X-Micks

Interactive Content Based Real-Time Audio Processing

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“Interactive Content Based Real-Time Audio Processing”, an emerging paradigm:

• Real-time rendering of the interaction interface according to the audio content
• Robustness and intuitiveness of the representation in terms of interaction with
• Integration of off-line analysis with real-time analysis and re-synthesis

The X-Micks example, re-mixing two beat synchronized songs on the fly

X-Micks implementation

X-Micks functional overview

X-Micks analysis stage

Representation = Interface

• Spectrogram
• Step sequencer
• Filter bank

Gabor/FTM
http://www.ircam.fr/ftm

• optimized data structures for Max/MSP
• overlap add audio processing operators
• audio extractors and SDIF support

A collaboration with Native Instruments using Max/MSP Pluggo