

IPE tutorial

What is ipe?

- ◇ An editor for vector graphics
- ◇ What you see is what you get
- ◇ Supports Latex
- ◇ Directly creates a pdf, hence easy integration
- ◇ Programmable/extendable

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IPE is good at

- ◇ speed
- ◇ snapping
- ◇ grids
- ◇ layers
- ◇ useful tools (Ipelets)

Main parts of the editor:

- ◇ Canvas
- ◇ How to control IPE
- ◇ Creating things
- ◇ How things look
- ◇ Mouse right click: Context menu

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- ◇ Save as pdf!
- ◇ You can add to the Latex preamble.

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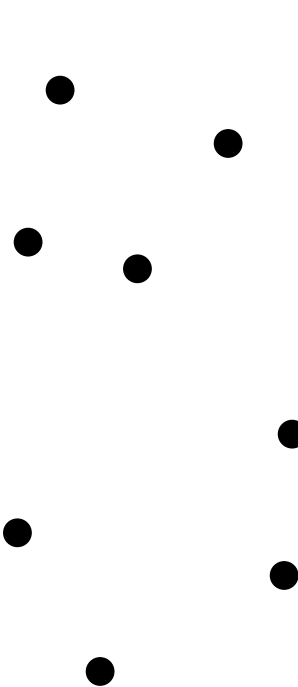
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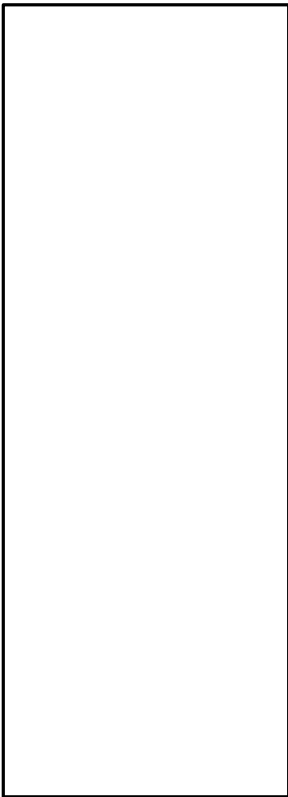
- ◇ Save as pdf!
- ◇ You can add to the Latex preamble.

- ◇ Snapping
- ◇ Grid options
- ◇ Pages and views
- ◇ Manipulation of objects
- ◇ Texts
- ◇ Creation of objects

