



# The Unix Shell

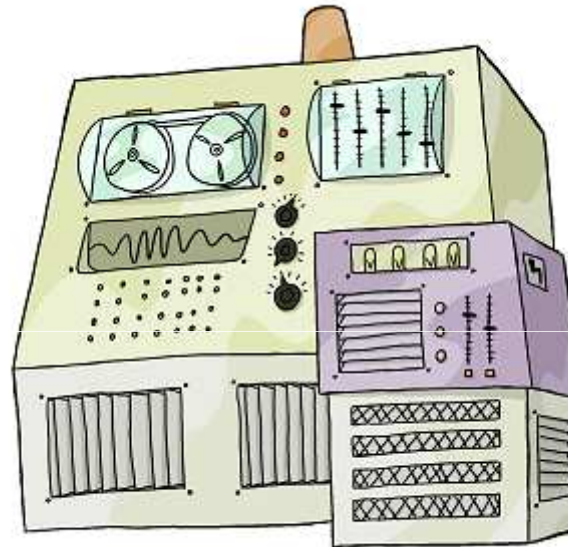
## Introduction

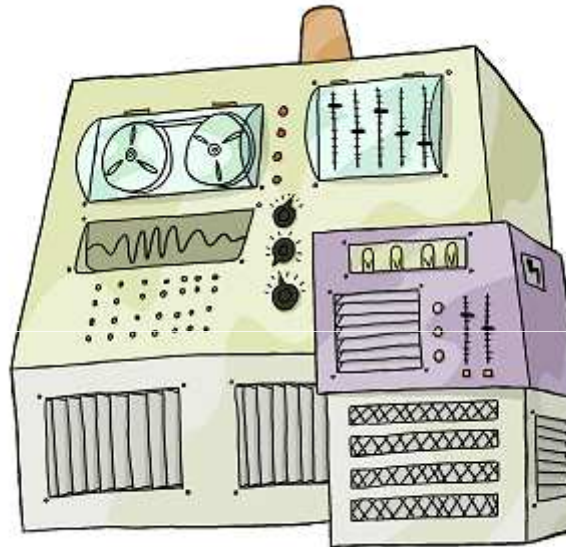


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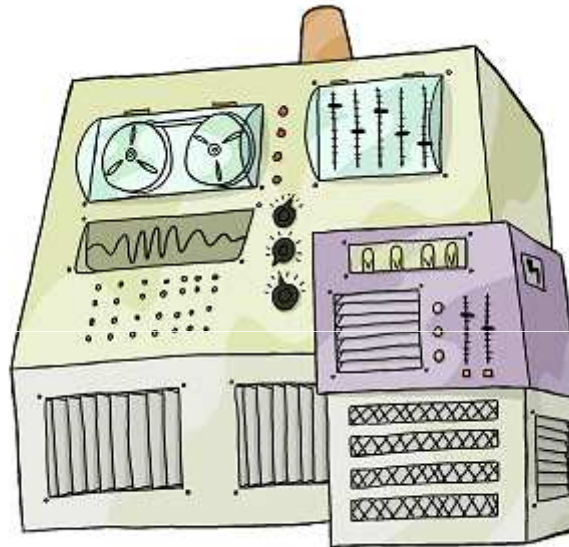
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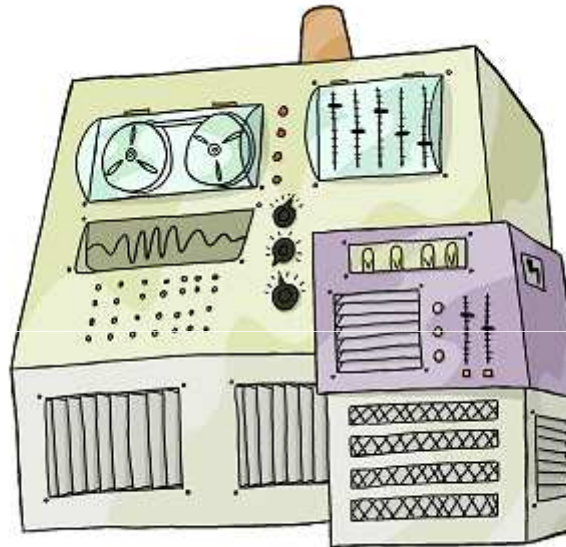


