Index of Documentation for People Interested in Writing and/or Understanding the Linux Kernel.

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```
/*
 * The latest version of this document may be found at:
 *   http://www.dit.upm.es/~jmseyas/linux/kernel/hackers-docs.html
 */
```

The need for a document like this one became apparent in the linux-kernel mailing list as the same questions, asking for pointers to information, appeared again and again.

Fortunately, as more and more people get to GNU/Linux, more and more get interested in the Kernel. But reading the sources is not always enough. It is easy to understand the code, but miss the concepts, the philosophy and design decisions behind this code.

Unfortunately, not many documents are available for beginners to start. And, even if they exist, there was no "well-known" place which kept track of them. These lines try to cover this lack. All documents available on line known by the author are listed, while some reference books are also mentioned.

Please, if you know any paper not listed here or write a new document, send me an e-mail, and I'll include a reference to it here. Any corrections, ideas or comments are also welcomed.

The papers that follow are listed in no particular order. All are cataloged with the following fields: the document's "Title", the "Author"/s, the "URL" where they can be found, some "Keywords" helpful when searching for specific topics, and a brief "Description" of the Document.

Enjoy!

- ON-LINE DOCS:
  - **Title**: "Iptables-tutorial"
    Author: Oskar Andreasson.
    URL: http://iptables-tutorial.frozentux.net
    Keywords: iptables, netfilter, firewalls.
    Description: The aim of the iptables-tutorial is to explain iptables in a complete and simple way. It information on all the currently available matches and targets (in kernel), as well as complete example scripts and explanations. It contains a complete section on iptables syntax, as well as other interesting commands such as iptables-save and iptables-restore.

  - **Title**: "Ipsysctl-tutorial"
    Author: Oskar Andreasson.
    URL: http://ipsysctl-tutorial.frozentux.net
    Keywords: IP sysctl, ipsysctl, firewalls, Interface reference, sysctl/proc basics.
    Description: This document aims at giving more in depth explanations about the different ip sysctl calls available in the Linux kernel.

  - **Title**: "The Linux Kernel"
    Author: David A. Rusling.
    URL: http://en.tldp.org/LDP/tlk/tlk.html
    Keywords: everything!, book.

Description: On line, 200 pages book describing most aspects of the Linux Kernel. Probably, the first reference for beginners. Lots of illustrations explaining data structures use and relationships in the purest Richard W. Stevens' style. Contents: "1.-Hardware Basics, 2.-Software Basics, 3.-Memory Management, 4.-Processes, 5.-Interprocess Communication Mechanisms, 6.-PCI, 7.-Interrupts and Interrupt Handling, 8.-Device Drivers, 9.-The File system, 10.-Networks, 11.-Kernel Mechanisms, 12.-Modules, 13.-The Linux Kernel Sources, A.-Linux Data Structures, B.-The Alpha AXP Processor, C.-Useful Web and FTP Sites, D.-The GNU General Public License, Glossary". In short: a must have.

- Title: "Linux Device Drivers, 2nd Edition"
  Author: Alessandro Rubini and Jonathan Corbet.
  URL: http://www.xml.com/ldd/chapter/book/index.html
  Keywords: device drivers, modules, debugging, memory, hardware, interrupt handling, char drivers, block drivers, kmod, mmap, DMA, buses.
  Description: O'Reilly's popular book, now also on-line under the GNU Free Documentation License.
  Notes: You can also buy it in paper-form from O'Reilly. See below under BOOKS (Not on-line).

- Title: "Conceptual Architecture of the Linux Kernel"
  Author: Ivan T. Bowman.
  URL: http://plg.uwaterloo.ca/~itbowman/papers/CS746G-a1.html
  Keywords: conceptual software arquitecture, extracted design, reverse engineering, system structure.
  Description: Conceptual software arquitecture of the Linux kernel, automatically extracted from the source code. Very detailed. Good figures. Gives good overall kernel understanding.

- Title: "Concrete Architecture of the Linux Kernel"
  Author: Ivan T. Bowman, Saheem Siddiqi, and Meyer C. Tanuan.
  URL: http://plg.uwaterloo.ca/~itbowman/papers/CS746G-a2.html
  Keywords: concrete arquitecture, extracted design, reverse engineering, system structure, dependencies.
  Description: Concrete arquitecture of the Linux kernel, automatically extracted from the source code. Very detailed. Good figures. Gives good overall kernel understanding. This papers focus on lower details than its predecessor (files, variables...).

