

# Petafs Installation and Usage Handout

## 1. Installation

- **Download the package**

Let's first get the source of Petafs client tool from PetaShare website:

go to:

<http://www.petashare.org>

click 'Downloads' from the menu on the right side.

click to 'petafs package v.2.0'

OR,

you can click the link below, or copy and paste it to address bar of your browser to start to download the package...

<http://www.cct.lsu.edu/~akturk/petashare/downloads/petafs/petafs-2.0.tar.gz>

save the package in a convenient place.

- **Decompress the package**

go to the directory where you downloaded Petafs package.

```
$ cd <parent directory of Petafs>
```

then, run the following command to decompress it...

```
$ tar xvfz petafs-2.0.tar.gz
```

this should show some output and create a directory called petafs-2.0

next, go into the petafs-2.0 directory:

```
$ cd petafs-2.0
```

- **Run setup script to compile and install petafs**

```
$ ./setup
```

this should take a while to finish...

**Note:** If you get any error message that complains about fuse, please run setup script with `--fuse-home` option where you need to give the path of fuse libraries in your system. By default it looks into `/usr/lib`, `/usr/local/lib` directories.

```
$ ./setup --fuse-home /usr/local/packages/fuse/lib
```

Also, you need to be sure that fuse libraries are included into `LD_LIBRARY_PATH` variable, and '**fusermount**' is actually in your `PATH`. After then, you need to source new environment variables to access petafs conveniently.

```
$ source ~/.petafs/.bashrc. petafs
```

you should source the appropriate file according to your shell:

if you are using bash: `~/petafs /.bashrc. petafs`  
if you are using C shell: `~/petafs /.cshrc. petafs`  
if you are using TC shell: `~/petafs /.tcshrc. petafs`  
if you are using Korn shell: `~/petafs /.profile. petafs`

OR,

you can open a new terminal to start play with Petafs directly...

Note that, binary of petafs is located in:  
`<petafs home directory>/bin`

## 2. Authentication

### ● Setting Up Account and Password

Petafs package comes with default account called 'testuser'. If you do not have existing PetaShare account, you can use 'testuser' account for testing purposes. However, this account is not safe place to put your essential data since it is accessible by anyone.

You can set up PetaShare account by running 'petafs' command with -c option:

```
$ petafs -c
```

It will ask your PetaShare username. For this tutorial you should type the given username and password.

After providing username and password, you are ready to access your allocation.

You need to use 'petafs -c' command only once, it will keep your authentication information in scrambled format for further accesses.

**Note:** You should run 'petafs -c' command before running petafs itself when you get a real PetaShare account to activate it and set up your new credentials.

## 3. Usage Example

After setting your account and credentials, you are ready to use petafs.

### ● Mounting a PetaShare site into your system

To mount a PetaShare site to your system, you should simply run:

```
$ petafs -m siteName
```

where siteName is the name of the PetaShare site you want to mount, such as lsu, tulane, uno...

By default, it mounts specified site into the `~/petashare` directory. You can override it by specifying mount point explicitly:

```
$ petafs -m siteName ~/mountHere
```

After PetaShare site successfully gets mounted, you are allowed to access PetaShare resource through your filesystem...

For example to list your home directory in PetaShare you just need to type:

```
$ ls ~/mountHere/lsu/tempZone/home/userXX
```

this will list the content of your home directory.

With petafs you can access PetaShare directories and files as similar as your local directories and files...

If you want to edit foo1.dat file in PetaShare, you can call your favorite text editor as follows:

```
$ vi ~/mountHere/lsu/tempZone/home/userXX/directoryName/foo1.dat
```

> “Hi, this file is edited through Petafs”

and you can show the content of the file by running:

```
$ less ~/mountHere/lsu/tempZone/home/userXX/directoryName/foo1.dat
```

This should print to screen:

“Hi, this file is edited through Petafs”

You can change your current directory, remove your directories and files in PetaShare, copy directories and files to PetaShare by running posix commands...

To change current workig directory:

```
$ cd ~/mountHere/lsu/tempZone/home/userXX
```

To print current directory:

```
$pwd
```

```
/home/akturk/mountHere/lsu/tempZone/home/userXX
```

To create a new directory:

```
$ mkdir lastDirectory
```

To copy directory from local machine to PetaShare:

```
$ cp -r ~/FOO_DIR lastDirectory/
```

### ● **Unmounting PetaShare site from your system**

You should run petafs with -u option to unmount the mounted PetaShare site from your system.

```
$ petafs -u siteName
```

or,

```
$ petafs -U
```

to unmount all mounted PetaShare sites(use capital U)