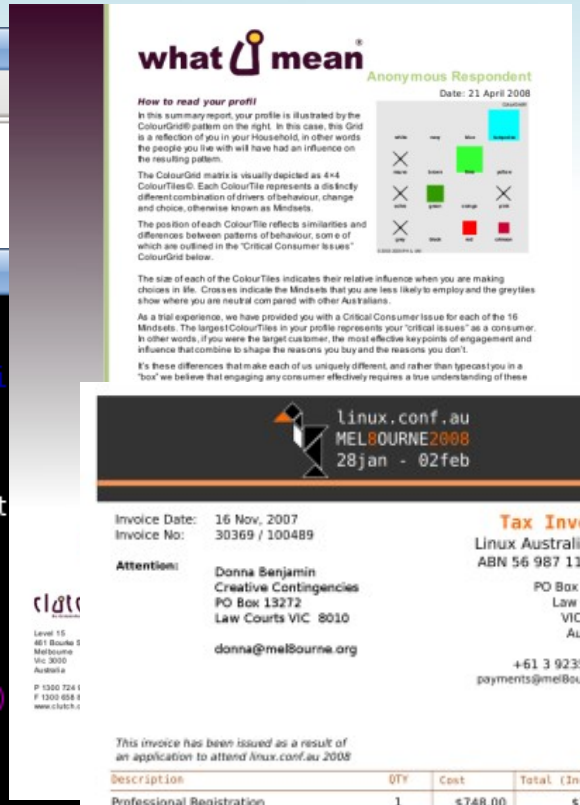
File Edit View Tags Dialogs Document Go Project External Help

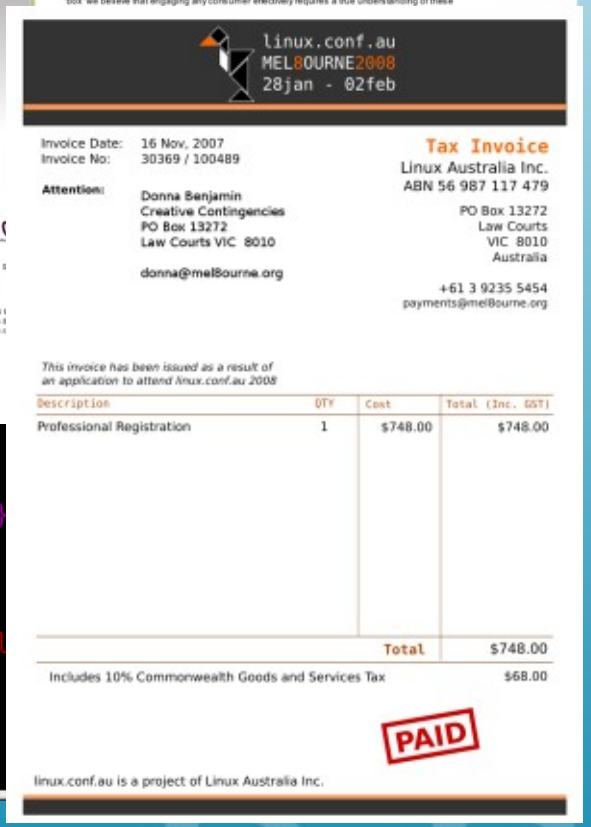
```
201 <g>
202     <path
203        id="path4801" d="M -2.5,-0.80913858 C -2.5,1.9508614
204        -4.7400000,4.1908614 -7.5,4.1908614 L -7.5,-5.8091386
205        C -4.74000
206        style="fil
207        transform=
208 <xsl:variable n
209 <xsl:variable n
210 <xsl:if test="$p
211     <rect
212        y="{124.621
213        x="{497.241
214        height="{40
215        width="{40.
216        id="rect283
217        style="fill
218        />
219 </xsl:if>
220     <flowRoot
221        xml:space="
222        style="font
223        <flowRegic
224          id="flowR
225            id="flo
226   </g>
```

corporate_report_page4.xsl

cafuego@gibson

```
$report = new $class( $respondent, $survey->id );

// This needs to run in a loop, for each page. We pdftk to a si
foreach( $report->pages as $i => $page ) {

  $args['xml'] = $page->xml();
  $args['xsl'] = file_get_contents( sprintf( "%s.xsl", $page->t

  $x = xslt_create();
  xslt_set_encoding($x, 'UTF-8');

  $svg = xslt_process( $x, 'arg:/xml', 'arg:/xsl', null, $args
  if( xslt_errno( $x ) ) die( "XSLT Error : ". xslt_error( $x )

  // PHP's tempnam() uses mkstemp(3). Settle down, Beavis.
  $pdf_tmp = sprintf( "%s.pdf", tempnam( TMPDIR, APPNAME ) );
  $svg_tmp = sprintf( "%s.svg", tempnam( TMPDIR, APPNAME ) );

  $fp = fopen( $svg_tmp, "w" ) || die( "Argh! Can't write {$svg_tmp}
  fwrite( $fp, $svg );
  fclose( $fp );

  exec( "/usr/bin/inkscape -z -A {$pdf_tmp} -f {$svg_tmp} > /dev/nul
  unlink( $svg_tmp );
  $pages[] = $pdf_tmp;
}
```





