

# Other directory commands

◆ **ls [-la] [*file/dir list*]**

- Lists files in a directory

◆ **mkdir dir1**

- Creates directory **dir1**

◆ **cd dir1**

- Makes **dir1** the current directory

◆ **pwd**

- Displays the current directory path

# Windows (MSDOS)

## File/Directory Commands

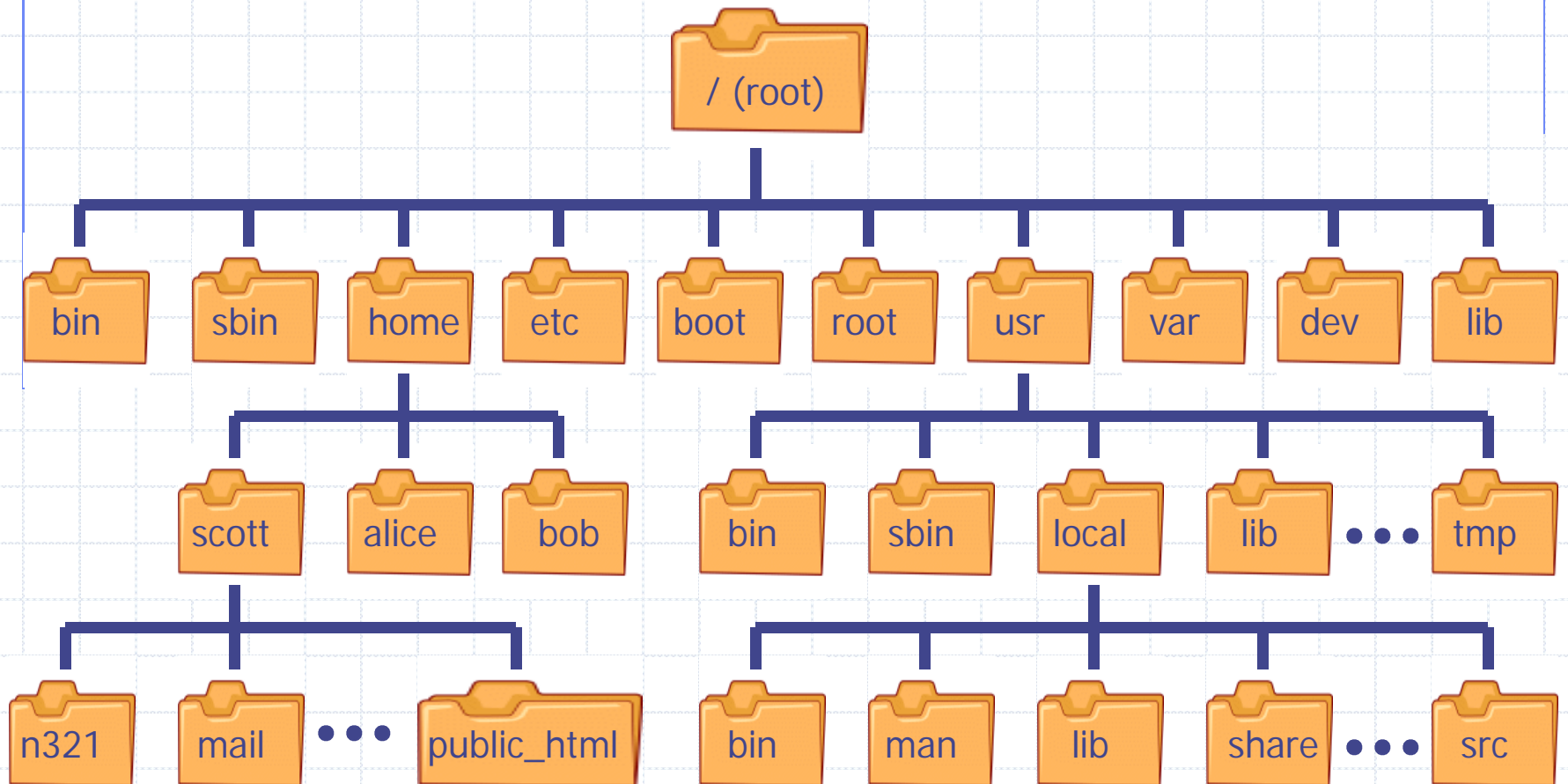
### ◆ Files

- **copy** – Copy
- **move** – Move
- **rename** - Rename
- **del** – Remove
- **type** – View all
- **more** – View page

