Lesson Module Checklist
- Slides –
- Properties -
- Flash cards –
- First minute quiz –
- Web calendar summary –
- Web book pages –
- Commands –

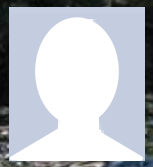
- Practice test uploaded
- CCC Confer wall paper –
- Materials uploaded –
- Backup headset charged –
- Backup slides, CCC info, handouts on flash drive -

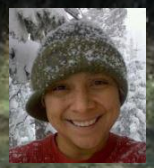
- Pickup Polycom 831.479.6392 -
- Check that room headset is charged – done

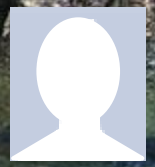
CIS 90 - Lesson 15

Instructor: **Rich Simms**
Dial-in: **888-450-4821**
Passcode: **761867**


Dieskau


Jonathan


Ana


David


Obie


Dave


Cole


Corey


Nancy


Ryan

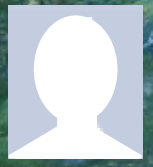

Elia

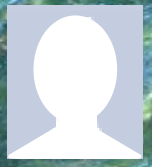

Tasha

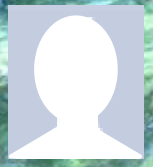

Darren

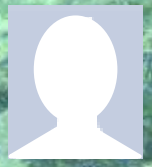

Scott


Devin


Everett


Juan

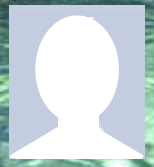

Raven


Rogan


Mike


Mook


Melissa


Cameron


Jose


Jeff


Matt


Kenneth


Ousmane


Ian


Solomon


Henry


Matthew


Mason


Chan

Email me (risimms@cabrillo.edu) a relatively current photo of your face for 3 points extra credit

Quiz

No Quiz Today !

[ ] Has the phone bridge been added?

[ ] Is recording on?

[ ] Does the phone bridge have the mike?

[ ] Share slides, putty x 3, Chrome, VLab, DOS prompt, Filezilla

[ ] Disable spelling on PowerPoint

File Transfer and Review

Objectives	Agenda
• Transfer project files to Windows and Linux systems • Prepare for final exam	• No Quiz • Questions from last week • File transfer continued • Practice Test #3 • Project Workshop (optional)

Previous material and assignment

1. Questions?

Housekeeping

Due 11:59 PM tonight:

- Final Project submittal

Due 11:59 PM May 30:

- Five forum posts
- Extra credit labs

Next week is **Cabrillo Finals Week**

- Our final exam is Test #3 (30 points)
- Time: 1:00PM - 3:50PM
- Date: Wed May 30
- Place: Room 2501

The final exam:
- *must be taken in Room 2501 (no CCC Confer)*
- *it must be turned in using email by the end of the exam period (no grace extension period)*

CIS 90 - Spring 2012 - TEST 3 - 30 points

Timed Test (2 hours 50 minutes)
10 questions
1 extra credit question

Honor Code:
This test is open book, open notes, and open computer. **HOWEVER, you must work alone. You may not share answers. You may not receive or give assistance to others.**

Name: _____

Download and save this test PDF to your computer. Then fill out the downloaded PDF, save it and email it as an attachment to **risimms@cabrillo.edu** using your regular (non-Opus) email. Please cc: yourself and verify you actually sent a non-blank, completed test to be graded.

Everyone should submit their test (completed or not) by the end of exam period.

Highlighted text differs from practice test

Note to Mac users:
Make sure Adobe Reader doesn't strip preceding /'s from your answers in saved PDF file.

Note to instructor:
Add borabora file on Sun
Print spool files on Sun
Add test03-broken script to class depot directory on Sun

Points earned to date:

adaldrida: 90% (405 of 450 points)
alatar: 95% (430 of 450 points)
amroth: 84% (379 of 450 points)
arador: 92% (414 of 450 points)
aragorn: 106% (481 of 450 points)
arwen: 112% (507 of 450 points)
celebrian: 73% (331 of 450 points)
cirdan: 110% (498 of 450 points)
dori: 102% (461 of 450 points)
dwalin: 80% (360 of 450 points)
elrond: 104% (472 of 450 points)
eomer: 89% (403 of 450 points)
eowyn: 84% (382 of 450 points)
frodo: 110% (495 of 450 points)
gwaihir: 83% (376 of 450 points)
haldir: 85% (383 of 450 points)
ioreth: 20% (90 of 450 points)
khamul: 99% (449 of 450 points)
nessa: 82% (371 of 450 points)
orome: 98% (442 of 450 points)
pippin: 43% (197 of 450 points)
quickbeam: 107% (484 of 450 points)
samwise: 36% (166 of 450 points)
shadowfax: 103% (465 of 450 points)
strider: 108% (489 of 450 points)
theoden: 68% (307 of 450 points)
treebeard: 106% (477 of 450 points)
tulkas: 90% (407 of 450 points)
ulmo: 110% (495 of 450 points)

Remaining points to earn:

Forum-4	20
Test-3	30
Project	60
Extra credit	0-90

Percentage	Total Points	Letter Grade	Pass/No Pass
90% or higher	504 or higher	A	Pass
80% to 89.9%	448 to 503	B	Pass
70% to 79.9%	392 to 447	C	Pass
60% to 69.9%	336 to 391	D	No pass
0% to 59.9%	0 to 335	F	No pass

Contact the instructor if you have questions

Possible Points	Requirements
30	Implementing all five tasks (6 points each): • Requirements for each task: – Minimum of 10 "original" script command lines – Has comments to explain what it does – Has user interaction
25	You don't have to do all of these but do at least five: • Redirecting stdin (5 points) • Redirecting stdout (5 points) • Redirecting stderr (5 points) • Use of permissions (5 points) • Use of filename expansion characters (5 points) • Use of absolute path (5 points) • Use of relative path (5 points) • Use of a PID (5 points) • Use of inodes (5 points) • Use of links (5 points) • Use of a GID or group (5 points) • Use of a UID or user (5 points) • Use of a signal (5 points) • Use of piping (5 points) • Use of an environment variable (5 points) • Use of /bin/mail (5 points) • Use of a conditional (5 points) The maximum for this section are 25 points.
5	Present your script in front of the class
Points lost	
-15	Fails to run from **allscripts**
-15	Other students in the class are unable to read and execute your script.
-15	Error messages are displayed when running one or more tasks
-up to 90	No credit for any task which contains unoriginal script code that: • Doesn't give full credit the original author • Doesn't indicate where the code was obtained from • Doesn't include licensing terms • Violates copyright or licensing terms
Extra credit	
30	Up to three additional tasks (10 points each)

This is how the final project will be graded

Run testscripts to see current project progress

Additional Linux courses:

CIS 98 - Linux/UNIX Shell Programming

CIS 191 - Linux/UNIX System Administration

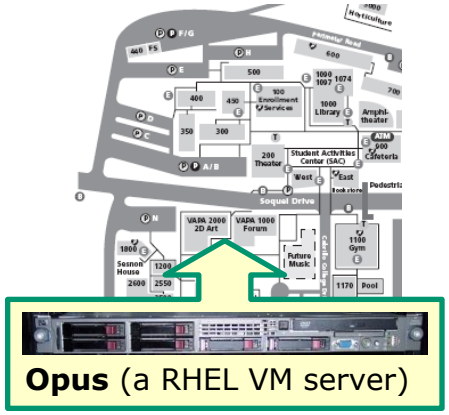
CIS 192 - Linux/UNIX Network Administration

