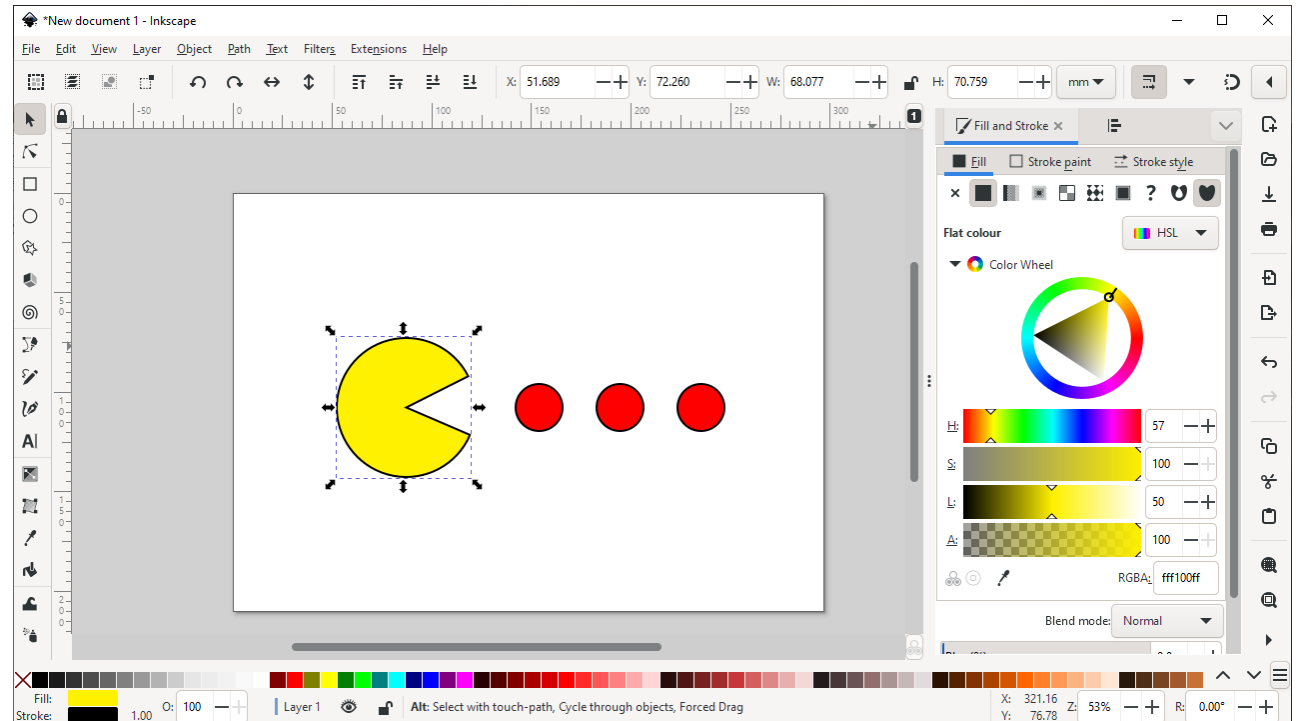# Inkscape Tutorial

v2024-05

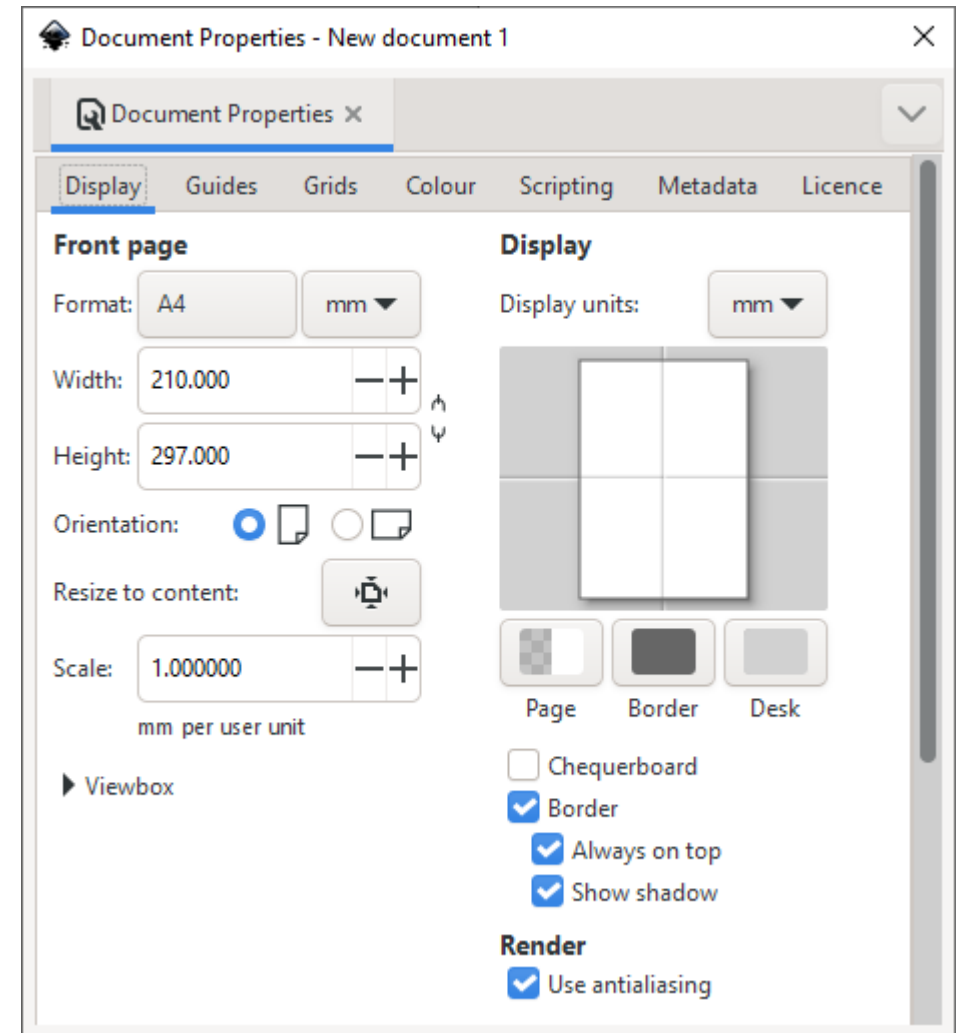Simon Andrews

simon.andrews@babraham.ac.uk

What is Inkscape?

- Vector Graphics Editor
- Free, Cross Platform

- Good for:
  - Editing
  - Drawing
  - Compositing
- Not for:
  - Bitmap editing

www.inkscape.org

Setting up a canvas

- File > Document Properties

- Shows page in view

- Doesn't restrict drawing

- Useful as a guide

Moving around

- Panning
  - Scroll bars on bottom / right
  - Scroll up/down, Shift+scroll for left/right

- Zooming in / out
  - Click to zoom in, shift+click to zoom out
  - Control + Scroll Up/Down to zoom in/out to cursor

- Shortcuts
 - Fit page, drawing, selection in window

The main toolbar

- **Selection tool**
- Edit nodes tool
- **Make rectangles**
- **Make ellipses / arcs**
- **Make polygons / stars**
- Make 3D boxes
- Make spirals
- **Draw straight lines / curves**
- **Draw freehand lines**
- Calligraphy tool
- **Add text**

Creating basic shapes

- Select tool from toolbar

- Click and drag on canvas
  - Box selects the bounds of the new shape
  - Colours are remembered from the last shape

- Basic options appear in top toolbar
  - Number of spokes on stars
  - Rounded corners on rectangles
  - Circle vs segment vs arc

