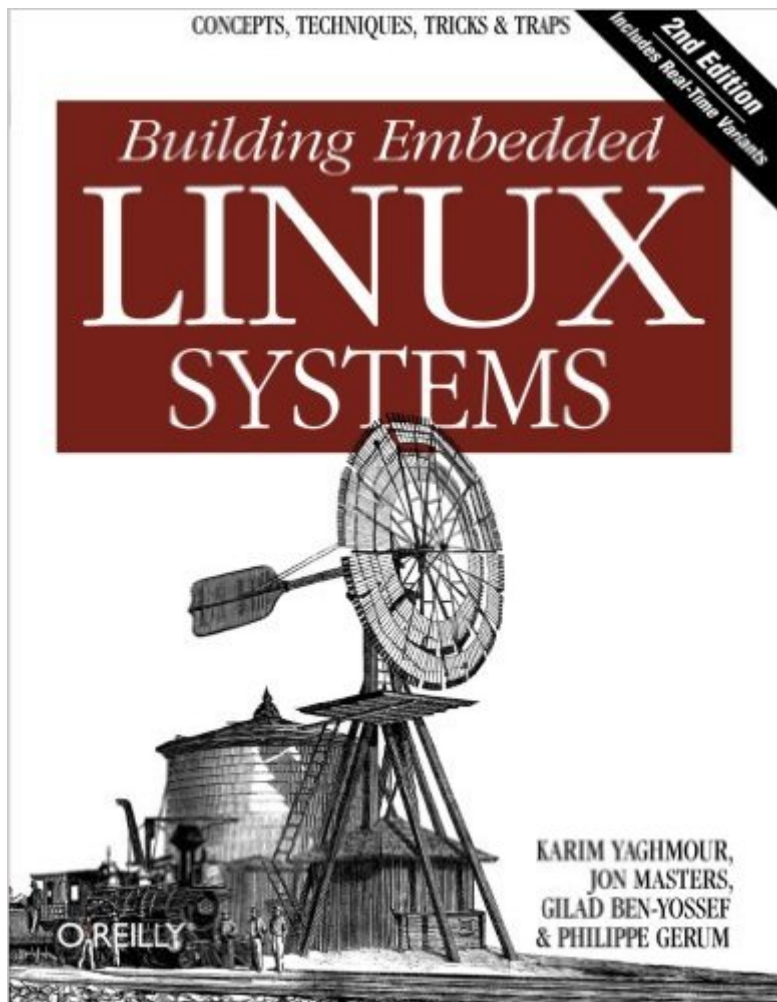The book was found

Building Embedded Linux Systems

Synopsis

There's a great deal of excitement surrounding the use of Linux in embedded systems -- for everything from cell phones to car ABS systems and water-filtration plants -- but not a lot of practical information. Building Embedded Linux Systems offers an in-depth, hard-core guide to putting together embedded systems based on Linux. Updated for the latest version of the Linux kernel, this new edition gives you the basics of building embedded Linux systems, along with the configuration, setup, and use of more than 40 different open source and free software packages in common use. The book also looks at the strengths and weaknesses of using Linux in an embedded system, plus a discussion of licensing issues, and an introduction to real-time, with a discussion of real-time options for Linux.This indispensable book features arcane and previously undocumented procedures for:Building your own GNU development toolchainUsing an efficient embedded development frameworkSelecting, configuring, building, and installing a target-specific kernelCreating a complete target root filesystemSetting up, manipulating, and using solid-state storage devicesInstalling and configuring a bootloader for the targetCross-compiling a slew of utilities and packagesDebugging your embedded system using a plethora of tools and techniquesUsing the uClibc, BusyBox, U-Boot, OpenSSH, thttpd, tftp, strace, and gdb packagesBy presenting how to build the operating system components from pristine sources and how to find more documentation or help, Building Embedded Linux Systems greatly simplifies the task of keeping complete control over your embedded operating system.

Book Information

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Customer Reviews

I bought this book when I had very little idea about embedded Linux systems. I tried reading it but found that its explanation of all available options / flavors, while informative, was unhelpful in trying to answer the question "what would i use to make a system of my own?". E.g. it talked about cramfs, jffs2 etc. but didn't quite address the issue of why i would choose one over the other and under which circumstances: e.g. a typical development system should use rootfs over NFS to allow for rapid iterative development and then switch to a flash based / sd-card based system for deployment (cramfs / jffs2 depending on the space constraint). A similar argument extends to uClibC vs. glibc etc.Over the years, as I've gained experience with several embedded systems, the book's collection of all terms makes more sense, but more like an encyclopedia and a reference. I feel it still doesn't provide enough guidance on what would make a good embedded system: if i selected from the options presented, say cramfs on MIPS booting off sd-card, would i be tying locking myself into a hole? this information is better gained the hard way: looking at what platforms are already available and how active the support groups are for these.Also, in the recent years, OpenEmbedded (OE) seems to have a strong developer push behind it. This book doesn't cover it at all.I think the information in the book would be best complimented if the author paired the book material with a system that the readers could buy and build on their own as they read through the chapters. Yes, it would only be one specific selection from all options the book talks about, but I believe the process would be much more enlightening.

I've been an embedded software engineer for years, but I haven't done all the different parts of a project. There's always someone else who does the bootloader, or writes a particular class of driver. When a coworker loaded my his copy of Building Embedded Linux Systems, I jumped at the chance to learn some of those areas where my experience did not reach. Within a few days I ordered my own copy and I'm in the middle of reading it. This book has just the right balance of high-level organization information with low-level, how to do it, details. Excellent book.

This book is not for novices. You will need to be familiar with embedded systems and Linux previous to reading it, but once the prerequisites are met, this book serves as a great resource.

There is some good information in here, and some valuable resources, but the writing style seems more like a novel to me than technical literature. There seems to be some gaps, and a lack of in depth knowledge. I did not get what I wanted out of this book, so I will be trying another author.

LINUX: Linux Command Line, Cover all essential Linux commands. A complete introduction to Linux Operating System, Linux Kernel, For Beginners, Learn Linux in easy steps, Fast! A Beginner's Guide Linux: Linux Guide for Beginners: Command Line, System and Operation (Linux Guide, Linux System, Beginners Operation Guide, Learn Linux Step-by-Step) Linux: Linux Mastery. The Ultimate Linux Operating System and Command Line Mastery (Operating System, Linux) Building Embedded Linux Systems Linux for Embedded and Real-time Applications, Third Edition (Embedded Technology) Linux for Embedded and Real-time Applications (Embedded Technology) Linux for Embedded and Real-time Applications, Second Edition (Embedded Technology) Applied Control Theory for Embedded Systems (Embedded Technology) DSP Software Development Techniques for Embedded and Real-Time Systems (Embedded Technology) Design Patterns for Embedded Systems in C: An Embedded Software Engineering Toolkit Analog Interfacing to Embedded Microprocessor Systems, Second Edition (Embedded Technology Series) Real-Time UML Workshop for Embedded Systems, Second Edition (Embedded Technology) Embedded Systems Architecture: A Comprehensive Guide for Engineers and Programmers (Embedded Technology) Exploring BeagleBone: Tools and Techniques for Building with Embedded Linux Embedded Linux Systems with the Yocto Project (Prentice Hall Open Source Software Development) Real-Time Embedded Components and Systems with Linux and RTOS (Engineering) Real-Time Embedded Components And Systems: With Linux and RTOS The Linux TCP/IP Stack: Networking for Embedded Systems (Networking Series) Linux TCP/IP Networking for Embedded Systems Linux Clustering: Building and Maintaining Linux Clusters