

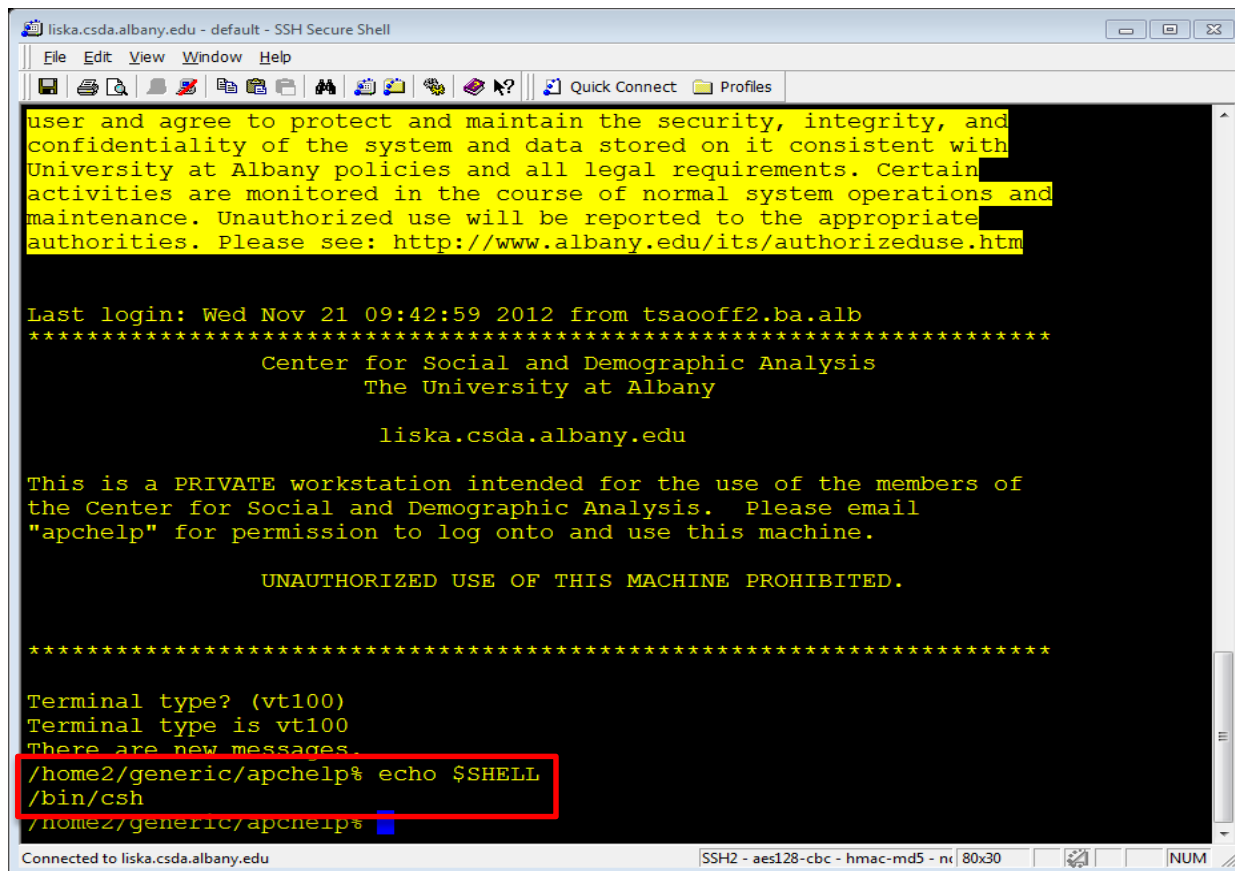
Accessing the CSDA Linux Computing Server

CSDA is dedicated to provide top-notch hardware to enhance associates' research projects. CSDA's Linux server is maintained by the Research IT group ([RIT](#)) of the University's Information Technology Services (ITS) and is running Red Hat Enterprise Linux (RHEL) 6. This help document provides a guideline for navigating the system.

Home directory and login

When a user logs into CSDA's Linux server, his/her home directory is now residing on the RIT's file system, which is separate from the ITS's academic UNIX system. The storage space of a user's home directory is 10 GB. When logging in the new system, the default shell of a user's account inherits from the UNIX account managed by the ITS academic computing. In UNIX/Linux operating system, a shell is a command-line interpreter. Different shells execute the commands differently. For advanced users, if you wish to change your shell, you need to do it on the ITS's UNIX system ([itsunix.albany.edu](#)). It's important to find out what your default shell is before logging in to the new server. To find out your default shell, login to [liska.csdal.albany.edu](#) and type the following command at the prompt:

