Graphical and Tangible User Interfaces for Computer Audio

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Low-bandwidth version with reduced image quality
Grand Unified Theories
Let’s see some real-life examples!
• Sound Creation
• Audio Processing
• Content Management
Sound Creation
Programming a Music Synthesizer through Data Mining
A Versatile Expressive Percussion Instrument with Game Technology

with Sebastian Heise
A Malleable Drum

with Christoph von Tycowicz
Drum Strokes (incl. Position), Damping, Pressure

Real-Time Audio Output

Drum Shape
Audio Processing
subjEQt:
Controlling an Equalizer through Subjective Terms

with Sebastian Mecklenburg
A Rhythmic Analyzer and Equalizer
Graphical Control of a Parametric Equalizer
New Interface:
On-curve Controls

Standard Controls:
Off-curve
(Steinberg Cubase)
Sound at Your Fingertips: An Electrotactile Fader
Content Management
Music Icons: Procedural Glyphs for Audio Files

with Philipp Kolhoff and Jacqueline Preuß
Quick Browsing in Vast F/X Sound Collections

with Sebastian Heise and Michael Hlatky
48.65Hz
26/101 streams
Where to go from here
Sketching Sounds, Sketching Music

with the NoISE master’s project group
FUSE for Audio Applications

with Michael Hlatky and Sebastian Heise
GPU-based Audio Processing

VGA to Audio

DVI to Audio?

- GPU
- DVI Port?
- Decoder
- 1000 Independent Speakers?
Reuniting Sound Control and Sound Generation with ???
Thanks for your attention!