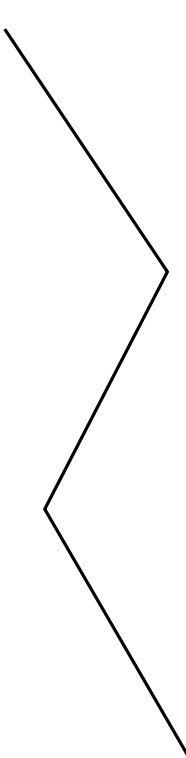
Basic objects



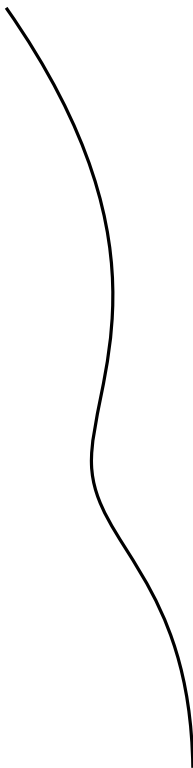
Markers



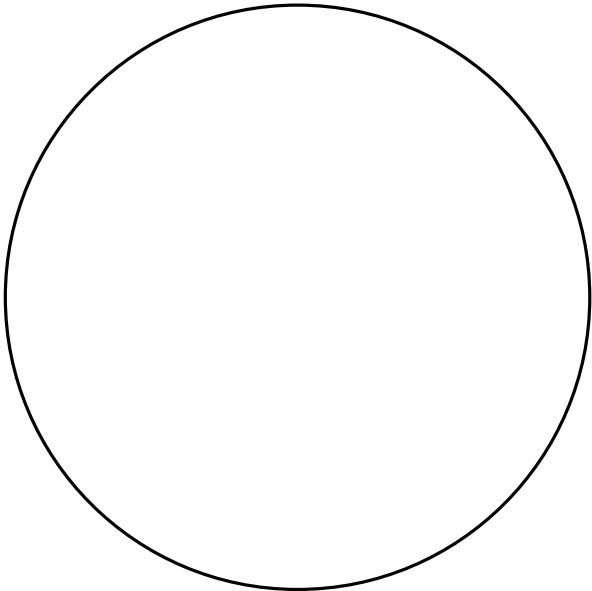
Rectangles



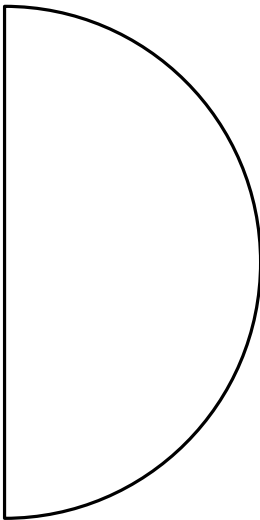
Polylines



Splines

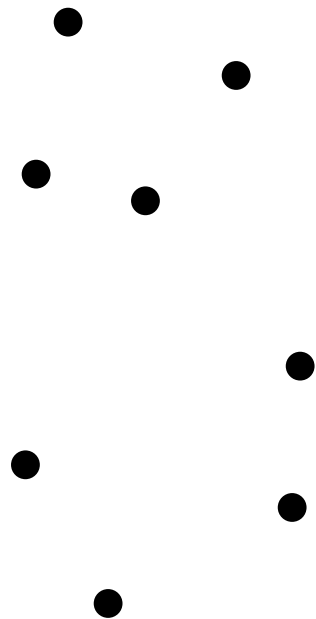


Circles



Closed curves

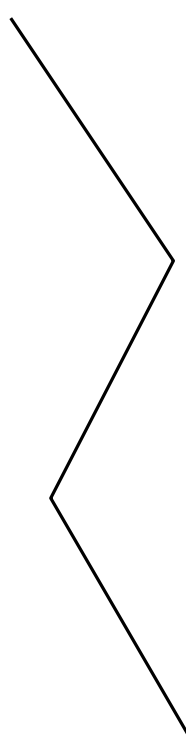
Basic objects



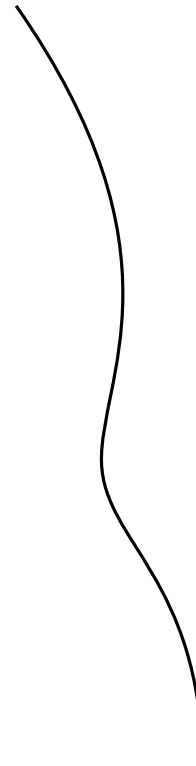
Markers



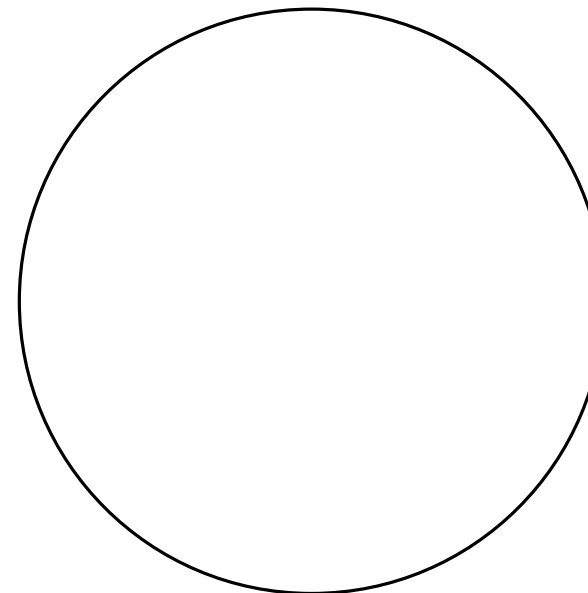
