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Live Csound

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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