README for PortAudio

/\*

\* PortAudio Portable Real-Time Audio Library

\* Latest Version at: http://www.portaudio.com

\*

\* Copyright (c) 1999-2008 Phil Burk and Ross Bencina

\*

\* Permission is hereby granted, free of charge, to any person obtaining

\* a copy of this software and associated documentation files

\* (the "Software"), to deal in the Software without restriction,

\* including without limitation the rights to use, copy, modify, merge,

\* publish, distribute, sublicense, and/or sell copies of the Software,

\* and to permit persons to whom the Software is furnished to do so,

\* subject to the following conditions:

\*

\* The above copyright notice and this permission notice shall be

\* included in all copies or substantial portions of the Software.

\*

\* THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND,

\* EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF

\* MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT.

\* IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR

\* ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF

\* CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION

\* WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

\*/

/\*

\* The text above constitutes the entire PortAudio license; however,

\* the PortAudio community also makes the following non-binding requests:

\*

\* Any person wishing to distribute modifications to the Software is

\* requested to send the modifications to the original developer so that

\* they can be incorporated into the canonical version. It is also

\* requested that these non-binding requests be included along with the

\* license above.

\*/

PortAudio is a portable audio I/O library designed for cross-platform

support of audio. It uses either a callback mechanism to request audio

processing, or blocking read/write calls to buffer data between the

native audio subsystem and the client. Audio can be processed in various

formats, including 32 bit floating point, and will be converted to the

native format internally.

Documentation:

Documentation is available in "/doc/html/index.html"

Also see "src/common/portaudio.h" for API spec.

Also see http://www.portaudio.com/docs/

And see the "test/" directory for many examples of usage

(we suggest "test/patest\_saw.c" for an example)

For information on compiling programs with PortAudio, please see the

tutorial at:

http://portaudio.com/trac/wiki/TutorialDir/TutorialStart

We have an active mailing list for user and developer discussions.

Please feel free to join. See http://www.portaudio.com for details.

Important Files and Folders:

include/portaudio.h = header file for PortAudio API. Specifies API.

src/common/ = platform independant code, host independant

code for all implementations.

src/os = os specific (but host api neutral) code

src/hostapi = implementations for different host apis

Host API Implementations:

src/hostapi/alsa = Advanced Linux Sound Architecture (ALSA)

src/hostapi/asihpi = AudioScience HPI

src/hostapi/asio = ASIO for Windows and Macintosh

src/hostapi/coreaudio = Macintosh Core Audio for OS X

src/hostapi/dsound = Windows Direct Sound

src/hostapi/jack = JACK Audio Connection Kit

src/hostapi/oss = Unix Open Sound System (OSS)

src/hostapi/wasapi = Windows Vista WASAPI

src/hostapi/wdmks = Windows WDM Kernel Streaming

src/hostapi/wmme = Windows MultiMedia Extensions (MME)

Test Programs:

test/pa\_fuzz.c = guitar fuzz box

test/pa\_devs.c = print a list of available devices

test/pa\_minlat.c = determine minimum latency for your machine

test/paqa\_devs.c = self test that opens all devices

test/paqa\_errs.c = test error detection and reporting

test/patest\_clip.c = hear a sine wave clipped and unclipped

test/patest\_dither.c = hear effects of dithering (extremely subtle)

test/patest\_pink.c = fun with pink noise

test/patest\_record.c = record and playback some audio

test/patest\_maxsines.c = how many sine waves can we play? Tests Pa\_GetCPULoad().

test/patest\_sine.c = output a sine wave in a simple PA app

test/patest\_sync.c = test syncronization of audio and video

test/patest\_wire.c = pass input to output, wire simulator