Rectangles



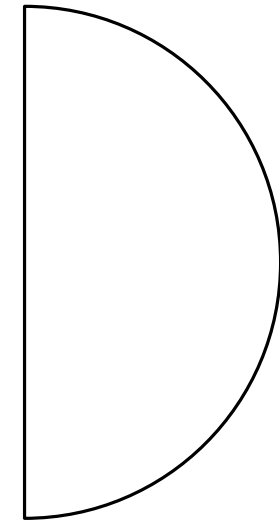
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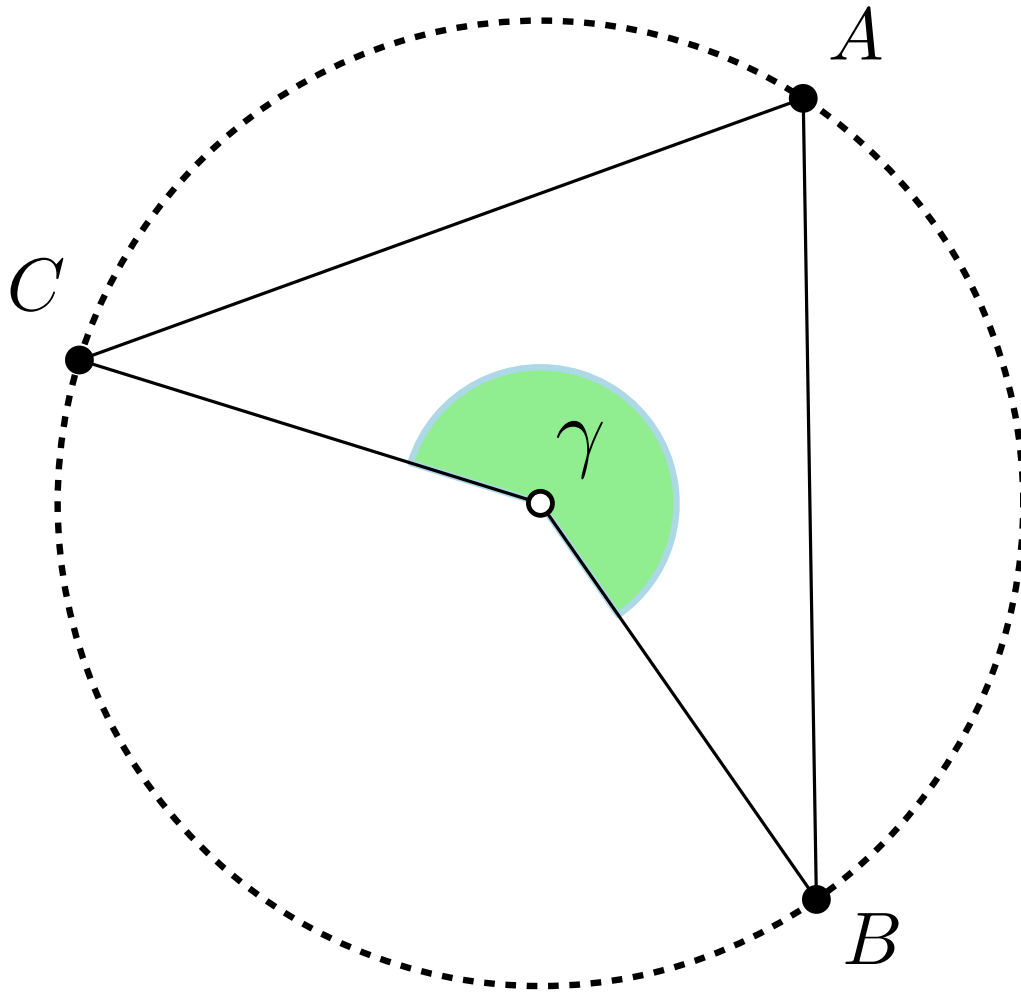
Closed curves

Select ones in the region: Left mouse, top left to bottom right

Select ones intersecting the region: Left mouse, bottom right to top left

Cycle selection: Space + Left button pressed

Example 1



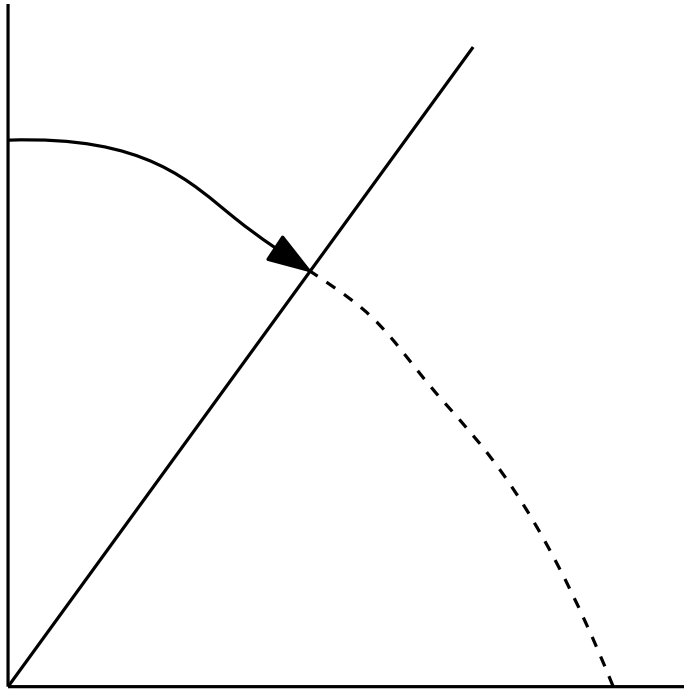
join paths: select multiple and use
context menu

