

Linux Orientation



Computer Systems Lab
Computer Sciences Department
Room 2350

Linux Orientation Presentation

- Familiarizes students with Linux and the CSL Linux Environment
 - CSL Environment
 - Linux Overview
 - Command Introduction
 - Getting Help
- Followed by a hands-on session in the user lab



CSL Environment: Instructional Labs

- Located in the same hallway as the room for our hands-on session
- Current list of labs available on CSL's FAQ Pages
- Check signs on doors to determine which OS a room has available



CSL Environment: Your Account

- Login Name:
 - Identifies you, the user, to the computer
 - The same name is used for all CSL services (department email, web, login for every computer, etc.)
- New accounts will be activated in the hands-on session
- Files stored in your Home Directory are available from all CSL machines
- Disk usage quotas based on enrolled courses



CSL Environment: Backups

- All files available at time of back up are written to backup storage
- Files from yesterday's backup can be restored through **recover** program
- Older files must be restored by the CSL
 - One working day is required to complete a restore
 - Request restores at: www-auth.cs.wisc.edu/forms



CSL Environment: Printing

- Printers located in Room 1359
 - Your file will be printed on the first available printer
 - Print monitors will help you find your printouts
- Initial paper quota is allocated per enrolled course, more is available for purchase
 - CSL: room 2350
 - Only check or money orders
 - Only available during normal business hours



Linux Overview

- Multi-tasking and Multi-user Operating System
- Major concepts:
 - Use of plain text for storing data
 - Hierarchical file system
 - Command line interpreter
 - Large number of software tools



Linux: Home Directory

- Each new login starts you in your home directory
- Can be abbreviated as ~
- Contains all your class files, personal files, and web pages



Linux: Files and Directories

- Files:

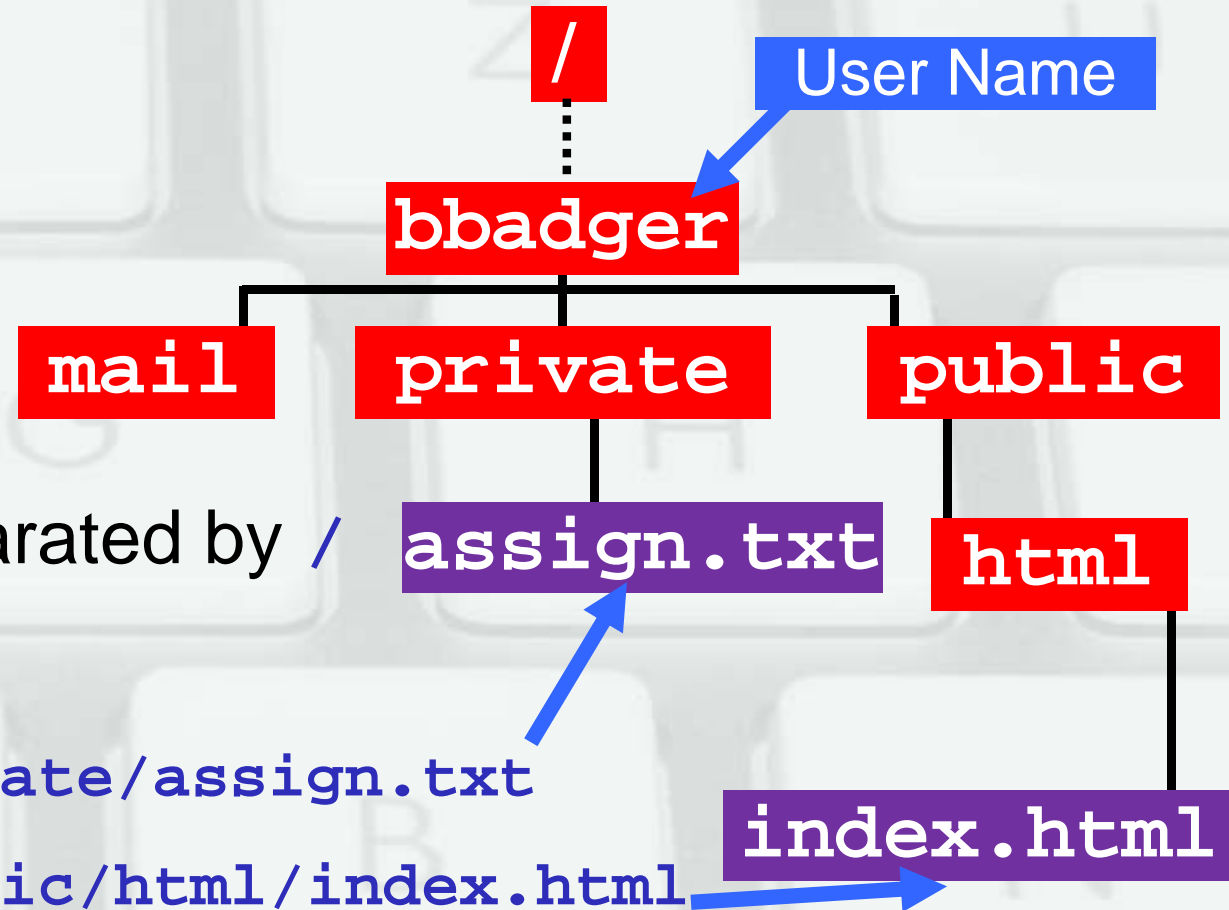
- Named storage on disk
- Can be:
 - Text (program source, program output, documents, emails)
 - Data (images, movies, database files)
 - Executable programs

- Directories:

