# Remote Login

## Signing Up for a CS Account

- You will need a CS account for this course
- You will use it to compile and run your assignments
  - Assignments will be graded on these servers

 If you don't already have one, you'll need to SSH into shell.cs.fsu.edu to create one

#### CS Account [Mac / Linux]

- Type `ssh newacct@shell.cs.fsu.edu` in the terminal
- It will then prompt you for a password twice, use 'newacct' for both
- It will then ask you a series of questions (e.g. name and chosen password)

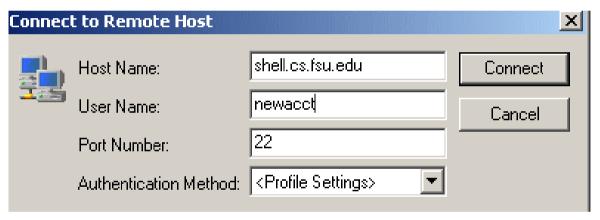
#### **CS Account [Windows]**

Use Putty.exe

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

.html

• Fill out the form:



- Enter 'newacct' for the two password prompts
- Then follow the prompts for your actual user name and password

#### **CS** Servers

You have access to three different servers

```
shell checking cs mail (e.g. pine)program programminglinprog programming
```

• You will primarily be using linprog in this class

#### SSH

- Secure Shell
  - Securely logs in to remote server
  - Gives you a terminal to issue commands
- This is how you will access the linprog server

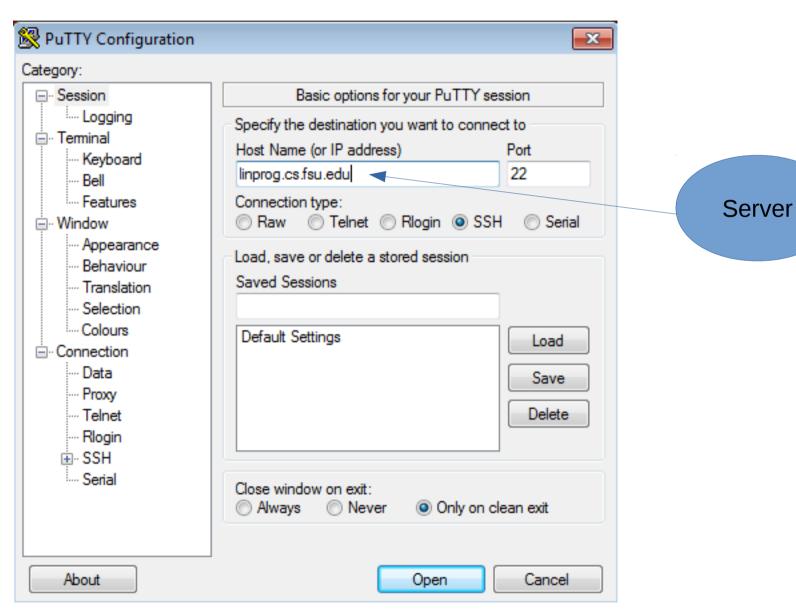
```
dennis@dennis-Gazelle-Professional:~$ ssh dennis@linprog.cs.fsu.edu
               DEPARTMENT OF COMPUTER SCIENCE
                  Florida State University
          No mudding, IRC, or other games from here.
                                                                     Command
  Please get a private sector account for non-CS activities.
    See http://www.cs.fsu.edu for departmental information.
     See http://system.cs.fsu.edu for Systems information.
            Send email to help@cs.fsu.edu for help.
                          Attention!!
If you forward your CS email to your FSU emailbox, make sure your FSU
email address is up to date or you may miss important emails.
dennis@linprog4:~> ls
$RECYCLE.BIN
                       Mail
                                    Thumbs.db
                                                        dennis-Inside.pfx
                                                                            mbox
                                    compilers
                                                        dennis-Outside.pfx rec 3 - shared memory
Britton-2013-2-15.pptx My Music
                       My Pictures
                                    cop4610t
                                                        desktop.ini
                                                                            rec3.tar
Desktop
Download
                       My Videos
                                    cop4610t fall 2015 logs
                                                                            temp
dennis@linprog4:~> date
Tue Aug 30 09:10:00 EDT 2016
dennis@linprog4:~>
```