- Title: "Linux as a Case Study: Its Extracted Software Architecture"
  Author: Ivan T. Bowman, Richard C. Holt and Neil V. Brewster.
  URL: http://plg.uwaterloo.ca/~itbowman/papers/linuxcase.html
  Keywords: software architecture, architecture recovery, redocumentation.
  Description: Paper appeared at ICSE'99, Los Angeles, May 16-22, 1999. A mixture of the previous two documents from the same author.

- Title: "Overview of the Virtual File System"
  Author: Richard Gooch.
  URL: http://www.atnf.csiro.au/~rgooch/linux/vfs.txt
  Keywords: VFS, File System, mounting filesystems, opening files, dentries, dcache.
  Description: Brief introduction to the Linux Virtual File System. What is it, how it works, operations taken when opening a file or mounting a file system and description of important data structures explaining the purpose of each of their entries.

- **Title**: "The Linux RAID-1, 4, 5 Code"
  Author: Ingo Molnar, Gadi Oxman and Miguel de Icaza.
  URL: http://www.linuxjournal.com/article.php?sid=2391
  Keywords: RAID, MD driver.
  Description: Linux Journal Kernel Korner article. Here is it's abstract: "A description of the implementation of the RAID-1, RAID-4 and RAID-5 personalities of the MD device driver in the Linux kernel, providing users with high performance and reliable, secondary-storage capability using software".

- **Title**: "Dynamic Kernels: Modularized Device Drivers"
  Author: Alessandro Rubini.
  URL: http://www.linuxjournal.com/article.php?sid=1219
  Keywords: device driver, module, loading/unloading modules, allocating resources.
  Description: Linux Journal Kernel Korner article. Here is it's abstract: "This is the first of a series of four articles co-authored by Alessandro Rubini and Georg Zezchwitz which present a practical approach to writing Linux device drivers as kernel loadable modules. This installment presents an introduction to the topic, preparing the reader to understand next month's installment".

- **Title**: "Dynamic Kernels: Discovery"
  Author: Alessandro Rubini.
  URL: http://www.linuxjournal.com/article.php?sid=1220
  Keywords: character driver, init_module, clean_up module, autodetection, mayor number, minor number, file operations, open(), close().
  Description: Linux Journal Kernel Korner article. Here is it's abstract: "This article, the second of four, introduces part of the actual code to create custom module implementing a character device driver. It describes the code for module initialization and cleanup, as well as the open() and close() system calls".

- **Title**: "The Devil's in the Details"
  Author: Georg v. Zezschwitz and Alessandro Rubini.
  URL: http://www.linuxjournal.com/article.php?sid=1221
  Keywords: read(), write(), select(), ioctl(), blocking/non blocking mode, interrupt handler.
  Description: Linux Journal Kernel Korner article. Here is it's abstract: "This article, the third of four on writing character device drivers, introduces concepts of reading, writing, and using ioctl-calls".

- **Title**: "Dissecting Interrupts and Browsing DMA"
  Author: Alessandro Rubini and Georg v. Zezschwitz.
  URL: http://www.linuxjournal.com/article.php?sid=1222
  Keywords: interrupts, irqs, DMA, bottom halves, task queues.
  Description: Linux Journal Kernel Korner article. Here is it's abstract: "This is the fourth in a series of articles about writing character device drivers as loadable kernel modules. This month, we further investigate the field of interrupt handling. Though it is conceptually simple, practical limitations and constraints make this an ``interesting'' part of device driver writing, and several different facilities have been provided for different situations. We also investigate the complex topic of DMA".

- **Title**: "Device Drivers Concluded"
  Author: Georg v. Zezschwitz.
  URL: http://www.linuxjournal.com/article.php?sid=1287
  Keywords: address spaces, pages, pagination, page management, demand loading,

swapping, memory protection, memory mapping, mmap, virtual memory areas (VMAs), vremap, PCI.
Description: Finally, the above turned out into a five articles series. This latest one's introduction reads: "This is the last of five articles about character device drivers. In this final section, Georg deals with memory mapping devices, beginning with an overall description of the Linux memory management concepts".

- **Title**: "Network Buffers And Memory Management"
  Author: Alan Cox.
  URL: http://www.linuxjournal.com/article.php?sid=1312
  Keywords: sk_buffs, network devices, protocol/link layer variables, network devices flags, transmit, receive, configuration, multicast.
