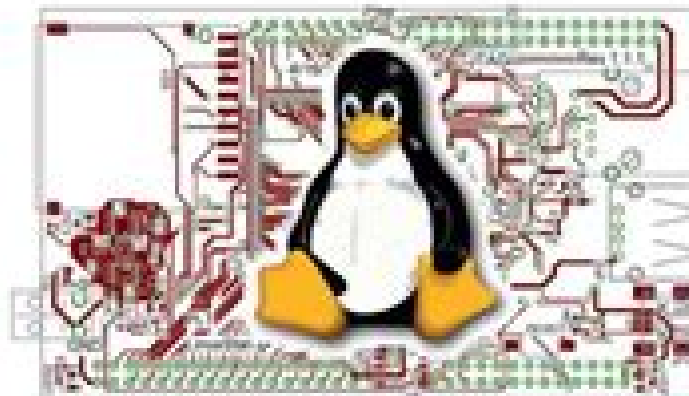


Embedded Linux



Embedded Linux Embedded Linux

Alex González



Embedded Linux Embedded Linux:

Embedded Linux System Design and Development P. Raghavan, Amol Lad, Sriram Neelakandan, 2005-12-21 Based upon the authors experience in designing and deploying an embedded Linux system with a variety of applications Embedded Linux System Design and Development contains a full embedded Linux system development roadmap for systems architects and software programmers Explaining the issues that arise out of the use of Linux in embedded systems the book facilitates movement to embedded Linux from traditional real time operating systems and describes the system design model containing embedded Linux This book delivers practical solutions for writing debugging and profiling applications and drivers in embedded Linux and for understanding Linux BSP architecture It enables you to understand various drivers such as serial I2C and USB gadgets uClinux architecture and its programming model and the embedded Linux graphics subsystem The text also promotes learning of methods to reduce system boot time optimize memory and storage and find memory leaks and corruption in applications This volume benefits IT managers in planning to choose an embedded Linux distribution and in creating a roadmap for OS transition It also describes the application of the Linux licensing model in commercial products

Embedded Linux Systems with the Yocto Project Rudolf J. Streif, 2016-04-18 Build Complete Embedded Linux Systems Quickly and Reliably Developers are increasingly integrating Linux into their embedded systems It supports virtually all hardware architectures and many peripherals scales well offers full source code and requires no royalties The Yocto Project makes it much easier to customize Linux for embedded systems If you re a developer with working knowledge of Linux Embedded Linux Systems with the Yocto Project™ will help you make the most of it An indispensable companion to the official documentation this guide starts by offering a solid grounding in the embedded Linux landscape and the challenges of creating custom distributions for embedded systems You ll master the Yocto Project s toolbox hands on by working through the entire development lifecycle with a variety of real life examples that you can incorporate into your own projects Author Rudolf Streif offers deep insight into Yocto Project s build system and engine and addresses advanced topics ranging from board support to compliance management You ll learn how to Overcome key challenges of creating custom embedded distributions Jumpstart and iterate OS stack builds with the OpenEmbedded Build System Master build workflow architecture and the BitBake Build Engine Quickly troubleshoot build problems Customize new distros with built in blueprints or from scratch Use BitBake recipes to create new software packages Build kernels set configurations and apply patches Support diverse CPU architectures and systems Create Board Support Packages BSP for hardware specific adaptations Provide Application Development Toolkits ADT for round trip development Remotely run and debug applications on actual hardware targets Ensure open source license compliance Scale team based projects with Toaster Build History Source Mirrors and Autobuilder *Pro Linux Embedded Systems* Gene Sally, 2010-04-29 Today Linux is included with nearly every embedded platform Embedded developers can take a more modern route and spend more time tuning Linux and taking

advantage of open source code to build more robust feature rich applications While Gene Sally does not neglect porting Linux to new hardware modern embedded hardware is more sophisticated than ever most systems include the capabilities found on desktop systems This book is written from the perspective of a user employing technologies and techniques typically reserved for desktop systems Modern guide for developing embedded Linux systems Shows you how to work with existing Linux embedded system while still teaching how to port Linux Explains best practices from somebody who has done it before