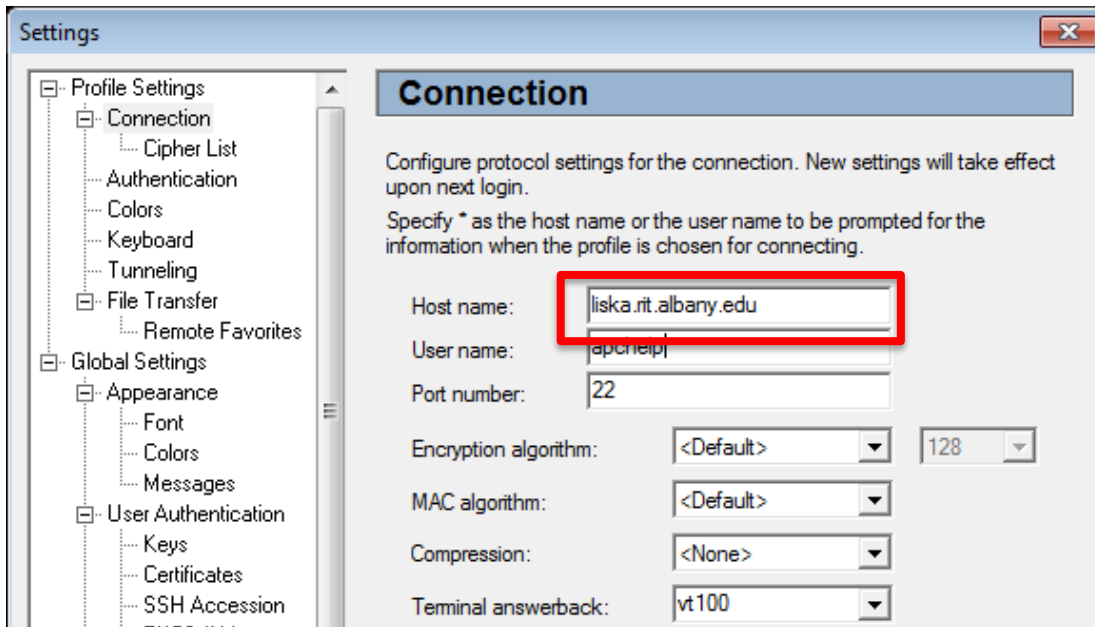
```
echo $SHELL
```



The screenshot shows an SSH terminal window titled "liska.csdal.albany.edu - default - SSH Secure Shell". The terminal displays a yellow warning message about security and confidentiality, followed by login information: "Last login: Wed Nov 21 09:42:59 2012 from tsaooff2.ba.alb". Below this is the center name "Center for Social and Demographic Analysis, The University at Albany" and the host "liska.csdal.albany.edu". A message states: "This is a PRIVATE workstation intended for the use of the members of the Center for Social and Demographic Analysis. Please email 'apchelp' for permission to log onto and use this machine." Below that is "UNAUTHORIZED USE OF THIS MACHINE PROHIBITED." and "Terminal type? (vt100) Terminal type is vt100 There are new messages." The command prompt shows the user typing "echo \$SHELL" and the output is "/bin/csh".

Note that the default shell is csh in this account. A bash shell will return as /bin/bash after you enter the above command.

To connect to the new server, open SSH like you normally would. Once you get to the login screen, instead of typing in "liska.csdal.albany.edu" type in "[liska.rit.albany.edu](#)" and then your Net ID and password. This will connect you to the new server, but you will still need to setup your profile.



After you log into the Linux system, no login profile (or startup configuration) exists at your new home directory. To create a basic login profile, follow below commands instruction. These commands allow users to copy a login profile to their home directory (~/) and make the configuration effective during the current login session. Two different login profiles are created for csh and bash users respectively.