  Description: Linux Journal Kernel Korner. Here is the abstract: "Writing a network device driver for Linux is fundamentally simple---most of the complexity (other than talking to the hardware) involves managing network packets in memory".

- **Title**: "The Venus kernel interface"
  Author: Peter J. Braam.
  URL: http://www.coda.cs.cmu.edu/doc/html/kernel-venus-protocol.html
  Keywords: coda, filesystem, venus, cache manager.
  Description: "This document describes the communication between Venus and kernel level file system code needed for the operation of the Coda filesystem. This version document is meant to describe the current interface (version 1.0) as well as improvements we envisage".

- **Title**: "Programming PCI-Devices under Linux"
  Author: Claus Schroeter.
  URL: ftp://ftp.llp.fu-berlin.de/pub/linux/LINUX-LAB/whitepapers/pcip.ps.gz
  Keywords: PCI, device, busmastering.
  Description: 6 pages tutorial on PCI programming under Linux. Gives the basic concepts on the architecture of the PCI subsystem, as long as basic functions and macros to read/write the devices and perform busmastering.

- **Title**: "Writing Character Device Driver for Linux"
  Author: R. Baruch and C. Schroeter.
  URL: ftp://ftp.llp.fu-berlin.de/pub/linux/LINUX-LAB/whitepapers/drivers.ps.gz
  Keywords: character device drivers, I/O, signals, DMA, accessing ports in user space, kernel environment.
  Description: 68 pages paper on writing character drivers. A little bit old (1.993, 1.994) although still useful.

- **Title**: "Design and Implementation of the Second Extended Filesystem"
  Author: Rémy Card, Theodore Ts'o, Stephen Tweedie.
  URL: http://web.mit.edu/tytso/www/linux/ext2intro.html
  Keywords: ext2, linux fs history, inode, directory, link, devices, VFS, physical structure, performance, benchmarks, ext2fs library, ext2fs tools, e2fsck.
  Description: Paper written by three of the top ext2 hackers. Covers Linux filesystems history, ext2 motivation, ext2 features, design, physical structure on disk, performance, benchmarks, e2fsck's passes description... A must read!
  Notes: This paper was first published in the Proceedings of the First Dutch International Symposium on Linux, ISBN 90-367-0385-9.

- Title: "Analysis of the Ext2fs structure"
  Author: Louis-Dominique Dubeau.
  URL: http://www.nondot.org/sabre/os/files/FileSystems/ext2fs/
  Keywords: ext2, filesystem, ext2fs.
  Description: Description of ext2's blocks, directories, inodes, bitmaps, invariants...

- Title: "Journaling the Linux ext2fs Filesystem"
  Author: Stephen C. Tweedie.
  URL: ftp://ftp.uk.linux.org/pub/linux/sct/fs/jfs/journal-design.ps.gz
  Keywords: ext3, journaling.
  Description: Excellent 8-pages paper explaining the journaling capabilities added to ext2 by the author, showing different problems faced and the alternatives chosen.

- Title: "Kernel API changes from 2.0 to 2.2"
  Author: Richard Gooch.
  URL: http://www.atnf.csiro.au/~rgooch/linux/docs/porting-to-2.2.html
  Keywords: 2.2, changes.
  Description: Kernel functions/structures/variables which changed from 2.0.x to 2.2.x.

- Title: "Kernel API changes from 2.2 to 2.4"
  Author: Richard Gooch.
  URL: http://www.atnf.csiro.au/~rgooch/linux/docs/porting-to-2.4.html
  Keywords: 2.4, changes.
  Description: Kernel functions/structures/variables which changed from 2.2.x to 2.4.x.

- Title: "Linux Kernel Module Programming Guide"
  Author: Peter Jay Salzman, Michael Burian, Ori Pomerantz.
  URL: http://tldp.org/LDP/lkmpg/2.6/html/
  Keywords: modules, /proc, ioctls, system calls, interrupt handlers .
  Description: Very nice 73 pages free book on the topic of modules programming. Lots of examples. Updated to 2.6 kernels.

- Title: "Device File System (devfs) Overview"
  Author: Richard Gooch.
  URL: http://www.atnf.csiro.au/~rgooch/linux/docs/devfs.txt
  Keywords: filesystem, /dev, devfs, dynamic devices, major/minor allocation, device management.
  Description: Document describing Richard Gooch's controversial devfs, which allows for dynamic devices, only shows present devices in /dev, gets rid of major/minor numbers allocation problems, and allows for hundreds of identical devices (which some USB systems might demand soon).