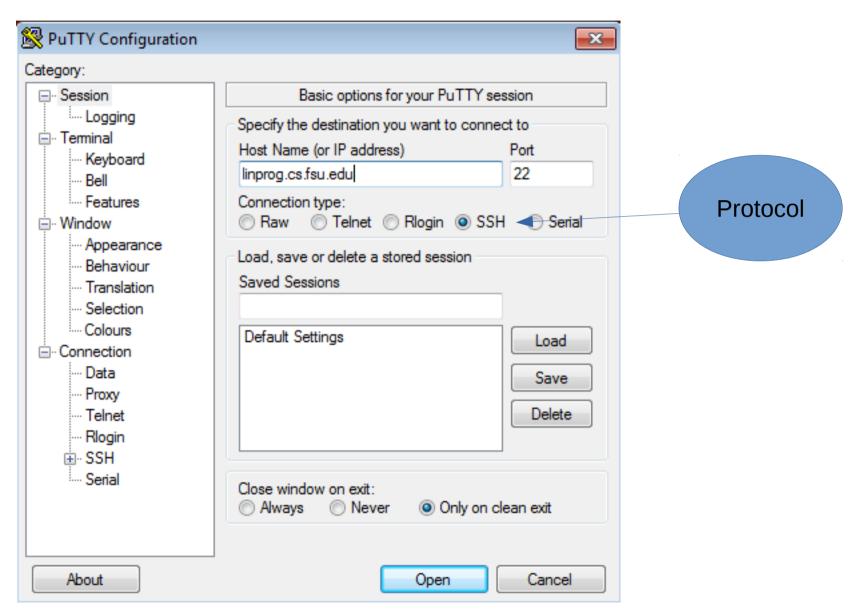
```
dennis@dennis-Gazelle-Professional:~$ ssh dennis@linprog.cs.fsu.edu
               DEPARTMENT OF COMPUTER SCIENCE
                  Florida State University
          No mudding, IRC, or other games from here.
                                                                    User Name
  Please get a private sector account for non-CS activities.
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     See http://system.cs.fsu.edu for Systems information.
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$RECYCLE.BIN
                       Mail
                                    Thumbs.db
                                                        dennis-Inside.pfx
                                                                            mbox
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                       My Pictures
                                    cop4610t
                                                        desktop.ini
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Desktop
Download
                       My Videos
                                    cop4610t fall 2015 logs
                                                                            temp
dennis@linprog4:~> date
Tue Aug 30 09:10:00 EDT 2016
dennis@linprog4:~>
```

```
dennis@dennis-Gazelle-Professional:~$ ssh dennis@linprog.cs.fsu.edu
               DEPARTMENT OF COMPUTER SCIENCE
                  Florida State University
          No mudding, IRC, or other games from here.
                                                                   Server Name
  Please get a private sector account for non-CS activities.
    See http://www.cs.fsu.edu for departmental information.
     See http://system.cs.fsu.edu for Systems information.
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                       Mail
                                    Thumbs.db
                                                        dennis-Inside.pfx
                                                                            mbox
                                    compilers
                                                        dennis-Outside.pfx rec 3 - shared memory
Britton-2013-2-15.pptx My Music
Desktop
                       My Pictures
                                    cop4610t
                                                        desktop.ini
                                                                            rec3.tar
Download
                       My Videos
                                    cop4610t fall 2015 logs
                                                                            temp
dennis@linprog4:~> date
Tue Aug 30 09:10:00 EDT 2016
dennis@linprog4:~>
```

```
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               DEPARTMENT OF COMPUTER SCIENCE
                  Florida State University
                                                                     Command
          No mudding, IRC, or other games from here.
  Please get a private sector account for non-CS activities.
                                                                      Prompt
    See http://www.cs.fsu.edu for departmental information.
     See http://system.cs.fsu.edu for Systems information.
            Send email to help@cs.fsu.edu for help.
                          Attention!!
If you forward your CS email to your FSU emailbox, make sure your FSU
email address is up to date or you may miss important emails.
dennis@linprog4:~> ls
$RECYCLE.BIN
                       Mail
                                    Thumbs.db
                                                        dennis-Inside.pfx
                                                                            mbox
                                    compilers
                                                        dennis-Outside.pfx rec 3 - shared memory
Britton-2013-2-15.pptx My Music
Desktop
                       My Pictures
                                    cop4610t
                                                        desktop.ini
                                                                            rec3.tar
Download
                       My Videos
                                    cop4610t fall 2015 logs
                                                                            temp
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Tue Aug 30 09:10:00 EDT 2016
dennis@linprog4:~>
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```
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$RECYCLE.BIN
                       Mail
                                    Thumbs.db
                                                        dennis-Inside.pfx
                                                                            mbox
Britton-2013-2-15.pptx My Music
                                    compilers
                                                        dennis-Outside.pfx rec 3 - shared memory
                       My Pictures
                                    cop4610t
                                                        desktop.ini
                                                                            rec3.tar
Desktop
Download
                       My Videos
                                    cop4610t fall 2015 logs
                                                                            temp
dennis@linprog4:~> date
Tue Aug 30 09:10:00 EDT 2016
dennis@linprog4:~>
```





```
login as: dennis
dennis@linprog.cs.fsu.edu's password:
           ***************
             DEPARTMENT OF COMPUTER SCIENCE
                 Florida State University
           *************
                                                                                Username
          No mudding, IRC, or other games from here.
  Please get a private sector account for non-CS activities.
    See http://www.cs.fsu.edu for departmental information.
     See http://system.cs.fsu.edu for Systems information.
            Send email to help@cs.fsu.edu for help.
                         Attention!!
If you forward your CS email to your FSU emailbox, make sure your FSU
email address is up to date or you may miss important emails.
dennis@linprog2:~> ls
SRECYCLE.BIN
                                        My Pictures Thumbs.db cop4610t
                                                                                  dennis-Inside.pfx
                                                                                                     desktop.ini
Britton-2013-2-15.pptx Download My Music My Videos
                                                     compilers cop4610t fall 2015 dennis-Outside.pfx logs
dennis@linprog2:~> date
Tue Aug 30 09:22:23 EDT 2016
dennis@linprog2:~>
```

