

# Introduction to Unix

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# Introduction

Unix is an operating system

## Advantages:

- powerful
- multitasking, multi-user
- networking

## Disadvantages:

- no standard graphical user interface
- commands not always intuitive

# Commands

Two type of commands:

## file manipulation

- listing
- creating
- modifying
- deleting

## file-system navigation

- directories
- moving files

# General points

- Unix is **case sensitive**
- There is a **space** between the command and its arguments

e.g. `rm file` **Yes!**

`rmfile` **NO!**

# File Manipulation

*ls*: lis files

*cp* : copy files

*mv* : move file (rename)

*rm* : remove files

*more* : show file contents

# Directory listing

**Unix% ls**

```
ANALYSIS  data.txt      pax1.fasta  pax2.fasta
pax3.fasta pax4.fasta
```

**Unix% ls -l**

Note: ls -l **Yes!** ls -l **No!**

```
total 6
drwxr-xr-x  2 tcarver  512 Jul 14 09:46 ANALYSIS
-rw-r--r--  1 tcarver  571 Jul 14 09:17 data.txt
-rw-r--r--  1 tcarver  421 Jul 14 09:17 pax1.fasta
-rw-r--r--  1 tcarver  468 Jul 14 09:17 pax2.fasta
-rw-r--r--  1 tcarver  539 Jul 14 09:17 pax3.fasta
-rw-r--r--  1 tcarver  401 Jul 14 09:17 pax4.fasta
```

## Copying files

**Unix%** cp data.txt data1.txt

**Unix%** ls

ANALYSIS	data1.txt	pax2.fasta	pax4.fasta
data.txt	pax1.fasta	pax3.fasta	

## Moving (renaming) files

**Unix%** mv data.txt data2.txt

**Unix%** ls

ANALYSIS	data2.txt	pax2.fasta	pax4.fasta
data1.txt	pax1.fasta	pax3.fasta	

# Removing & displaying files

**Unix%** rm data2.txt

**Unix%** ls

```
ANALYSIS  pax1.fasta  pax3.fasta
data1.txt  pax2.fasta  pax4.fasta
```

**Unix%** more pax1.fasta

>PAX1\_HUMAN P15863 PAIRED BOX PROTEIN PAX-1 (HUP48).

```
MEQTYGEVNQLGGVFNVRPLPNAIRLRIVELAQLGIRPCDISRQLRVSHGCVSKILARY
NETGSILPGAIGGSKPRVTTPNVVKHIRDYKQGDPGIFAWIIRDRLADGVCDKYNVPSV
SSISRILRNKIGSLAQPGPYEASKQPPSQPTLPYNHIYQYPYSPVSPGTGAKMGSHPGVP
GTAGHVSI PRSWPSAHSVSNILGIRTFMEQTGALAGSEGTAYSPKMEDWAGVNRTAFPAT
PAVNGLEKPALEADIKYTQSASTLSAVGGFLPACAYPASNQHGVSAPGGGYLAPGPPWP
PAQGPPLAPPGAGVAVHGGELAAAMTFKHREGTDRKPPSSGSKAPDALSSLHGLPIPAST
S
```

**Unix%**



# Files and subdirectories

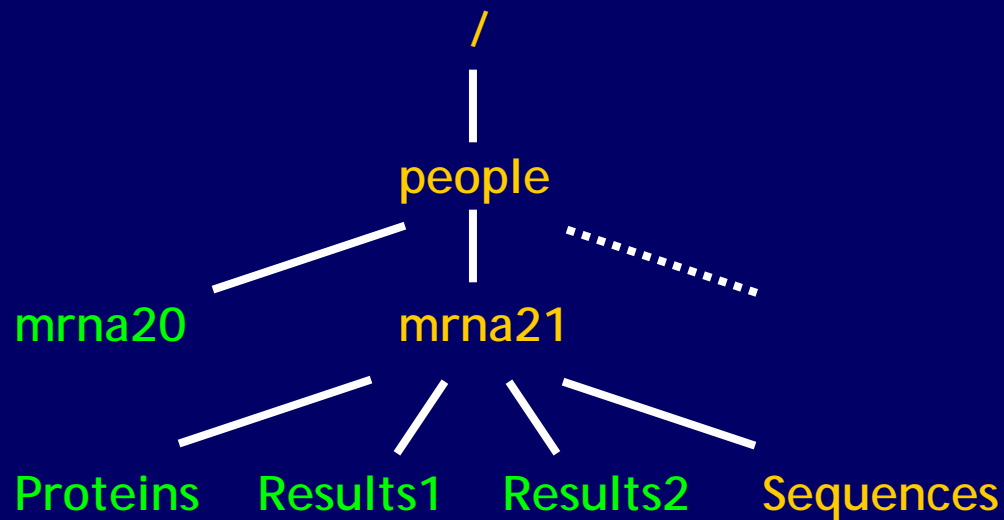
*mkdir* : make new directory

*rmdir* : remove directory

*cd* : change directory

*pwd* : print working (current) directory

## Directory Structure



## Path name

/people

/people/mrna21

/people/mrna21/Sequences

# Example:

**Unix%** pwd

*Where am I?*

**/people/mrna21/**

**Unix%** mkdir Sequences

*Make dir.*

**Unix%** cd Sequences

*Change dir.*

**Unix%** pwd

*Where am I?*

**/people/mrna21/Sequences**

.....

**Unix%** cd ..

*Go up a dir.*

**Unix%** rmdir Sequences

*Remove dir.*

# Extra tricks

- use the **tab** key
- use the wildcard character: **\***  
`ls *.seq`
- use **.** and **..**  
`cp ../file1 ./file2`
- **ls -a**
- use **~**  
`cd ~/subdirectory`

# Text Editors

*pico* :

quick

easy

*nedit* :

more powerful

menu driven