- Title: "I/O Event Handling Under Linux"
  Author: Richard Gooch.
  URL: http://www.atnf.csiro.au/~rgooch/linux/docs/io-events.html
  Keywords: IO, I/O, select(2), poll(2), FDs, aio_read(2), readiness event queues.
  Description: From the Introduction: "I/O Event handling is about how your Operating System allows you to manage a large number of open files (file descriptors in UNIX/POSIX, or FDs) in your application. You want the OS to notify you when FDs become active (have data ready to

be read or are ready for writing). Ideally you want a mechanism that is scalable. This means a large number of inactive FDs cost very little in memory and CPU time to manage".

- **Title**: "Kernel Hacking HOWTO"
  Author: Andrew Ebling.
  URL: http://www.kernelhacking.org/docs/kernelhacking-HOWTO/
  Keywords: HOWTO, kernel hacking, getting started, source navigation, kernel debugging, profiling, benchmarking.
  Description: Another kernel hacking howto. More recent than the now lost Rusty's one.

- **Title**: "ALSA 0.5.0 Developer documentation"
  Author: Stephan 'Jumpy' Bartels .
  URL: http://www.math.TU-Berlin.de/~sbartels/alsa/
  Keywords: ALSA, sound, soundcard, driver, lowlevel, hardware.
  Description: Advanced Linux Sound Architecture for developers, both at kernel and user-level sides. Work in progress. ALSA is supposed to be Linux's next generation sound architecture.

- **Title**: "Programming Guide for Linux USB Device Drivers"
  Author: Detlef Fliegl.
  URL: http://usb.in.tum.de/usbdoc/
  Keywords: USB, universal serial bus.
  Description: A must-read. From the Preface: "This document should give detailed information about the current state of the USB subsystem and its API for USB device drivers. The first section will deal with the basics of USB devices. You will learn about different types of devices and their properties. Going into detail you will see how USB devices communicate on the bus. The second section gives an overview of the Linux USB subsystem [2] and the device driver framework. Then the API and its data structures will be explained step by step. The last section of this document contains a reference of all API calls and their return codes".
  Notes: Beware: the main page states: "This document may not be published, printed or used in excerpts without explicit permission of the author". Fortunately, it may still be read...

- **Title**: "Linux Kernel Mailing List Glossary"
  Author: John Levon.
  URL: http://www.movement.uklinux.net/glossary.html
  Keywords: glossary, terms, linux-kernel.
  Description: From the introduction: "This glossary is intended as a brief description of some of the acronyms and terms you may hear during discussion of the Linux kernel".

- **Title**: "Linux Kernel Locking HOWTO"
  Author: Various Talented People, and Rusty.
  URL: http://netfilter.kernelnotes.org/unreliable-guides/kernel-locking-HOWTO.html
  Keywords: locks, locking, spinlock, semaphore, atomic, race condition, bottom halves, tasklets, softirqs.
  Description: The title says it all: document describing the locking system in the Linux Kernel either in uniprocessor or SMP systems.
  Notes: "It was originally written for the later (>2.3.47) 2.3 kernels, but most of it applies to 2.2 too; 2.0 is slightly different". Freely redistributable under the conditions of the GNU General Public License.

- **Title**: "Global spinlock list and usage"
  Author: Rick Lindsley.
  URL: http://lse.sourceforge.net/lockhier/global-spin-lock
  Keywords: spinlock.
  Description: This is an attempt to document both the existence and usage of the spinlocks in the Linux 2.4.5 kernel. Comprehensive list of spinlocks showing when they are used, which functions access them, how each lock is acquired, under what conditions it is held, whether interrupts can occur or not while it is held...

- **Title**: "Porting Linux 2.0 Drivers To Linux 2.2: Changes and New Features "
  Author: Alan Cox.
  URL: http://www.linux-mag.com/1999-05/gear_01.html
  Keywords: ports, porting.
  Description: Article from Linux Magazine on porting from 2.0 to 2.2 kernels.

- **Title**: "Porting Device Drivers To Linux 2.2: part II"
  Author: Alan Cox.
  URL: http://www.linux-mag.com/1999-06/gear_01.html
  Keywords: ports, porting.
  Description: Second part on porting from 2.0 to 2.2 kernels.

- **Title**: "How To Make Sure Your Driver Will Work On The Power Macintosh"
  Author: Paul Mackerras.