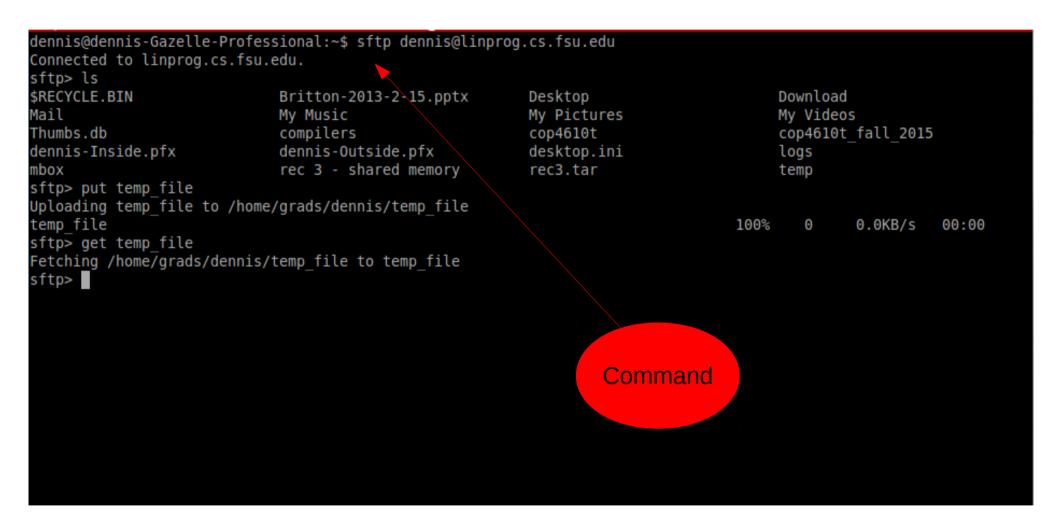
```
login as: dennis
dennis@linprog.cs.fsu.edu's password:
           ***************
              DEPARTMENT OF COMPUTER SCIENCE
                 Florida State University
           *************
                                                                                Password
          No mudding, IRC, or other games from here.
  Please get a private sector account for non-CS activities.
    See http://www.cs.fsu.edu for departmental information.
     See http://system.cs.fsu.edu for Systems information.
            Send email to help@cs.fsu.edu for help.
                         Attention!!
If you forward your CS email to your FSU emailbox, make sure your FSU
email address is up to date or you may miss important emails.
dennis@linprog2:~> ls
SRECYCLE.BIN
                                         My Pictures Thumbs.db cop4610t
                                                                                  dennis-Inside.pfx
                                                                                                     desktop.ini
Britton-2013-2-15.pptx Download My Music My Videos
                                                     compilers cop4610t fall 2015 dennis-Outside.pfx logs
dennis@linprog2:~> date
Tue Aug 30 09:22:23 EDT 2016
dennis@linprog2:~>
```

