Cypress USBSuite Windows Driver and Utility

Release Notes

Version 1.2.2

License Agreement

Please read the license agreement during installation.

Contents

1   Release Components

The Cypress USBSuite release includes:

1. The CyUSB3.sys generic USB kernel mode driver supporting USB2.0 and USB3.0 devices.

2. C# based Managed class library, cyusb.dll to communicate with CyUSB3.sys driver.

3. C++ based static library, cyapi.lib to communicate with CyUSB3.sys driver.

4. USB3.0 compatible Control Center application to initialize and communicate with EZ-USB devices.

5. C# example applications with source code: Bulkloop, Control Center and Streamer.

6. C++ example application with source code: Bulkloop and Streamer.

7. CyAPI.lib and CyUSB.dll libraries support basic USB3.0 features. All USB3.0 APIs are documented in the reference programming document.

All the above components are compatible with the following Operating Systems and Platforms.

Operating System name:
    Windows XP SP3(wxp) (32-bit only)
    Windows Vista (wlh)
    Windows 7(win7)
    Windows 8 Beta build 8277

CPU Type:
    x86(32bit-i386)
    x64(64bit-amd64)

Microsoft Visual Studio:
    All libraries and sample examples are compatible with Visual Studio 2008.

Prerequisite

1. The minimum requirement for running the C# and C++ examples is that one should install.NET components version 2.0 or later.

2. Install Visual C++ 2008 Redistributable (available on Microsoft website), if system does not have Visual Studio 2008 installed. You can download it from the following link:
http://www.microsoft.com/en-in/download/details.aspx?id=29

2   Change Notes

1. **USBSuite 1.2.2**

   ▪ FX3 SDK and UsbSuite Installation path is changed to 'C:\Program files\Cypress\EZ-USB FX3 SDK'.

   Please copy following sample examples and library directories to temporary (other than 'Program Files') directory to build them successfully.

   1. C:\Program files\Cypress\EZ-USB FX3 SDK\1.2\application

   2. C:\Program files\Cypress\EZ-USB FX3 SDK\1.2\library

   Note: On a 64 bit Windows installation, the default installation path is 'C:\Program Files (x86)' instead of 'C:\Program Files'.

2. **USBSuite 1.2.1**

   ▪ Firmware download APIs in CyAPI.lib and CyUSB.dll are updated to support Etron USB3.0 host controller.

   The firmware download performance will be downgraded due to the change in internal control transfer size from 4Kbytes to 2KBytes.

3. **USBSuite 1.1.2**

   ▪ Quick Start Guide for C++ and C# application development.

   ▪ Added section for EZUSB.sys to CYUSB3.sys driver Migration Guide in CyUSB3.sys Programmer's Reference document.

   ▪ Cypress signed CyUSB3 driver for following VID/PID pairs.

      a) VID_04B4&PID_00F0

      b) VID_04B4&PID_00F1

      c) VID_04B4&PID_00F3

      d) VID_04B4&PID_4720

4. **USBSuite 1.1.1**

   ▪ CyUSB3 driver is signed for following VID/PID.

      a) a) VID_04B4&PID_00F0

  b) b) VID_04B4&PID_00F1

  c) c) VID_04B4&PID_00F3

  d) d) VID_04B4&PID_4720

5. **USBSuite 1.1**

- Windows 8 Beta support.
- Bug fixes in Libraries and Driver.
- This package is tested on following xHCI USB3.0 controller.

  a) Renesas Electronics

  b) ASMedia

  c) Fresco Logic

  d) Via Labs

6. **USBSuite 1.0.1**

- CyControl Application

 Script feature for recording and playing firmware download commands for FX3 and FX2 devices.

- CyUSB3.sys

 Firmware downloads using script for FX3 and FX2 devices. This feature uses the CyControl.exe generated script(.spt) file.

- Guideline for the Script feature is added in the CyUSB3 driver programmer's reference guide.

7. **USBSuite 1.0**

- Added FX3 firmware downloads API in CyAPI library.
- Documentation Update.
- Bug fixes in the example applications and libraries.
- Bug fixes in driver.
- This package is tested on following xHCI USB3.0 controller.

 a)   Renesas Electronics

 b)   ASMedia

3 Known Issues

The known issues/limitations with the USBSuite release are

1. USB3.0 Bulk streaming is not supported.

2. CyUSB libraries do not support more than one device configuration.

3. All applications and libraries are built using Visual studio 2008. You may find problems while building applications with older versions of Visual studio.

4. Get and Set transfer size operations are no longer supported. For details please refer to the Cypress driver programming reference manual.

5. Get and Set power mode operations are no longer supported. For details please refer to the Cypress driver programming reference manual.

6. 32-bit installer installs only 32-bit binaries. Building examples for 64-bit platform will fail on 32-bit systems.

7. CyUSB3.sys for Isochronous transfer support sending multiple of 8 packets (8 * MaxPacketsize of endpoint) only, it does not support shorter packets on Isochronous IN/OUT endpoint. This constraint is applicable to both Super and High speed devices.

8. The Cycle Port (IOCTL_ADAPT_CYCLE_PORT) command does not work on certain xHCI controller such as Fresco Logic. Please check the release notes of the xHCI driver for it support.

9. ASMedia xHCI controller behavior is unpredictable when it receives STALL packet, due to this sometimes the CyControl.exe will not show the FX3 devices in the list view despite it being enumerated on the USB bus.

10. Following features are not supported in Control Center application.

    - The USB Mass Storage and HID class devices no longer supported.

    - The Insert 100 ms wait and Script parameter functionality is not supported.

    - The Load monitor and select monitor functionality is not supported.

4   Troubleshooting

1. This device cannot start (Code 10).

    If this message is seen in the device manager for FX3 device, the following action could resolve the problem.

    1. Reinstall the Host controller driver.

    2. Update the FX3 device driver.

    3. Reset the device to trigger fresh enumeration.