

# AVTK - UI toolkit of OpenAV

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# Introduction

- Harry van Haaren
- OpenAV developer
- Coding Custom User Interfaces - OK
- Coding Custom Plugin UIs - lots to learn!
- Toolkits
  - GTK (Ardour)
  - NTK (Non tools)
  - AVTK ( Fabla2 ... )

## So Why AVTK?

- Audio Visual Tool Kit
- Creation of “multi media” widgets
- Interaction designed for power users
- Opportunity to improve UX in plugins
- Issue of embedding “general purpose” toolkits

# AVTK Demo

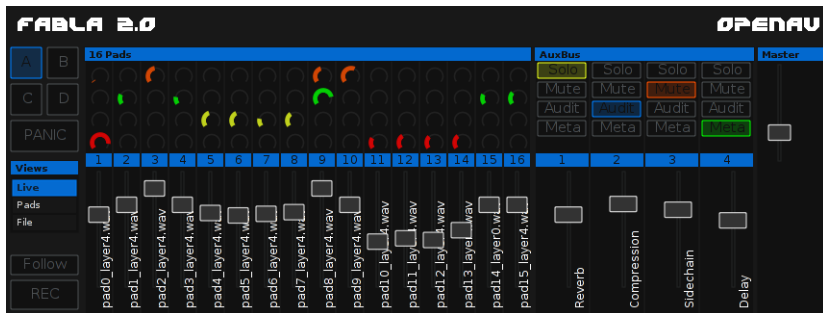


Figure: Fabla2, powered by AVTK

# AVTK - Details

- PUGL
- Cairo
- C++ API
  
- Simple easy code
- `draw()` gets `cairo_t*`
- `handle()` gets `PuglEvent*`
- `value()` for the widgets state

Window / Embedding

Anti-Aliased vector drawing

Not ideal - more later

## AVTK - More Details

- “Canvas” style layout
- Containers like Group List ScrollArea
- Common value() interactions provided

# AVTK - Themes

- “Developer” themes
- Themes for multiple widgets
- Widgets map theme colours
- Compiled in JSON strings

(TODO)

# AVTK - Power User Interface?

- Right click toggle default value
- Scroll operates most widgets
- Scroll wheel + Ctrl "select"
- Context used extensively
- Example: Load Audio Sample — Load Save File



# AVTK - Tester

- Records and playback stream of PuglEvent
  - Useful in a range of situations:
    - Debugging code
    - Unit tests
    - **Tutorials**
  - JSON serialized format
- users send logged events  
widget value() verification  
available **in the interface!**

# AVTK - Demos

- Widget
- Tester
- Fabla2

# AVTK - Future

- If a serious effort:
  - C re-write for ABI stability
  - Easier to create language bindings
  - Gains vs time needed
  - Should OpenAV do this - priorities?
- Useful to others right now?
  - Probably not
  - Depends on expectation
  - API **not** stable (yet?)

Thanks for your time

*Questions?*