... for games

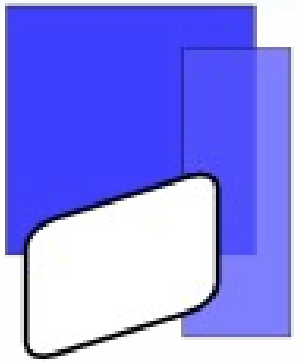
KMahjongg

The background was created by Eugene Trounev and the tilesets by Raquel Ravanini...

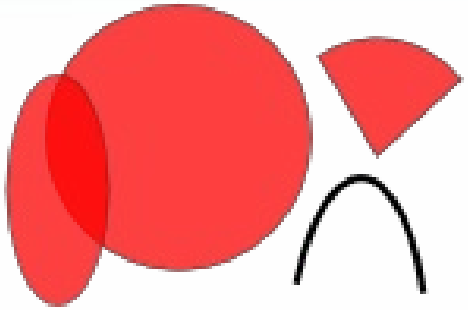
Thanks Ian :)

Basic tools

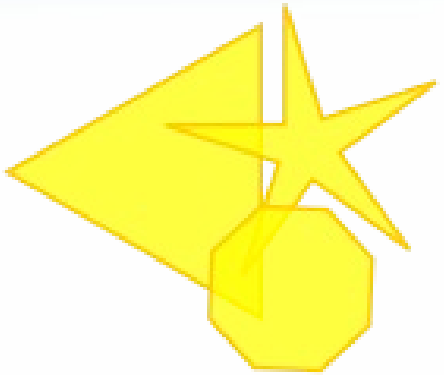
Squares &
Rectangles



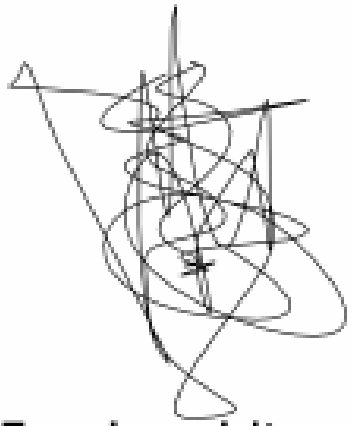
Circles, Wedges
Arcs & Ellipses



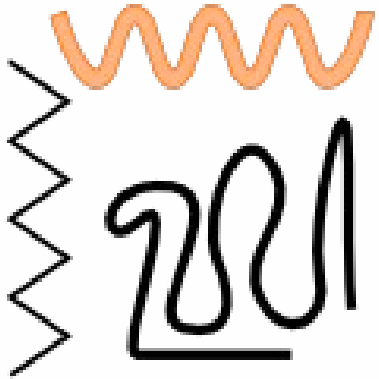
Stars &
Polygons



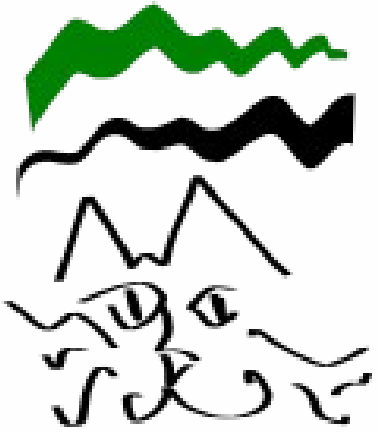