  URL: http://www.linux-mag.com/1999-07/gear_01.html
  Keywords: Mac, Power Macintosh, porting, drivers, compatibility.
  Description: The title says it all.

- **Title**: "An Introduction to SCSI Drivers"
  Author: Alan Cox.
  URL: http://www.linux-mag.com/1999-08/gear_01.html
  Keywords: SCSI, device, driver.
  Description: The title says it all.

- **Title**: "Advanced SCSI Drivers And Other Tales"
  Author: Alan Cox.
  URL: http://www.linux-mag.com/1999-09/gear_01.html
  Keywords: SCSI, device, driver, advanced.
  Description: The title says it all.

- **Title**: "Writing Linux Mouse Drivers"
  Author: Alan Cox.
  URL: http://www.linux-mag.com/1999-10/gear_01.html
  Keywords: mouse, driver, gpm.
  Description: The title says it all.

- **Title**: "More on Mouse Drivers"
  Author: Alan Cox.
  URL: http://www.linux-mag.com/1999-11/gear_01.html

Keywords: mouse, driver, gpm, races, asynchronous I/O.
Description: The title still says it all.

- **Title**: "Writing Video4linux Radio Driver"
  Author: Alan Cox.
  URL: http://www.linux-mag.com/1999-12/gear_01.html
  Keywords: video4linux, driver, radio, radio devices.
  Description: The title says it all.

- **Title**: "Video4linux Drivers, Part 1: Video-Capture Device"
  Author: Alan Cox.
  URL: http://www.linux-mag.com/2000-01/gear_01.html
  Keywords: video4linux, driver, video capture, capture devices, camera driver.
  Description: The title says it all.

- **Title**: "Video4linux Drivers, Part 2: Video-capture Devices"
  Author: Alan Cox.
  URL: http://www.linux-mag.com/2000-02/gear_01.html
  Keywords: video4linux, driver, video capture, capture devices, camera driver, control, query capabilities, capability, facility.
  Description: The title says it all.

- **Title**: "PCI Management in Linux 2.2"
  Author: Alan Cox.
  URL: http://www.linux-mag.com/2000-03/gear_01.html
  Keywords: PCI, bus, bus-mastering.
  Description: The title says it all.

- **Title**: "Linux 2.4 Kernel Internals"
  Author: Tigran Aivazian and Christoph Hellwig.
  URL: http://www.moses.uklinux.net/patches/lki.html
  Keywords: Linux, kernel, booting, SMB boot, VFS, page cache.
  Description: A little book used for a short training course. Covers building the kernel image, booting (including SMP bootup), process management, VFS and more.

- **Title**: "Linux IP Networking. A Guide to the Implementation and Modification of the Linux Protocol Stack."
  Author: Glenn Herrin.
  URL: http://www.cs.unh.edu/cnrg/gherrin
  Keywords: network, networking, protocol, IP, UDP, TCP, connection, socket, receiving, transmitting, forwarding, routing, packets, modules, /proc, sk_buff, FIB, tags.
  Description: Excellent paper devoted to the Linux IP Networking, explaining anything from the kernel's to the user space configuration tools' code. Very good to get a general overview of the kernel networking implementation and understand all steps packets follow from the time they are received at the network device till they are delivered to applications. The studied kernel code is from 2.2.14 version. Provides code for a working packet dropper example.

- **Title**: "Get those boards talking under Linux."
  Author: Alex Ivchenko.
  URL: http://www.reed-electronics.com/ednmag/contents/images/46968.pdf
  Keywords: data-acquisition boards, drivers, modules, interrupts, memory allocation.
  Description: Article written for people wishing to make their data acquisition boards work on their GNU/Linux machines. Gives a basic overview on writting drivers, from the naming of functions to interrupt handling.
  Notes: Two-parts article. Part II is at http://www.reed-electronics.com/ednmag/contents/images/46998.pdf

- **Title**: "Linux PCMCIA Programmer's Guide"
  Author: David Hinds.
  URL: http://pcmcia-cs.sourceforge.net/ftp/doc/PCMCIA-PROG.html
  Keywords: PCMCIA.
  Description: "This document describes how to write kernel device drivers for the Linux PCMCIA Card Services interface. It also describes how to write user-mode utilities for communicating with Card Services.

- **Title**: "The Linux Kernel NFSD Implementation"
  Author: Neil Brown.
  URL: http://www.cse.unsw.edu.au/~neilb/oss/linux-commentary/nfsd.html
  Keywords: knfsd, nfsd, NFS, RPC, lockd, mountd, statd.
