

Navigation

<code>pwd</code>	Print Working Directory, this shows the path you are currently working on
<code>cd</code>	Change Directory, it can be a relative or absolute path (. is the directory itself and .. is the parent directory) Quick shortcuts <code>cd</code> goes to your home directory <code>cd -</code> goes to the last working directory <code>cd ~user_name</code> goes to the home directory of that username
<code>ls</code>	List contents of the directory
<code>file</code>	Determine file type, extensions in Linux does not necessarily determine the purpose of the file. This command shows a brief description of the file's content.

Important facts:

- Filenames and directory names are case sensitive
- Filenames starting with an period (.) are hidden
- Do not use special characters other than period, dash and underscore

I/O Redirection

#####	Operators
>	Output truncate redirect
>>	Output append redirect
2>	Error redirect
#####	Commands
<code>cat</code>	Concatenate
<code>sort</code>	Sort lines of text
<code>grep</code>	Print lines matching a pattern
<code>head</code>	Output the first specified part of a file
<code>tail</code>	Output the last specified part of a file

Input, Output and errors are actually sent to special files called `stdin`, `stdout` and `stderr`. But by default, output and errors are linked to the screen and input is attached to the keyboard.

We can redirect where output goes and where input comes from, and using that with pipelines, we can perform complex tasks.

Pipelines

Operator: |

The difference of redirection and pipeline is that pipeline sends output as input for another command, while redirection does this to files.

General Commands

<code>clear</code>	Clears the terminal screen
<code>date</code>	Display current time and date
<code>cal</code>	Display a calendar of the current month
<code>man</code>	Manual for commands

Manipulating Files and Directories

<code>cp</code>	Copy files <code>-a</code> Copy all attributes of the original file <code>-i</code> Interactive mode (ask for confirmation), default is not ask <code>-r</code> Recursive copy (required when copying entire directories) <code>-u</code> Update, only overwrite if the copied files are newer
<code>mv</code>	Move or rename files (original file ceases to exist)
<code>mkdir</code>	Create directories
<code>rm</code>	Remove (delete) files and directories <code>-i</code> Prompt for confirmation, it does not ask for default <code>-r</code> Recursive remove files, required for directory <code>-f</code> Force, ignore nonexistent files and do not prompt

Important Directories

/	Root directory, everything begins here
/bin	contains programs for the system to boot and run (commands in bash are here too)
/dev	Devices mounted
/etc	System configuration files, and also shell scripts that run when the system boots. Important ones: <code>/etc/crontab</code> - definition for automated jobs <code>/etc/passwd</code> - list of user accounts
/home	Home directories for users
/lib	Shared libraries
/media	Removable media mount points
/root	The home directory for the root user
/tmp	Temporary files
/usr	Large directory tree, contains all the program files for regular users
/var	Directory for data that changes frequently