CIS 193 - Linux/UNIX Security Administration

File Transfer

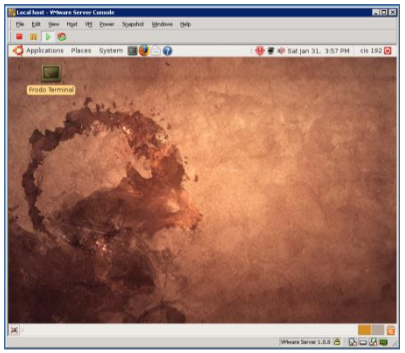
File Transfer

Downloading your Opus file to your home computer



Windows

Mac

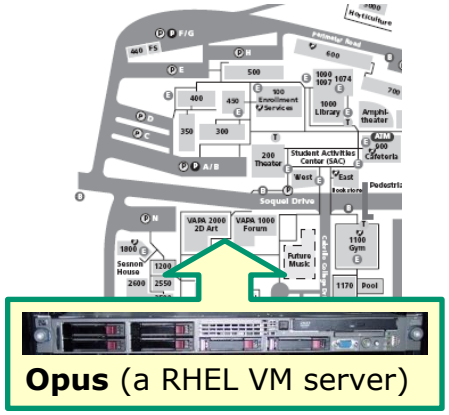


Linux

File Transfer Windows Filezilla

File Transfer

Downloading your Opus file to your home computer



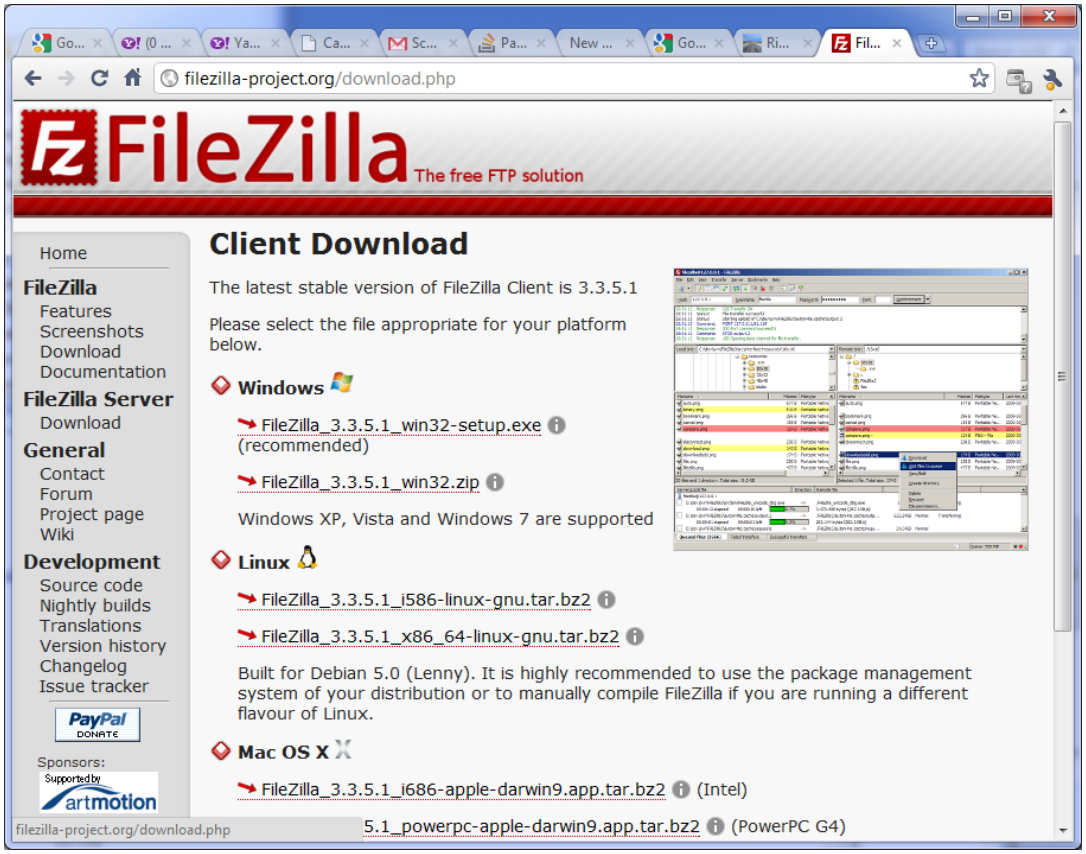
Windows

For Windows you can use the pscp (Putty scp) program or a file transfer utility like Filezilla

File Transfer

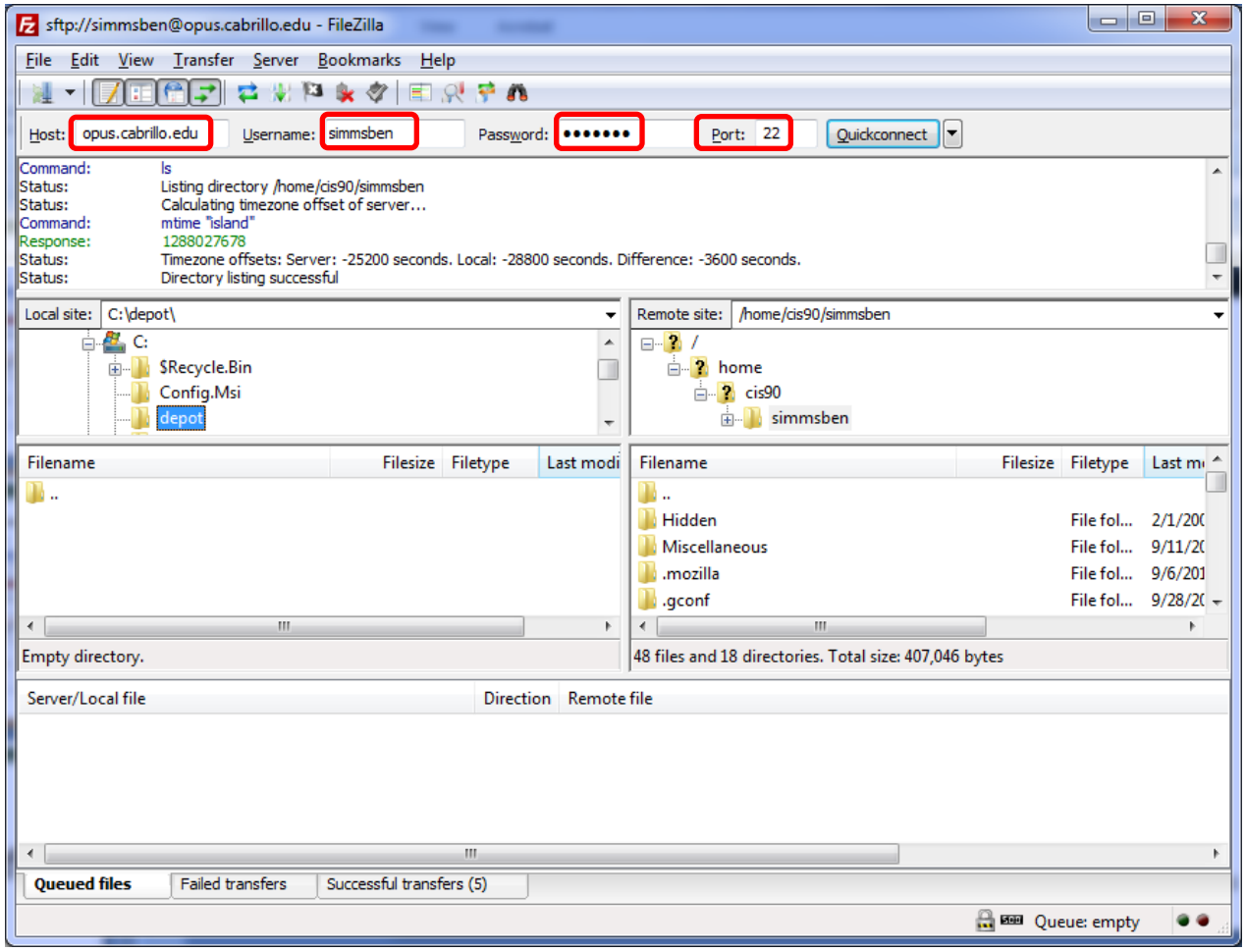
Downloading your Opus file to Windows using Filezilla