- A tool to organize files, can contain files and/or other directories
- Also called 'Folders'



Linux File Locations



- Levels separated by `/`
- Examples:
 - `~/private/assign.txt`
 - `~/public/html/index.html`



Choosing Linux File Names

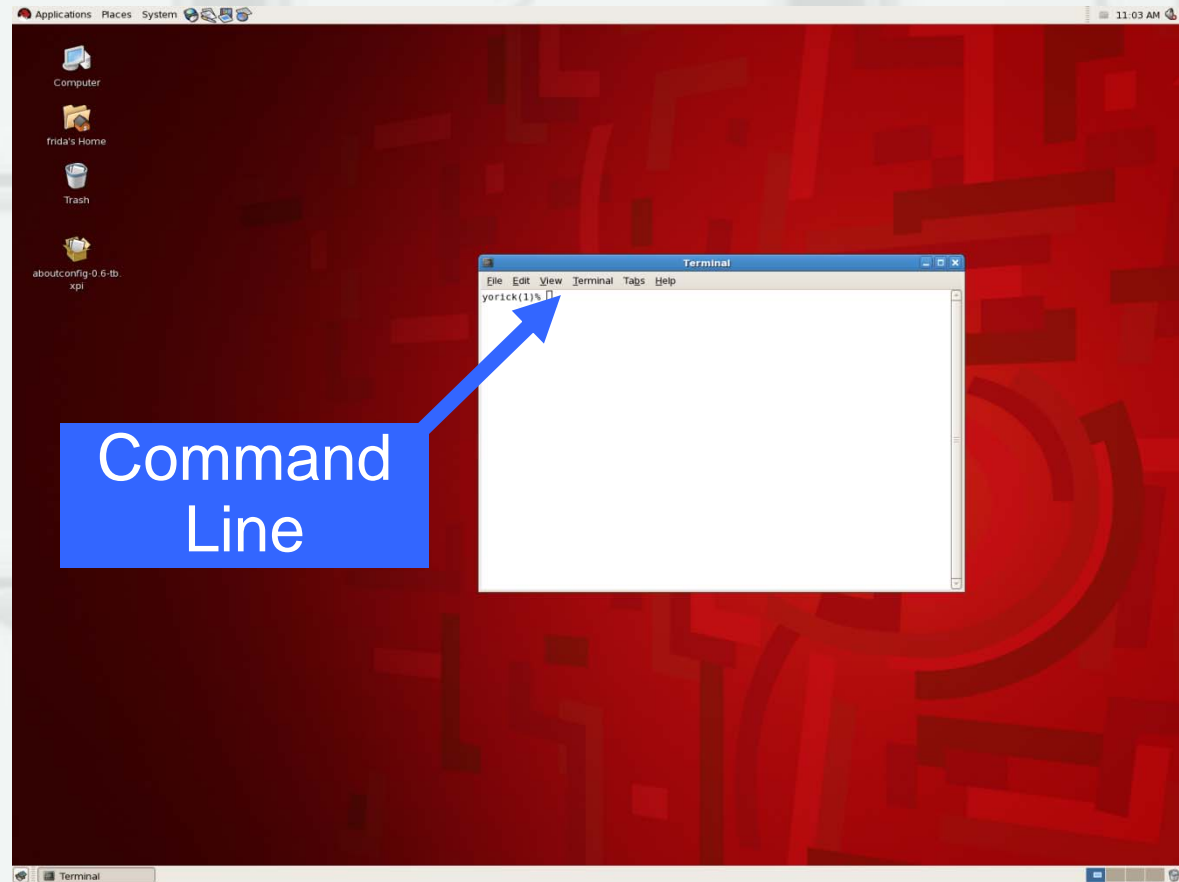
- Use only letters, numbers, underscores, dots and dashes – Not spaces or special characters
- Do not start name with a dot or a dash
- Shorter, meaningful names are best
- Names are case sensitive



Linux Session: X-Term Window

Right-click
with mouse
and select
'Open
Terminal'

Command
Line



The Command Line

Prompt

Flags or Options

`[bbadger@demo01] (1)$ ls -l /tmp`

Command: instruction given to the computer

Argument(s):
additional options given to the command



Commands

- all commands, options, and arguments are separated by spaces
- execute commands by pressing Enter
- to see all options for a command, use the manual
 - type **man** followed by the command
 - press **q** to quit out of man



Commands: Files

- List files: `ls`
- Copy a file: `cp`
- Move a file: `mv`
- Remove a file: `rm`
- Show contents of a file: `less`



Commands: Directories

- Change directory: `cd`
 - Change to home directory: `cd ~`
 - Change to home's public directory: `cd ~/public`
- Create a directory: `mkdir`
- Print working (current) directory: `pwd`
- Remove an empty directory: `rmdir`



Commands: Printing

- Print a file: `lpr`
- Check the printer queue: `lpq`
- Remove print jobs: `lprm`
 - Will cancel ALL uncompleted print jobs
- Check quota and usage: `lpquota`

User	quota	printed
joe	300	83



Getting Help

- Questions on programming and assignments should be directed to TAs and professors
- Computer Systems Lab (CSL)
 - Websites:
 - Frequently Asked Questions: www.cs.wisc.edu/csl
 - Authenticated Web Services: www-auth.cs.wisc.edu
 - Email lab@cs.wisc.edu **for:**
 - account-related questions
 - computer system problems



Thank you!

- Please wait for instructions regarding the hands-on session.
- Computer Systems Lab (CSL)
 - Room 2350
 - Open Monday – Friday: 8 am – Noon, 1pm - 5pm

