



Cypress DOS USB Storage Driver v4.4 Release Notes

Date: October 9, 2002

Purpose

General release of the Cypress DOS USB Storage Driver which includes support for UHCI, OHCI and EHCI Host Controllers for the SL11R-IDE, FX/FX2, and ISD chipsets. It has been built to support all combinations of USB ZIP, Super Floppy/HiFD, MO, HD, and CD-ROM Drives.

Test Environment:

- Four different versions of DOS were tested, which included: DOS 6.22, Windows 98SE DOS, Windows 98ME DOS, and Windows XP DOS.
- Run on 10 different PC's which incorporated Intel, VIA and NEC EHCI controllers; as well as various USB 1.1 chipsets and configurations.
- CY bridge sets that were tested: ISD200, ISD300A1, CY AT2, CY4611, SL11R-IDE.
- Device types that were tested: HDD (2.5" & 3.5"), CDRW, DVD-ROM, MO, ORB, CF, ZIP and HiFD.

New features and enhancements

1. Enhanced support for extended INT13 function 48

Previous support of INT13 function 48 (Extended Get Drive Parameter) only included support for v1.x, the first 30 bytes. This was enhanced to support up to v3.0, and will now return "USB" as the Interface Type.

2. New EMUIRQ command-line option

Added this command-line which forces software emulation of IRQ's in order to solve compatibility issues on some systems.

Changes from previous version

1. Default maximum transfer size from 4K to 64K.

Changed the default maximum transfer size from 4K to 64 to improve the default performance of the driver, although this will increase the default memory requirements. The XFERSIZE command-line option could be used to change the current default.

2. Maximum number of ports supported per Host Controller from 4 to 5.

Changed to maximum number of ports per Host Controller to 5 in order to support some EHCI host controllers.

3. Removed support for Vendor Specific implementation of ATA devices on the ISD200.

The general release of the Cypress DOS USB Storage driver will no longer support vendor specific implementations of ATA devices using the ISD200.

4. Removed the APM command-line option which only applied to ATA devices attached to the ISD200.

The APM command-line options was specific to Vendor Specific implementations of ATA devices using the ISD200, and is no longer supported.

5. Added the UBNU command-line option into documentation.

The UBNU command-line option was previously left out of the documentation. Specifying this command-line option will cause the Cypress DOS USB Storage driver to unload if the boot device is not USB.

6. Corrected the default value of the VERBOSE command-line option in the documentation. The correct default value should have been 2.

7. Corrected the documentation for the WAIT command to indicate that all 4 letters are required. Previously, it indicated WAI would be acceptable abbreviation but that was incorrect.

8. Corrected the documentation for the MEMPOOL command. Previously it indicated the valid values were 1 thru 128, this was changed to display 0 thru 192.

Bugs fixed

1. Fixed an issue with supporting multiple primary partitions.

Previously, supporting multiple primary partitions on a USB Hard Drive was not working. This issue has been addressed in this release.

2. Fixed several compatibility issues with the Intel EHCI controller.

Several issues cause unstable support for the Intel EHCI controller. These issues have been addressed in this release.

Known Issues

1. Only able to access the first session of a multi-session CD.

Only the first session of a multi-session CD will be accessible. This issue will be addressed in a future release.

2. USB storage devices attached to a hub during boot may not show up in startup messages.

The startup messages during boot may not indicate a USB drive is attached. This problem can be resolved by using the DDWAIT or CDWAIT command-line options. This issue will be evaluated at a future release.

3. EHCI controllers having an external HS hub attached and a USB storage device connected to the root port at boot time can cause the system to hang if unplugged from the root port and plugged into the HS hub.

This issue will be addressed in a future release.

Release Version Modifications

Release v4.3:

- New DDWAIT command-line option
- New DRIVES and MAPDRIVES command-line parameters
- Modifications to the documentation

Release v4.2:

- First general release