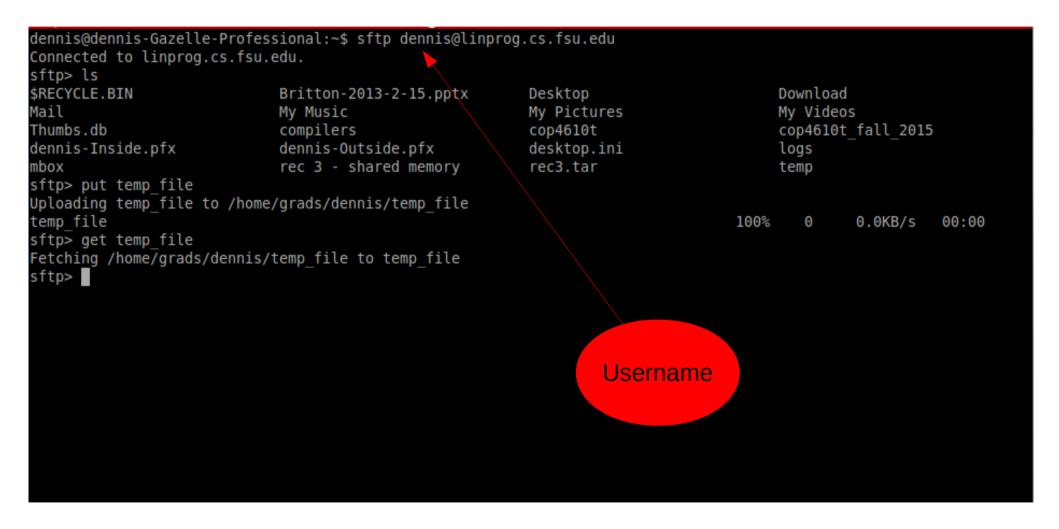
```
login as: dennis
dennis@linprog.cs.fsu.edu's password:
           ****************
              DEPARTMENT OF COMPUTER SCIENCE
                  Florida State University
           *************************
                                                                                   Prompt
          No mudding, IRC, or other games from here.
   Please get a private sector account for non-CS activities.
    See http://www.cs.fsu.edu for departmental information.
     See http://system.cs.fsu.edu for Systems information.
            Send email to help@cs.fsu.edu for help.
                         Attention!!
If you forward your CS email to your FSU emailbox, make sure your FSU
email address is up to date or you may miss important emails.
dennis@linprog2:~> ls
$RECYCLE.BIN
                      Desktop Mail
                                         My Pictures Thumbs.db cop4610t
                                                                                   dennis-Inside.pfx
                                                                                                       desktop.ini
Britton-2013-2-15.pptx Download My Music My Videos
                                                      compilers cop4610t fall 2015 dennis-Outside.pfx logs
dennis@linprog2:~> date
Tue Aug 30 09:22:23 EDT 2016
dennis@linprog2:~>
```