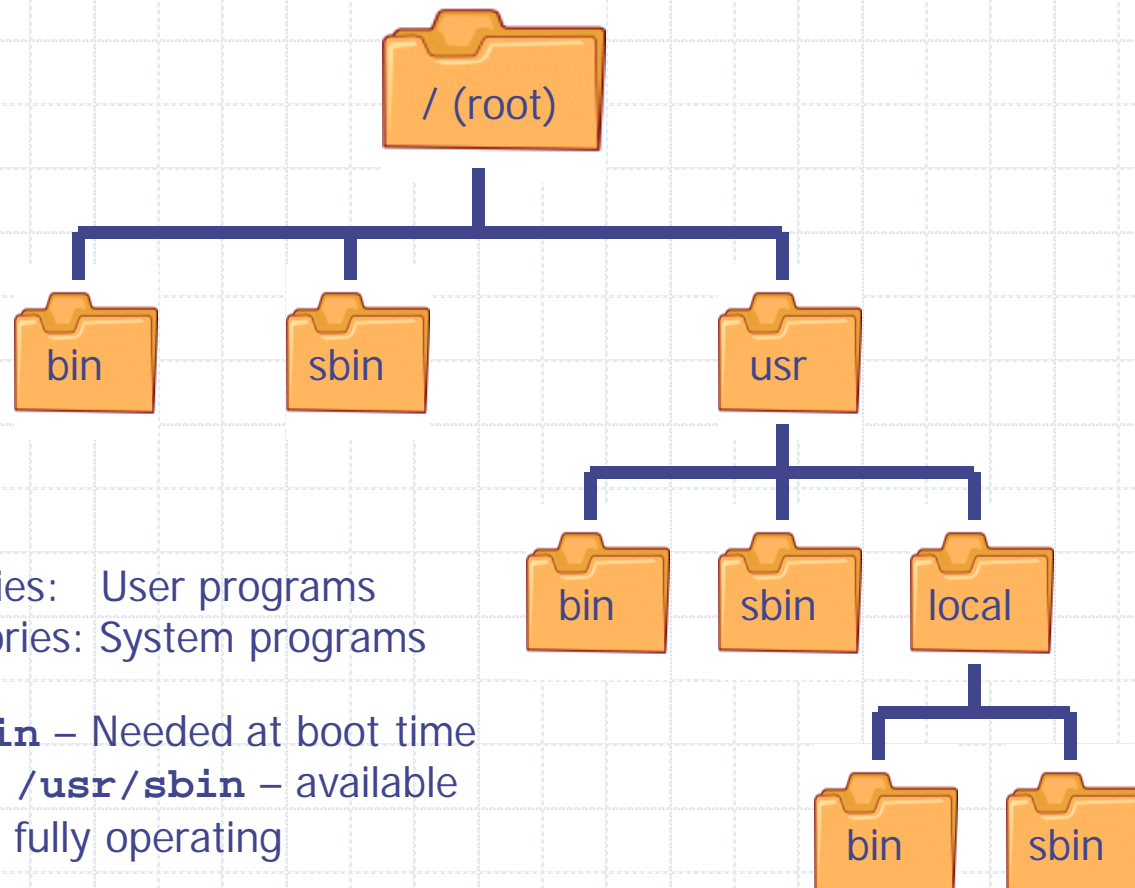
### ◆ Directories

- **dir** – List contents
- **xcopy** – Copy
- **move** – Move
- **rename** - Rename
- **cd** – Change Dir
- **md/mkdir** – Create
- **rmdir** – Remove

# Linux Filesystem Hierarchy



# So many bins...



**bin** directories: User programs  
**sbin** directories: System programs

**/bin** & **/sbin** – Needed at boot time  
**/usr/bin** & **/usr/sbin** – available  
when system fully operating

# Windows Files/Directories

UNIX/Linux	Windows
<code>/usr</code>	<code>%SystemRoot% (C:\Windows)</code>
<code>/bin &amp; /usr/bin</code>	<code>%SystemRoot%\System32</code>
<code>/dev</code>	<code>%SystemRoot%\System32\Drivers</code>
<code>/etc</code>	<code>%SystemRoot%\System32\Config</code> Windows Registry ( <code>regedit</code> )
<code>/tmp</code>	<code>C:\Temp</code>
<code>/var/spool</code>	<code>%SystemRoot%\System32\Spool</code>

Source: Principles of Network and System Administration by Mark Burgess

# Windows Registry

- ◆ Hierarchical database of all system settings
- ◆ Regedit
- ◆ Organization
  - Hives – Top level
  - Keys – Individual settings within a hive

HKEY\_LOCAL\_MACHINE

HKEY\_CURRENT\_USER

HKEY\_CLASSES\_ROOT

HKEY\_USERS

HKEY\_CURRENT\_CONFIG

# Relative & Absolute Paths

## ◆ Absolute Path

- Given from “root” directory
- Example:
  - ◆ `/usr/local/bin` (Linux)
  - ◆ `c:\windows\system32` (Windows)