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Creating basic shapes
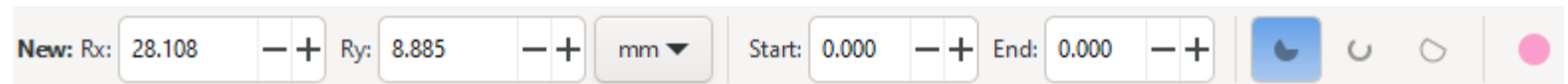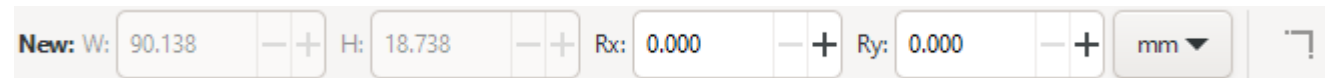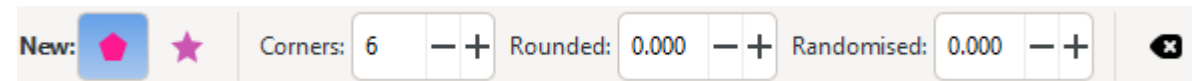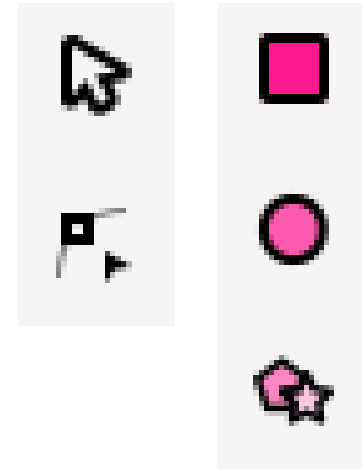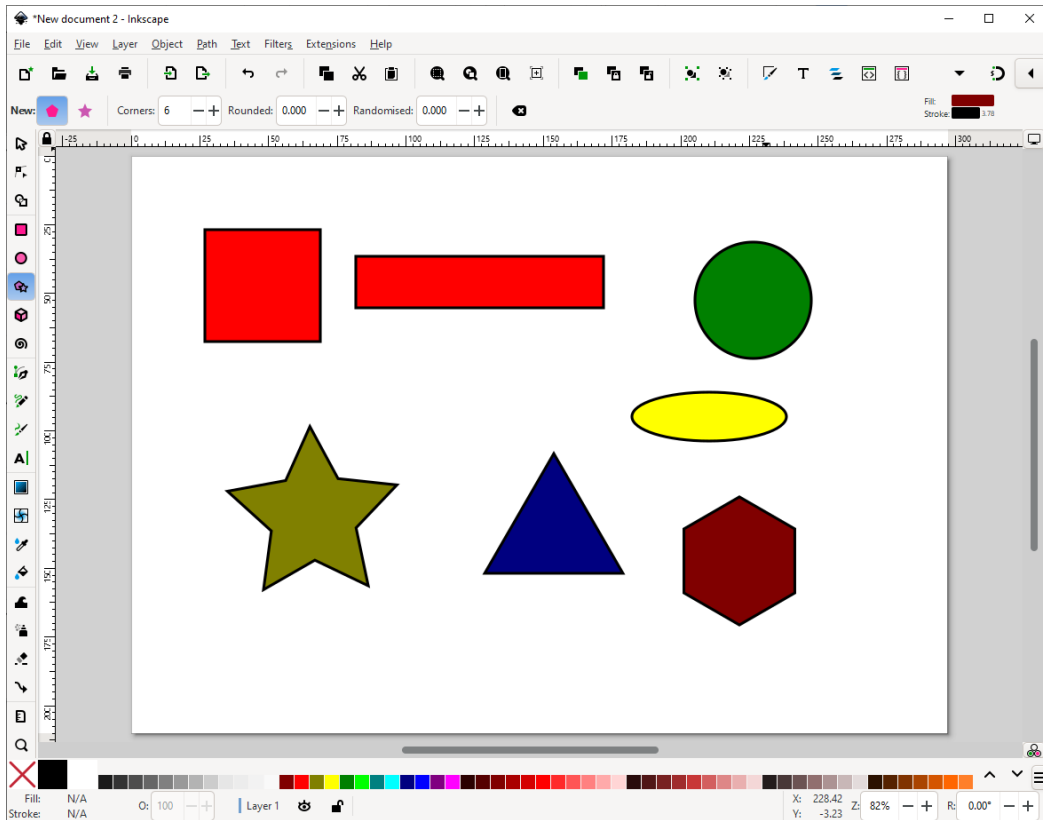
Creating basic shapes

- Modifiers – press keys whilst drawing
  - Control = Constrain height/width ratio
  - Easiest way to make circles / squares

  - Shift = grow from centre not edge

  - Help appears at the bottom of the screen

Ellipse: 24.13 px × 36.20 px; with **Ctrl** to make square or integer-ratio ellipse; with **Shift** to draw around the starting point

Click or **click and drag** to start a path; with **Shift** to append to selected path. **Ctrl+click** to create single dots (straight line modes only).