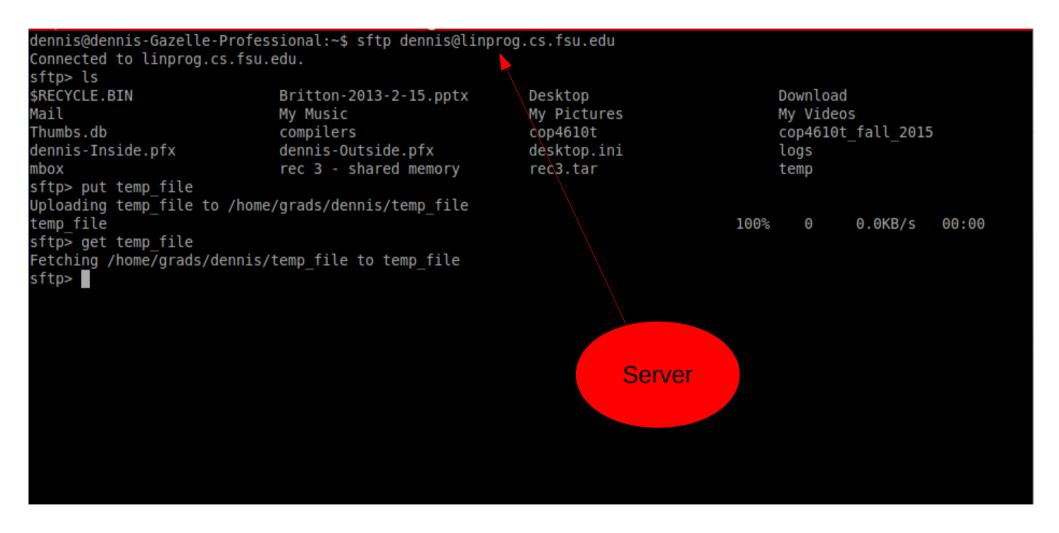
```
login as: dennis
dennis@linprog.cs.fsu.edu's password:
           ****************
              DEPARTMENT OF COMPUTER SCIENCE
                 Florida State University
           *************
                                                                               Commands
          No mudding, IRC, or other games from here.
   Please get a private sector account for non-CS activities.
    See http://www.cs.fsu.edu for departmental information.
     See http://system.cs.fsu.edu for Systems information.
            Send email to help@cs.fsu.edu for help.
                         Attention!!
If you forward your CS email to your FSU emailbox, make sure your FSU
email address is up to date or you may miss important emails.
dennis@linprog2:~> ls
SRECYCLE.BIN
                                         My Pictures Thumbs.db cop4610t
                                                                                  dennis-Inside.pfx
                                                                                                     desktop.ini
Britton-2013-2-15.pptx Download My Music My Videos
                                                     compilers cop4610t fall 2015 dennis-Outside.pfx logs
dennis@linprog2:~> date
Tue Aug 30 09:22:23 EDT 2016
dennis@linprog2:~>
```

#### **SFTP**

- Secure File Transfer Protocol
  - Used to transfer files between machines
- You can use this to
  - Work on your assignments on your machines then upload them to the server to test
  - Work on your assignments on the server and periodically download them as backups







```
dennis@dennis-Gazelle-Professional:~$ sftp dennis@linprog.cs.fsu.edu
Connected to linprog.cs.fsu.edu.
sftp> ls
$RECYCLE.BIN
                                                                                      Download
                                                         Desktop
                            Britton-2013-2-15.pptx
Mail
                            My Music
                                                         My Pictures
                                                                                      My Videos
Thumbs.db
                             compilers
                                                          cop4610t
                                                                                      cop4610t fall 2015
dennis-Inside.pfx
                            dennis-Outside.pfx
                                                         desktop.ini
                                                                                      logs
mbox
                             rec 3 - shared memory
                                                          rec3.tar
                                                                                      temp
sftp> put temp file
Uploading temp file to /home/grads/dennis/temp file
temp file
                                                                                               0.0KB/s
                                                                                  100%
                                                                                                          00:00
sftp> get temp file
Fetching /home/grads/dennis/temp file to temp file
sftp>
                                                                    Prompt
```

```
dennis@dennis-Gazelle-Professional:~$ sftp dennis@linprog.cs.fsu.edu
Connected to linprog.cs.fsu.edu.
sftp> ls
                                                                                     Download
$RECYCLE.BIN
                                                        Desktop
                            Britton-2013-2-15.pptx
Mail
                                                        My Pictures
                            My Music
                                                                                     My Videos
Thumbs.db
                            compilers
                                                        cop4610t
                                                                                     cop4610t fall 2015
dennis-Inside.pfx
                            dennis-Outside.pfx
                                                        desktop.ini
                                                                                     logs
mbox
                            rec 3 - shared memory
                                                        rec3.tar
                                                                                     temp
sftp> put temp file —
Uploading temp file to /home/grads/dennis/temp file
temp file
                                                                                100\%
                                                                                              0.0KB/s
                                                                                                        00:00
sftp> get temp file
Fetching /home/grads/dennis/temp file to temp file
sftp>
                                                                     File
                                                                   Upload
```

