

# Administration of Operating Systems

DO2003

The file structure  
Devices



Wecksten, Mattias

2008



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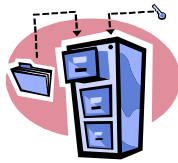
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## The File Structure

- Linux folder structure is created as a single file tree.
  - All paths could be given on the form `/usr/local/myfiles/`
  - All devices are available from the file structure
    - harddrives
    - floppy
    - CD/DVD-ROM
    - Net disks
- BUT! Not the SWAP.



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## Folderstructure

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|----------------------|----------------------|
| • <code>/bin</code>  | • <code>/sbin</code> |
| • <code>/etc</code>  | • <code>/tmp</code>  |
| • <code>/usr</code>  | • <code>/var</code>  |
| • <code>/dev</code>  | • <code>/lib</code>  |
| • <code>/boot</code> | • <code>/mnt</code>  |
| • <code>/root</code> | • <code>/proc</code> |

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## /bin

- "Binaries".
- Basic commands live here.
- Core executables.



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## /etc

- Settings.
- Configurations.



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## /usr

- Files for all users on the system.
- Has its own /bin and /sbin.



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## /dev

- Devices.
- All devices on your system.
  - Harddrives.
  - Printers.
  - Sound cards.
  - Graphic cards.
  - Network cards.



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## /boot

- The kernel lives here.
- This is where you put the new versions of the kernel executable.
- The only folder available at boot = the boot loader must also be here
  - /boot/grub



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## /root

- The root user lives here.
- This is the home of the root.
  - Notice that root does not live among the other users.



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## /var

- For files of variable size.
- Print spooler files.
- Mailboxes.
- Log files.
- Databases.



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## /sbin

- "Restricted" software.
  - Shutdown.
- For use when the system is running.



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## /tmp

- Temporary files.
- This is not the swap partition.
- Folder has rwxrwxrwx permissions
  - but also the sticky bit turned on = only root can remove or change name



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## /lib

- Libraries and drivers live here.
- Shared libraries.
- Dependencies.

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## /mnt

- A common mount point for devices.
- The key word is "temporary mount point".

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## /media

- Removeable media, such as
  - CD
  - DVD
  - Floppy ?
- But also including
  - USB-connected harddrive enclosures

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## /proc

- Information about all running processes are stored here
- Information about the system could also be found here
  - cpu and architecture specifics
  - partitions
  - selected boot options
  - ...



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