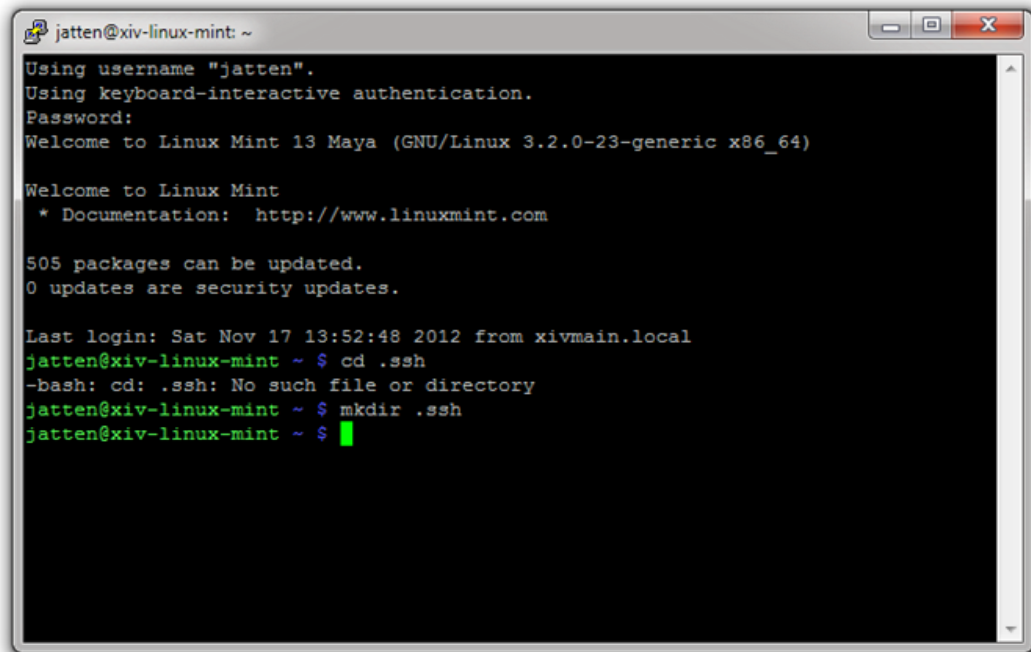
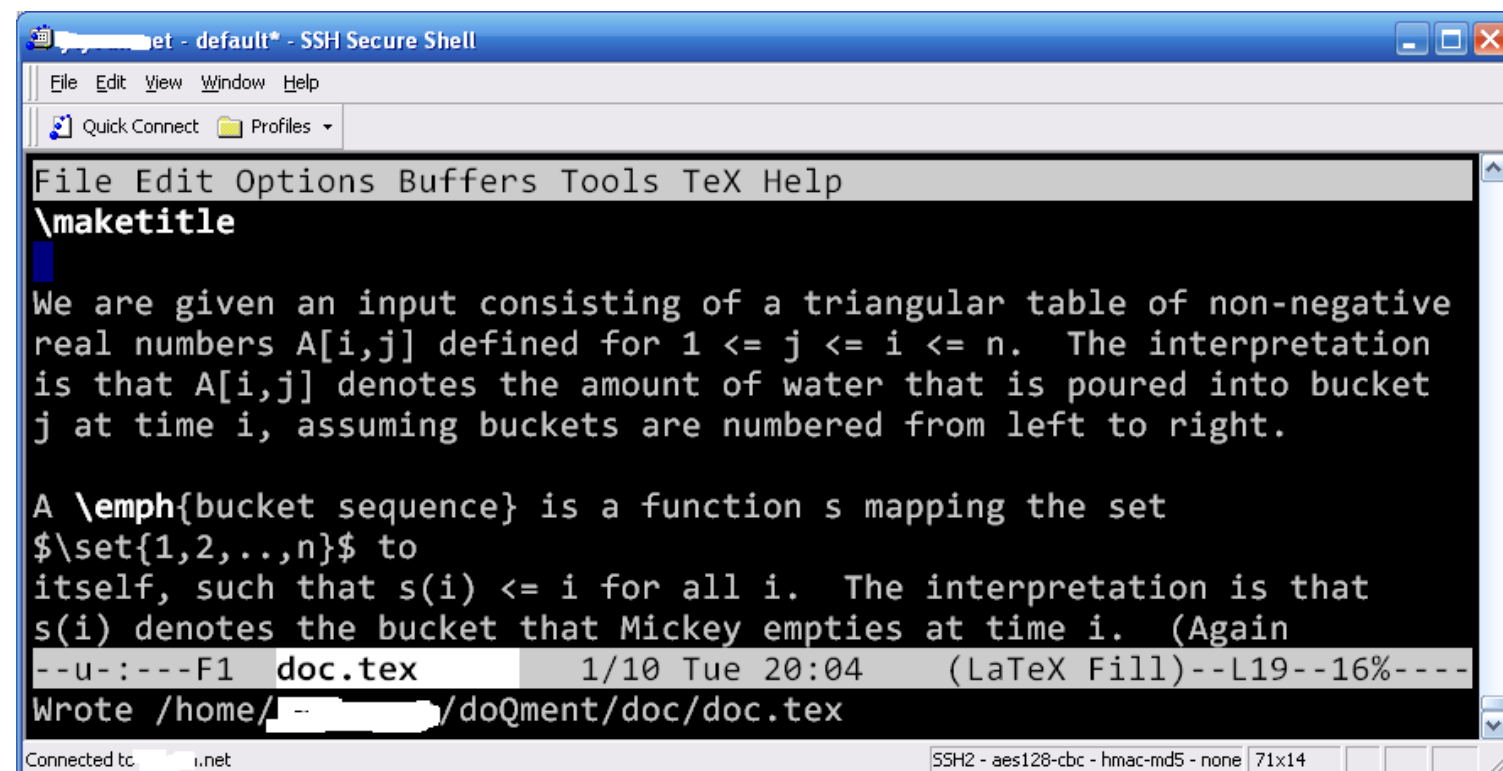