  Description: The title says it all.
  Notes: Covers knfsd's version 1.4.7 (patch against 2.2.7 kernel).

- **Title**: "(nearly) Complete Linux Loadable Kernel Modules. The definitive guide for hackers, virus coders and system administrators."
  Author: pragmatic/THC.
  URL: http://packetstormsecurity.org/docs/hack/LKM_HACKING.html
  Keywords: syscalls, intercept, hide, abuse, symbol table.
  Description: Interesting paper on how to abuse the Linux kernel in order to intercept and modify syscalls, make files/directories/processes invisible, become root, hijack ttys, write kernel modules based virus... and solutions for admins to avoid all those abuses.
  Notes: For 2.0.x kernels. Gives guidances to port it to 2.2.x kernels.

- **Title**: "Linux Kernel Threads in Device Drivers"
  Author: Martin Frey.
  URL: http://www.scs.ch/~frey/linux/kernelthreads.html
  Keywords: threads, creation, stopping, initialization.
  Description: How to start and stop kernel threads in a loadable module.

- **Title**: "The Linux Kernel Hackers' Guide"
  Author: Michael K.Johnson and others.
  URL: http://en.tldp.org/LDP/khg/HyperNews/get/khg.html
  Keywords: everything!
  Description: Probably, too old to be useful... Many people have contributed. The interface is similar to web available mailing lists archives. You can find some articles and then some mails asking questions about them and/or complementing previous contributions. A little bit anarchic in this aspect, but with some valuable information in some cases.

- BOOKS: (Not on-line, ordered by publication date)
  - Title: "The Linux TCP/IP Stack: Networking for Embedded Systems"
    Author: Thomas F. Herbert.
    Publisher: Charles River Media.
    Date: 2004.
    Pages: 586.
    ISBN: 1-58450-284-3
    Notes: From the book's description: "it details the TCP/IP implementation in Linux 2.6 by following a packet of data as it flows through the stack from the sending system, out the wire, and back through the input side of the stack in the receiving machine".

  - Title: "Linux Kernel Development"
    Author: Robert Love.
    Publisher: Sams.
    Date: 2003.
    Pages: 332.
    ISBN: 0-67232-512-8

  - Title: "Understanding the Linux Kernel (2nd Edition)"
    Author: Daniel P. Bovet and Marco Cesati.
    Publisher: O'Reilly & Associates, Inc..
    Date: 2002.
    Pages: 816.
    ISBN: 0-596-00213-0
    Notes: Further information in http://www.oreilly.com/catalog/linuxkernel/

  - Title: "Linux Device Drivers, 2nd Edition"
    Author: Alessandro Rubini and Jonathan Corbet.
    Publisher: O'Reilly & Associates.
    Date: 2001.
    Pages: 586.
    ISBN: 0-59600-008-1
    Notes: It is also on-line (under the GNU Free Documentation License) at http://www.xml.com/ldd/chapter/book/index.html

  - Title: "Understanding the Linux Kernel"
    Author: Daniel P. Bovet and Marco Cesati.
    Publisher: O'Reilly & Associates, Inc..
    Date: 2000.
    Pages: 702.
    ISBN: 0-596-00002-2
    Notes: Further information in http://www.oreilly.com/catalog/linuxkernel/

  - Title: "Kernel Projects for Linux"
    Author: Gary J. Nutt.
    Publisher: Addison-Wesley.
    Date: 2000.
    Pages: 239.

ISBN: 0-201-61243-7
Notes: Provides 12 exercises related to OS functions implementation. Comes with a CD-ROM.

- Title: "Linux IP Stacks Commentary"
  Author: Stephen Satchell and HBJ Clifford.
  Publisher: Coriolis.
  Date: 2000.
  Pages: ???.
  ISBN: 1-57610-470-2
  Notes: Line by line source code commentary book.

- Title: "Linux Core Kernel Commentary. Guide to Insider's Knowledge on the Core Kernel of the Linux Code"
  Author: Scott Maxwell.
  Publisher: Coriolis.
  Date: 1999.
  Pages: 592.
  ISBN: 1-57610-469-9
  Notes: CD-ROM included. Line by line commentary of the kernel code.

- Title: "Linux Device Drivers"
  Author: Alessandro Rubini.
  Publisher: O'Reilly & Associates.
  Date: 1998.
  Pages: 439.