Embedded Linux Primer Christopher Hallinan, 2010-10-26 Up to the Minute Complete Guidance for Developing Embedded Solutions with Linux Linux has emerged as today's 1 operating system for embedded products Christopher Hallinan's Embedded Linux Primer has proven itself as the definitive real world guide to building efficient high value embedded systems with Linux Now Hallinan has thoroughly updated this highly praised book for the newest Linux kernels capabilities tools and hardware support including advanced multicore processors Drawing on more than a decade of embedded Linux experience Hallinan helps you rapidly climb the learning curve whether you're moving from legacy environments or you're new to embedded programming Hallinan addresses today's most important development challenges and demonstrates how to solve the problems you're most likely to encounter You'll learn how to build a modern efficient embedded Linux development environment and then utilize it as productively as possible Hallinan offers up to date guidance on everything from kernel configuration and initialization to bootloaders device drivers to file systems and BusyBox utilities to real time configuration and system analysis This edition adds entirely new chapters on UDEV USB and open source build systems Tour the typical embedded system and development environment and understand its concepts and components Understand the Linux kernel and userspace initialization processes Preview bootloaders with specific emphasis on U Boot Configure the Memory Technology Devices MTD subsystem to interface with flash and other memory devices Make the most of BusyBox and latest open source development tools Learn from expanded and updated coverage of kernel debugging Build and analyze real time systems with Linux Learn to configure device files and driver loading with UDEV Walk through detailed coverage of the USB subsystem Introduces the latest open source embedded Linux build systems Reference appendices include U Boot and BusyBox commands

Building Embedded Linux Systems Karim Yaghmour, 2003-04-22 Linux is being adopted by an increasing number of embedded systems developers who have been won over by its sophisticated scheduling and networking its cost free license its open development model and the support offered by rich and powerful programming tools While there is a great deal of hype surrounding the use of Linux in embedded systems there is not a lot of practical information Building Embedded Linux Systems is the first in depth hard core guide to putting together an embedded system based on the Linux kernel This indispensable book features arcane and previously undocumented procedures for Building your own GNU development toolchain Using an efficient embedded development framework Selecting configuring building and installing a target specific kernel Creating a complete target root filesystem Setting up

manipulating and using solid state storage devices Installing and configuring a bootloader for the target Cross compiling a slew of utilities and packages Debugging your embedded system using a plethora of tools and techniques Details are provided for various target architectures and hardware configurations including a thorough review of Linux's support for embedded hardware All explanations rely on the use of open source and free software packages By presenting how to build the operating system components from pristine sources and how to find more documentation or help this book greatly simplifies the task of keeping complete control over one's embedded operating system whether it be for technical or sound financial reasons Author Karim Yaghmour a well known designer and speaker who is responsible for the Linux Trace Toolkit starts by discussing the strengths and weaknesses of Linux as an embedded operating system Licensing issues are included followed by a discussion of the basics of building embedded Linux systems The configuration setup and use of over forty different open source and free software packages commonly used in embedded Linux systems are also covered uClibc

BusyBox U Boot OpenSSH tftpd tftp strace and gdb are among the packages discussed **Embedded Linux**

Development with Yocto Project Otavio Salvador, Daiane Angolini, 2014-07-09 A practical tutorial guide which introduces you to the basics of Yocto Project and also helps you with its real hardware use to boost your Embedded Linux based project If you are an embedded systems enthusiast and willing to learn about compelling features offered by the Yocto Project then this book is for you With prior experience in the embedded Linux domain you can make the most of this book to efficiently create custom Linux based systems