CTRL+F/B - send to front/behind in
Z-order of objects

Edit mode, paths, groups

[Ctrl+E] In edit mode we can:

- Move vertices/control points
- Add/delete/duplicate control points
- Cut polygons/polylines. We might need to convert to Bezier segments. We need to "decompose" afterwards!

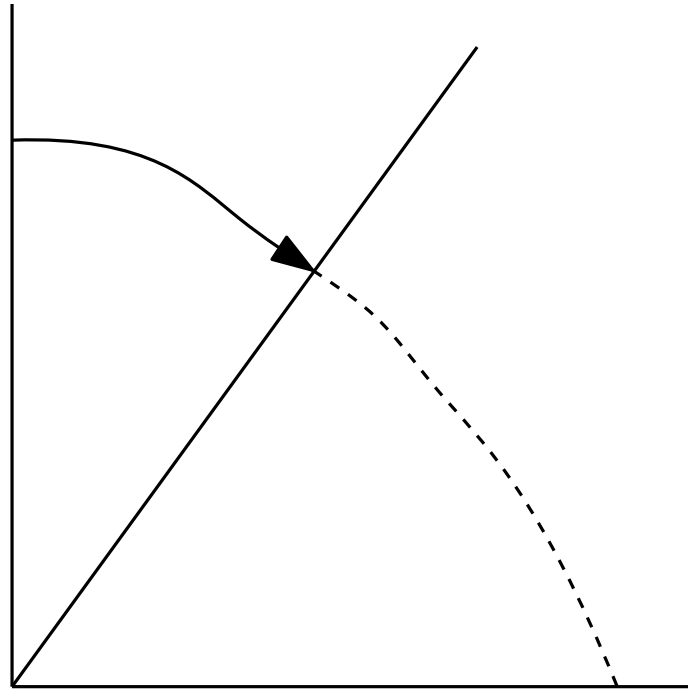


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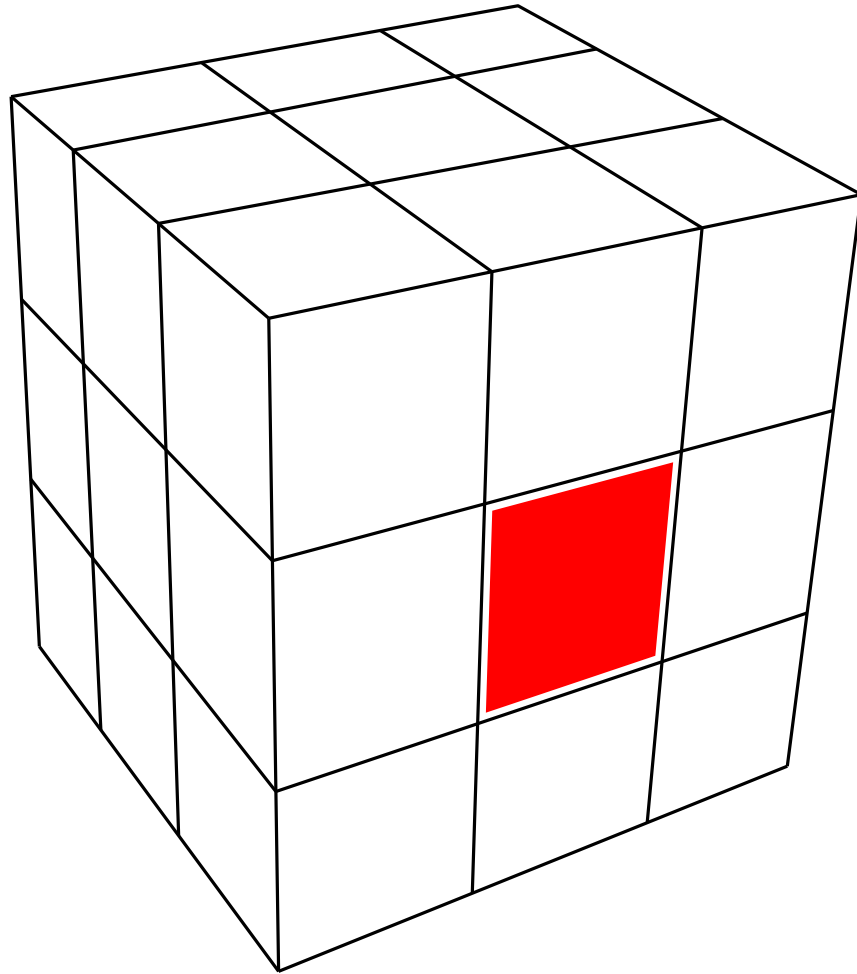
We can Group/Ungroup objects. Grouped objects can be scaled, translated, rotated, clipped together.

