Linux For Embedded And Real-time Applications (Embedded Technology)
This new edition of Linux for Embedded and Real-Time Applications provides a practical introduction to the basics and the latest developments in this rapidly evolving technology. Ideal for those new to using Linux in an embedded environment, it takes a hands-on approach and covers key concepts plus specific applications. Key features include: Substantially updated to focus on a specific ARM-based single board computer (SBC) as a target for embedded application programming Includes an introduction to Android programming With this book you will learn: The basics of Open Source, Linux and the embedded space How to set up a simple system and tool chain How to use simulation for initial application testing Network, graphics and Android programming How to use some of the many Linux components and tools How to configure and build the Linux kernel, BusyBox and U-Boot bootloader Provides a hands-on introduction for engineers and software developers who need to get up to speed quickly on embedded Linux, its operation and its capabilities â€“ including Android Updated and changed accompanying tools, with a focus on the authorâ€™s specially-developed Embedded Linux Learning Kit
I rank Doug's book as one of the best on the topic of Embedded Linux development. It is nice to see this book updated as the last edition had become very stale (with respect to available tools). This book brings the topic up-to-date for those new to embedded Linux development (as I am). You should be aware that this book is best read with The E.L.L.K. (Search your favorite search engine for "Intellimetrix ELLK") or the FriedlyARM board found at andahammer (Again Search for "AndAHammer ARM"), or even Doug's courses offered at GoGo Training/San Diego State online courses where you even get a discount for the E.L.L.K through GoGo Training). Granted the preceding references are expensive for the hobbiest (as I am) they are so worth while I put my money where my mouth is and subscribe to Doug's courses on GoGo Training). Back to the book, there are introductions to software (installing Linux, Eclipse), hardware (the book is best used with the FriendlyARM board, but you can extrapolate), the development environment using Eclipse, debugging using GNU's GDB via the network, and device drivers both using the /proc virtual directory, and as a "real" software driver, kernel configuration, busybox, and more. If you're seeking and introduction to Embedded Linux using a specific set of instructions with examples, this is the book I found most useful. For a more general introduction into the topic, you may also want to consider Embedded Linux Primer: A Practical Real-World Approach (2nd Edition). Christopher's book goes hand-in-hand with Doug's book (IMHO) by pealing the onion one more layer. Both books, however, are not in-depth enough to make you an expert, but I've found that I am well on my way to experimenting and learning the subject. Your mileage may vary :)
great detail, which I greatly appreciate because I've tried setting up cross-chain development environments on my own and haven't had much luck. The book is a little vague in some parts, choosing to focus on the "how" rather than the "why." For instance, the book literally only has a single sentence on journaling file systems, mentioning that they tolerate power loss without corrupting the file system. The reason I'm posting a review so early is because the chapter I'm on (chapter 5, page 72) wants you to go to the book's website to download some files, but the website only says "Online content is coming soon." So, until the author updates the website, I'm stuck! Hopefully the author fixes this soon...

Took the class with Doug himself and even bought the kit. Highly disappointed. Material are not very well explained, out of date, and examples are not compatible with the hardware. Teacher support is abysmal. Student have to find bugs in the material and fix it for him as he seemly is behind the time or have loss passion. New hardware kit has too many bugs that needs to be work out before releasing to student. Important topics like creating device drivers are rushed through at the end. Can’t recommend the book or the classes that comes with it.

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