Spirals



Freehand lines

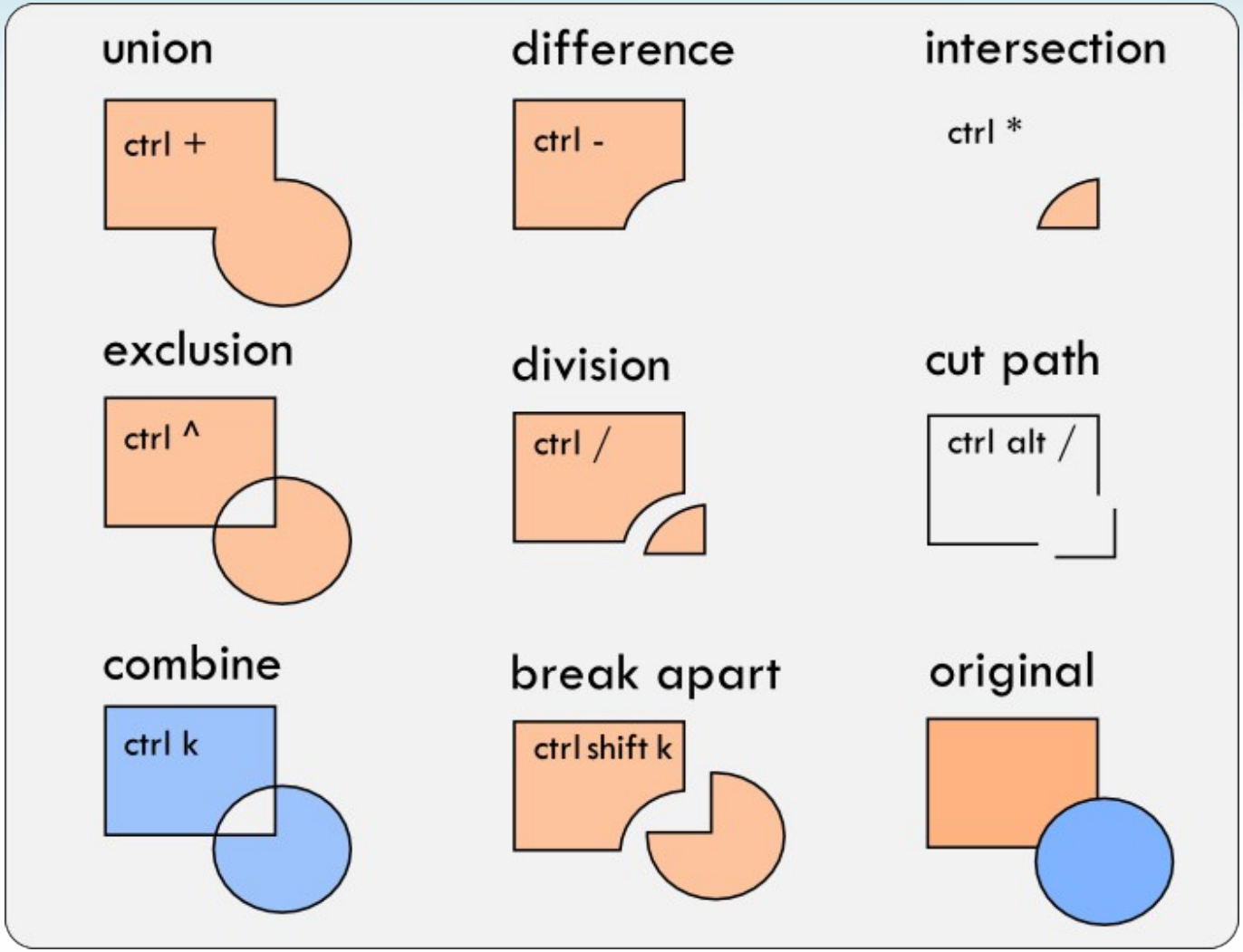


Bezier Curves
& Straight lines

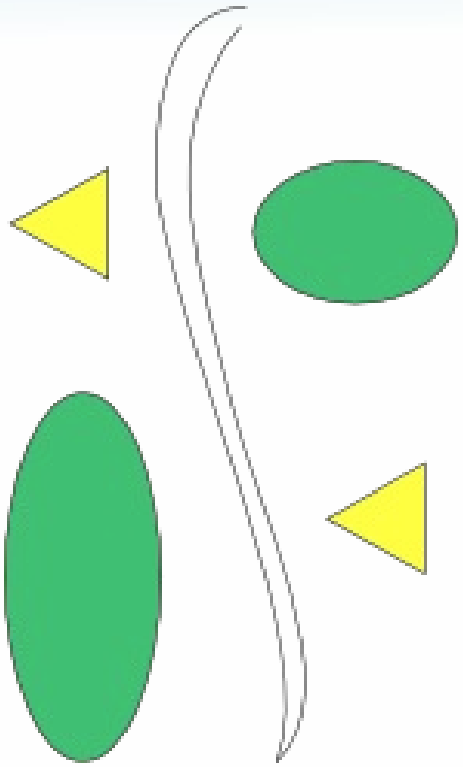


Calligraphy

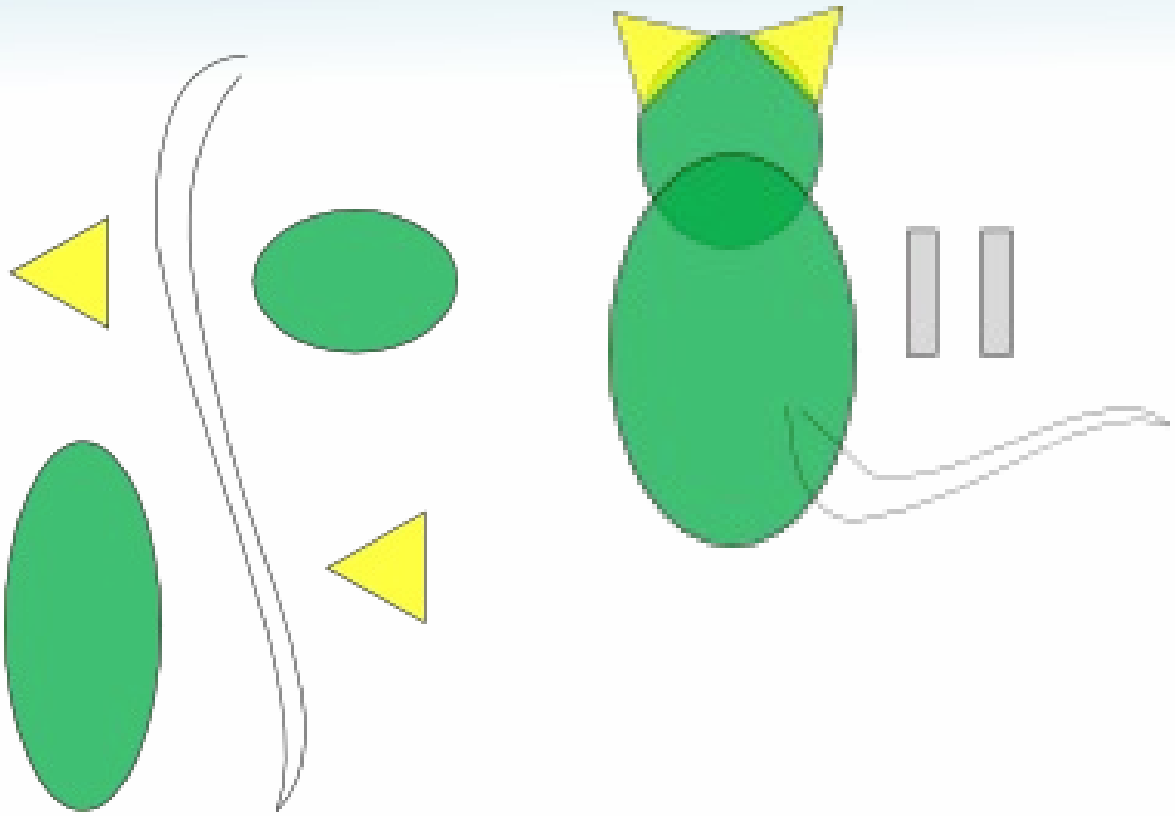
Basic techniques