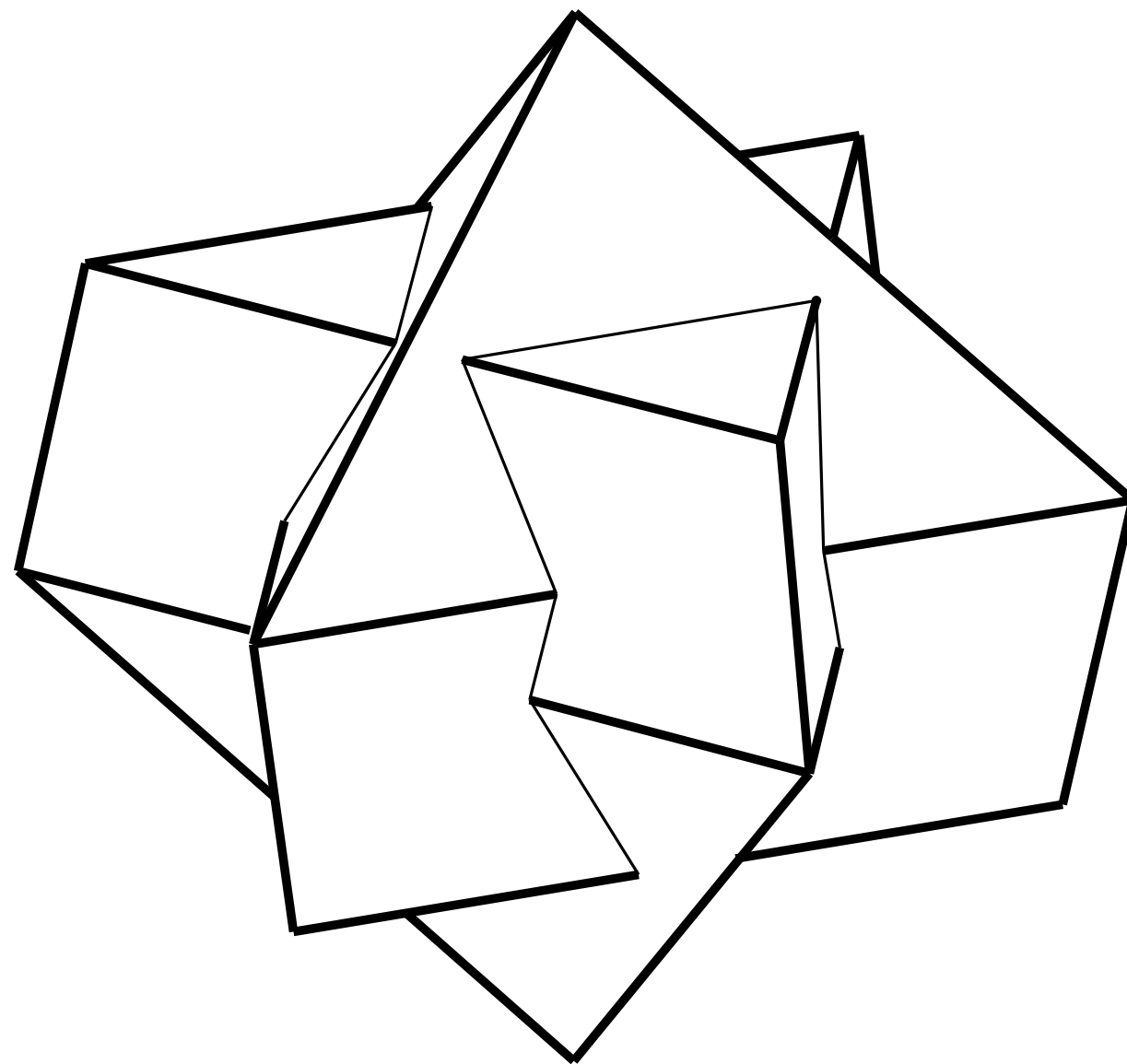