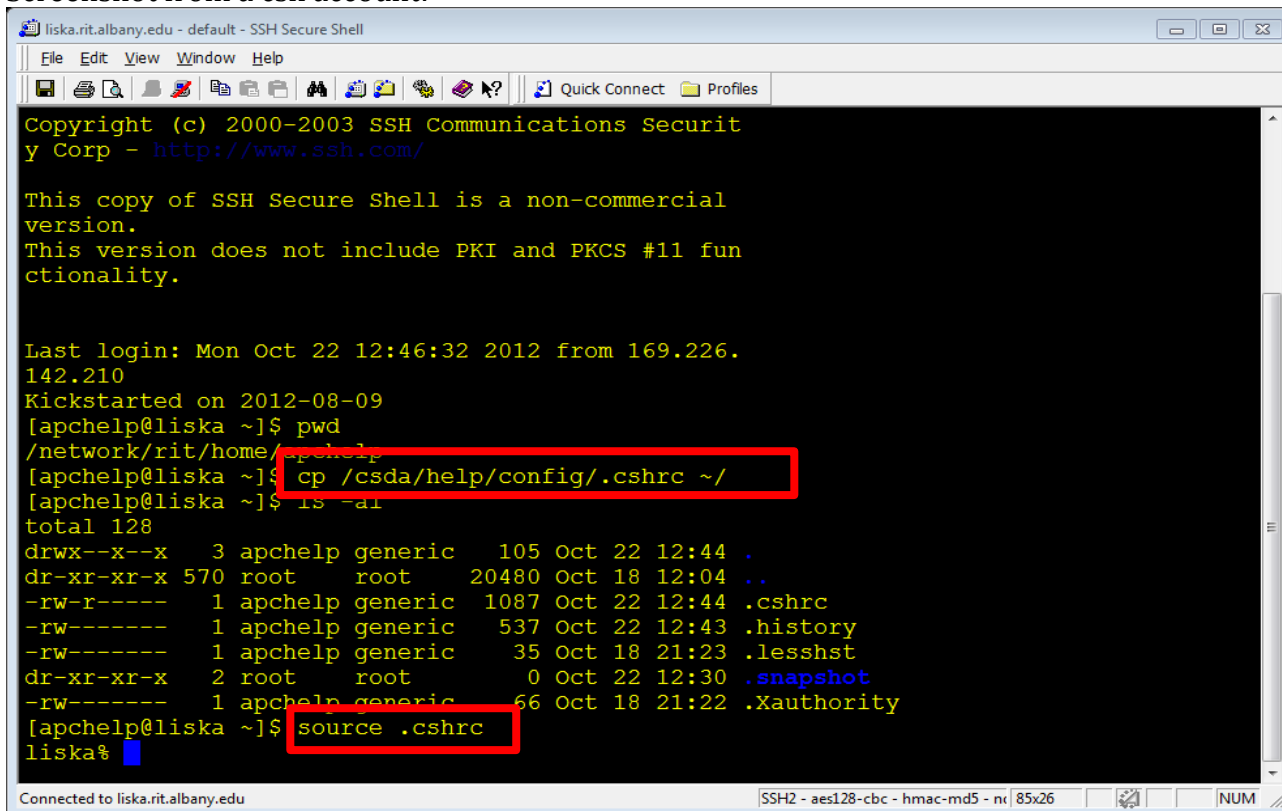
For csh (c-shell) users:

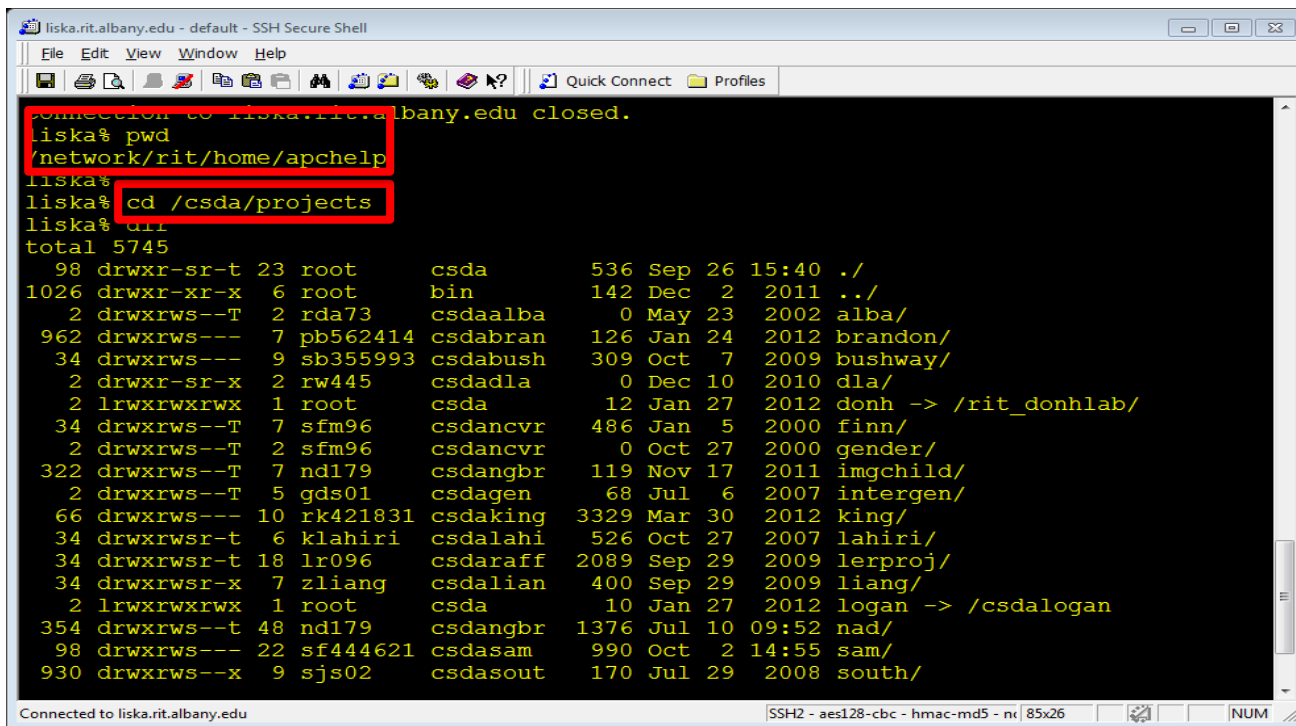
```
cp /csda/help/config/.cshrc ~/
source ~/.cshrc
```

