

Aptina Abase Library Setup

Build/Test environments

Ubuntu versions 10.04, 12.04 (32/64-bit)

MacOS 10.7 (64-bit)

LibUSB Web Site

<http://www.libusb.org/>

<http://libusb.sourceforge.net/api-1.0/index.html> - documentation

Build Instructions

Abase Platform Setup Instructions

- Download the Github Aptina/DevSuiteSDK directory to the target Linux/Mac machine.
- Verify that the LibUSB include and library files are installed on the Linux/Mac machine.
- Aptina Abase and midlib2 libraries used LibUSB 1.0.0 but there are newer versions
 - To download from Linux:
 - `sudo apt-get install libusb-dev` // general download
 - `sudo apt-get install libusb-1.0-0-dev` // version specific download
 - To download from MacOS (with Macports):
 - `sudo port install libusb` // general download
 - To download from MacOS (without Macports):
 - Double click the “libusb-1.0.8.pkg” file in the bin_mac directory

Required run-time libraries

- libusb-1.0. (please see above)
- libtbb. (`sudo apt-get install libtbb`) please check: <http://www.threadingbuildingblocks.org>
- libpython3.3
 - User needs to download and build the python source code for the Ubuntu earlier than 13.04.
 - User needs to activate the shared object option and set prefix to /usr (or your path settings) in the python configuration (e.g. `./configure --enable-shared --prefix=/usr`)
 - For MacOS: download the Mac dmg file from <http://www.python.org/download/> (Note: MacOS default set to version 2.7. Remember create a symbolic link for libpython3.3m.dylib)
(e.g. `sudo ln -s /Library/Frameworks/Python.framework/Version/3.3/Python /usr/lib/libpython3.3m.dylib`)

Test Application (SimpleQt) Build Instructions

SimpleQt\SimpleQt.cpp is a sample test program that opens Aptina Demo kits and sensors, initializes it and display captured images. User needs Administrator account to access the USB devices. (sudo ./SimpleQt). Build instructions:

- To build SimpleQt in Linux/MacOS: Use Qt Creator and open the SimpleQt.pro file then build all.

The two .so files required are:

/DevSuiteSDK/bin_linux/libmidlib2.so and

/DevSuiteSDK/bin_linux/libapbase.so

Note: 1. export LD_LIBRARY_PATH=SimpleQt_directory before execute the binary
2. Modify the SimpleQt.pro file based on your System (Linux 32/64 or MacOSX)

Directory Structure

- /DevSuiteSDK/apps_data - contains Aptina sensor setting (.ini) files for the different supported sensors.
- /DevSuiteSDK/bin_linux - contains Aptina shared object (.so) files for the 32-bit Linux (Intel CPU) System.
- /DevSuiteSDK/bin_linux64 - contains Aptina shared object (.so) files for the 64-bit Linux (Intel CPU) System.
- /DevSuiteSDK/bin_mac - contains Aptina shared object (.so) files for the MacOS X (Intel CPU) System.
- /DevSuiteSDK/board_data - contains Aptina Demo boards (.cdat) files.
- /DevSuiteSDK/doc - contains the document for installation and API development guide.
- /DevSuiteSDK/include - contains apbase and midlib C/C++ header (.h) files.
- /DevSuiteSDK/samples - contains C/Qt sample files with apbase and midlib libraries.
- /DevSuiteSDK/sensor_data: contains the Aptina sensor data (.sdat/.xsd) files.

Note: Please keep the same directory structure. Apbase use relative directory to search the data files.
Required files in directories: "sensor_data", "apps_data" and "board_data"