# Run Programs



Run  
Programs

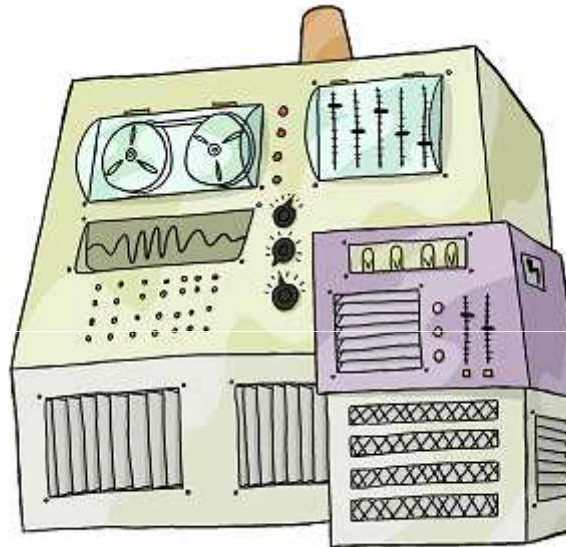
Store  
Data



Run  
Programs

Store  
Data

Communicate  
with each other



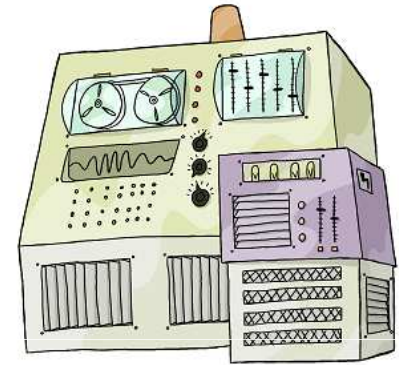
Run  
Programs

Store  
Data

