Healing the pain

Patterns and practices to ease managing art & technology projects
What is the problem?

- Different people, different languages
- Code reuse, maintenance
- Delegation, coupling reduction
Different people
(competence groups)

- research
- implementation
- patch
- control, tuning
Typical code life cycle

- Custom code, good docs, tests
- Hack to make it work for the premiere
- ... zzz sleep
- ?? Does not compile anymore, too hard to understand, cannot reuse...
- Restart from scratch
Code at work

videos

inner-voice

partition for 8 muscles and 1 sampler
Use case

home: dance as a side effect of music production (2008)
Competence groups

* where the problems begin *

- EPFL, LANOS: algorithmic research
- HEIG-VD, Yverdon: custom radio chip
- motilis, Lausanne: custom capture device
- Gaspard Bucher: software
- Gaspard Buma: choreography
What happened?

Damn!

What’s wrong with this crap?
In the mean time...

Are you sure this one doesn’t work?
And the rest of the team
* spends time in the cafeteria *
What went wrong?

we mixed competence groups:

$1 + 1 + 1 = 50\% \text{ work, } 250\% \text{ stress}$
Solutions
Ease collaboration

- research
- implementation
- patch
- control, tuning
Implementation

Research
find the best algorithms

Dance

data exchange

Patch
tune the setup
filter, etc

Lubyk

Implementation

HMM

dub

HMM

filter

midi
(Moon) rock solid

- Easy to start (museum)
- Easy to setup
- Easy to maintain
Plug & play

- no IP / port settings
- to the lowest level (embed)
- auto-documenting
- enable settings recording and restoring
5 years of pregnancy and abortions

- 2006: “I need a tool which I can hack”
- 2006: Let’s build a patcher in C++ (PureData not working, jMax dead)
- 2008: Rubyk used in “home”: only crashes on startup.
- 2009-2010: Tried to add network transparency.
- end 2010.. Rewrite with Lua as core language.
Details

- Using library xyz with Lubyk (dub C++)
- Threading model
- Distributed programming
- The bugs that byte (sic)
- Multi-track recorder/playback with SQLite3
ON

recycle