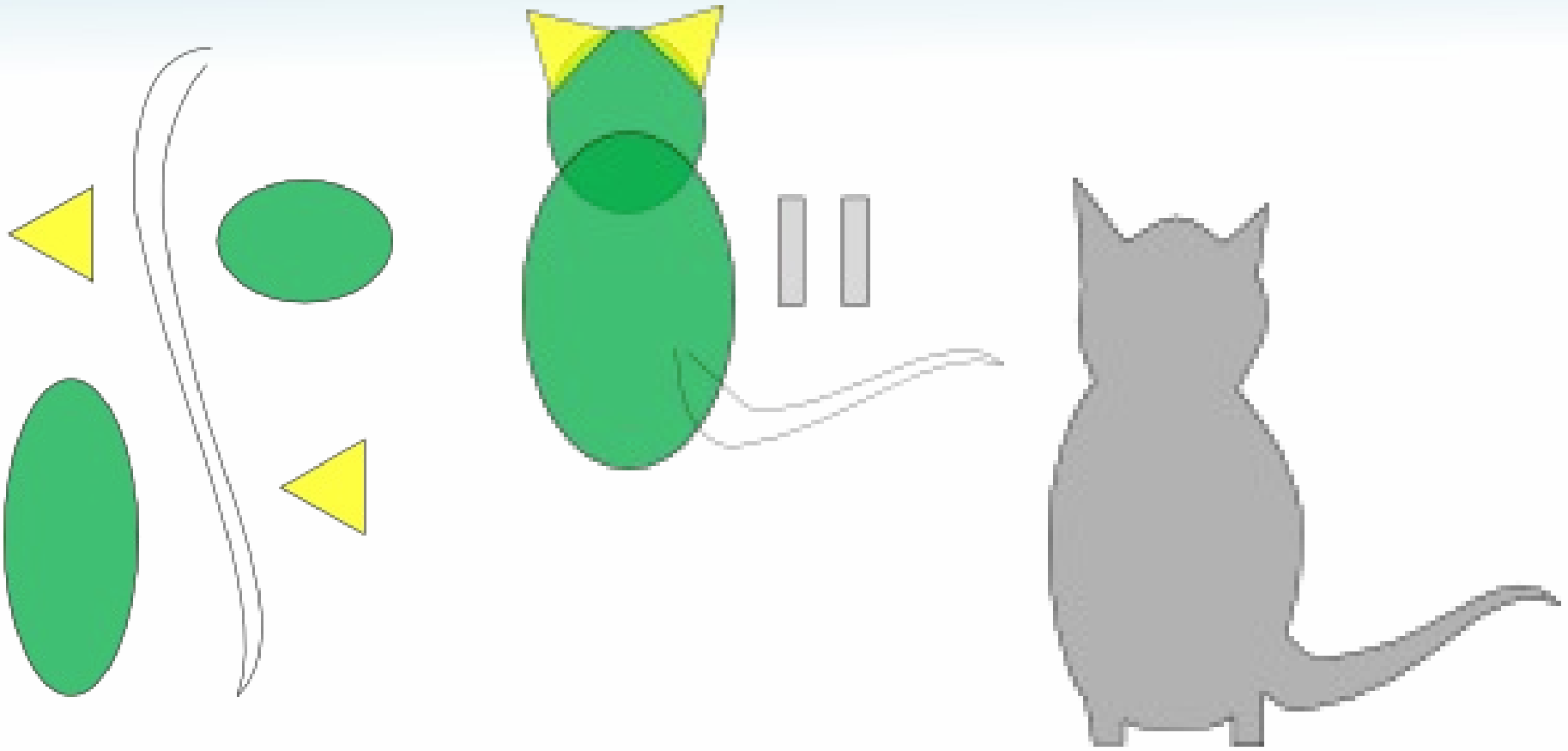
Basic techniques



Basic techniques



Basic techniques



Inkscaping for
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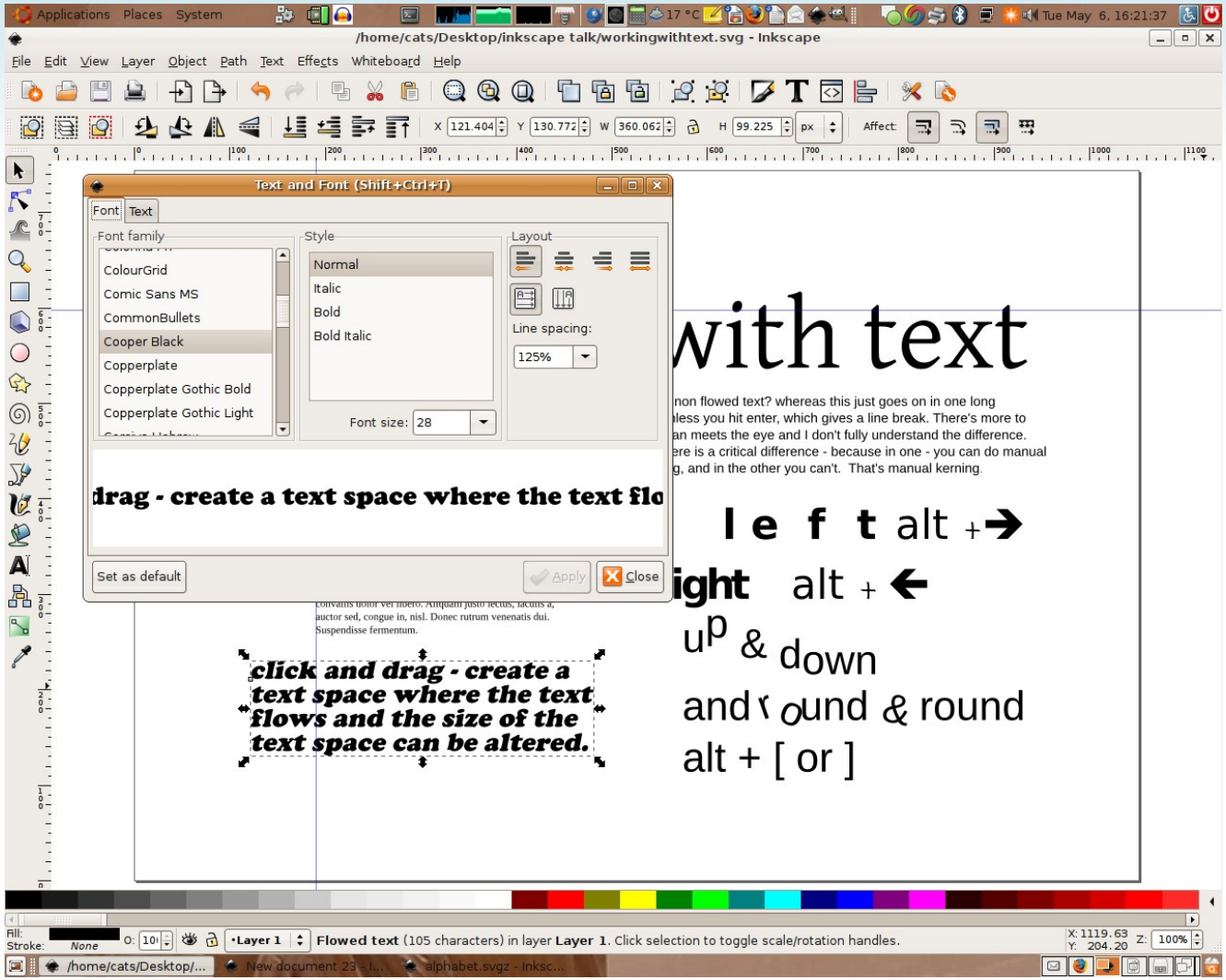
Working with text