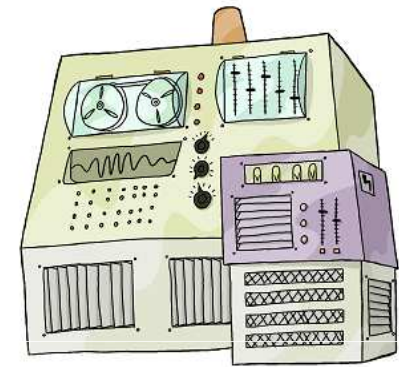
Communicate  
with each other

Interact  
with us

Interact  
with us



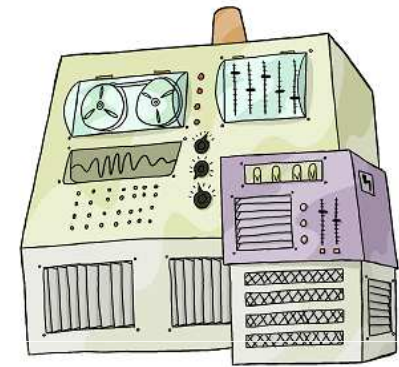
Interact  
with us



Telepathy



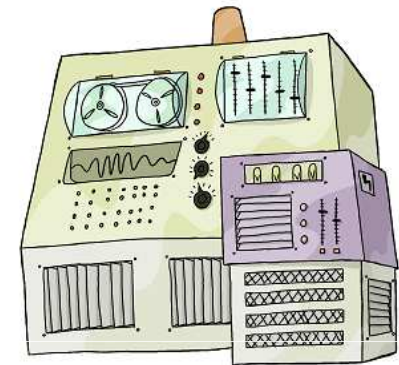
Interact  
