Project Volumes on Andrew

This document contains the following sections:

For information related to this topic refer to:

- Andrew Files and Directories (http://www.cmu.edu/computing/doc/unix/unix-andrew/index.html)
- Andrew Linux Support Statement (http://www.cmu.edu/computing/doc/os/linux.html)
- Increasing and Managing Your AFS Quota (http://www.cmu.edu/computing/doc/unix/andrew-acct/quota.html)
- Setting Directory Protections and Using PTS Groups in Andrew (http://www.cmu.edu/computing/doc/unix/pts-groups/index.html)
- Using Unix and the Andrew System (http://www.cmu.edu/computing/doc/unix/unix-andrew/index.html)
- Your Andrew Unix Account (http://www.cmu.edu/computing/doc/unix/andrew-acct/index.html)

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What are Project Volumes

Project volumes are areas of disk space in the Andrew File System distinct from a user's private disk space. The following are two cases when obtaining a project volume would be useful:

- When there are a large number of files associated with the project and not enough room in the user's personal account.
- When other people need access to the project files and the user doesn't want to use his/her personal account.

For more information about space allocation and your private disk space, see the (http://www.cmu.edu/computing/accounts/index.html) Andrew Accounts web page. This document contains information about how to check your quota and how much quota you are allocated as a single user.

Ownership of Materials in Project Volumes

Below are general guidelines for ownership of materials stored in project volumes. In this context, ownership refers to intellectual rights to the material in the volume, not the "owner" user ID in the project volume request.

Ownership

- Undergraduate research and non-funded graduate research is the sole property of the user for whom the project volume is created.
  Note: Although in this case the data belongs solely to the student, the space is allocated to the academic advisor and the duration of the allocation is the decision of the academic advisor.
- Funded research is the property of the user, the principle investigator and the university.
- Teaching materials are the sole property of the faculty/staff member for whom the project volume was created.
- Project space created for employees for work purposes is the property of their supervisor and the university.

Removal

- Volumes owned solely by the user for whom they were created will be removed from the system when the user leaves the university unless the owner requests in advance that the space and materials be turned over to their department or to a colleague.
- Except as noted above, volumes will not be removed from the system on or after the expiration date without first attempting to contact the owner or sponsor to determine if an extension is needed.
- Volumes that are jointly owned will not be removed from the system until the appropriate supervisor or faculty advisor has been contacted.

How to Request a Project Volume

To request a project volume, complete the form on the Requesting a Project Volume (http://www.cmu.edu/computing/accounts/projvol/form/index.html) web page.

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Setting Access Rights

Your ability to read, add, delete and modify the files in your project volume is determined by your access rights to that directory.

- By default, you have full administrative rights to your project volume. This means that you may read, add, delete and modify your files. As administrator, you may also give or take away any set of rights to any user.
- By default, **system:anyuser** has the ability to read your files. The group **system:anyuser** is defined as anyone with an Andrew userID.

You may give or remove access to your project volume by changing the access rights of any user or group of users. To do this, you must launch a telnet session and enter a few simple UNIX commands.

Note: We recommend using the following telnet clients:

- Windows: Using SSH/SFTP Secure Shell Client (http://www.cmu.edu/computing/doc/software/ssh/index.html)
- Mac: Using Terminal (http://www.cmu.edu/computing/doc/software/terminal/index.html)

Follow these steps to view or set access rights on your project volume:

1. Launch a telnet client.
2. You need to connect to the host **unix.andrew.cmu.edu**.
3. Use the **cd** (change directory) command to change to your Project Volume directory, then press **Enter**. For example, to change into a Project Volume directory called /afs/andrew/course/76/271-Summer/juser, enter the following at the command prompt, then press **Enter**:
   cd /afs/andrew/course/76/271-Summer/juser
   Note: Be sure to include a space after the "cd" command. Also remember that UNIX commands are case sensitive; there IS a distinction between upper and lower case letters. If you need help with entering UNIX commands, refer to the Commonly Used UNIX Commands section of the Using UNIX and the Andrew System (http://www.cmu.edu/computing/doc/unix/unix-andrew/index.html) document.
4. You are now in your project volume directory. To display the current access rights, enter the following at the command prompt, then press Enter:
   fs la
5. The access rights of the current directory are displayed. For example, the default rights displayed on a project volume owned by "juser" might appear as follows:
   % fs la
   Access list for . is
   Normal rights:
   system:anyuser rl
   juser rlidwka

Note: For a list of access rights and definitions, refer to the Types of Rights section of the (http://www.cmu.edu/computing/doc/unix/pts-groups/index.html) Using PTS Groups and Setting Protections in Andrew document.

6. Use the **fs sa** command to set new access rights. For example, to give "read" access rights to user "ju33" for the directory "/afs/andrew.cmu.edu/course/76/271-Summer/juser", enter the following at the command prompt, then press **Enter**:
   fs sa /afs/andrew.cmu.edu/course/76/271-Summer/juser ju33 rl
   Note: Be sure to include spaces between each part of the command line.
7. To review the access rights that you just set, type **fs la** at a command prompt. The updated access rights appear. Notice that ju33 now has read (rl) rights.
   %fs la
   Access list for . is
   Normal rights:
   system:anyuser rl
   ju33 rl
   juser rlidwka
8. Use the **fs sa** command to change access rights. For example, to give userid ju33 additional rights to write, enter the following then press **Enter**:
   fs sa /afs/andrew.cmu.edu/course/76/271-Summer/juser ju33 rlidwk
   Note: Access rights are not cumulative. In other words, the rlidwk rights set in the step above have replaced the previous rl rights set in the previous step.
9. To remove all access rights from ju33, enter the following, then press **Enter**:
   fs sa /afs/andrew.cmu.edu/course/76/271-Summer/juser ju33 none
10. To exit UNIX, type **logout**, then press **Enter**. Select **File > Exit**.

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Using Your Project Volume

To use your project volume, first create files on your computer, then copy them to your project volume via a file transfer program. You can download any of the following file transfer programs from the Software download (http://www.cmu.edu/computing/software/all/index.html) web page.

On Windows machines use:

- **SSH/SFTP**
  For help with using this application, read Using SSH/SFTP Secure Shell on Windows (http://www.cmu.edu/computing/doc/software/ssh/index.html)

On Macintosh machines use:

- **Fetch**
  For help with using this application, read Using Fetch (http://www.cmu.edu/computing/doc/software/fetch/index.html)
- **Fugu SFTP Secure Shell Client**
  For help with using this application, read Using Fugu SFTP (http://www.cmu.edu/computing/doc/software/fugu/index.html)

Follow these steps to transfer files into your project volume:

1. Launch the ftp program of your choice.
2. The server or hostname you will need to connect to is **unix.andrew.cmu.edu**. Once connected, you must change directory into your project volume directory. For example. Following the examples used previously, that would be: /afs/andrew/course/76/271-Summer/juser

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