How to use Inkscape

by Paul and Eric

What is Inkscape

- Vector drawing program (like Adobe Illustrator)
- Free and open source
- Cross platform: Windows, Linux, Mac OS
- Where can I get it? http://inkscape.org/
- Why do I need it?

To make Matlab/R/whatever figures more pretty

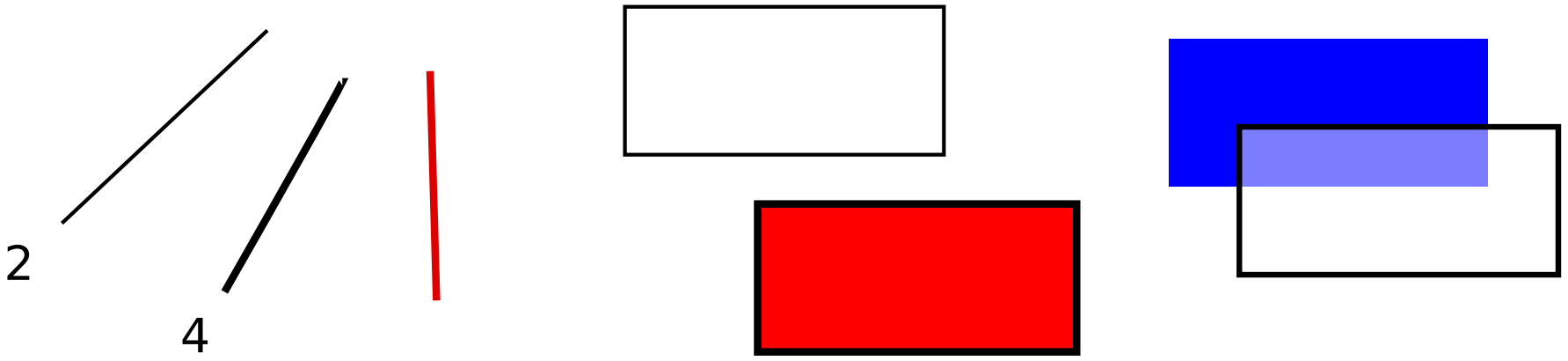
To make a poster or presentation (to be covered next time)

To extract a vector figure from a pdf of an article

To make schematic figures

The Basics

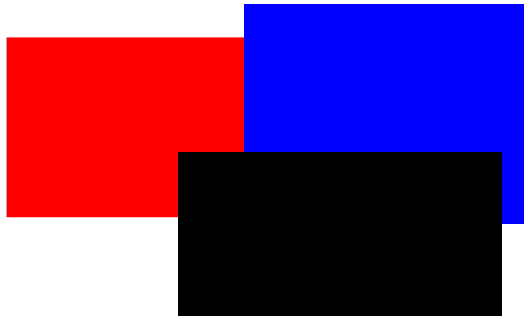
- Draw rectangles (F4), circles (F5), and lines (F6 and SHIFT-F6)
- Group select (F1) and node select (F2)
- Click and drag to move an object, hold CTRL to move along vertical/horizontal lines, press space to drop a copy
- Stroke (colour, width) and fill (color) ... and transparency!



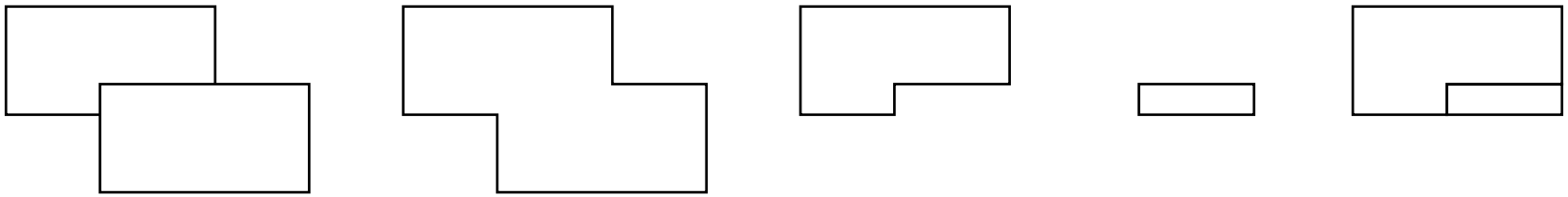
- Text (F8) including font, size, **bold**/*italics*, stroke/fill, etc...
- Zoom (- and + keys), to selection (3), and to page (5)

More Basics

- Transformations (CTRL-M): scaling, rotating, skewing...
- Grouping (CTRL-G), select within a group (hold CTRL and select)
- What's "on top": object order (PAGE UP and DOWN, HOME, END) and layers



- Combine (CTRL-K), union, difference, intersection, division...



LaTeX Equations

- TeXtext extension: http://pav.iki.fi/software/textext/
- Go to "Effects | TeX Text" and type latex code...get a nice vector obect:

$$
\begin{aligned}
\frac{\partial u}{\partial t} - fv &= -g\frac{\partial \eta}{\partial x} \\
\frac{\partial v}{\partial t} + fu &= -g\frac{\partial \eta}{\partial y} \\
\frac{\partial \eta}{\partial t} &+ H\left(\frac{\partial u}{\partial x} + \frac{\partial v}{\partial y}\right) = 0
\end{aligned}
$$

- Can include preamble for including packages (\usepackage{bm})

Trace Bitmap

- Can convert a hand-drawing into a vector object!
- Import image file and go to "Path | Trace Bitmap..."

Original JPEG

after "Trace Bitmap"

...edit stroke and fill...