QuteCsound: A Csound Front-end

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QuteCsound

- Graphical front-end/editor for Csound
- Language editor
- Realtime widgets
- Integrated help
Goals

- "Intuitive" but powerful
- Offer functionality from MacCsound (Realtime interactive widgets), and backwards compatibility with it.
- Ease usage and configuration of Csound
QuteCsound

- Requires Qt (from Nokia), libsndfile and Csound.
- Crossplatform
  - Windows, OS X, Linux, Solaris
- Uses Csound internally (Csound API)
- Open source (GPL or LGPL)
- In english, spanish, french, portuguese, italian and turkish
- Having its second birthday this May (2010)
Csound

- Programming language for music and sound
- First version 1984/85
- Descended from older MusicN systems
- Processing loop at a set control rate with audio signals being vectors
- Has an API in C, C++, Python, Java, Lua which allows embedding the Csound engine inside applications
Code editor

- Syntax highlighting
- Auto completion
- Python IDE as well
- Hides sections that are handled by other parts of QuteCsound (Widgets, Live Events)
- Code Inspector
Interface

Code Editor

Output Console

Help Panel

Widget Panel
Widget Panel

- Realtime parameter control
- Display information from Csound
- "Soft-synth" designer
- Widgets saved in text file, but hidden from user.
Code graph

- Automatic generation of graph for any code using graphviz
- Good for simple instruments

```
instr 1
  kenv linen 1, 0.4, p3, p3-0.4
  asig oscils kenv, 440, 0
  outs asig, asig
endin
```

/home/andres/Escritorio/simple.csd
Live Event Panel

- Spreadsheet style editing and processing of score events
- Simple transformation functions
- Simple python API for generation and transformation of events
Future

- Refine Python scripting API for realtime interaction with widgets and live score coding (some work done, but still some to do)
- Export to standalone application and plugin (VST, LV2?) (can currently do LADSPA via csLADSPA)
Demo

Questions?