For bash users:

```
cp /csda/help/config/.bash_profile ~/
source ~/.bash_profile
```

Screenshot from a csh account:





```
liska.rit.albany.edu - default - SSH Secure Shell
File Edit View Window Help
Quick Connect Profiles
Connection to liska.rit.albany.edu closed.
liska% pwd
/network/rit/home/apchelp
liska%
liska% cd /csda/projects
liska% ll
total 5745
 98 drwxr-sr-t 23 root      csda      536 Sep 26 15:40 ./
1026 drwxr-xr-x  6 root      bin       142 Dec  2 2011 ../
  2 drwxrws--T  2 rda73    csdaalba  0 May 23 2002 alba/
962 drwxrws---  7 pb562414 csdabran 126 Jan 24 2012 brandon/
 34 drwxrws---  9 sb355993 csdabush 309 Oct  7 2009 bushway/
  2 drwxr-sr-x  2 rw445    csdadla   0 Dec 10 2010 dla/
  2 lrwxrwxrwx  1 root     csda      12 Jan 27 2012 donh -> /rit_donhlab/
 34 drwxrws--T  7 sfm96    csdancvr 486 Jan  5 2000 finn/
  2 drwxrws--T  2 sfm96    csdancvr  0 Oct 27 2000 gender/
322 drwxrws--T  7 nd179    csdangbr 119 Nov 17 2011 imgchild/
  2 drwxrws--T  5 gds01    csdagen  68 Jul  6 2007 intergen/
 66 drwxrws--- 10 rk421831 csdaking 3329 Mar 30 2012 king/
 34 drwxrwsr-t  6 klahiri  csdalahi 526 Oct 27 2007 lahiri/
 34 drwxrwsr-t 18 lr096    csdaraff 2089 Sep 29 2009 lerproj/
 34 drwxrwsr-x  7 zliang   csdalian  400 Sep 29 2009 liang/
  2 lrwxrwxrwx  1 root     csda      10 Jan 27 2012 logan -> /csdalogan
354 drwxrws--t 48 nd179    csdangbr 1376 Jul 10 09:52 nad/
 98 drwxrws--- 22 sf444621 csdasam  990 Oct  2 14:55 sam/
930 drwxrws--x  9 sjs02    csdasout  170 Jul 29 2008 south/
Connected to liska.rit.albany.edu
SSH2 - aes128-cbc - hmac-md5 - nr 85x26 NUM
```

On the Linux server, a user's home directory now is located at `/network/rit/home/<your netid>`. Since the CSDA data file structure remains the same, users can navigate the system by using the same commands as in the old system.

Editors

The main editors available on the server are **nano**, **emacs**, and **vim**. **Nano** is the replacement of **pico**, which is no longer maintained by GNU. Here is a sample list of tutorials for the editors available on the public domain. To evoke the editor, simply type the editor's name in lower case.

nano:

- [nano official site](#)
- [The Beginner's Guide to Nano](#)
- [Nano editor tutorials](#)

emacs:

- [A Guided Tour of Emacs](#)
- [A Tutorial Introduction to GNU Emacs](#)
- [Emacs Beginner's HOWTO](#)
- [GNU Emacs Reference](#)
- [Basic Emacs Editor Commands](#)

vi:

- [The Vi Editor Tutorial](#)
- [A Quick and Simple Introduction to Vi Text Editor](#)
- [Basic Vi Commands](#)
- [Beginner Guide to Vi Editor](#)

Storages

RIT allocates 10 GB disk space to each user at the home directory managed by the RIT's file server. CSDA also maintains file storage space for research projects at **/csda/projects** directory. The **/tmp** directory on **liska.rit.albany.edu** has 50 GB of space and 7-day cleaning period. Any files older than seven days without modification will be deleted from **/tmp** and the **/tmp** directory is not backed up.

Statistical Software

Statistical packages available on the new server are **SAS, Stata SE 14, R, RStudio, MPlus, and SPlus.**

Executing Scripts

Users can continue to write executable script files to automate tasks. To run an executable script, type a dot, a forward slash and the file name (with no spaces in between) and then pressing the ENTER key.

For example,

```
./fixdir
```