  ISBN: 1-56592-292-1

- Title: "The Linux Kernel Book"
  Author: Remy Card, Eric Dumas, Franck Mevel.
  Publisher: John Wiley & Sons.
  Date: 1998.
  ISBN: 0-471-98141-9
  Notes: English translation of "Programmation Linux 2.0 API systeme et fonctionnement du noyau".

- Title: "Linux Kernel Internals"
  Author: Michael Beck.
  Publisher: Addison-Wesley.
  Date: 1997.
  ISBN: 0-201-33143-8 (second edition)

- Title: "Linux 2.0"
  Author: Remy Card, Eric Dumas, Franck Mevel.
  Publisher: Gestión 2000.
  Date: 1997.
  Pages: 501.
  ISBN: 8-480-88208-5
  Notes: Spanish translation of "Programmation Linux 2.0 API systeme et fonctionnement du noyau".

- **Title**: "Programmation Linux 2.0 API systeme et fonctionnement du noyau"
  Author: Remy Card, Eric Dumas, Franck Mevel.
  Publisher: Eyrolles.
  Date: 1997.
  Pages: 520.
  ISBN: 2-212-08932-5
  Notes: French.

- **Title**: "Unix internals -- the new frontiers"
  Author: Uresh Vahalia.
  Publisher: Prentice Hall.
  Date: 1996.
  Pages: 600.
  ISBN: 0-13-101908-2

- **Title**: "The Design and Implementation of the 4.4 BSD UNIX Operating System"
  Author: Marshall Kirk McKusick, Keith Bostic, Michael J. Karels, John S. Quarterman.
  Publisher: Addison-Wesley.
  Date: 1996.
  ISBN: 0-201-54979-4

- **Title**: "Programming for the real world - POSIX.4"
  Author: Bill O. Gallmeister.
  Publisher: O'Reilly & Associates, Inc..
  Date: 1995.
  Pages: ???.
  ISBN: I-56592-074-0
  Notes: Though not being directly about Linux, Linux aims to be POSIX. Good reference.

- **Title**: "UNIX Systems for Modern Architectures: Symmetric Multiprocesssing and Caching for Kernel Programmers"
  Author: Curt Schimmel.
  Publisher: Addison Wesley.
  Date: June, 1994.
  Pages: 432.
  ISBN: 0-201-63338-8

- **Title**: "The Design and Implementation of the 4.3 BSD UNIX Operating System"
  Author: Samuel J. Leffler, Marshall Kirk McKusick, Michael J. Karels, John S. Quarterman.
  Publisher: Addison-Wesley.
  Date: 1989 (reprinted with corrections on October, 1990).
  ISBN: 0-201-06196-1

- **Title**: "The Design of the UNIX Operating System"
  Author: Maurice J. Bach.
  Publisher: Prentice Hall.
  Date: 1986.

Pages: 471.
ISBN: 0-13-201757-1

- MISCELLANEOUS:
  - Name: linux/Documentation
    Author: Many.
    URL: Just look inside your kernel sources.
    Keywords: anything, DocBook.
    Description: Documentation that comes with the kernel sources, inside the Documentation directory. Some pages from this document (including this document itself) have been moved there, and might be more up to date than the web version.

  - Name: "Linux Source Driver"
    URL: http://lsd.linux.cz
    Keywords: Browsing source code.
    Description: "Linux Source Driver (LSD) is an application, which can make browsing source codes of Linux kernel easier than you can imagine. You can select between multiple versions of kernel (e.g. 0.01, 1.0.0, 2.0.33, 2.0.34pre13, 2.0.0, 2.1.101 etc.). With LSD you can search Linux kernel (fulltext, macros, types, functions and variables) and LSD can generate patches for you on the fly (files, directories or kernel)".

  - Name: "Linux Kernel Source Reference"
    Author: Thomas Graichen.
    URL: http://innominate.org/~graichen/projects/lksr/
    Keywords: CVS, web, cvsweb, browsing source code.
    Description: Web interface to a CVS server with the kernel sources. "Here you can have a look at any file of the Linux kernel sources of any version starting from 1.0 up to the (daily updated) current version available. Also you can check the differences between two versions of a file".

  - Name: "Cross-Referencing Linux"
    URL: http://lxr.linux.no/source/
    Keywords: Browsing source code.
    Description: Another web-based Linux kernel source code browser. Lots of cross references to variables and functions. You can see where they are defined and where they are used.