Mastering Embedded Linux Programming Chris Simmonds, 2017-06-30 Learn to confidently develop debug and deploy robust embedded Linux systems with hands on examples using BeagleBone and QEMU Key Features Step by step guide from toolchain setup to real time programming with hands on implementation Practical insights on kernel configuration device drivers and memory management Covers hardware integration using BeagleBone Black and virtual environments via QEMU Book Description Embedded Linux runs many of the devices we use every day from smart TVs to WiFi routers test equipment to industrial controllers all of them have Linux at their heart Linux is a core technology in the implementation of the inter connected world of the Internet of Things You will begin by learning about the fundamental elements that underpin all embedded Linux projects the toolchain the bootloader the kernel and the root filesystem You'll see how to create each of these elements from scratch and how to automate the process using Buildroot and the Yocto Project Moving on you'll find out how to implement an effective storage strategy for flash memory chips and how to install updates to the device remotely once it is deployed You'll also get to know the key aspects of writing code for embedded Linux such as how to access hardware from applications the implications of writing multi threaded code and techniques to manage memory in an efficient way The final chapters show you how to debug your code both in applications and in the Linux kernel and how to profile the system so that you can look out for performance bottlenecks By the end of the book you will have a complete overview of the steps required to create a successful embedded Linux system What you will

learn Evaluate the Board Support Packages offered by most manufacturers of a system on chip or embedded module Use Buildroot and the Yocto Project to create embedded Linux systems quickly and efficiently Update IoT devices in the field without compromising security Reduce the power budget of devices to make batteries last longer Interact with the hardware without having to write kernel device drivers Debug devices remotely using GDB and see how to measure the performance of the systems using powerful tools such as perf, ftrace and valgrind Who this book is for This book is for embedded engineers Linux developers and computer science students looking to build real world embedded systems It suits readers who are familiar with basic Linux use and want to deepen their skills in kernel configuration debugging and device integration

Embedded Linux Development Using Yocto Project Otavio Salvador, Daiane Angolini, 2023-04-28 Elevate your Linux powered system with Yocto Projects enhancing its stability and resilience efficiently and economically now upgraded to the latest Yocto Project version Purchase of the print or Kindle book includes a free PDF eBook Key Features Optimize your Yocto Project tools to develop efficient Linux based projects Follow a practical approach to learning Linux development using Yocto Project Employ the best practices for embedded Linux and Yocto Project development Book Description The Yocto Project is the industry standard for developing dependable embedded Linux projects It stands out from other frameworks by offering time efficient development with enhanced reliability and robustness With Embedded Linux Development Using Yocto Project you will acquire an understanding of Yocto Project tools helping you perform different Linux based tasks You will gain a deep understanding of Poky and BitBake explore practical use cases for building a Linux subsystem project employ Yocto Project tools available for embedded Linux and uncover the secrets of SDK recipe tool and others This new edition is aligned with the latest long term support release of the aforementioned technologies and introduces two new chapters covering optimal emulation in QEMU for faster product development and best practices By the end of this book you will be well equipped to generate and run an image for real hardware boards You will gain hands on experience in building efficient Linux systems using the Yocto Project What you will learn Understand the basic Poky workflows concepts along with configuring and preparing the Poky build environment Learn with the help of up to date examples in the latest version of Yocto Project Configure a build server and customize images using Toaster Generate images and fit packages into created images using BitBake Support the development process by setting up and using Package feeds Debug Yocto Project by configuring Poky Build an image for the BeagleBone Black RaspberryPi 4 and Wandboard and boot it from an SD card Who this book is for If you are an embedded Linux developer and want to broaden your knowledge about the Yocto Project with examples of embedded development then this book is for you Professionals looking for new insights into working methodologies for Linux development will also find plenty of helpful information in this book