http://filezilla-project.org/download.php



File Transfer

Downloading your Opus file to Windows using Filezilla

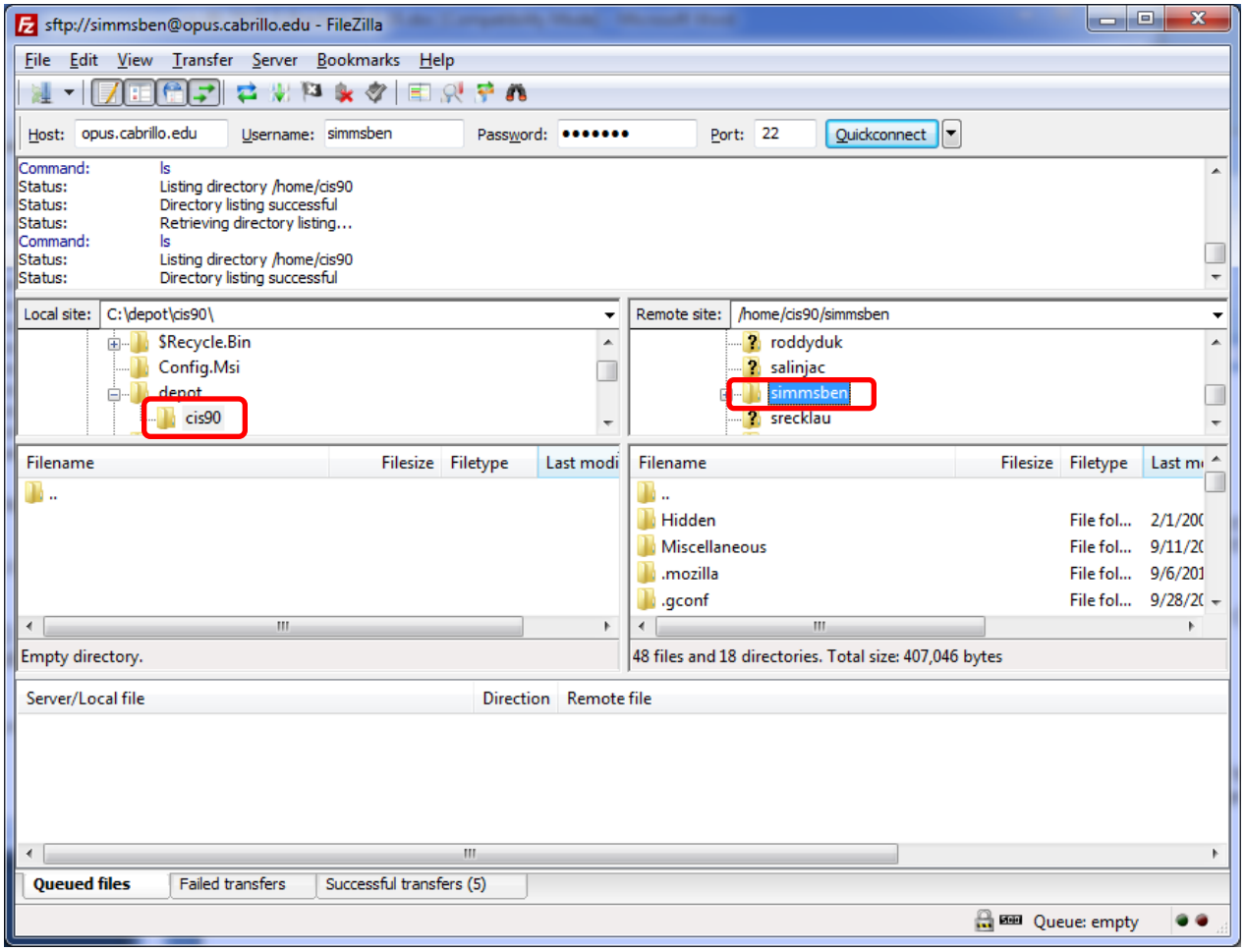


Specify opus.cabrillo.edu as the host name with your Opus username, password and port 22 then click Quickconnect

File Transfer

Downloading your Opus file to Windows using Filezilla

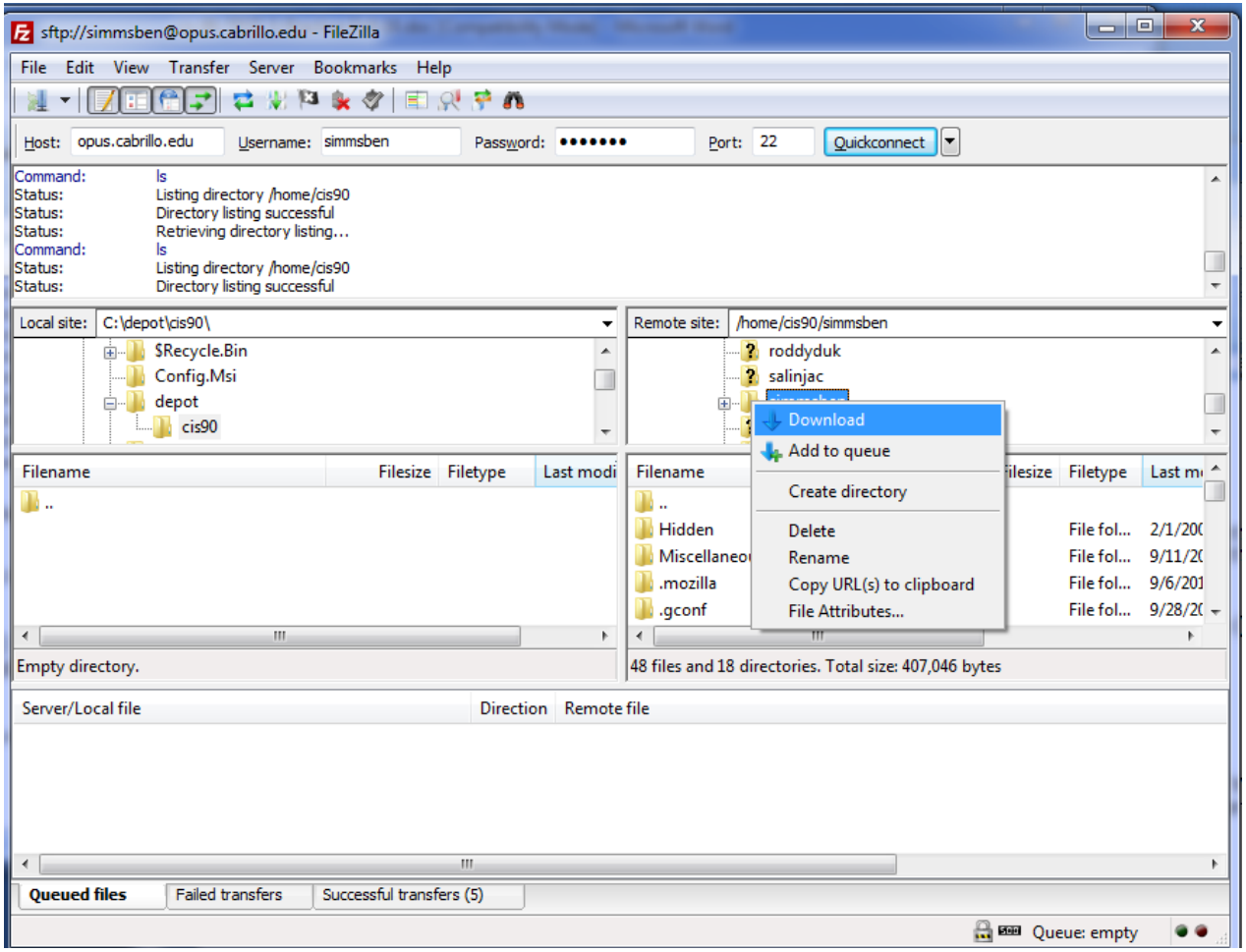
Select local folder to download file into