  - Name: "Linux Weekly News"
    URL: http://lwn.net
    Keywords: latest kernel news.
    Description: The title says it all. There's a fixed kernel section summarizing developers' work, bug fixes, new features and versions produced during the week. Published every Thursday.

  - Name: "Kernel Traffic"
    URL: http://kt.zork.net/kernel-traffic/
    Keywords: linux-kernel mailing list, weekly kernel news.
    Description: Weekly newsletter covering the most relevant discussions of the linux-kernel mailing list.

- **Name**: "CuTTiNG.eDGe.LiNuX"
  URL: http://edge.kernelnotes.org
  Keywords: changelist.
  Description: Site which provides the changelist for every kernel release. What's new, what's better, what's changed. Myrdraal reads the patches and describes them. Pointers to the patches are there, too.

- **Name**: "New linux-kernel Mailing List FAQ"
  URL: http://www.tux.org/lkml/
  Keywords: linux-kernel mailing list FAQ.
  Description: linux-kernel is a mailing list for developers to communicate. This FAQ builds on the previous linux-kernel mailing list FAQ maintained by Frohwalt Egerer, who no longer maintains it. Read it to see how to join the mailing list. Dozens of interesting questions regarding the list, Linux, developers (who is ...?), terms (what is...?) are answered here too. Just read it.

- **Name**: "Linux Virtual File System"
  Author: Peter J. Braam.
  URL: http://www.coda.cs.cmu.edu/doc/talks/linuxvfs/
  Keywords: slides, VFS, inode, superblock, dentry, dcache.
  Description: Set of slides, presumably from a presentation on the Linux VFS layer. Covers version 2.1.x, with dentries and the dcache.

- **Name**: "Gary's Encyclopedia - The Linux Kernel"
  Author: Gary (I suppose...).
  URL: http://www.lisoleg.net/cgi-bin/lisoleg.pl?view=kernel.htm
  Keywords: links, not found here?.
  Description: Gary's Encyclopedia exists to allow the rapid finding of documentation and other information of interest to GNU/Linux users. It has about 4000 links to external pages in 150 major categories. This link is for kernel-specific links, documents, sites... Look there if you could not find here what you were looking for.

- **Name**: "The home page of Linux-MM"
  Author: The Linux-MM team.
  URL: http://linux-mm.org/
  Keywords: memory management, Linux-MM, mm patches, TODO, docs, mailing list.
  Description: Site devoted to Linux Memory Management development. Memory related patches, HOWTOs, links, mm developers... Don't miss it if you are interested in memory management development!

- **Name**: "Kernel Newbies IRC Channel"
  URL: http://www.kernelnewbies.org
  Keywords: IRC, newbies, channel, asking doubts.
  Description: #kernelnewbies on irc.openprojects.net. From the web page: "#kernelnewbies is an IRC network dedicated to the 'newbie' kernel hacker. The audience mostly consists of people who are learning about the kernel, working on kernel projects or professional kernel hackers that want to help less seasoned kernel people. [...] #kernelnewbies is on the Open Projects IRC Network, try irc.openprojects.net or irc.<country>.openprojects.net as your server and then /join #kernelnewbies". It also hosts articles, documents, FAQs...

- **Name**: "linux-kernel mailing list archives and search engines"
  URL: http://www.uwsg.indiana.edu/hypermail/linux/kernel/index.html
  URL: http://www.kernelnotes.org/lnxlists/linux-kernel/
  Keywords: linux-kernel, archives, search.
  Description: Some of the linux-kernel mailing list archivers. If you have a better/another one, please let me know.

- **Name**: "The Operating System Resource Center"
  Author: Chris Lattner.
  URL: http://www.nondot.org/~sabre/os/articles
  Keywords: boot process, partitions, file systems, memory management, protected mode, executable file formats, plug and play specs, device driver interfaces, processor architectures, interconnect buses, disk and disc drives, human interface devices, sound devices, communication devices, networking devices, specifications, specs, specs, specs.
  Description: Site with specifications covering everything OS-related.

- **Title**: "File Systems"
  Author: Chris Lattner **URL**: http://www.nondot.org/sabre/os/articles/FileSystems/
  Keywords: ext2, ext3, StegFS, Steganographic File System, FAT, VFAT, FAT32, HPFS, ISO9660, Joliet, NFS, XFS, GFS.
  Description: Part of Chris Lattner's "The Operating System Resource Center", this page points to information and specifications regarding lots of filesystems.

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