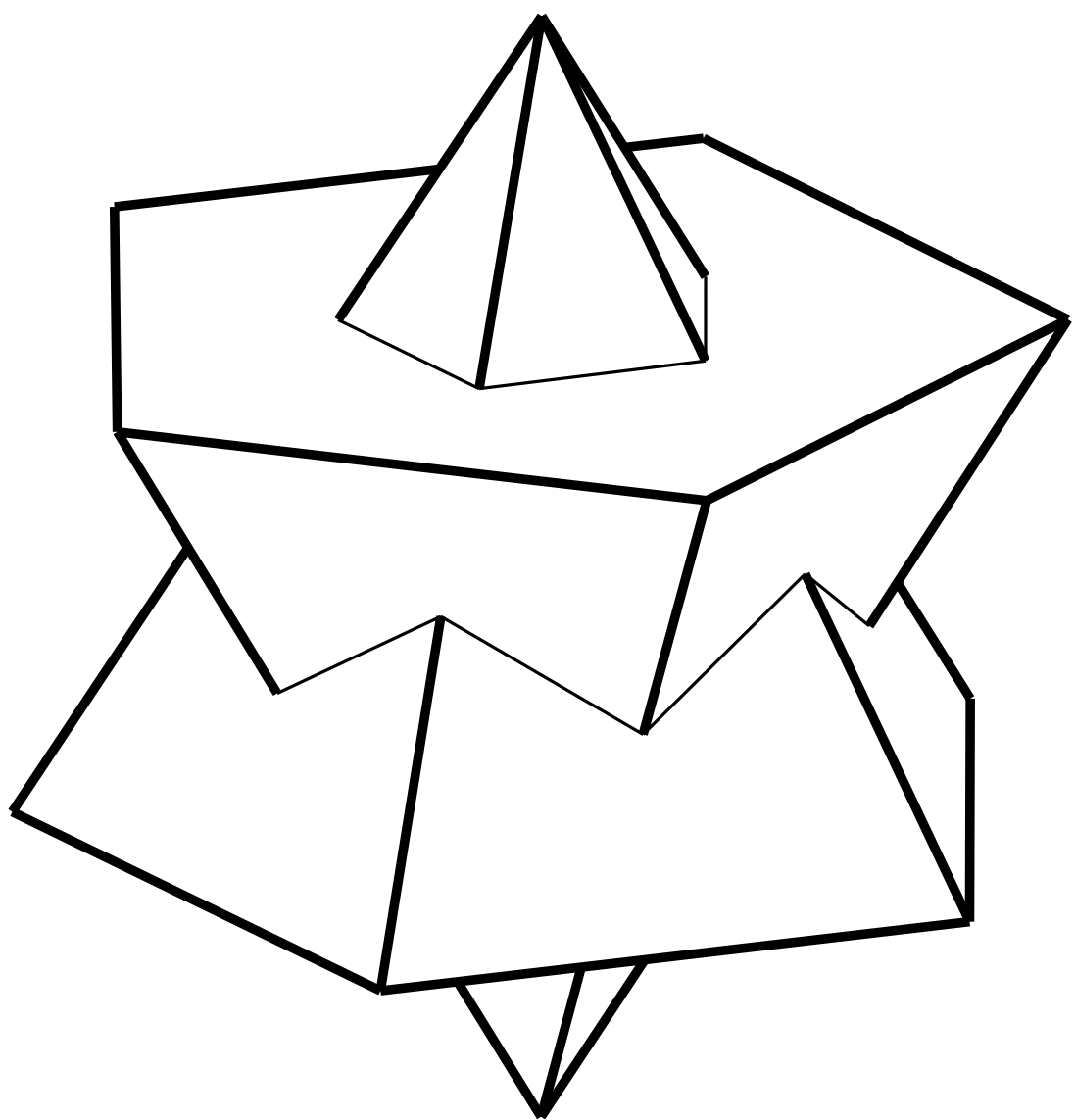