Select directory on Opus to download

File Transfer

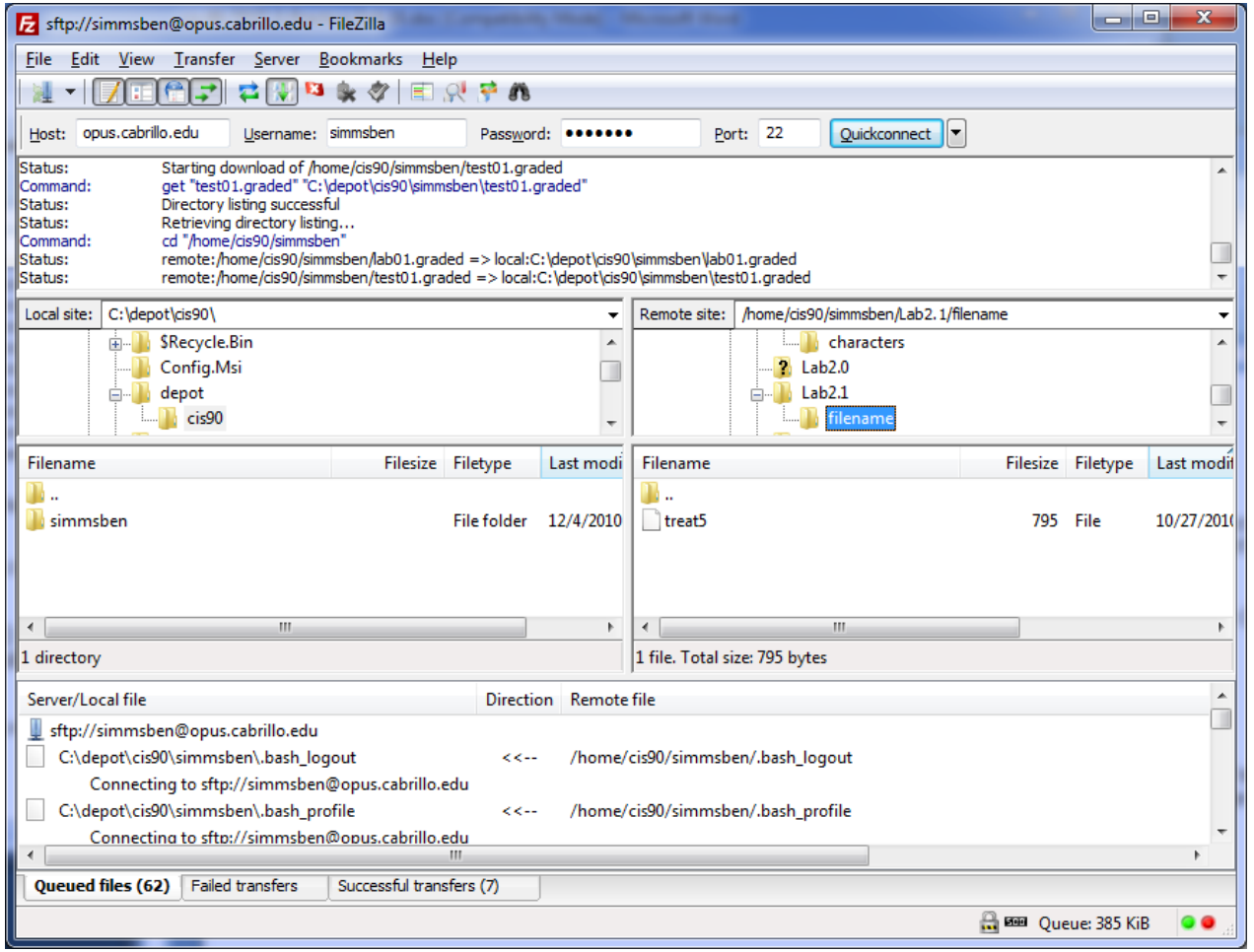
Downloading your Opus file to Windows using Filezilla



Right-click on the Opus directory and select Download

File Transfer

Downloading your Opus file to Windows using Filezilla

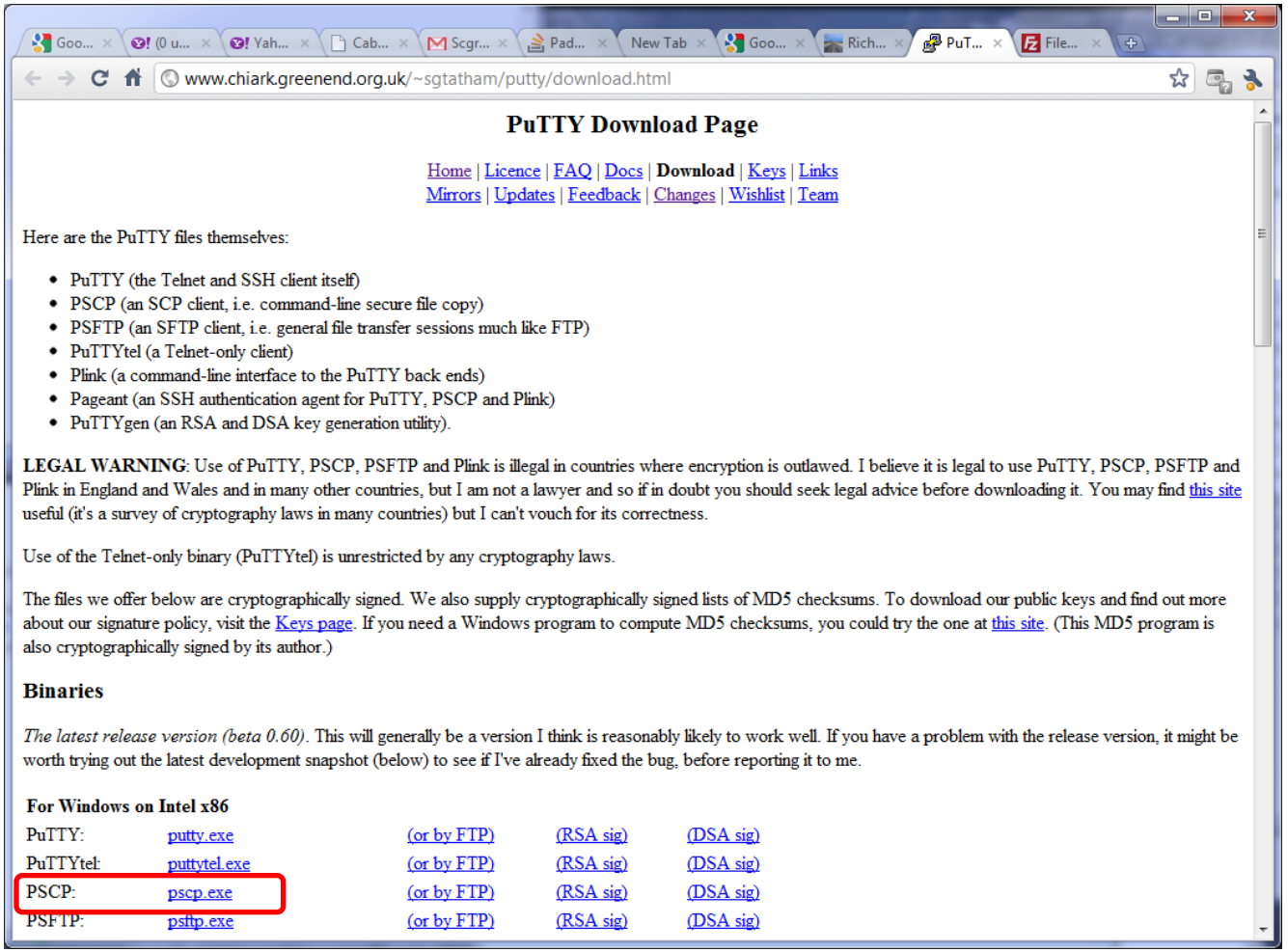


And away it goes downloading every file and directory it finds in the Opus directory you selected to your local folder

