



DESIGNING  
HOPE

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# Structured Programs

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# Workshop Timetable

- Motivation
- Structure
- Tips
- Example
- Design a Wireframe
- Sample Function to Library
- Try Sample Application

# Propaganda

- High Development Speed
- Reusability
- Debugging is simple
- Code Readability

„Programmers use as much chaos as they are still able to handle.“

# Finalizing

„You are never really finished“

- Would be nice to have time for testing
- It's expensive ... Wild Wild East
- Keep clean structure when developing.

# Folder Structure

/ assets	meshes
	textures
	fonts
/ media	
/ patches	main
	content
	plugins
	other parts of program
	UI

- Top Level of Program1, Program2, Shared

# Program Structure

- Globals
  - set constants like Fonts, Colors
- Logic
  - controls game stages, timed goto
- Input
  - does basic evaluation
- Content
  - contains both View and Controller
- Render
  - so renderer is not in main patch

# Tips

- Always design structure – it will change
- Automata, Game **Stage**
- Group Meaning by proximity, Comments
- Separate View and Controller
- Pixel precision is super-important

And please, clean your desktop! 😊

# Important Hotkeys

- Ctrl + G ..genius
- Ctrl + Shift + P ..new patch here
- Ctrl+ L ..align
- Alt + S ..save all

# Seriously, Read it.

- Software Engineering Patterns with vvvv
  - Documentation / Using vvvv  
by Sebastian Oschatz and Nils Buhlert
- EG
  - **Scrolling is Slowwing**
  - Delay is for DebuggingDelay
  - Build a Wireframe
  - Use the power of Pin Names
- Save your time

# Create Your Own Library

- We use individual functions all over again
- Find reusable parts
- Make simple help files
- Remove unused stuff

# Example – Initial Task

- It will be a set of eight simple apps
- All will be defined before development starts
- It will generally play frame stacks,  
one will be more complex
- Sure :)

# Example – Reality Comes

- Different inputs, mapped after delivery
- Behavior was meant differently
- Waiting mode should be synchronized over network
- No time to finish it
- And input sometimes crashed the program on startup

# Sample Program

- Project Name and Author (Ctrl + M)
- Globals
  - Main Loop
  - Projects Constants (Font, Language localized texts)
- Logic
- Input
  - Mouse Aspect Ratio
  - Proximity Sensor
  - Automatic Fullscreen
- Content
  - Evaluate Pin
- Renderer
  - BackBuffer Resolution
  - Aspect Ratio

# Make Library

# Personal Experience



GoTo Connections

Game Stage

Links

Send and Receive

Set

Automata

# Project

# Tic-tac-toe

- Inputs
  - Keyboard / Mouse / Kinect
- Main Menu
  - Resume, New Game, Quit
- (High Scores)
- Game Logics
  - Rounds, Victorious, AI
- Advertising with Message
  - Draw FrameStack and Message
- 2 Renderers
  - 2d View and Action Camera

<https://en.wikipedia.org/wiki/Tic-tac-toe>