Manipulating Data on Linux

- Login to your linux server via SSH
 - putty, SSH Secure Shell



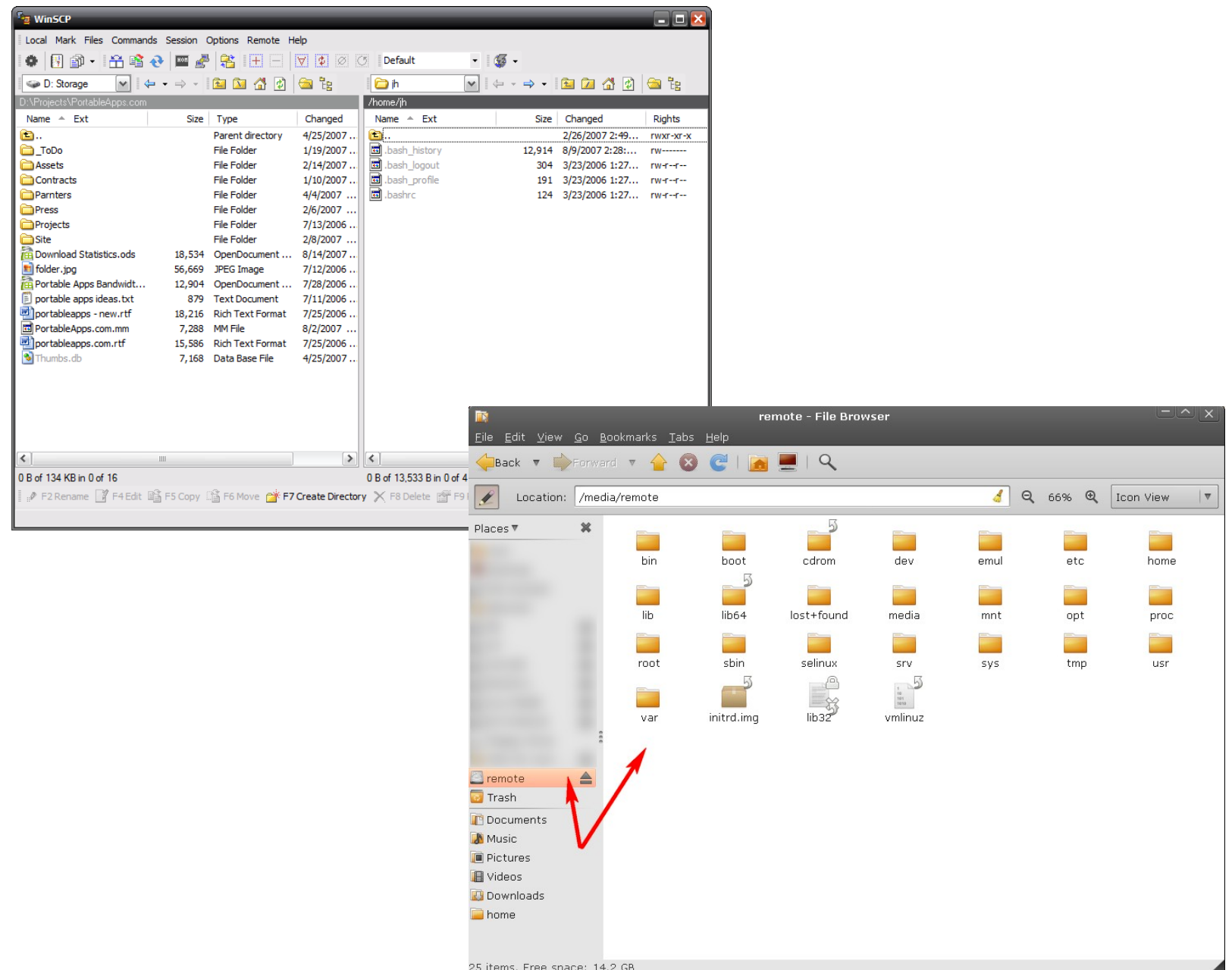
```
jatten@xiv-linux-mint: ~  
Using username "jatten".  
Using keyboard-interactive authentication.  
Password:  
Welcome to Linux Mint 13 Maya (GNU/Linux 3.2.0-23-generic x86_64)  
  
Welcome to Linux Mint  
* Documentation: http://www.linuxmint.com  
  
505 packages can be updated.  
0 updates are security updates.  
  
Last login: Sat Nov 17 13:52:48 2012 from xivmain.local  
jatten@xiv-linux-mint ~ $ cd .ssh  
-bash: cd: .ssh: No such file or directory  
jatten@xiv-linux-mint ~ $ mkdir .ssh  
jatten@xiv-linux-mint ~ $
```



```
et - default* - SSH Secure Shell  
File Edit View Window Help  
Quick Connect Profiles  
File Edit Options Buffers Tools TeX Help  
\maketitle  
  
We are given an input consisting of a triangular table of non-negative  
real numbers  $A[i,j]$  defined for  $1 \leq j \leq i \leq n$ . The interpretation  
is that  $A[i,j]$  denotes the amount of water that is poured into bucket  
 $j$  at time  $i$ , assuming buckets are numbered from left to right.  
  
A \emph{bucket sequence} is a function  $s$  mapping the set  
 $\{1,2,\dots,n\}$  to  
itself, such that  $s(i) \leq i$  for all  $i$ . The interpretation is that  
 $s(i)$  denotes the bucket that Mickey empties at time  $i$ . (Again  