File Transfer

Downloading your Opus file to Windows using pscp (Putty scp)

http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html



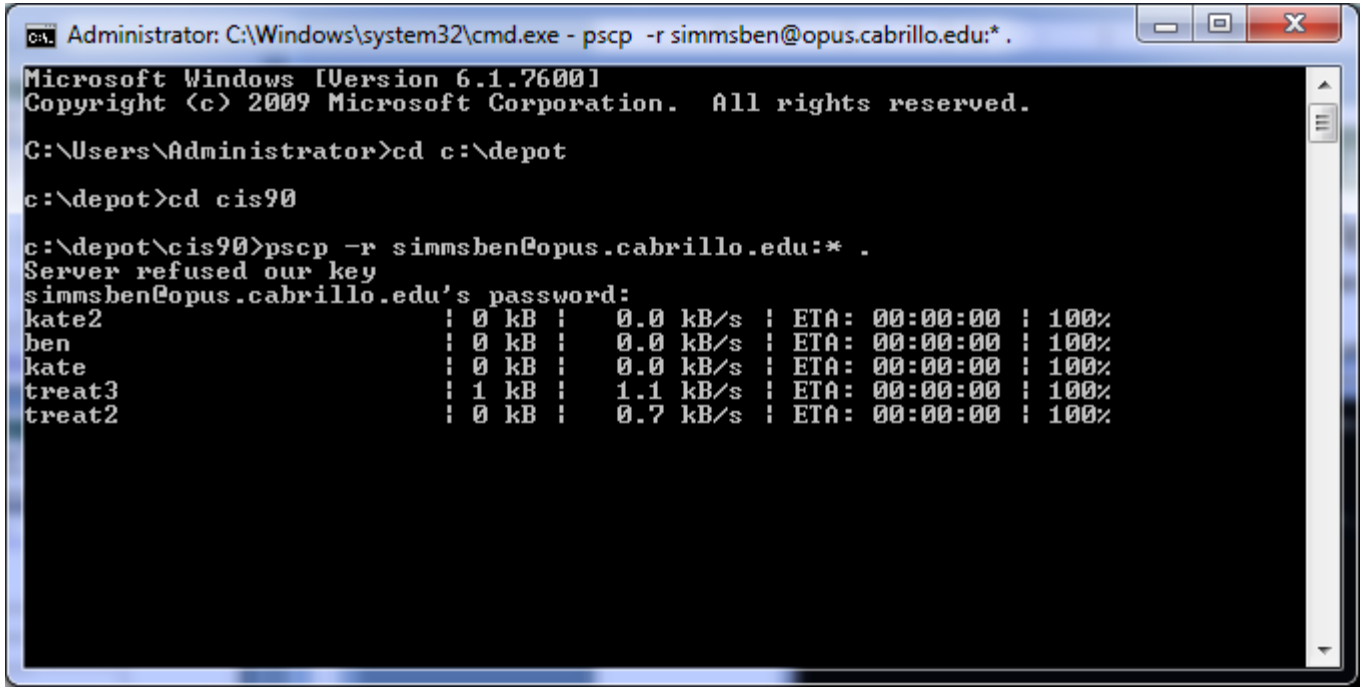
Download the pscp file and place it in your windows folder

File Transfer Windows pscp

File Transfer

Downloading your Opus file to Windows using pscp (Putty scp)

pscp -r *username*@opus.cabrillo.edu:* .

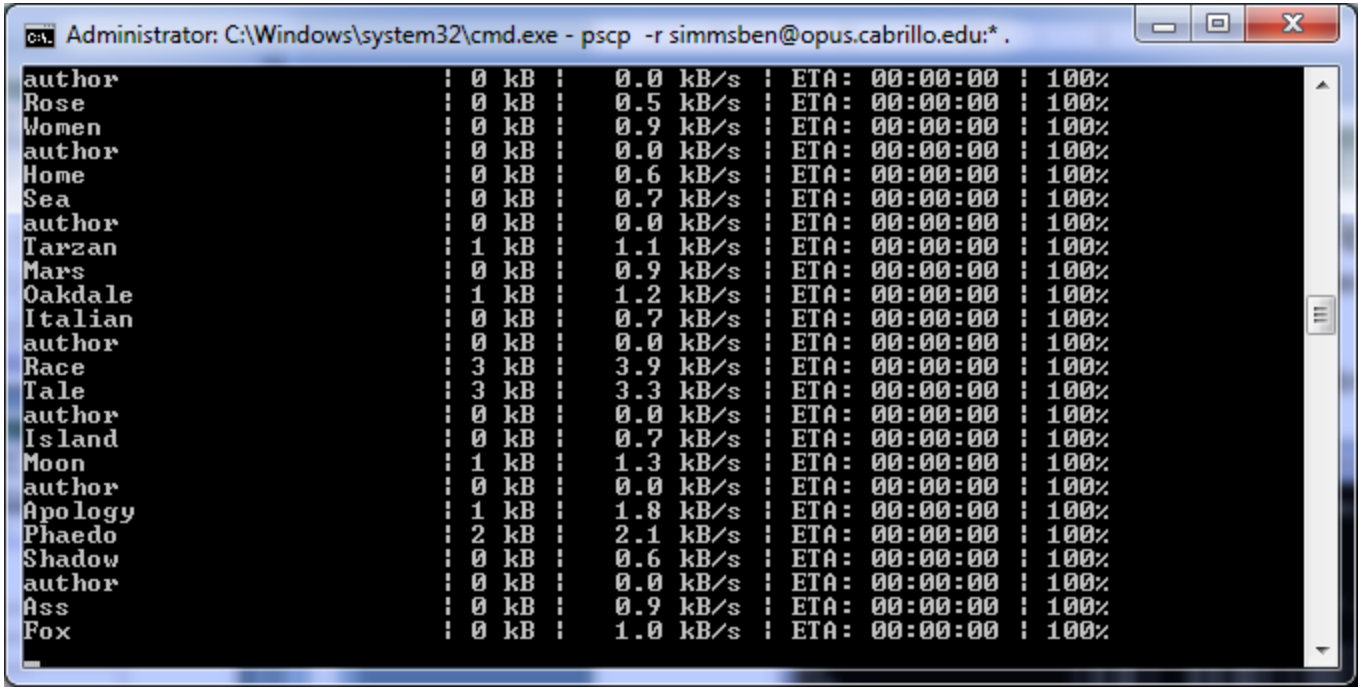


Navigate to the local folder where you want to download your Opus file to then use the pscp command with the -r option to recursively download all the files in your home directory

File Transfer

Downloading your Opus file to Windows using pscp (Putty scp)

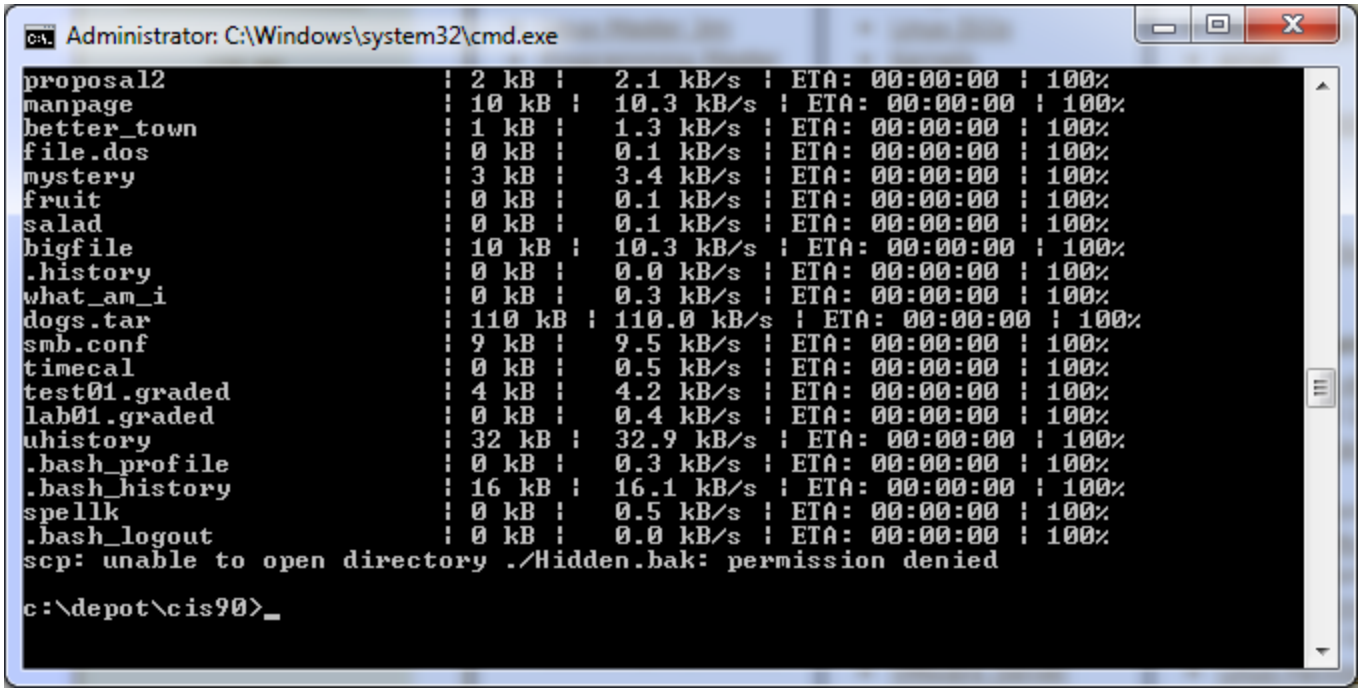
pscp -r *username*@opus.cabrillo.edu:* .