Embedded Linux Development using Yocto Projects Otavio Salvador, Daiane Angolini, 2017-11-16 Optimize and boost your Linux based system with Yocto Project and increase its reliability and robustness efficiently and cost effectively Key Features Optimize your Yocto Project tools to

develop efficient Linux based projects Practical approach to learning Linux development using Yocto Project Demonstrates concepts in a practical and easy to understand way Book DescriptionYocto Project is turning out to be the best integration framework for creating reliable embedded Linux projects It has the edge over other frameworks because of its features such as less development time and improved reliability and robustness Embedded Linux Development using Yocto Project starts with an in depth explanation of all Yocto Project tools to help you perform different Linux based tasks The book then moves on to in depth explanations of Poky and BitBake It also includes some practical use cases for building a Linux subsystem project using Yocto Project tools available for embedded Linux The book also covers topics such as SDK recipetool and others By the end of the book you will have learned how to generate and run an image for real hardware boards and will have gained hands on experience at building efficient Linux systems using Yocto Project What you will learn Understand the basic concepts involved in Poky workflows along with configuring and preparing the Poky build environment Configure a build server and customize images using Toaster Generate images and fit packages into created images using BitBake Support the development process by setting up and using Package feeds Debug Yocto Project by configuring Poky Build an image for the BeagleBone Black RaspberryPi 3 and Wandboard and boot it from an SD card Who this book is for If you are an embedded Linux developer with a basic knowledge of Yocto Project and want to broaden your knowledge with examples of embedded development then this book is for you This book is also for professionals who want to find new insights into working methodologies for Linux development

Mastering Embedded Linux Programming Frank Vasquez,Chris Simmonds,2021-05-14 Build customize and deploy Linux based embedded systems with confidence using Yocto bootloaders and build tools Key Features Master build systems toolchains and kernel integration for embedded Linux Set up custom Linux distros with Yocto and manage board specific configurations Learn real world debugging memory handling and system performance tuning Book DescriptionIf you re looking for a book that will demystify embedded Linux then you ve come to the right place Mastering Embedded Linux Programming is a fully comprehensive guide that can serve both as means to learn new things or as a handy reference The first few chapters of this book will break down the fundamental elements that underpin all embedded Linux projects the toolchain the bootloader the kernel and the root filesystem After that you will learn how to create each of these elements from scratch and automate the process using Buildroot and the Yocto Project As you progress the book will show you how to implement an effective storage strategy for flash memory chips and install updates to a device remotely once it s deployed You ll also learn about the key aspects of writing code for embedded Linux such as how to access hardware from apps the implications of writing multi threaded code and techniques to manage memory in an efficient way The final chapters demonstrate how to debug your code whether it resides in apps or in the Linux kernel itself You ll also cover the different tracers and profilers that are available for Linux so that you can quickly pinpoint any performance bottlenecks in your system By the end of this Linux book you ll be able to create efficient and secure embedded

devices using Linux What you will learn Use Buildroot and the Yocto Project to create embedded Linux systems Troubleshoot BitBake build failures and streamline your Yocto development workflow Update IoT devices securely in the field using Mender or balena Prototype peripheral additions by reading schematics modifying device trees soldering breakout boards and probing pins with a logic analyzer Interact with hardware without having to write kernel device drivers Divide your system up into services supervised by BusyBox runit Debug devices remotely using GDB and measure the performance of systems using tools such as perf ftrace eBPF and Callgrind Who this book is for If you're a systems software engineer or system administrator who wants to learn how to implement Linux on embedded devices then this book is for you It's also aimed at embedded systems engineers accustomed to programming for low power microcontrollers who can use this book to help make the leap to high speed systems on chips that can run Linux Anyone who develops hardware that needs to run Linux will find something useful in this book but before you get started you'll need a solid grasp on POSIX standard C programming and shell scripting

Embedded Linux John Lombardo, 2001 Embedded Linux provides the reader the information needed to design develop and debug an embedded Linux appliance It explores why Linux is a great choice for an embedded application and what to look for when choosing hardware