## ◆ Relative Path

- `'.'` – Current Directory
- `'..'` – Parent Directory
- `'~'` – Home Directory
- Example: `~/.. = /home`

# Filter Commands

- ◆ **cat** – View all
- ◆ **more** – View page
- ◆ **less** – View page
- ◆ **head** – View first
- ◆ **tail** – View last
- ◆ **wc** – word count
- ◆ **sort** – Sort by field
- ◆ **uniq** – Remove dup
- ◆ **cut** – Get fields
- ◆ **paste** – Merge Files
- ◆ **grep** – Search text
- ◆ **tr** – Replace text



# More or Less

## ◆ **cat file**

- Displays entire file to screen
- MSDOS - **type**

## ◆ **more file**

- Displays file one screen at a time
- Same in MSDOS

## ◆ **less** – replacement for **more**

# Heads or Tails

◆ **head -# file**

- Displays the first # lines of **file1**

◆ **tail -# file**

- Displays the last # lines of **file1**

◆ **wc [-cwl] file**

- Counts number of characters, words, or lines in **file**

# Sorting

- ◆ Lists the contents of a file based on order
- ◆ **sort file**
  - Sorts **file** alphabetically by line
- ◆ **sort -r file**
  - Sorts **file** in reverse order by line
- ◆ **sort -t: -n -k 3 file**
  - Sorts **file** based on the 3<sup>rd</sup> field (-k 3)
  - in numeric order (-n)
  - with fields separated by ':' (-t:)
- ◆ MSDOS - **find**

# Extracting info

## ◆ `cut -f# [-d%] file`

- Displays `#` fields separated by `%` in `file`
- `awk` is a more advanced replacement

## ◆ `grep search-string file`

- Displays all lines with `search-string` in `file`
- Can create very sophisticated search conditions
- MSDOS - `find`

# Changing file contents

◆ `paste file1 file2`

- Merge contents of `file1` and `file2` line by line

◆ `tr c1 c2 < file`

- Changes all occurrences of character `c1` to `c2` in `file`

# Misc. Commands

## ◆ **date**

- Set system time/date
- View (formatted) system time/date

## ◆ **cal**

- Displays calendar

## ◆ **echo**

- Display strings & shell variables
- Same in MSDOS

# Visual Editor (**vi**)

- ◆ Very Powerful
- ◆ 3 modes
  - Command
  - Insert
  - **ex** (very similar to MSDOS **edlin**)
- ◆ Can be frustrating to learn initially
- ◆ Important to have cheat sheet handy 😊

# emacs versus vi

## Georgy says...

Slashdot (Asked by markhb):

*vi or emacs?*

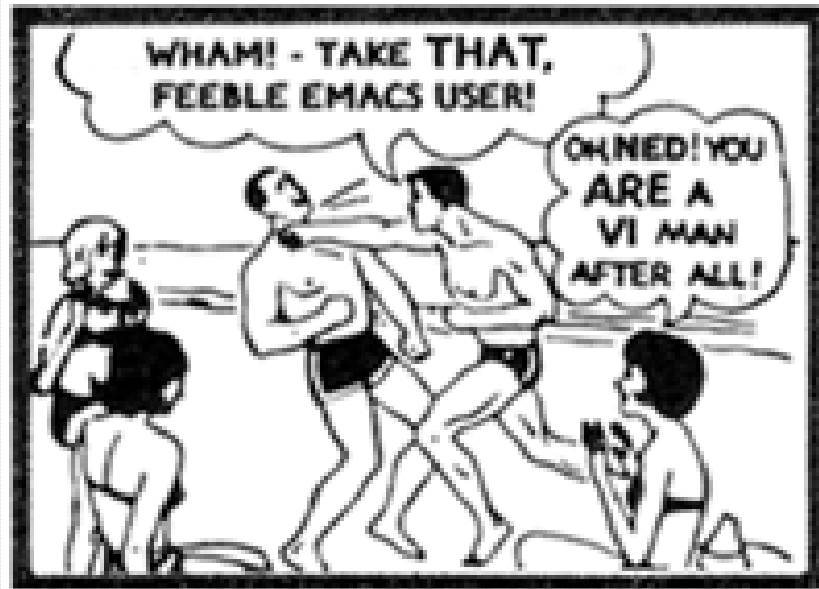
Georgy:

*I'm so glad you asked!! Both. vi for quick editing, emacs (NOT xemacs) for coding projects. :q!:q!:q!*



# Why vi?!?!?!?

*Because it is always there!!!*



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