File Transfer

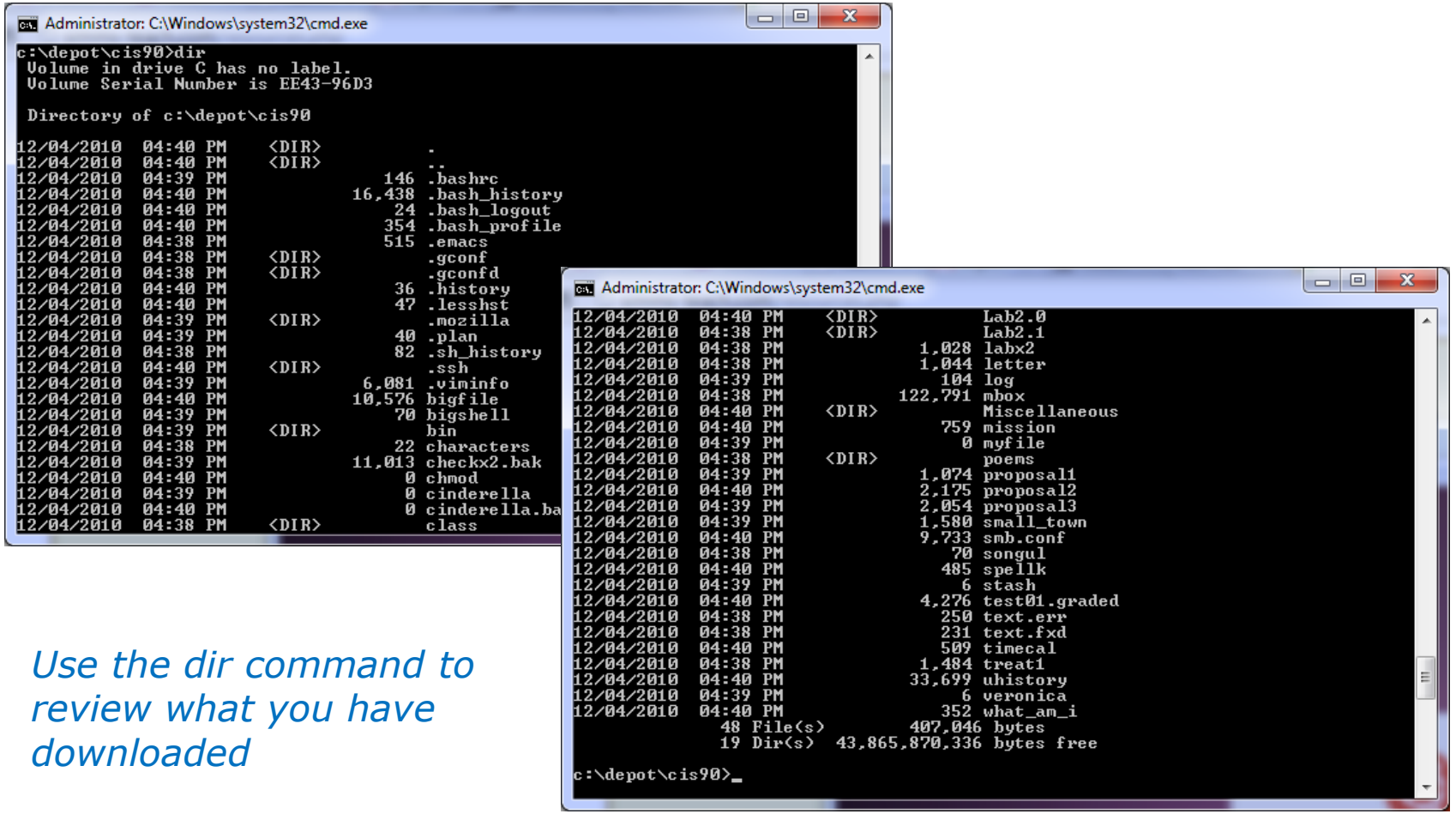
Downloading your Opus file to Windows using pscp (Putty scp)

pscp -r *username*@opus.cabrillo.edu:* .



File Transfer

Downloading your Opus files to Windows using pscp (Putty scp)



Use the dir command to review what you have downloaded

File Transfer

Downloading your Opus files to Windows using pscp (Putty scp)

*More example **pscp** commands*

```
c:\depot\bin>pscp -r simmsben@opus.cabrillo.edu:/home/cis90/answers/* .
simmsben@opus.cabrillo.edu's password:
lab04                     | 0 kB |   0.5 kB/s | ETA: 00:00:00 | 100%
lab10                     | 1 kB |   1.6 kB/s | ETA: 00:00:00 | 100%
lab07                     | 10 kB |  11.0 kB/s | ETA: 00:00:00 | 100%
lab05                     | 0 kB |   0.8 kB/s | ETA: 00:00:00 | 100%
lab09                     | 2 kB |   2.8 kB/s | ETA: 00:00:00 | 100%
lab06                     | 4 kB |   4.4 kB/s | ETA: 00:00:00 | 100%
lab03                     | 32 kB |  32.9 kB/s | ETA: 00:00:00 | 100%
lab02                     | 1 kB |   1.1 kB/s | ETA: 00:00:00 | 100%
lab01                     | 0 kB |   0.2 kB/s | ETA: 00:00:00 | 100%
test01                    | 1 kB |   1.2 kB/s | ETA: 00:00:00 | 100%
test02                    | 1 kB |   1.4 kB/s | ETA: 00:00:00 | 100%
lab08                     | 5 kB |   5.2 kB/s | ETA: 00:00:00 | 100%

c:\depot\bin>
```

File Transfer

Downloading your Opus file to Windows using pscp (Putty scp)

