

Aptina Midlib LibUSB Transport

Build/Test environments

Ubuntu versions 10.04, 12.04 (32-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

Midlib Build Instructions

- Download the DevSuiteSDK directory to the target Linux/Mac machine.
- Verify that the LibUSB include and library files are installed on the Linux/Mac machine.
- Aptina 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

Test Application Build Instructions

SimpleCapture_Midlib\SimpleCapture.cpp is a sample test program that opens Aptina Demo kits and sensors, initializes it, captures 1 or more frames and exists. User needs Admin right to access the USB devices. (sudo ./SimpleCapture). Build instructions:

- Edit SimpleCapture.cpp for the target sensor
 - Edit the Makefile with the location of the Midlib2 libraries and include file
 - Copy an XSDAT file to the “../sensor_data” directory and an INI file to the “../apps_data” directory.
 - Create a section in the application to make sensor specific register calls
 - Set the desired resolution (#defines at the top of SimpleCapture.cpp)
- Build the test application by typing ‘make -f makefile.linux’ in Linux.
- Build the test application by typing ‘make -f makefile.mac’ in MacOS.
- Execute by typing ‘sudo ./SimpleCapture’
 - SimpleCapture will capture a frame and store it in a file (something like img.raw).
 - Use playback.exe or other viewing application to look at the resulting file.

Sensors/Resolutions tested/verified:

Demo2: SOC1040 - QVGA, VGA, 1280x720
A5100 – 1024x768, 2592x1944
SOC2010 – VGA, 800x600, 1600x1200
SOC360 – VGA
A-8140 – VGA, 3264x2448

Demo3: AS0260 – VGA (YcrCb)