Trace bitmap

original

brightness cutoff

edge detection

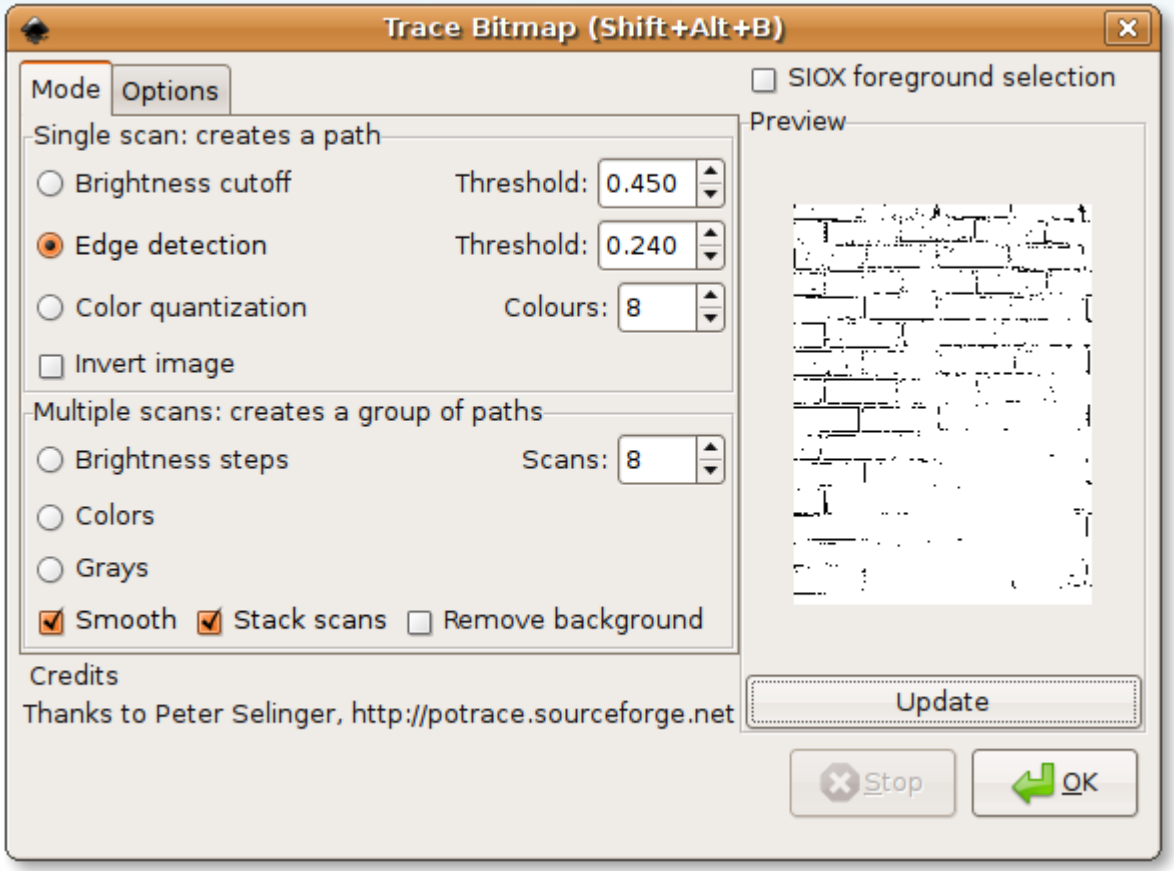
select invert image

... or options off

Multiple Scans: 6
Colors

Trace bitmap