with us



Telepathy

Speech

Interact  
with us

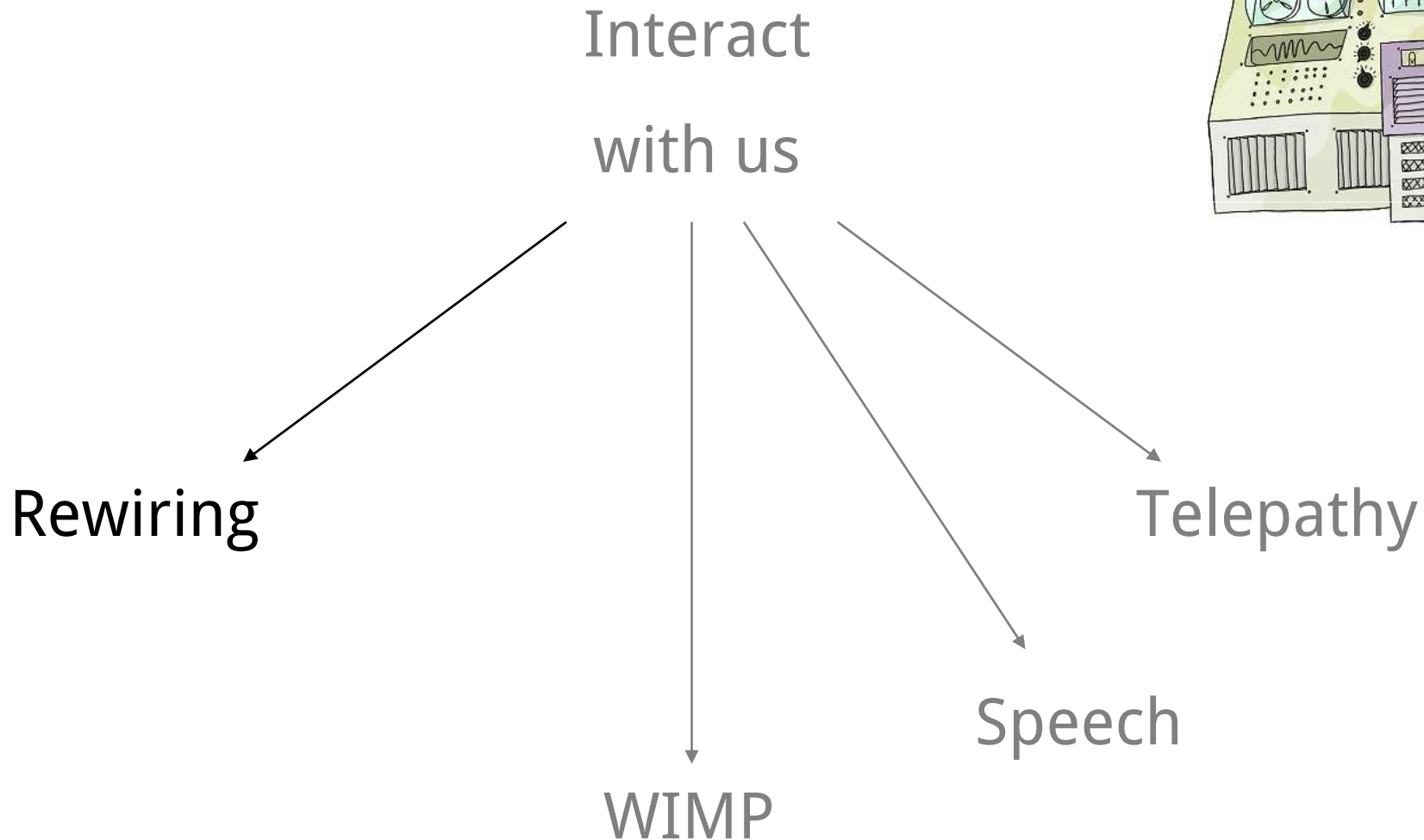


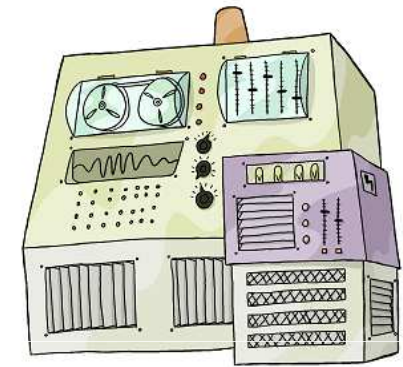
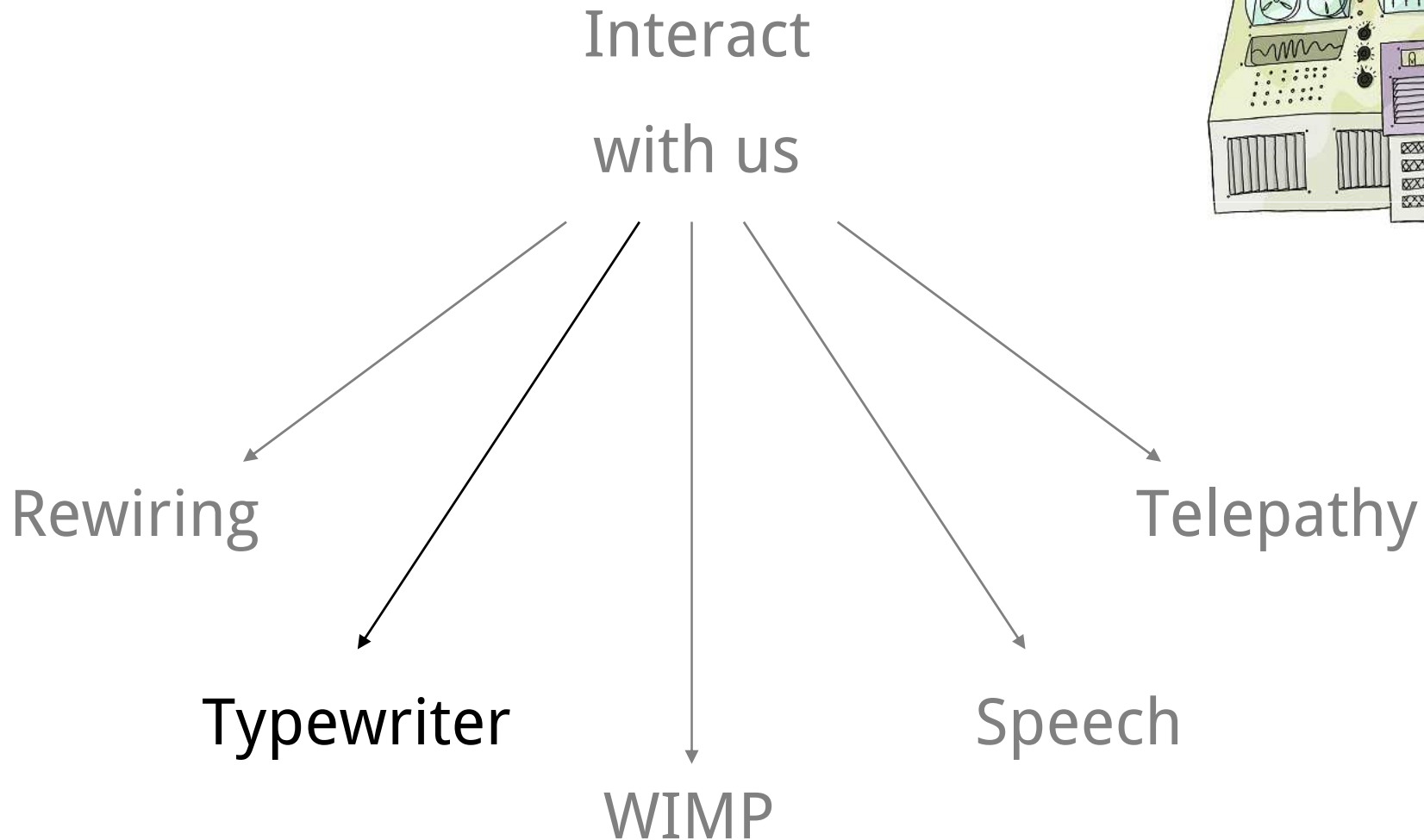
Telepathy

Speech

WIMP

(windows, icons, mice, pointers)





