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CAVE Pump Version 0.1beta, 2004/03/14
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Author

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Description

Pump is a visualization programme for the CAVE. It analyzes AIFF audio data to detect beats by using either a simple beat detection algorithm or a FFT subband oriented beat detection algorithm. A textured cube is then scaled and rotated according to the beats.

IMPORTANT ISSUES

This version of pump currently supports only AIFF audiofiles. The FFT beat detection algorithm is not yet fully functional.

Compile

CAVE Pump can be compiled under IRIX. The IRIX-version uses the CAVE-Library and the Digital Media libraries.

Libraries

CAVELIB - use -lcaveogl
DIGITAL MEDIA LIBRARIES - use -laudio -ldmedia -laudiofile

Run

IRIX - pump audiofile [-s|-v]
 -s use simple beat detection
 -v use simple beat detection with linear regression

Controls in Cave

LEFT CAVE BUTTON - trigger scale impulse
MIDDLE CAVE BUTTON - trigger rotation impulse
RIGHT CAVE BUTTON - change texture

Files

Makefile - makefile for IRIX

pump - IRIX executable

pump.c - main program
pump.h - header file

play.h - header file
fft.h - fft header file

fft.c - fft source
texture1.raw - different textures for cube
...
textureN.raw

René Bauer, updated 2004/03/14