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General Transformations

- Select the Selection tool
- Moving – Click and drag an object
- Duplicating – Select object and press Ctrl+D
- Resizing / Rotating
  - Click on object
  - Click again to change control arrow type
  - Click and drag arrows to resize / rotate
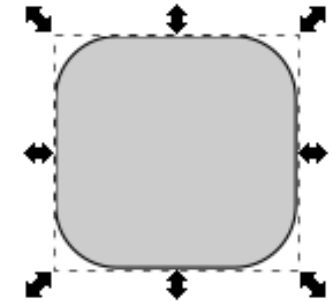
Resize
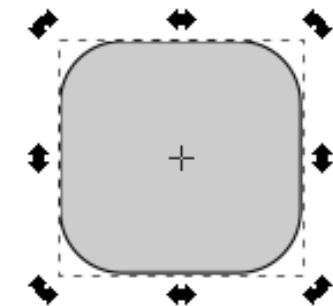
Rotate

Transform Shortcuts

Selecting and Grouping

- Selecting multiple objects
  - Drag a box to cover multiple objects
  - Shift+click to add an object to a selection
  - Shift+click on a selected object to remove it from the selection

- Grouping (Control + G or Object > Group)
  - Combine multiple objects into a single object
  - Reversible (Control + shift + G or Object > Ungroup)
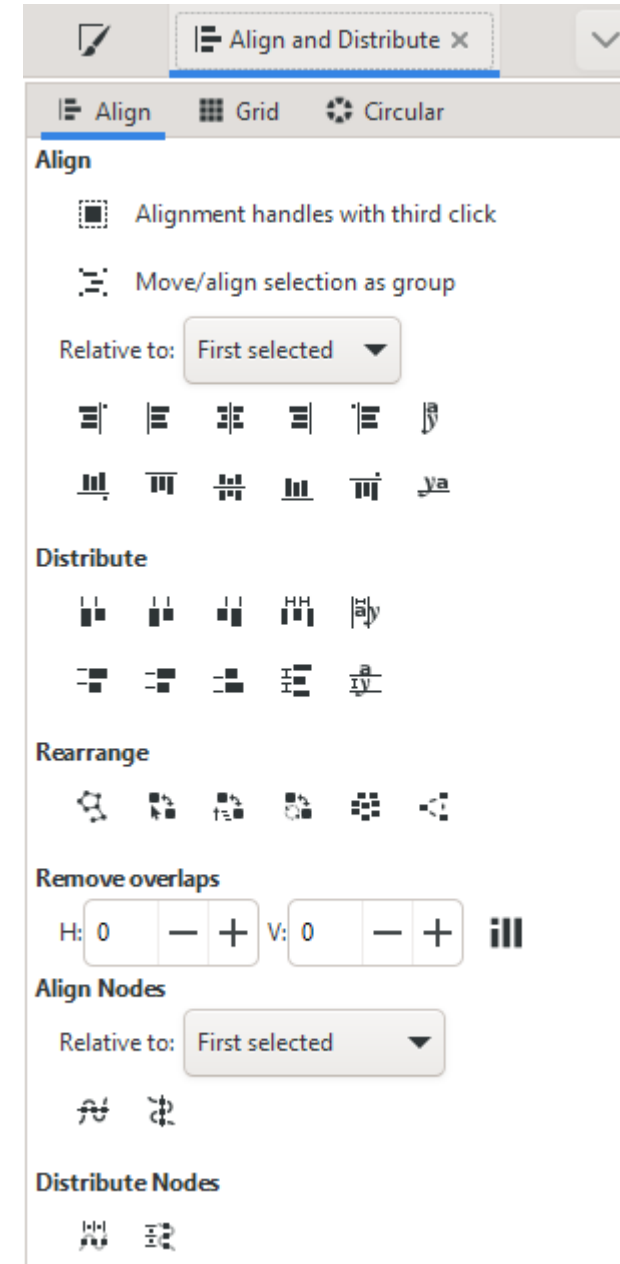
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Fill and Stroke (Object > Fill and Stroke)