# Typewriter



~~Typewriter~~

Line printer + keyboard



~~Typewriter~~

Line printer + keyboard

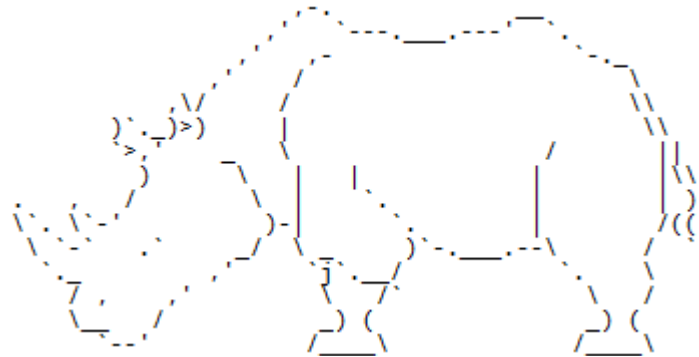
Text only



~~Typewriter~~

Line printer + keyboard

Text only



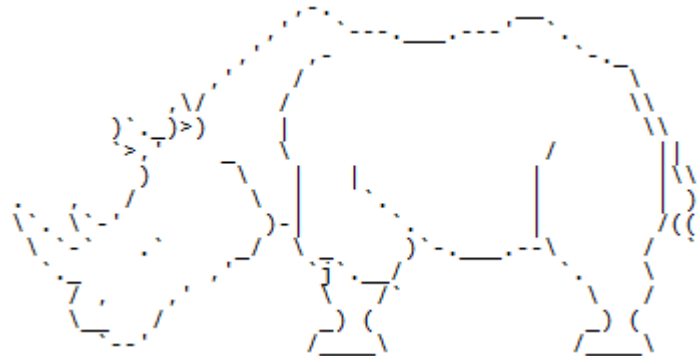




~~Typewriter~~

Line printer + keyboard

Text only



CLUI: command-line user interface

user logs in



```
user logs in  
user types command
```



```
user logs in  
user types command  
computer executes command  
and prints output
```



```
user logs in
user types command
computer executes command
  and prints output
user types another command
```



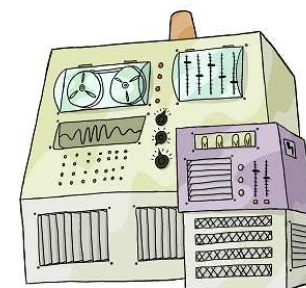
```
user logs in
user types command
computer executes command
  and prints output
user types another command
computer executes command
  and prints output
```



```
user logs in
user types command
computer executes command
  and prints output
user types another command
computer executes command
  and prints output
:
user logs off
```



```
user logs in
user types command
computer executes command
  and prints output
user types another command
computer executes command
  and prints output
:
user logs off
```

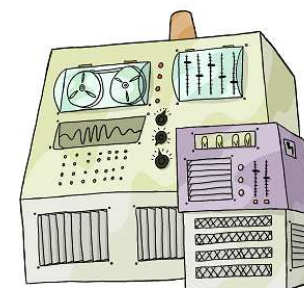
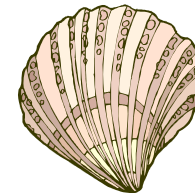




```
user logs in
user types command
computer executes command
  and prints output
user types another command
computer executes command
  and prints output
:
user logs off
```

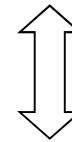


shell

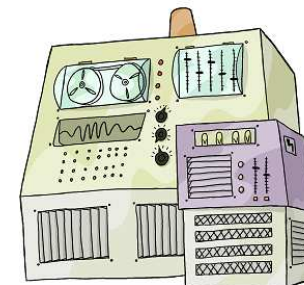
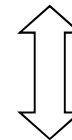
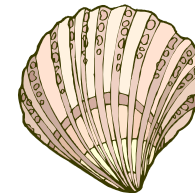


```

user logs in
user types command
computer executes command
  and prints output
user types another command
computer executes command
  and prints output
:
user logs off
  
```



shell



A shell is just a program that runs other programs

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Most popular is bash (the Bourne again shell)

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Using it feels a lot more like programming  
than using windows, a mouse, etc.

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Use it because:



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Use it because:

- many tools only have command-line interfaces

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than using windows, a mouse, etc.

Commands are terse and often cryptic

Use it because:

- many tools only have command-line interfaces
- allows you to combine tools in powerful new ways



created by

Greg Wilson

August 2010



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