*More example **pscp** commands*

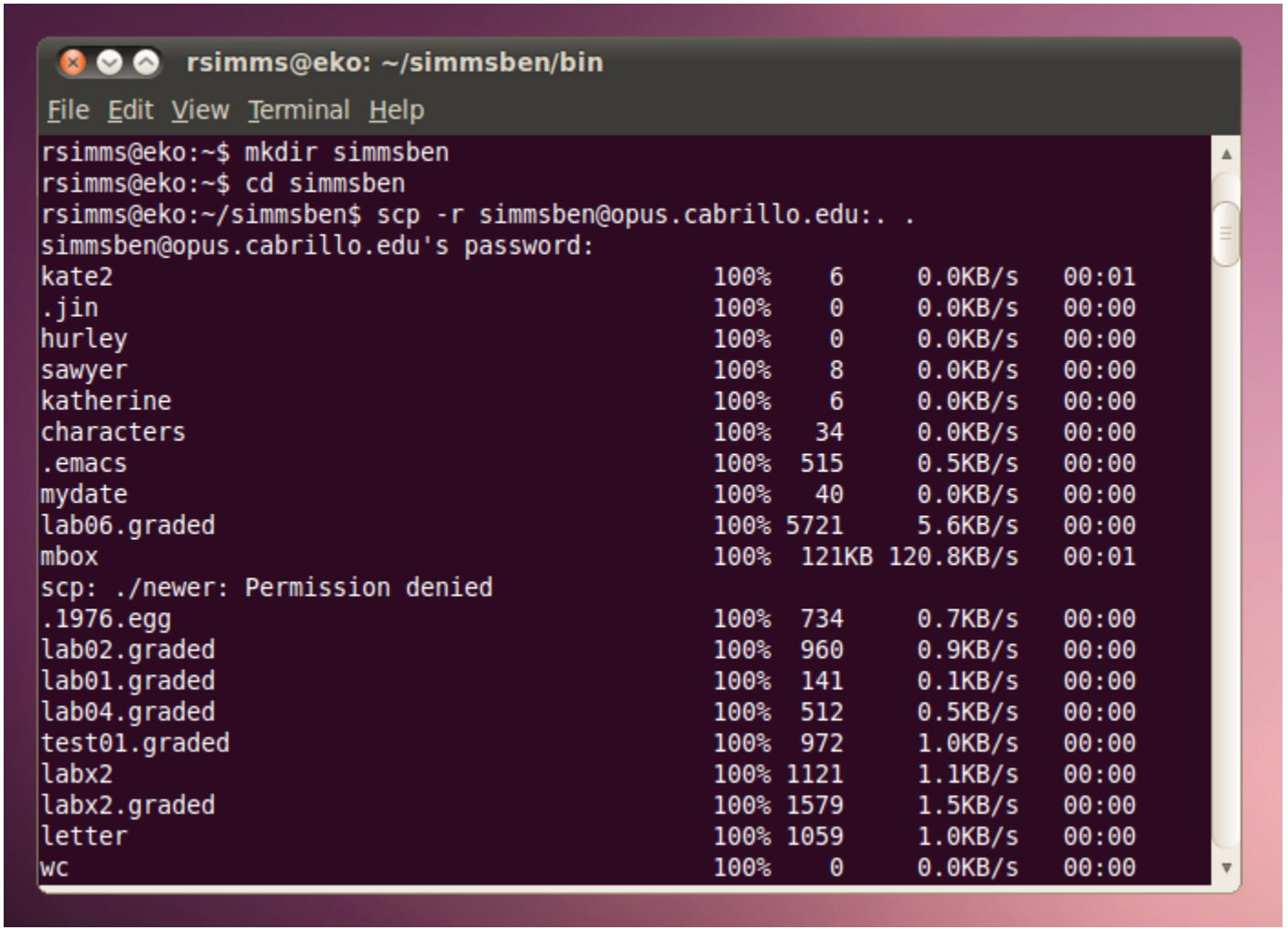
```
c:\depot>pscp -r simmsben@opus.cabrillo.edu:/home/cis90/bin/riddle* .
simmsben@opus.cabrillo.edu's password:
riddle                    | 0 kB |   0.9 kB/s | ETA: 00:00:00 | 100%
riddle2                   | 0 kB |   0.9 kB/s | ETA: 00:00:00 | 100%
riddle1                   | 0 kB |   0.9 kB/s | ETA: 00:00:00 | 100%

c:\depot>pscp -r simmsben@opus.cabrillo.edu:/home/cis90/bin/all* .
simmsben@opus.cabrillo.edu's password:
allscripts                | 4 kB |   4.3 kB/s | ETA: 00:00:00 | 100%
allscripts.v1             | 3 kB |   4.0 kB/s | ETA: 00:00:00 | 100%
allscripts.v2             | 4 kB |   4.3 kB/s | ETA: 00:00:00 | 100%
```

File Transfer Linux or Mac scp

File Transfer

Downloading your Opus files to Linux or Mac using scp

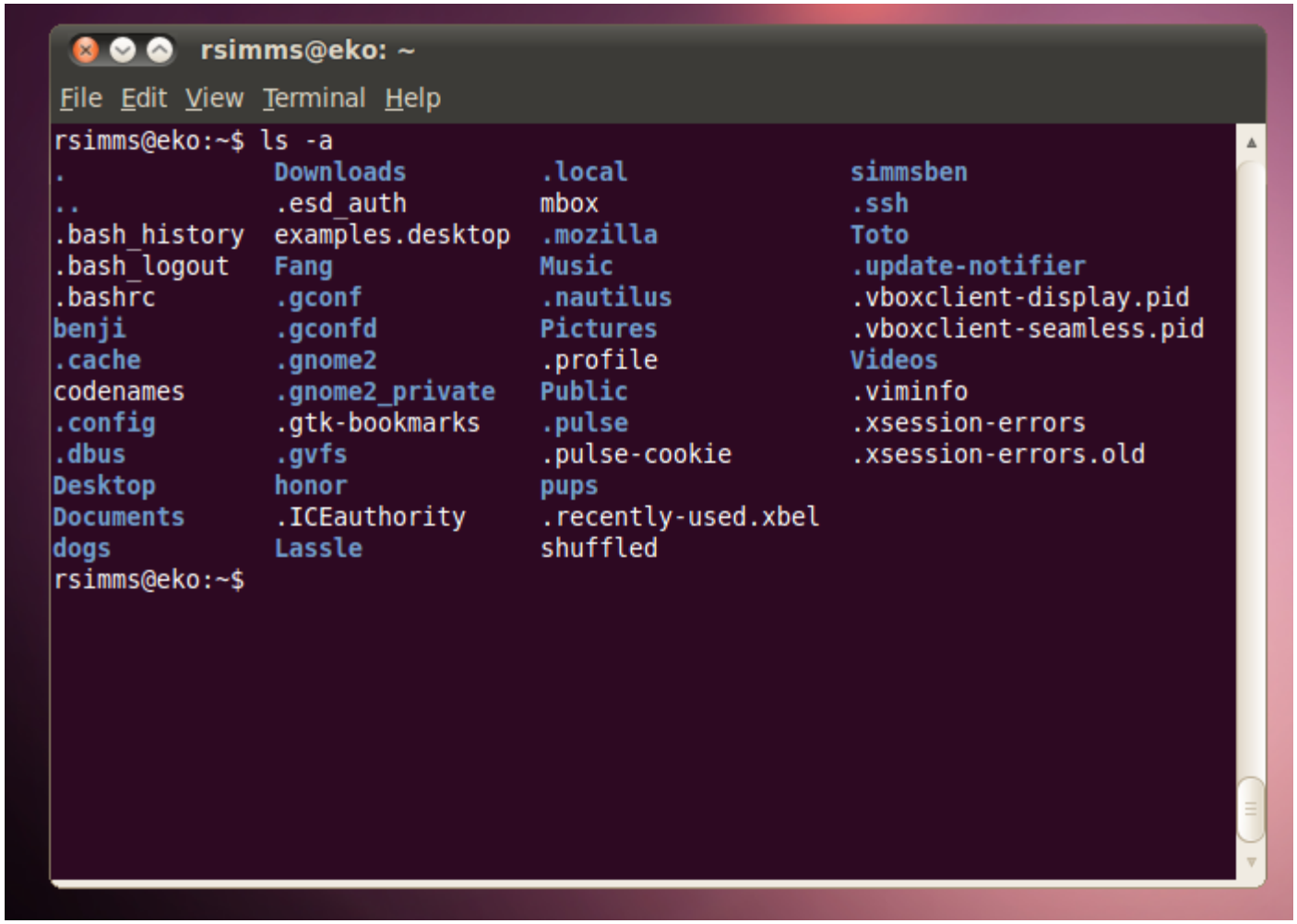
scp -r simmsben@opus.cabrillo.edu:. . *To download all files*



File Transfer

Downloading your Opus files to Linux or Mac using scp

ls -a *To review what was downloaded*



File Transfer

Downloading your Opus files to Linux or Mac using scp

More examples of using scp on your local Mac or Linux system:

scp –r simmsben@opus.cabrillo.edu:* .

