

<<构建嵌入式Linux系统>>

图书基本信息

书名：<<构建嵌入式Linux系统>>

13位ISBN编号：9787564116309

10位ISBN编号：7564116307

出版时间：2009-4

出版时间：东南大学出版社

作者：亚荷毛尔

页数：439

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

<<构建嵌入式Linux系统>>

内容概要

虽然很多公司将Linux用于多种嵌入式系统，从手机到汽车ABS系统和水过滤设备，但是令人惊讶的是，关于Linux系统内核和相关工具的建立、安装、测试这方面信息的资源几乎没有。

《构建嵌入式Linux系统》是一本构造这些系统的详细指南，不仅可以学习基本原理，而且可以学习如何去配置、设置并使用40种以上不同的开发源码和自由软件包。

此次再版，更新了上一个版本的Linux系统内核和之前无证程序的特征，以助你：

- 建立自己的GNU开发工具链
- 选择、配置、构建并安装特定目标的内核
- 建立完整的目标根文件系统
- 设置、操作及使用固态存储设备
- 安装并配置目标的引导加载程序
- 交叉编译大量实用程序和包
- 使用多种工具和技术调试嵌入式系统
- 使用uClibc, BusyBox, U-Boot, OpenSSH, tftpd, tftp, strace和gdb包
- 利用Xenomai或RT内核补丁的实时特征

此次再版教授了如何构建操作系统组件，简化了嵌入式系统中令人望而生畏的完全控制的维护任务。

<<构建嵌入式Linux系统>>

作者简介

作者：(加拿大) 亚荷毛尔 (Yaghmour.K.)

<<构建嵌入式Linux系统>>

书籍目录

Preface
1. Introduction Definitions Real Life and Embedded Linux Systems Design and Implementation Methodology
2. Basic Concepts Types of Hosts Types of Host/Target Development Setups Types of Host/Target Debug Setups Generic Architecture of an Embedded Linux System System Startup Types of Boot Configurations System Memory Layout
3. Hardware Support Processor Architectures Buses and Interfaces I/O Storage General-Purpose Networking Industrial-Grade Networking System Monitoring
4. Development Tools A Practical Project Workspace GNU Cross-Platform Development Toolchain C Library Alternatives Java Perl Python Other Programming Languages Eclipse: An Integrated Development Environment Terminal Emulators
5. Kernel Considerations Selecting a Kernel Configuring the Kernel Compiling the Kernel Installing the Kernel In the Field
6. Root Filesystem Content Basic Root Filesystem Structure Libraries Kernel Modules Kernel Images Device Files Main System Applications Custom Applications System Initialization
7. Storage Device Manipulation MTD-Supported Devices Disk Devices To Swap or Not To Swap
8. Root Filesystem Setup Filesystem Types for Embedded Devices Writing a Filesystem Image to Flash Using an NFS-Mounted Root Filesystem Placing a Disk Filesystem on a RAM Disk Rootfs and Initramfs Choosing a Filesystem's Type and Layout Handling Software Upgrades
9. Setting Up the Bootloader Embedded Bootloaders Server Setup for Network Boot Using the U-Boot Bootloader
10. Setting Up Networking Services Network Settings Busybox Dynamic Configuration Through DHCP The Internet Super-Server Remote Administration with SNMP Network Login Through Telnet Secure Communication with SSH Serving Web Content Through HTTP Provisioning
11. Debugging Tools Eclipse Debugging Applications with gdb Tracing Performance Analysis Memory Debugging A Word on Hardware Tools
12. Introduction to Real-Time tinux What Is Real-Time Processing? Should Your Linux Be Real-Time? Common Real-Time Kernel Requirements Some Typical Users of Real-Time Computing Technology The Linux Paths to Real-Time
13. The Xenomai Real-Time System Porting Traditional RTOS Applications to Linux The Xenomai Architecture How Xenomai Works The Real-Time Driver Model Xenomai, Chameleon by Design
14. The RT Patch Interrupts As Threads Priority Inheritance Configuring the Kernel with the RT Patch High-Resolution Timers The Latency Tracer Conclusion
Index

<<构建嵌入式Linux系统>>

章节摘录

“ As We saw in the previous chapter , there is a rich variety of embedded Linux systems. And as time moves forward , this diversity is increasing as new markets open up. be it for the millions of Linux-based cell phones sold every year , or for experimental amateur rockets with precise real-time requirements. In spite of such a variety , there are nevertheless a few key characteristics that apply uniformly to most embedded Linux systems. The purpose of this chapter is to present you with the basic concepts and issues that you are likely to encounter when developing any sort of embedded Linux system. Many of the subjects introduced here will be discussed in far greater detail in other chapters. They are covered here briefly to give you an understanding of how the system forms a cohesive whole , and to avoid so-called undeclared forward references (a programming term for using something before it has been fully defined) . The chapter starts with a discussion of the types of hosts most commonly used for developing embedded Linux systems , the types of host / target development setups , and the types of host / target debug setups. These sections are meant to help you select the best environment for developing embedded Linux systems or , if the environment is already specified , understand how your particular setup will influence the rest of your development effort. We will then present details of the structure commonly found in most embedded Linux systems , and the generic architecture of an embedded Linux system , explaining system startup , types of boot configuration , and the typical system memory layout. In addition to other related items.

<<构建嵌入式Linux系统>>

媒体关注与评论

“ 这本书中没有关于常用工具或项目范围的任何假设。
所需要的.....就是下载必要包和浏览详尽在线文档的Internet连接，从而与其他开发者互享经验并从中获益。
这些讲述不仅在设计上给予恰到好处的自由及控制，也紧承Linux嵌入式系统应用的开发先锋们的观点
。”
——节自Preface

<<构建嵌入式Linux系统>>

编辑推荐

《构建嵌入式Linux系统(影印版)》由东南大学出版社出版。

<<构建嵌入式Linux系统>>

版权说明

本站所提供下载的PDF图书仅提供预览和简介, 请支持正版图书。

更多资源请访问:<http://www.tushu007.com>