Trace bitmap



LUV poster

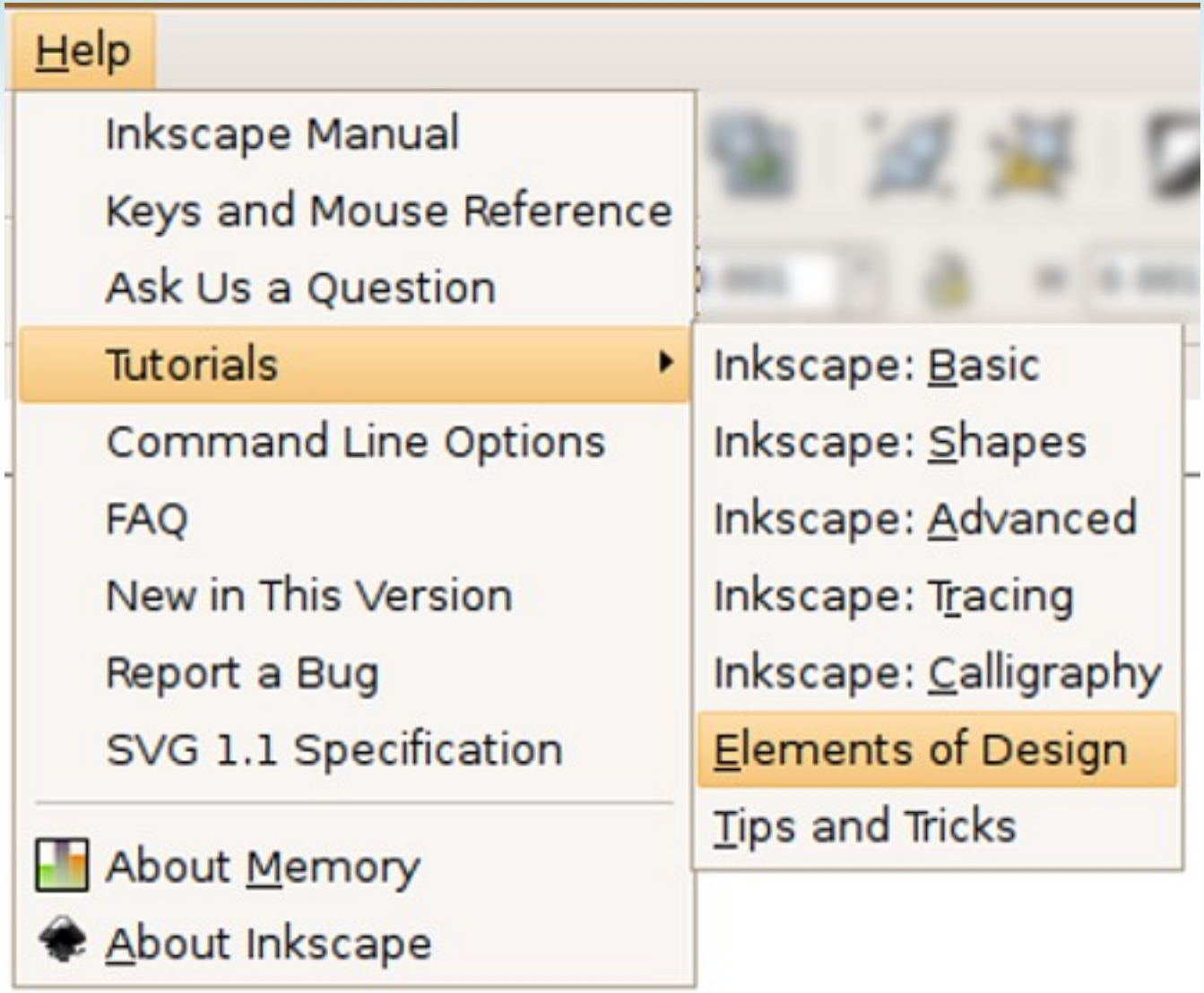
- Take photo of bricks
- Trace bitmap
- Add
  - text and rotate
  - logos
  - box
- Make the text white
- Add vector grime

