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Live Csound

Workshop LAC 12.04.2012
Content / Suggestion

- Short recapitulation of the paper/talk
  - Csound's basic (non-real-time) paradigm
  - Csound's way of thinking (i and k)
  - Non-real-time vs real-time
- Real-time Csound in PD
  - Installation, usage, help
- Real-time Csound in CsoundQt
  - Software channels, Presets etc
- Discussion? Hacking?
Your interests?!?
Own examples?!
Good to know

- „Instruments“ are Csound's main building blocks
- Can be called at any time („i-event“)
- For a certain duration
- With initialization and performance state
- Adjust RT performance and latency with blocksize (ksmps) and buffersize (-b / -B)
- Avoid some few non-real-time opcodes
Non-real-time versus real-time
What you may need for non-real-time

- Simple timeline
- Extensive control over details
- Being able to extend features
- Large set of modules / tools
- Best rendering quality
What you may need for real-time

- Flexibility; change parameters on the fly
- See what's happening
- Speed, performance, stability
- Good overview over a small set of frequently used tools
- Trigger events at any time
- Use external devices
Live Csound in PD

- Description in the Csound FLOSS Manual (chapter 09A): www.flossmanuals.net/csound
- Installation
- Usage
Live Csound in CsoundQt

qutecsound.sourceforge.net
Nice GUI

but:
CsoundQt
User Questions

- How can I dynamically change control values?
- How can I work with presets / cues?
- How can I trigger events?
- How can I route and mix different audio streams and add effects?
- How can I see the audio input and output signals?
Wish list

- Csound
  - Named parameters
  - Arrays
- Csound in PD
  - Allow named instruments
- CsoundQt
  - More widgets: audio meter, table viewer/editor, virtual keyboard
  - More than one widget panel