- Fill = Colour/Gradient/Pattern within a shape

- Stroke = The line around a shape
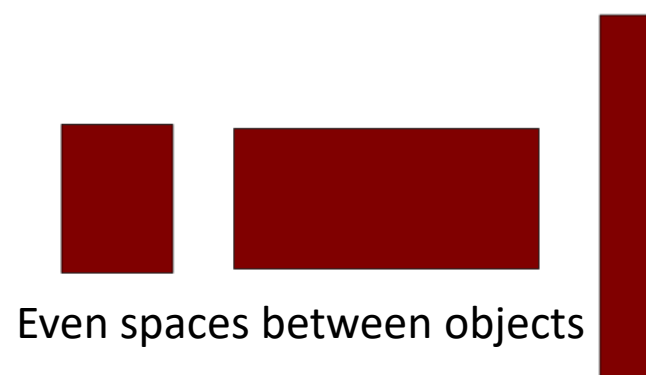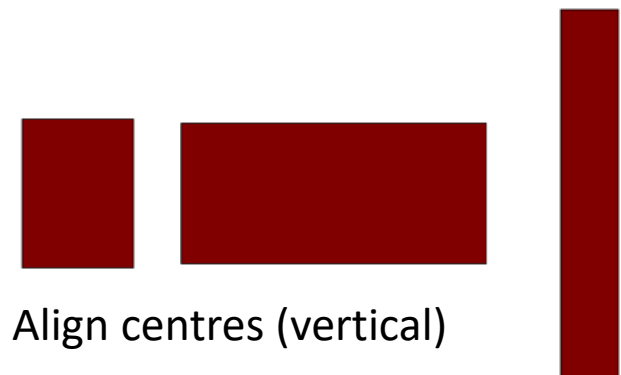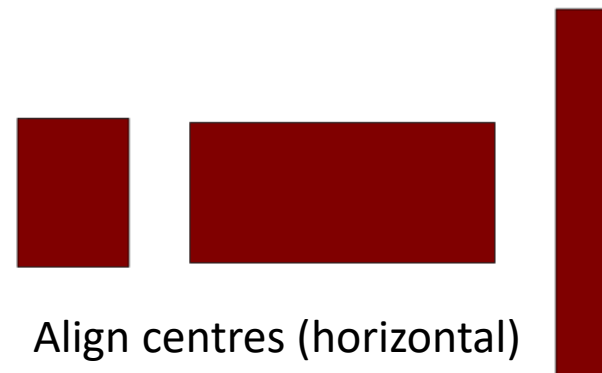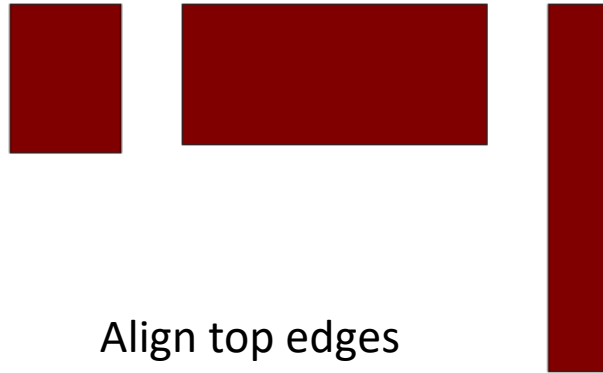
- Edit
  - Colours
  - Opacity
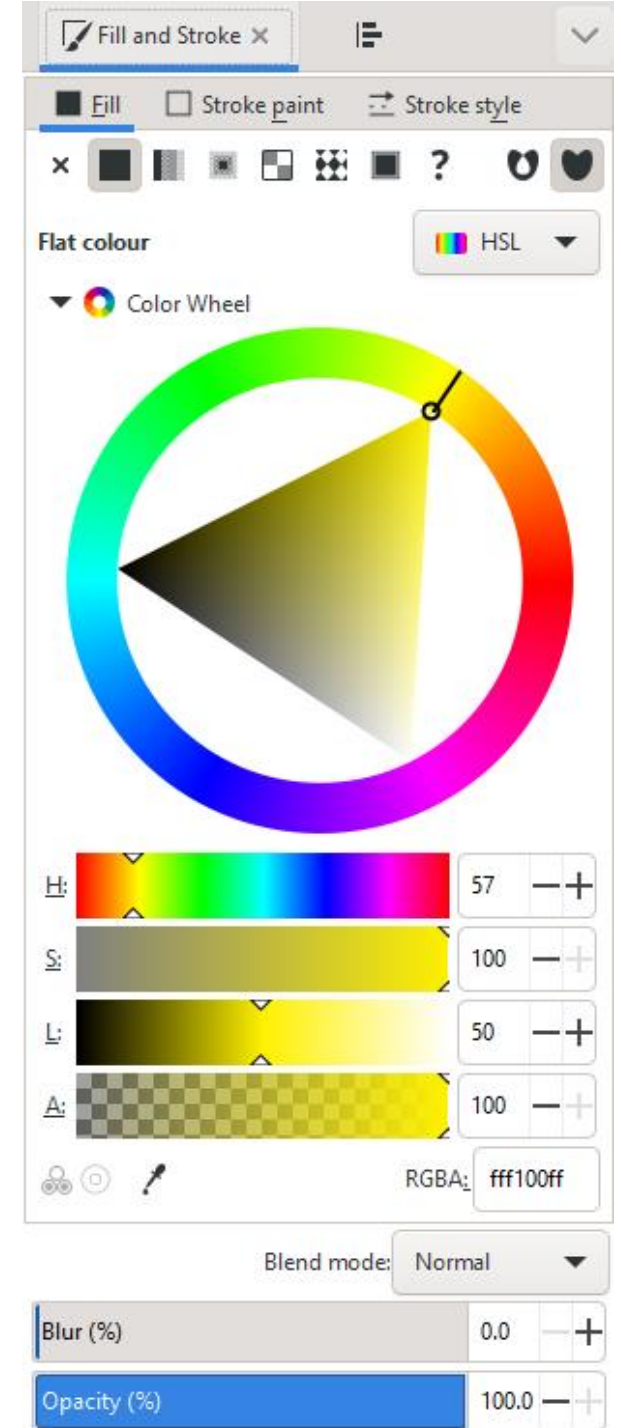
Aligning and Distributing