Clones

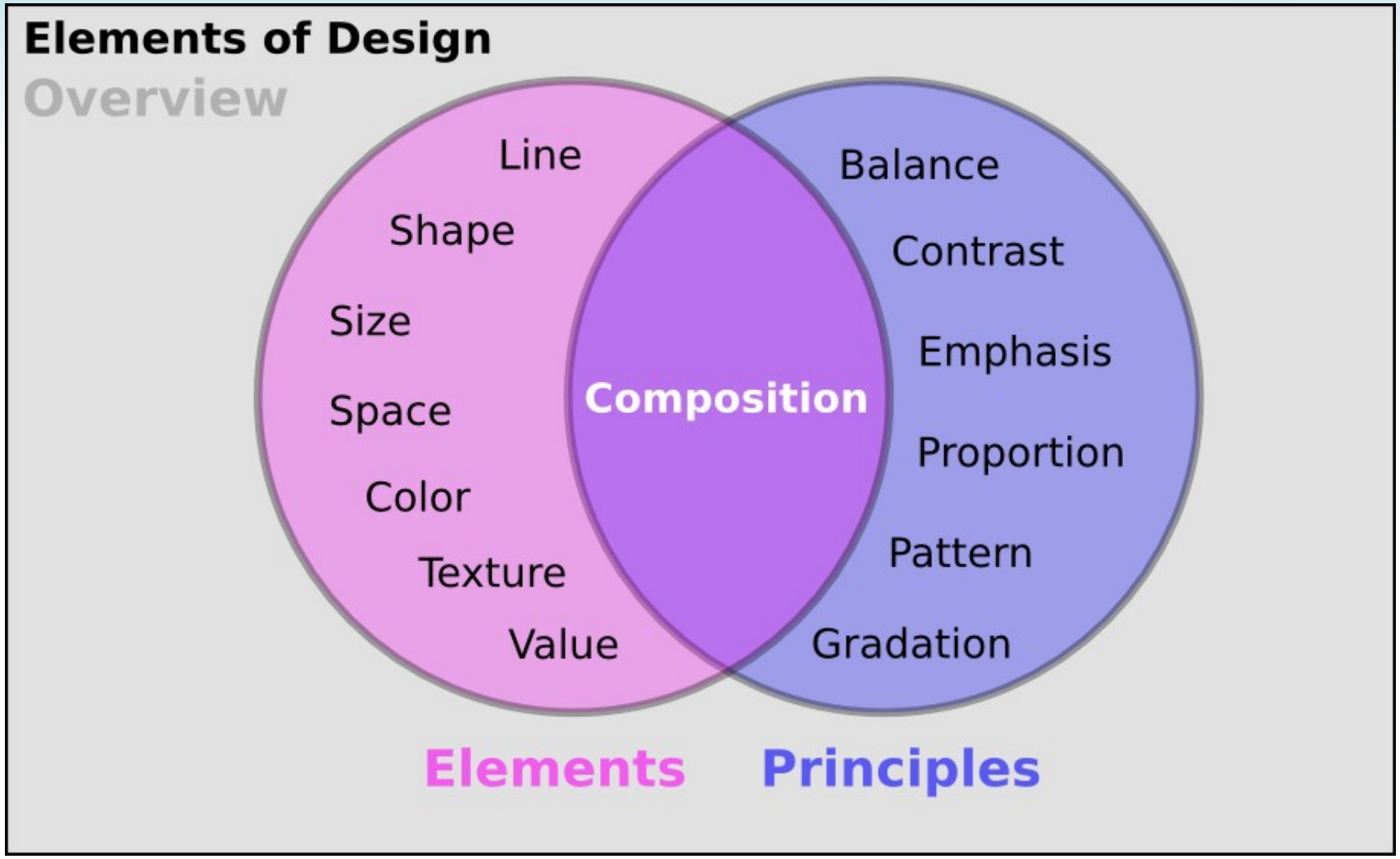
- You can clone anything...
- time for a live demo?
- **cross fingers, hold breath**

Built in help

- There are Tutorials in the help menu.
- SVG format so you can work with them directly.



Elements of design



From the Elements of Design Inkscape Tutorial

Refs & tutorials

Basic Info (and some examples)

http://commons.wikimedia.org/wiki/Inkscape
http://en.wikipedia.org/wiki/Inkscape

Techniques, Tips, Tricks & Tutorials

http://www.ffnn.nl/pages/articles/media/inkscape-text-tricks.php
http://inkscapetutorials.wordpress.com/
http://kalaalog.com/2007/11/01/inkscape-path-operations-basic-tutorial/
http://redhathigh.pbwiki.com/Illustration+with+Inkscape
http://screencasters.heathenx.org/

Tiled Clones

http://inkscape.teekoo.com/index.php?select=bar

Bezier curves

http://raikardesigns.blogspot.com/2007/10/fascinating-bezier-curves.html
http://en.wikipedia.org/wiki/B%C3%A9zier_curve

Network Diagrams

http://www.lynchconsulting.com.au/blog/index.cfm/2008/2/12/Pretty-network-diagrams-and-flow-charts-with-Open-Source-software
http://www.ioncannon.net/utilities/123/10-tips-for-creating-good-looking-diagrams-using-inkscape/