Note: local file path is relative to where the command was run from

```
dennis@dennis-Gazelle-Professional:~$ sftp dennis@linprog.cs.fsu.edu
Connected to linprog.cs.fsu.edu.
sftp> ls
                                                                                      Download
$RECYCLE.BIN
                                                         Desktop
                            Britton-2013-2-15.pptx
Mail
                            My Music
                                                         My Pictures
                                                                                      My Videos
Thumbs.db
                             compilers
                                                         cop4610t
                                                                                      cop4610t fall 2015
                            dennis-Outside.pfx
                                                                                      logs
dennis-Inside.pfx
                                                         desktop.ini
                             rec 3 - shared memory
                                                         rec3.tar
mbox
                                                                                      temp
sftp> put temp file
Uploading temp file to /home/grads/dennis/temp file
temp file
                                                                                  100\%
                                                                                               0.0KB/s
                                                                                                         00:00
sftp> get temp file
Fetching /home/grads/dennis/temp file to temp file
sftp>
                                                                      File
                                                                  Download
```

Note: local file path is relative to where the command was run from

Server

```
psftp> open linprog.cs.fsu.edu
login as: dennis
dennis@linprog.cs.fsu.edu's password:
Remote working directory is /home/grads/dennis
osfto> ! dir
Volume in drive C has no label.
Volume Serial Number is 0820-207D
Directory of C:\Users\Britton Dennis\Desktop
08/30/2016
            09:52 AM
                        <DIR>
08/30/2016
            09:52 AM
                        <DIR>
                                       CGS 2060 Summer B 2016
06/12/2016
           12:12 PM
                        <DIR>
           12:24 PM
                        <DIR>
07/22/2013
                                       code
08/30/2016
           09:27 AM
                               359,336 pscp.exe
                               367.528 psftp.exe
08/30/2016
           09:26 AM
                                   911 PSFTP.lnk
08/30/2016
           09:33 AM
08/30/2016
           09:17 AM
                               531,368 putty.exe
07/22/2013
          12:25 PM
                        <DIR>
                                       verilog
               4 File(s) 1.259.143 bytes
                         21.776.527.360 bytes free
               5 Dir(s)
psftp> get temp_file
remote:/home/grads/dennis/temp_file => local:temp_file
psftp> put temp_file
local:temp file => remote:/home/grads/dennis/temp file
psftp> _
```

```
psftp> open linprog.cs.fsu.edu
login as: dennis
dennis@linprog.cs.fsu.edu's password:
                                                                   Username
Remote working directory is /home/grads/dennis
osfto> ! dir
Volume in drive C has no label.
Volume Serial Number is 0820-207D
Directory of C:\Users\Britton Dennis\Desktop
08/30/2016
            09:52 AM
                        <DIR>
08/30/2016
            09:52 AM
                        <DIR>
                                       CGS 2060 Summer B 2016
06/12/2016
           12:12 PM
                        <DIR>
           12:24 PM
                        <DIR>
07/22/2013
                                       code
08/30/2016
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                               359,336 pscp.exe
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08/30/2016
           09:26 AM
           09:33 AM
                                   911 PSFTP.lnk
08/30/2016
08/30/2016
           09:17 AM
                               531,368 putty.exe
07/22/2013 12:25 PM
                        <DIR>
                                       verilog
               4 File(s) 1.259.143 bytes
                         21.776.527.360 bytes free
               5 Dir(s)
psftp> get temp_file
remote:/home/grads/dennis/temp_file => local:temp_file
psftp> put temp_file
local:temp file => remote:/home/grads/dennis/temp file
psftp> _
```

Password

```
psftp> open linprog.cs.fsu.edu
login as: dennis
dennis@linprog.cs.fsu.edu's password:
Remote working directory is /home/grads/dennis
osfto> ! dir
Volume in drive C has no label.
Volume Serial Number is 0820-207D
Directory of C:\Users\Britton Dennis\Desktop
08/30/2016
            09:52 AM
                        <DIR>
08/30/2016
            09:52 AM
                        <DIR>
                                       CGS 2060 Summer B 2016
06/12/2016
           12:12 PM
                        <DIR>
           12:24 PM
                        <DIR>
07/22/2013
                                       code
08/30/2016
           09:27 AM
                               359,336 pscp.exe
                               367.528 psftp.exe
08/30/2016
           09:26 AM
           09:33 AM
                                   911 PSFTP.lnk
08/30/2016
08/30/2016
           09:17 AM
                               531,368 putty.exe
07/22/2013 12:25 PM
                        <DIR>
                                       verilog
               4 File(s) 1.259.143 bytes
                         21.776.527.360 bytes free
               5 Dir(s)
psftp> get temp_file
remote:/home/grads/dennis/temp_file => local:temp_file
psftp> put temp_file
local:temp file => remote:/home/grads/dennis/temp file
psftp> _
```

