Seminar Algorithmentechnik – Ipe Tutorial
Ipe

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- drawing tool for vector graphics
- supports \LaTeX
- very customizable
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What can I use it for?
- creating illustrations for papers, master theses, or seminar assays
- creating presentations (slightly more advanced)
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Why should I use it?
- LaTeX+ WYSIWYG illustrations
- super fast (if you learn the keyboard shortcuts)
- very flexible due to its customizability

Most important tip: learn the shortcuts!
Basic Usage

Basic Tools
- paths: p, P, b
- curves: i, l
- circles: o, a
- marks: m
- labels: $, g
- select: s
- translate: t
- rotate: r
- scale: e
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Object Properties
- filled shapes
- dash
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- mouse wheel (pan + zoom)
- x, =, \
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Z-Order
- ctrl + f
- ctrl + b
- ctrl + shift + b
- ctrl + shift + f
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## Snapping
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Snapping
Document properties
- ctrl + shift + p
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Snapping

Document properties
- ctrl + shift + p

Mouse shortcuts
- ctrl [+ shift] + lclick: select
- ctrl [+ shift] + rclick: scale
- alt + lclick: translate
- alt + rclick: rotate
Layers, Views, Pages

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- every object lives on one layer
- layers can be hidden/shown independently
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- new layer, new view: ctrl + shift + i
- navigating through views: PgUp, PgDown, Pos1, End
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Pages
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- new page: ctrl + i
- copy, paste, cut page: ctrl + shift + c/v/x
- navigating pages: Shift + PgUp / PgDown
Customization: Style Sheets & Ipelets

Style sheets
- xml-file describing document features
- available colors, line thickness, arrow shapes, page size, etc.
- ctrl + shift + s
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**Ipelets**
- lua-code for additional functionality
- folder: .ipe/ipelets (see Help → Show configuration)
- settings can be changed via this interface
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---

```lua
function IpeletByName(name)
    for _, ipelet in pairs(_G.ipelets) do
        if ipelet.name == name then
            return ipelet
        end
    end
end

IpeletByName("align").skip = 8.0
-- shortcuts to align top to bottom and set skip
shortcuts.ipelet_14_align = "Alt+Shift+T"
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Put into ~/.ipe/ipelets/custom.lua
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**Useful Ipelets**
- goodies
- align & distribute
- move
- page numbers

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See also: https://github.com/thobl/ipelets

- hide
- offset
- decorator
Advanced Usage

Groups

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- be careful: objects are placed on active layer
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Combining paths
- compose \( ((A \cup B) \setminus (A \cap B)) \), join
- clipping \( (A \cap B) \): select group + object, “Add clipping path” (right click)
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Transparency
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Edit as xml
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Presentation template
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Presentation template

Title
- ctrl + p
Vorschläge zum Üben