- Object > Align and Distribute
  - Align = Give objects the same centre/edge position
  - Distribute = Space objects evenly

- Align relative to
  - First/Last selected object in group
  - Largest/Smallest object in group
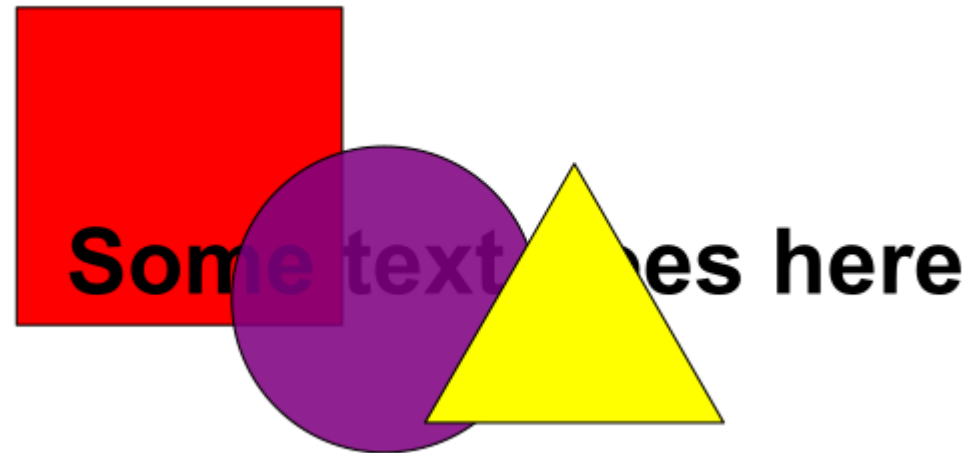 - Page
  - Drawing

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Aligning and Distributing

Align top edges

Align centres (horizontal)