Directory

```
psftp> open linprog.cs.fsu.edu
login as: dennis
dennis@linprog.cs.fsu.edu's password:
                                                                    Find Local
Remote working directory is /home/grads/dennis
osfto> ! dir
Volume in drive C has no label.
Volume Serial Number is 0820-207D
Directory of C:\Users\Britton Dennis\Desktop
08/30/2016
            09:52 AM
                        <DIR>
08/30/2016
            09:52 AM
                        <DIR>
                                       CGS 2060 Summer B 2016
06/12/2016
            12:12 PM
                        <DIR>
           12:24 PM
                        <DIR>
ロフノ22/2013
                                       code
           09:27 AM
08/30/2016
                               359,336 pscp.exe
                               367.528 psftp.exe
08/30/2016
           09:26 AM
                                   911 PSFTP.lnk
08/30/2016
08/30/2016
            09:17 AM
                               531,368 putty.exe
          12:25 PM
07/22/2013
                        <DIR>
                                       verilog
               4 File(s) 1.259.143 bytes
                         21.776.527.360 bytes free
               5 Dir(s)
psftp> get temp_file
remote:/home/grads/dennis/temp_file => local:temp_file
psftp> put temp_file
local:temp file => remote:/home/grads/dennis/temp file
psftp> _
```

File

Download

```
psftp> open linprog.cs.fsu.edu
login as: dennis
dennis@linprog.cs.fsu.edu's password:
Remote working directory is /home/grads/dennis
osfto> ! dir
Volume in drive C has no label.
Volume Serial Number is 0820-207D
Directory of C:\Users\Britton Dennis\Desktop
08/30/2016
            09:52 AM
                        <DIR>
08/30/2016
            09:52 AM
                        <DIR>
                                       CGS 2060 Summer B 2016
06/12/2016
           12:12 PM
                        <DIR>
           12:24 PM
                        <DIR>
07/22/2013
                                       code
08/30/2016
           09:27 AM
                               359,336 psep.exe
                               367.528 psftp.exe
08/30/2016
           09:26 AM
                                   911 PSFTP.lnk
08/30/2016
08/30/2016
                               531.368 putty.exe
07/22/2013
          12:25 PM
                        <DIR>
                                       verilog
               4 File(s) 1.259.143 bytes
               5 Dir(s) 21.776.527.360 bytes free
psftp> get temp_file
remote:/home/grads/dennis/temp_file => local:temp_file
psftp> put temp_file
local:temp file => remote:/home/grads/dennis/temp file
psftp> _
```

```
psftp> open linprog.cs.fsu.edu
login as: dennis
dennis@linprog.cs.fsu.edu's password:
Remote working directory is /home/grads/dennis
osfto> ! dir
Volume in drive C has no label.
Volume Serial Number is 0820-207D
Directory of C:\Users\Britton Dennis\Desktop
08/30/2016
            09:52 AM
                        <DIR>
08/30/2016
            09:52 AM
                        <DIR>
                                       CGS 2060 Summer B 2016
06/12/2016
           12:12 PM
                        <DIR>
           12:24 PM
                        <DIR>
07/22/2013
                                       code
08/30/2016
           09:27 AM
                               359,336 pscp.exe
                               367.528 psftp.exe
08/30/2016
           09:26 AM
                                   911 PSFTP.lnk
08/30/2016
           09:33 AM
08/30/2016
           09:17 AM
                               531,368 putty.exe
07/22/2013
          12:25 PM
                        <DIR>
                                       verilog
               4 File(s) 1.259.143 bytes
                         21,776,527,360 bytes free
               5 Dir(s)
psftp> get temp_file
remote:/home/grads/depnis/temp_file => local:temp_file
psftp> put temp_file
local:temp file => remote:/home/grads/dennis/temp file
psftp> _
```

File Upload