Example 2.

Use an arbitrary image with opacity as a sketch

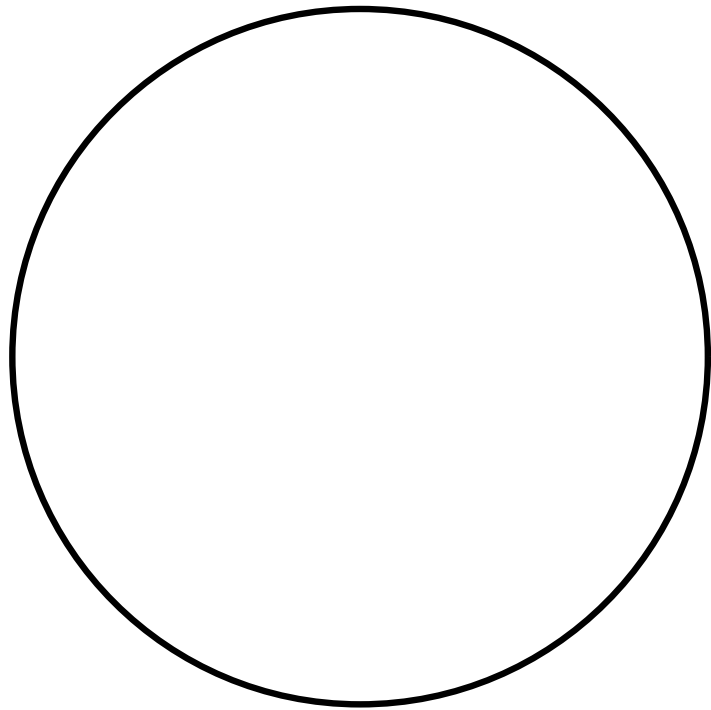
Layers are very useful! They are independent of z-order.



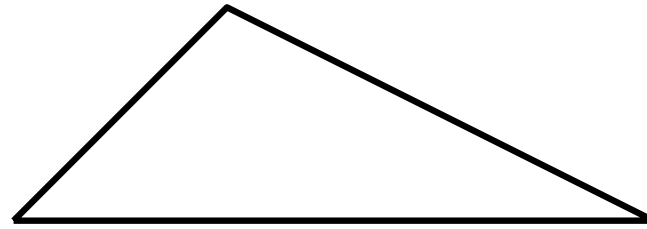


Ipelets

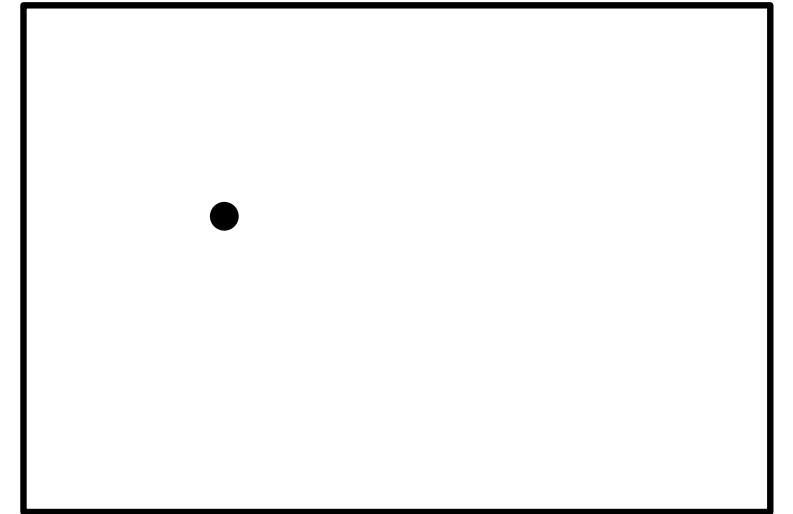
New Ipelets can be created in Lua.



k-gon



Mirror/rotate



Moving objects

[Ctrl + 2/4/8/6]

[Ctrl + Alt + 2/4/8/6]

Example 3