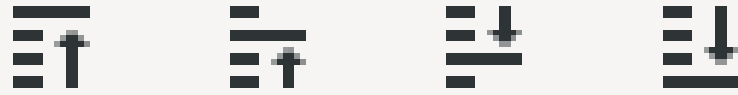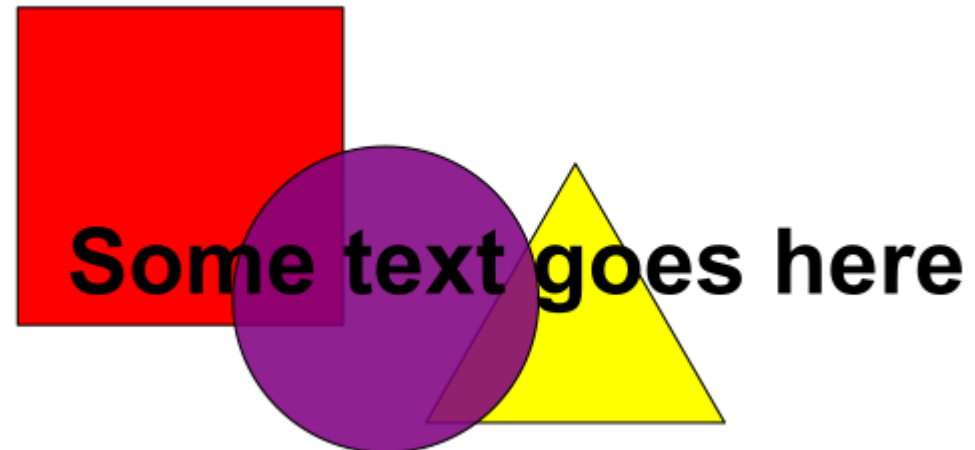Align centres (vertical)

Even spaces between objects

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Z axis - Ordering

- New objects sit over the top of old objects
- Objects obscure those underneath them (except for transparency)

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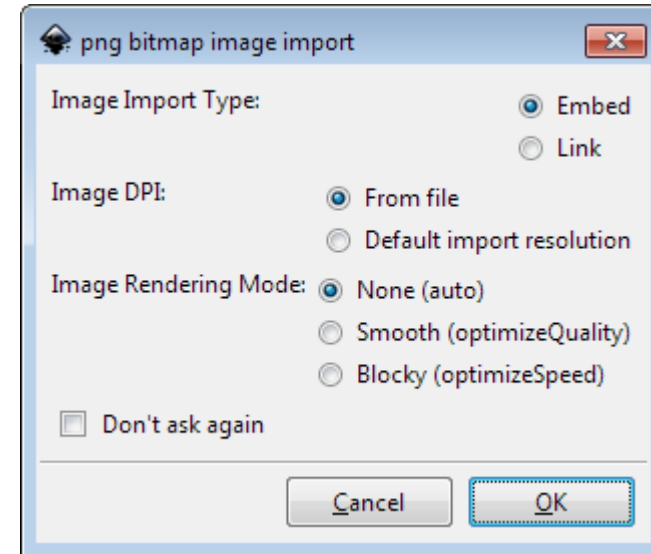Bioinformatics

Z-axis Ordering

- Send object to bottom of z-stack
- Lower object one level
- Raise object one level
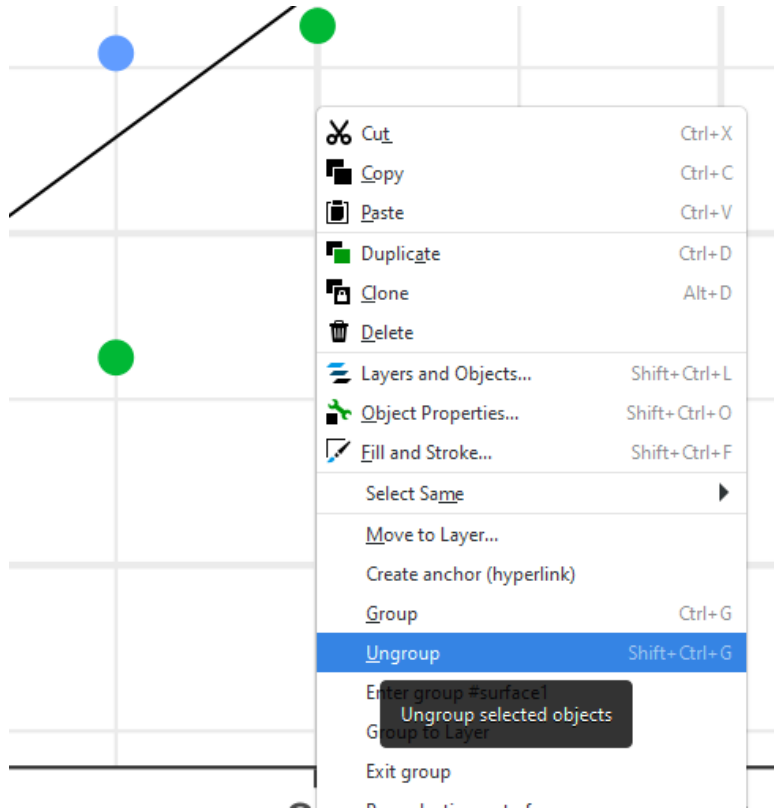- Bring object to top

