

What's New

The 2nd Edition of the book, USB: The Universal Serial Bus, is now available. With this new edition, approximately 64 additional pages of information were added.

More pleasing to the eye

One of the most noticeable changes was the font used for the body. With this change, the 1st Edition was cut by 42 pages, only by changing from a fixed font to the non-fixed font you see here used for this announcement. Then when the new information was added for the 2nd Edition, the physical count of pages only grew by 22 actual pages.

Another noticeable change is the quality of some of the images used. For example, when you came across a note, as in the note below, notice that the image is a bit more detailed compared to the previous edition.



More detailed images are used.



Compared to the previous images.

I spent some time making the book more pleasing to the eye, and easier to read. However, the bottom of each page is still clear and available for hand written notes. I also left the source code listings a fixed font, for the ease of code indention.

Corrections

A few grammar corrections, typo's, and such were fixed, along with some absolute errors in the text, namely the OHCI chapter. Other issues and corrections, broken URL's, and things like this were corrected.

I also updated the source code included on the CDROM image, most notably the GD_OHCI utility. I swear that I thoroughly tested each utility before I released the CDROM, but apparently I did not test the GD_OHCI code. There was little to no way it would work in most cases. I apologize for this inconvenience it may have caused you if you were working with the OHCI hardware. It is now fixed and works well.

I also updated a small error in the GD_EHCI code, along with adding more comments and code to the existing utilities.

Additional Information

Some of the additional information include more detailed and new figures, details, and notes on the hardware used and how to use it. The xHCI chapters each increased in body text to give more details.

Most noticeably was the addition of Part 5 to the book. In Part 5, I explain the use of a high-speed streaming video camera, how to communicate with it, negotiate a resolution, and how to receive frame data. I also describe the EHCI's Isochronous transfer descriptors and how to use them.

New Appendixes were added, including the existing and freely available, Appendix Q, describing the information needed to build your own USB device, along with a few other Appendixes detailing the new Type C connector, and a vulnerability to USB devices that may use the Firmware Upgrade feature.

The xHCI Documentation

Since the first edition's release, manufacturers have released new details and additions to the xHCI controller, now detailing version 1.10 of this controller. Therefore, I have added new information for this version, including Save and Restore, new registers, and new fields within existing registers.

Availability

The process of publication allows me to update the book at any time, therefore once a new edition is created, the older editions are no longer available. As long as you purchase from CreateSpace.com or Amazon.com as a new book, you will receive the latest edition.

The 2nd Edition is currently available from:

<https://www.createspace.com/3760149>

and

<http://www.amazon.com/exec/obidos/ASIN/1468151983>

The updated Kindle version is also available. (14 October 2014)

Other Comments

This has been an enjoyable project, and I am very grateful to all of those who have contributed in one way or another, and especially to those who have purchased or will purchase this book. The proceeds are a great incentive to continue my work on this and other books in this series.

Thank you to all,
Ben

http://www.fysnet.net/the_universal_serial_bus.htm