GNU/Linux Rapid Embedded Programming Rodolfo Giometti, 2017-03-29 An annotated guide to program and develop GNU Linux Embedded systems quickly Key Features Rapidly design and build powerful prototypes for GNU Linux Embedded systems Become familiar with the workings of GNU Linux Embedded systems and how to manage its peripherals Write monitor and configure applications quickly and effectively manage an external micro controller and use it as co processor for real time tasks Book Description Embedded computers have become very complex in the last few years and developers need to easily manage them by focusing on how to solve a problem without wasting time in finding supported peripherals or learning how to manage them The main challenge with experienced embedded programmers and engineers is really how long it takes to turn an idea into reality and we show you exactly how to do it This book shows how to interact with external environments through specific peripherals used in the industry We will use the latest Linux kernel release 4.4.x and Debian Ubuntu distributions with embedded distributions like OpenWrt and Yocto The book will present popular boards in the industry that are user friendly to base the rest of the projects on BeagleBone Black SAMA5D3 Xplained Wandboard and system on chip manufacturers Readers will be able to take their first steps in programming the embedded platforms using C Bash and Python PHP languages in order to get access to the external peripherals More about using and programming device driver and accessing the peripherals will be covered to lay a strong foundation The readers will learn how to read write data from to the external environment by using both C programs or a scripting language Bash PHP Python and how to configure a device driver for a specific hardware After finishing this book the readers will be able to gain a good knowledge level and understanding of writing configuring and managing drivers controlling and monitoring applications with the help of efficient quick programming and will be able to apply these skills

into real world projects What you will learn Use embedded systems to implement your projects Access and manage peripherals for embedded systems Program embedded systems using languages such as C Python Bash and PHP Use a complete distribution such as Debian or Ubuntu or an embedded one such as OpenWrt or Yocto Harness device driver capabilities to optimize device communications Access data through several kinds of devices such as GPIO s serial ports PWM ADC Ethernet WiFi audio video I2C SPI One Wire USB and CAN Who this book is for This book targets Embedded System developers and GNU Linux programmers who would like to program Embedded Systems and perform Embedded development The book focuses on quick and efficient prototype building Some experience with hardware and Embedded Systems is assumed as is having done some previous work on GNU Linux systems Knowledge of scripting on GNU Linux is expected as well

Linux: Embedded Development Alexandru Vaduva,Alex Gonzalez,Chris Simmonds,2016-09-27 Leverage the power of Linux to develop captivating and powerful embedded Linux projects About This Book Explore the best practices for all embedded product development stages Learn about the compelling features offered by the Yocto Project such as customization virtualization and many more Minimize project costs by using open source tools and programs Who This Book Is For If you are a developer who wants to build embedded systems using Linux this book is for you It is the ideal guide for you if you want to become proficient and broaden your knowledge A basic understanding of C programming and experience with systems programming is needed Experienced embedded Yocto developers will find new insight into working methodologies and ARM specific development competence What You Will Learn Use the Yocto Project in the embedded Linux development process Get familiar with and customize the bootloader for a board Discover more about real time layer security virtualization CGL and LSB See development workflows for the U Boot and the Linux kernel including debugging and optimization Understand the open source licensing requirements and how to comply with them when cohabiting with proprietary programs Optimize your production systems by reducing the size of both the Linux kernel and root filesystems Understand device trees and make changes to accommodate new hardware on your device Design and write multi threaded applications using POSIX threads Measure real time latencies and tune the Linux kernel to minimize them In Detail Embedded Linux is a complete Linux distribution employed to operate embedded devices such as smartphones tablets PDAs set top boxes and many more An example of an embedded Linux distribution is Android developed by Google This learning path starts with the module Learning Embedded Linux Using the Yocto Project It introduces embedded Linux software and hardware architecture and presents information about the bootloader You will go through Linux kernel features and source code and get an overview of the Yocto Project components available The next module Embedded Linux Projects Using Yocto Project Cookbook takes you through the installation of a professional embedded Yocto setup then advises you on best practices Finally it explains how to quickly get hands on with the Freescale ARM ecosystem and community layer using the affordable and open source Wandboard embedded board Moving ahead the final module Mastering Embedded Linux

