Intan Technologies RHD2000interface C++/Qt source code version 1.01 release notes

21 March 2013

mainwindow.cpp:
Added line 1908: `fifoPercentageFull = 0.0;`
This initializes a variable and fixes a problem that shows up on some computers only when running the program in demo mode (i.e., with no USB interface board attached).

Intan Technologies RHD2000interface C++/Qt source code version 1.1 release notes

31 May 2013

Added 'Options' menu to allow users to save temperature sensor data from each chip. (Temperature readings are not displayed in the GUI, but can be plotted in MATLAB after recording data using the GUI.)

Modifications were made to the following files:

mainwindow.cpp, mainwindow.h
signalprocessor.cpp, signalprocessor.h,
globalconstants.h

The MATLAB file **read_Intan_RHD2000_file.m** was also updated to read version 1.1 saved data files containing temperature sensor data. (This new m-file will also read older version 1.0 data files.)

Intan Technologies RHD2000interface C++/Qt source code version 1.11 release notes

11 June 2013

Fixed bug that was present since v1.0 and sometimes caused problems if the number of amplifier boards was changed and "Rescan Ports A-D" was clicked. Added lines 1658-1709 to findConnectedAmplifiers() in **mainwindow.cpp**.

Intan Technologies RHD2000interface C++/Qt source code version 1.2 release notes

20 June 2013

Fixed bug that was present since v1.0 and sometimes caused problems routing amplifier channels to DAC outputs properly if chips were plugged into SPI ports B, C, or D.

Updated Rhythm C++ API (specifically, **rhd2000evalboard.cpp** and **rhd2000registers.cpp**) to support RHD2164 chip.

Extensive changes in **mainwindow.cpp** to support RHD2164 chip: notably, findConnectedAmplifiers().

Extensive changes in **mainwindow.cpp** and **signalprocessor.cpp** to support multiple data file formats; added **setsaveformatdialog.cpp**. Added "Select File Format" button.

Extensive changes in **mainwindow.cpp** and **signalprocessor.cpp** to support triggered recordings; added **triggerrecorddialog.cpp**. Added "Trigger" button.

Added check box in "DAC/Audio" tab to lock DAC 1 to currently selected channel (**mainwindow.cpp**).

Changes in **signalprocessor.cpp** to bundle many individual 32- and 16-bit integers into byte arrays and use **QDataStream::writeRawData()** to speed up writing to disk (in functions loadAmplifierData() and saveBufferedData()).

Changes in **signalprocessor.cpp** to improve running average of temperature sensor data.

Intan Technologies RHD2000interface C++/Qt source code version 1.3 release notes

10 December 2013

Included **qtincludes.h** in all files that use Qt functions to aid in cross-platform compilation.

Changes in **mainwindow.cpp** to add low-latency threshold comparator functions and software/DAC high-pass filter options (in the Bandwidth tab and DAC/Audio tab). Added integer array **ttlOut** to make it easier to set digital output lines. Changed code to set **ttlOut[15]** high during data acquisition and to set **ttlOut[11-14]** high when amplifier boards are present on SPI Ports A-D to support future LEDs.

Changes in **signalprocessor.cpp** to add software high-pass filter capability.

Change in **waveplot.cpp** to draw an X over disabled channel plots.

Added several help dialogs accessible through "?" pushbuttons: **helpdialogchipfilters.cpp**, **helpdialogcomparators.cpp**, **helpdialogdacs.cpp**, **helpdialoghighpassfilter.cpp**, and **helpdialognotchfilter.cpp**.

Intan Technologies RHD2000interface C++/Qt source code version 1.4 release notes

26 February 2014

Changes in **mainwindow.cpp** to add optional real-time control of fast settle function and auxiliary digital output pin of RHD2000 chips. Also added option to adjust SPI cable delay compensation manually since some RHD2164 board/cable combinations seem to require this. All of these changes appear in the "Configure" tab in the GUI.

Added several dialogs used in these new functions: **auxdigoutconfigdialog.cpp**, **helpdialogfastsettle.cpp**, and **cabledelaydialog.cpp**.

Updated Rhythm C++ API (specifically, **rhd2000evalboard.cpp** and **rhd2000registers.cpp**) to support real-time control of fast settle and auxiliary digital output pins.

Intan Technologies RHD2000interface C++/Qt source code version 1.41 release notes

8 April 2014

Two minor bug fixes:

Added line 2472 in **mainwindow.cpp** to fix bug when a non-default data file format was selected. The "evaluation board mode" word was not being written to the info.rhd file, and this caused problems for users who wanted to load this file into Matlab using the Intan Matlab code.

In **waveplot.cpp**, modified toggleSelectedChannelEnable() to prevent users from enabling or disabling amplifier channels while recording is taking place. Added isRecording() to **mainwindow.cpp** to facilitate this functionality.