Recursive copy of remote home directory to current local directory (doesn't copy home directory hidden files)

scp –r simmsben@opus.cabrillo.edu:. .

Recursive copy of remote home directory to current local directory (includes hidden files in home directory)

scp simmsben@opus.cabrillo.edu:simmsben.tar .

Copies archive file in remote home directory to current local directory

scp –r simmsben@opus.cabrillo.edu:/home/cis90ol/answers answers/

Recursive copy of class answers directory to local directory named answers (which must be created first)

Archives

Archiving

tar command (on Opus)

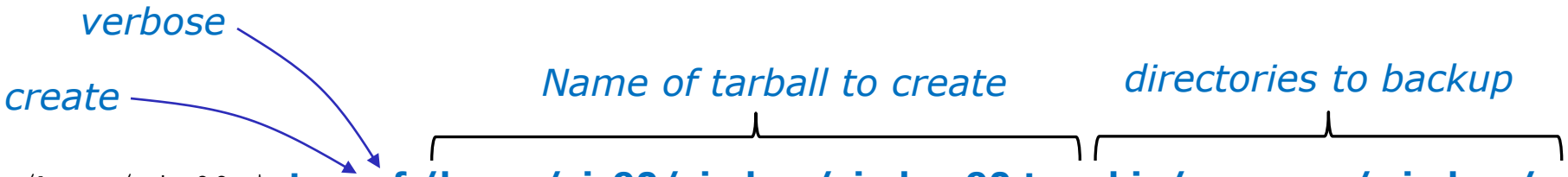
Use wc to count the number of files in the three directories

```
/home/cis90 $ find bin/ answers/ simben/ | wc -l
365
/home/cis90 $
```

The bin directory has allscripts, riddles and other files used in class. The answers directory has answers for each lab. Your home directory has all the files you made during the course.

Archiving

tar command (on Opus)

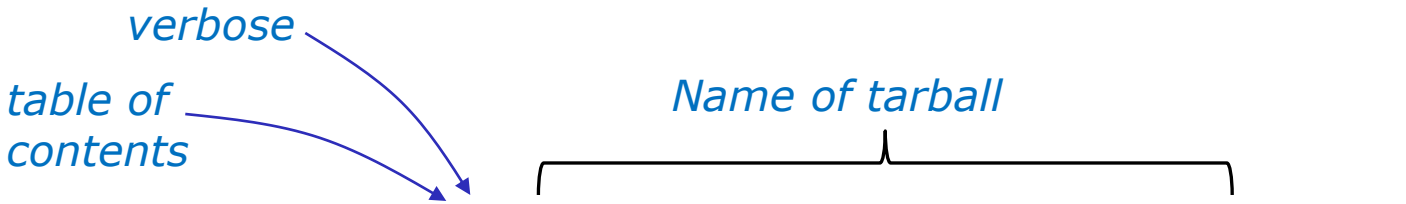



```
/home/cis90 $ tar cvf /home/cis90/simben/simben90.tar bin/ answers/ simben/
bin/
bin/tally
bin/checkgrades
bin/riddle
bin/check5
< snipped >
tar: simben/newer: Cannot open: Permission denied
< snipped >
tar: simben/simben90.tar: file is the archive; not dumped
< snipped >
simben/fast/file2
simben/fast/file5
simben/lotsoferrors
simben/bsym2
tar: Error exit delayed from previous errors
/home/cis90 $
```

Backup all these files into a single tarball

Archiving

tar command (on Opus)




```
/home/cis90 $ tar tvf /home/cis90/simben/simben90.tar | wc -l
363
/home/cis90 $ find bin/ answers/ simben/ | wc -l
365
/home/cis90 $
```

Use the t option (table of contents) to list the contents of the tarball which are then piped to wc to count

The two files that did not get added to the archive were newer (permissions prevented) and simben90.tar (the tarball itself)

Archiving

tar command (on Opus)

Archive everything in your home directory (including all sub directories) plus the class bin and answer directories into one tarball.

```
cd ..
find bin/ answers/ $LOGNAME/ | wc -l
```
Count the files to be archived

```
tar cvf /home/cis90/$LOGNAME/$LOGNAME.tar bin/ answers/ $LOGNAME/
tar tvf /home/cis90/$LOGNAME/$LOGNAME.tar | wc -l
```
This counts the files in the archive

Archiving

tar command (extracting on home Linux computer)

extract

```
[cis90@frodo opus-files]# tar xvf simben90.tar
bin/
bin/tally
bin/checkgrades
bin/riddle
bin/check5
bin/allscripts

< snipped >

simben/fast/file2
simben/fast/file5
simben/lotsoferrors
simben/bsym2
[cis90@frodo opus-files]#
```

Extract the tarball

Archiving

tar command (extracting on home Linux computer)

```
[cis90@frodo opus-files]# ls -l
total 1044
drwxr-xr-x  2  201  103    4096 Nov 28 17:41 answers
drwxr-x---  2  201  103    4096 Nov 30 23:25 bin
drwxr-xr-x 28 1156  103    4096 Dec 10 13:50 simben
-rw-r--r--  1 root root 1034240 Dec  8 23:43 simben90.tar
[cis90@frodo opus-files]#
```

The bin, answer and home directories have been recreated

Archiving

tar command (extracting on home Linux computer)

```
[cis90@frodo opus-files]# cd simben/bin
[cis90@frodo bin]# ls
app      banner     datecal        hi    I         myscript.bak  treat5  tryme
backups  benscript  enlightenment  home  myscript  myscript.v1   treed   zoom
[cis90@frodo bin]# myscript
-bash: myscript: command not found
[cis90@frodo bin]# ./myscript

                Benji's CIS 90 Final Project
        1) Color
        2) My Find Command
        3) More practice
        4) Duke's friend made this one - Thank You
        5) Task 5
        6) Exit

        Enter Your Choice:
```

Note we have a different path on this system so may have to specify an absolute path to script file to run

Archives
gzip and gunzip

Archiving

tar command (on Opus)

*Next, compress the archive with **gzip***

```
/home/cis90/simben $ ls -l simben90.tar
-rw-rw-r-- 1 simben90 cis90 1269760 May 22 09:20 simben90.tar

/home/cis90/simben $ gzip simben90.tar
/home/cis90/simben $ ls -l simben90.tar*
-rw-rw-r-- 1 simben90 cis90 240968 May 22 09:20 simben90.tar.gz
```

*Later, uncompress the archive with **gunzip***

```
/home/cis90/simben $ gunzip simben90.tar.gz
/home/cis90/simben $ ls -l simben90.tar*
-rw-rw-r-- 1 simben90 cis90 1269760 May 22 09:20 simben90.tar
```

Note: gzip renames the tarball by adding the .gz suffix and gunzip removes the suffix

Final Exam

Final Exam

The CIS 90 Final Exam is Test #3

- **The Final Exam is May 30 - 1:00 to 3:50PM**
- **The final exam will be Test #3 (worth 30 points + 3 points extra credit)**
  - Open book, open notes, open computer.
  - During the test you must work alone and not ask or give assistance to others.

Final Exam

The CIS 90 Final Exam is Test #3

- **A Practice Test 3 is available on the web site**
  - To minimize stress on the final exam:
    - Work EVERY question on the practice test and NOTE exactly the steps requried to answer each question.
    - Use the notes you took doing the practice test on the final exam.
  - You may work with others and use the forum to discuss questions and answers on the practice test prior to the final exam.

Project Presentations

To demo your project and earn five points:

Join CCC Confer and share desktop when it is your turn

- Remote users should dial or Skype to 888-450-4821 and use passcode: 761867
- Classroom students can use Station #5 next to the Polycom

Five minutes max please!

Wrap up

New commands:

tar	Backup and restore files

New Files and Directories:

Next Class is the Final Exam

Test #3

Five Posts

Lab X1 (extra credit)

Lab X2 (extra credit)

Project Workshop (optional)

Backup