Programming takes you through the product cycle and gives you an in depth description of the components and options that are available at each stage You will see how functions are split between processes and the usage of POSIX threads By the end of this learning path your capabilities will be enhanced to create robust and versatile embedded projects This Learning Path combines some of the best that Packt has to offer in one complete curated package It includes content from the following Packt products Learning Embedded Linux Using the Yocto Project by Alexandru Vaduva Embedded Linux Projects Using Yocto Project Cookbook by Alex Gonzalez Mastering Embedded Linux Programming by Chris Simmonds Style and approach This comprehensive step by step pragmatic guide enables you to build custom versions of Linux for new embedded systems with examples that are immediately applicable to your embedded developments Practical examples provide an easy to follow way to learn Yocto project development using the best practices and working methodologies Coupled with hints and best practices this will help you understand embedded Linux better

Embedded Linux Craig Hollabaugh,2002 A guide to using Linux on embedded platforms for interfacing to the real world Embedded Linux is one of the first books available that teaches readers development and implementation of interfacing applications on an Embedded Linux platform

Mastering Embedded Linux Programming Chris Simmonds,2015-12-29 Harness the power of Linux to create versatile and robust embedded solutions About This Book Create efficient and secure embedded devices using Linux Minimize project costs by using open source tools and programs Explore each component technology in depth using sample implementations as a guide Who This Book Is For This book is ideal for Linux developers and system programmers who are already familiar with embedded systems and who want to know how to create best in class devices A basic understanding of C programming and experience with systems programming is needed What You Will Learn Understand the role of the Linux kernel and select an appropriate role for your application Use Buildroot and Yocto to create embedded Linux systems quickly and efficiently Create customized bootloaders using U Boot Employ perf and ftrace to identify performance bottlenecks Understand device trees and make changes to accommodate new hardware on your device Write applications that interact with Linux device drivers Design and write multi threaded applications using POSIX threads Measure real time latencies and tune the Linux kernel to minimize them In Detail Mastering Embedded Linux Programming takes you through the product cycle and gives you an in depth description of the components and options that are available at each stage You will begin by learning about toolchains bootloaders the Linux kernel and how to configure a root filesystem to create a basic working device You will then learn how to use the two most commonly used build systems Buildroot and Yocto to speed up and simplify the development process Building on this solid base the next section considers how to make best use of raw NAND NOR flash memory and managed flash eMMC chips including mechanisms for increasing the lifetime of the devices and to perform reliable in field updates Next you need to consider what techniques are best suited to writing applications for your device We will then see how functions are split between processes and the usage of POSIX threads which have a big impact on the responsiveness

and performance of the final device The closing sections look at the techniques available to developers for profiling and tracing applications and kernel code using perf and ftrace Style and approach This book is an easy to follow and pragmatic guide consisting of an in depth analysis of the implementation of embedded devices Each topic has a logical approach to it this coupled with hints and best practices helps you understand embedded Linux better