Some text goes here

Working with imported pictures

- File > Import
  - PNG, JPEG, SVG, PDF etc.

- (Bitmaps) Choose Embed
  - Copies image into Inkscape
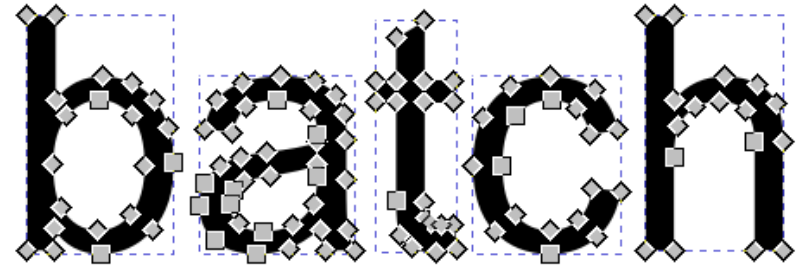 - Create single portable file

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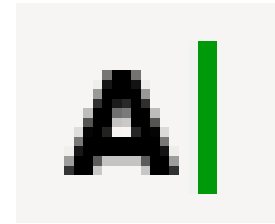# Working with imported pictures

Pictures are usually grouped

Text may not actually be text

Adding Text

- Use the text tool to add text

- Click and type to generate text

- Text can be scaled or rotated as any other object
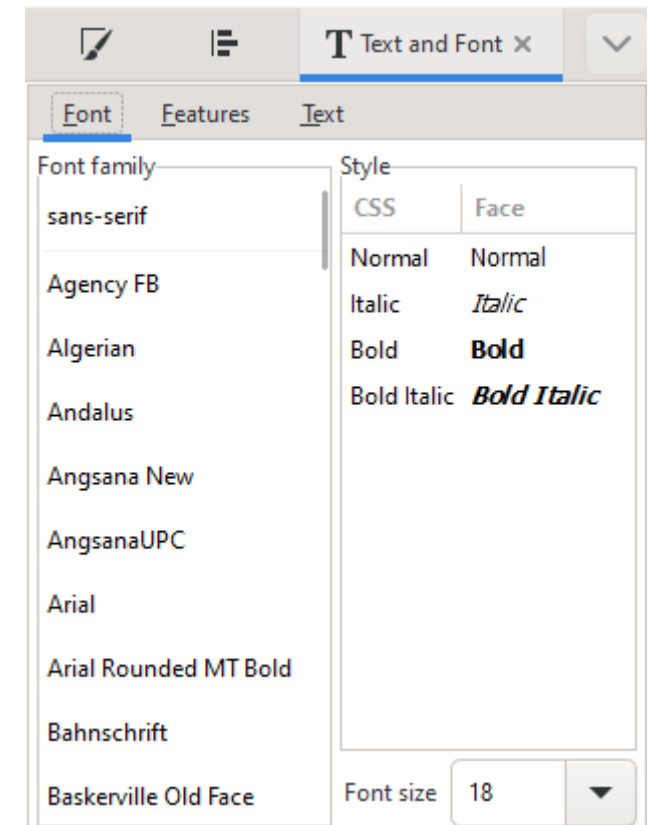 - Always hold Ctrl when scaling otherwise the aspect ratio will be messed up

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Text options

- Text toolbar

- Text and font settings **T**
  - Font (always Arial for scientific figures)
  - Size
  - Alignment

Saving & Exporting

- Saving
  - File > Save (As)
  - Default is Scalable Vector Graphics (SVG)

- Exporting as a Vector
  - Can export as a PDF
  - File > Save (As), select PDF