--u:---F1 doc.tex 1/10 Tue 20:04 (LaTeX Fill)--L19--16%---  
Wrote /home/.../doQment/doc/doc.tex  
Connected to: i.net SSH2 - aes128-cbc - hmac-md5 - none 71x14
```

Manipulating Data on Linux

- Getting your data to and from the Linux host
 - scp, WinSCP
 - sshfs
 - ftp
 - wget, curl



Manipulating Data on Linux

- Simple data files - examination and slicing
 - What kind of file is it?
 - file anonymous
 - How big is the file?
 - `ls -lh red+blue_all.txt`
 - `wc -l red+blue_all.txt`

Manipulating Data on Linux

- Viewing and Manipulating the data
 - more & less
 - head & tail

Short answer:

Just use `less` and forget about `more`

Longer version:

`more` is old utility

Manipulating Data on Linux

- Viewing and Manipulating the data

- cat

```
bash > cat greens.txt
turquoise
putting
sea
leafy
emerald
bottle

bash > cat blues.txt
cerulean
sky
murky
democrat
delta

# now concatenate the files
bash > cat greens.txt blues.txt >greensNblues.txt

# and dump the concatenated file
bash > cat greensNblues.txt
turquoise
putting
sea
leafy
emerald
bottle
cerulean
sky
murky
democrat
delta
```

Manipulating Data on Linux

- Viewing and Manipulating the data
 - paste

```
bash > cat file_1
aaa bbb ccc ddd
eee fff ggg hhh
iii jjj kkk lll

bash > cat file_2
111 222 333
444 555 666
777 888 999

bash > paste file_1 file2

aaa bbb ccc ddd      111 222 333
eee fff ggg hhh      444 555 666
iii jjj kkk lll      777 888 999
```