The Embedded Linux Security Handbook Matt St. Onge, 2025-04-10 Written by Linux and open source expert Matt St Onge this definitive guide helps you build and secure Linux based appliances capable of withstanding the latest cyber threats All formats include a free PDF and an invitation to the Embedded System Professionals community Key Features Develop secure user friendly interfaces with streamlined configuration updates and life cycle support Learn how to integrate popular security techniques for embedded Linux into the development process Integrate advanced hardware with software security features to enhance your solution s resilience Book Description As embedded Linux systems power countless devices in our daily lives they ve become prime targets for cyberattacks In this in depth guide to safeguarding your Linux devices the author leverages his 30 years of technology experience to help you mitigate the risks associated with hardware and software vulnerabilities This book introduces you to the world of embedded systems the brains behind your everyday appliances It takes you through the different types of embedded systems their uses and the platforms they run on while addressing their unique security challenges and support considerations You ll learn how to build a successful secure and user friendly solution by exploring the critical hardware and software components that form the foundation of a secure appliance We won t forget the human element either you ll find out how to configure your system to prevent user errors and maintain its integrity The book lets you put your newfound knowledge into action guiding you through designing a robust build chain that supports the entire life cycle of your appliance solution enabling seamless updates without your direct involvement By the end of this book you ll be able to adapt your appliance to the ever evolving threat landscape ensuring its continued security and functionality in real world conditions What you will learn Understand how to determine the optimal hardware platform based on design criteria Recognize the importance of security by design in embedded systems Implement advanced security measures such as TPM LUKS encryption and Secure Boot processes Discover best practices for secure life cycle management including appliance update and upgrade mechanisms Create a secure software supply chain efficiently Implement childproofing by controlling access and resources on the appliance Who this book is for This book helps embedded systems professionals embedded software engineers and Linux security professionals gain the skills needed to address critical security requirements during the design development and testing of software for embedded systems If you re a product manager or architect this book will teach you how to identify and integrate essential security features based on the specific platforms and their intended users

Linux: Embedded Development ,2016 [Embedded Linux System Development](#) Bootlin, 2018-05-12 Using the training lecture materials from Bootlin learn how to build an embedded Linux entirely from scratch using the same tools and

resources as the embedded Linux community Make you own cross compiling toolchain compile and install your bootloader and Linux kernel make a custom root filesystem manage your storage in an efficient and reliable way cross compile extra open source component together with your own applications implement real time requirements and quickly get a working prototype To run the practical labs you will need an affordable electronic board and volume 2 Training labs **Embedded Linux Development Using Yocto Project Cookbook** Alex González, 2018-01-25 Over 79 hands on recipes for professional embedded Linux developers to optimize and boost their Yocto Project know how Key Features Optimize your Yocto setup to speed up development and debug build issues Use what is quickly becoming the standard embedded Linux product builder framework the Yocto Project Recipe based implementation of best practices to optimize your Linux system Book Description The Yocto Project has become the de facto distribution build framework for reliable and robust embedded systems with a reduced time to market You ll get started by working on a build system where you set up Yocto create a build directory and learn how to debug it Then you ll explore everything about the BSP layer from creating a custom layer to debugging device tree issues In addition to this you ll learn how to add a new software layer packages data scripts and configuration files to your system You will then cover topics based on application development such as using the Software Development Kit and how to use the Yocto project in various development environments Toward the end you will learn how to debug trace and profile a running system This second edition has been updated to include new content based on the latest Yocto release What you will learn Optimize your Yocto Project setup to speed up development and debug build issues Use Docker containers to build Yocto Project based systems Take advantage of the user friendly Toaster web interface to the Yocto Project build system Build and debug the Linux kernel and its device trees Customize your root filesystem with already supported and new Yocto packages Optimize your production systems by reducing the size of both the Linux kernel and root filesystems Explore the mechanisms to increase the root filesystem security Understand the open source licensing requirements and how to comply with them when cohabiting with proprietary programs Create recipes and build and run applications in C C Python Node js and Java Who this book is for If you are an embedded Linux developer with the basic knowledge of Yocto Project this book is an ideal way to broaden your knowledge with recipes for embedded development

Learning Embedded Linux Using the Yocto Project Alexandru Vaduva, 2015-06-30 This book offers readers an idea of what embedded Linux software and hardware architecture looks like cross compiling and also presents information about the bootloader and how it can be built for a specific board This book will go through Linux kernel features and source code present information on how to build a kernel source modules and the Linux root filesystem You ll be given an overview of the available Yocto Project components how to set up Yocto Project Eclipse IDE and how to use tools such as Wic and Swabber that are still under development It will present the meta realtime layer and the newly created meta cgl layer its purpose and how it can add value to poky

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