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FAQs

What is myNAS?

The myNAS portal and mobile applications help you monitor your PBS jobs. With the myNAS portal, you can also check your allocation and usage. With the mobile applications, you can receive notifications when your jobs change status or produce output.

For more information, see the following articles:

- [Using the myNAS Portal](#)
- [Installing the myNAS Mobile App](#)
- [Using the myNAS Mobile App](#)

How do I list all of my projects (GIDs)?

You can view the project group IDs (GIDs) that you belong to by logging into the myNAS portal or by running the **groups** command.

The myNAS portal shows all the GIDs you belong to, along with their project names and descriptions, and provides a central location where you can easily monitor your PBS jobs and check allocation and usage. For more information, see [Using the myNAS Portal](#).

You can run the **groups** command with your username to list all the GIDs that you belongs to. The following example shows that user *zsmith* is a member of the groups a0800, a0907, and e0720:

```
%groups zsmith
zsmith : a0800 a0907 e0720
```

If you do not know the project names that the GID numbers represent, you can check the myNAS portal or contact the NAS Control Room at (800) 331-8737, (650) 604-4444, or support@nas.nasa.gov.

For more information about project groups and GID charges, see [Charging to a Project Group ID \(GID\)](#).

How do I find out how many hours I have used and/or have left?

To obtain resource usage information about all of the project group IDs (GIDs) that you belong to, you can:

- Log into the myNAS portal
- Run the job accounting utilities **acct_ytd** or **acct_query**

The myNAS portal shows all the GIDs you belong to and provides a central location where you can easily check allocation and usage and monitor PBS jobs. For more information, see [Using the myNAS Portal](#).

To use the **acct_ytd** utility to view the number of hours remaining for all of your projects on all systems, run:

```
acct_ytd -c all
```

To view the number of hours remaining for a specific project across all systems, specify the GID. For example:

```
acct_ytd -c all a0800
```

You can also obtain detailed billing information, such as the number of SBUs that have been used in the current operating year, by using the **acct_query** utility.

For more information about how to use these utilities, see [Job Accounting Utilities](#), **man acct_ytd**, and **man acct_query**.

Why won't my job start?

A job might not start for one of the following reasons:

- The queue has reached its maximum run limit
- Your job is waiting for resources
- Your mission share has run out
- The system is going into dedicated time
- Scheduling is turned off
- Your job has been placed on hold
- Your home filesystem or default /nobackup filesystem is down
- Your hard quota limit for disk space has been exceeded

You can often determine the reason a job does not start by running one of the following commands to view job status and information:

- To view job status and events that might specify the reason a job failed to start, run **tracejob job_id** on the PBS server **pbsp11**
- To view all available information about the job, including status or any comments added by the administrator or scheduler that may explain why the job didn't start, run **qstat -as job_id** on any Pleiades front-end system
- To find out whether the system is in dedicated time, run **schedule all**

See [Common Reasons Why Jobs Won't Start](#) for more detailed troubleshooting information.

How do I find my /nobackup (scratch) directory?

To find the /nobackup system that is assigned to you, type:

```
pfe21% ls -ld /nobackup*/your_username
```

In the following example, the output shows that the **/nobackupp2** directory is assigned to user *zsmith*:

```
pfe21% ls -ld /nobackup*/zsmith
lrwxrwxrwx 1d root root 19 Dec 23 2012 /nobackup/zsmith -> /nobackupp2/zsmith
```

For more information about how /nobackup directories are used, see [Pleiades Lustre Filesystems](#).

What should I do when I reach my quota?

When the amount of data in your Pleiades home directory or your Pleiades /nobackup directory exceeds the soft quota, you will receive an email informing you of your current usage and how much grace period remains.

It is expected that your data will occasionally exceed the soft quota, as needed. However, if your data still exceeds the soft quota after 14 days or if it exceeds the hard quota you must delete unneeded files and archive infrequently used files until the amount of data is below the soft limit. To archive files, transfer them to

How do I find out how many hours I have used and/or have left?

the Lou mass storage system.

If you have a long-term need for higher quota limits, send a justification to support@nas.nasa.gov. Your request will be reviewed by management for approval.

For more information, including quota limits, see:

- [Quota Policy on Disk Space and Files](#)
- [Pleiades Home Filesystems](#)
- [Pleiades Lustre Filesystems](#)
- [Lou Mass Storage System](#)

How do I find available software packages (pkgsrc)?

Software programs on NAS systems are managed as modules or packages. For a list of available modules and packages, see [Software on NAS Systems](#).

To learn how to find detailed information about software packages in the pkgsrc collection, see [Using Software Packages in pkgsrc](#).

What are the requirements for creating a password?

Passwords must:

- Have a minimum of 12 characters
- Be different from your previous 24 passwords
- Include characters from at least three of the following types:
 - ◆ Uppercase letters
 - ◆ Lowercase letters
 - ◆ Numbers
 - ◆ Special characters (e.g., \$! @ #)

Passwords must not contain:

- Your name, Agency User ID (AUID), birth date, Social Security number, family member or pet's name, or any other personal information
- A division or branch name
- A dictionary word of any language
- The name of a sports team, automobile, vendor, contractor, product, or product nickname
- Repetitive characters or keyboard patterns (for example, "abc#ABC", "1234", "qwerty")

For more guidance, see [Password Creation Rules](#).

When I change my NAS password, does it propagate to all systems?

Yes. When you change your password, the new password is propagated to all of the systems in the NAS high-performance computing (HPC) environment, including:

- All systems within the secure enclave
- Secure front-end (SFE) systems
- Secure Unattended Proxy (SUP)
- DMZ file transfer server

What should I do when I reach my quota?

The password change will propagate to all the systems within a few minutes. If a system continues to request a password change after approximately 15 minutes, or if you see an error message, contact the NAS Control Room at (800) 331-8737 or (650) 604-4444.

For more information, see the [HPC Environment Overview](#).

Why is my code performing poorly?

There are many possible reasons for poor code performance. If your code is not performing well, see [Optimization/Troubleshooting > Code Development](#) for articles that can help you troubleshoot the issue.

If you cannot determine the problem, send an email to support@nas.nasa.gov with the following information:

- The full path to the location of your source code and the makefile, if any
- Test case data and expected results
- The job submission script
- Any additional files that demonstrate poor performance, such as a log file that shows a runtime that is longer than expected

Your request will be acknowledged and routed to our code optimization specialists for resolution. For more information on HECC code optimization services, see [Application Optimization Services](#).

How do I transfer files to/from NAS supercomputers?

You can use several methods to transfer files to and from the NAS supercomputers, depending on the size of your files, your system setup, and other considerations. See [Remote File Transfer Commands](#) for a list of these methods and how to use them.

TIP: We recommend using the [Shift transfer tool](#) to copy files from Lou or to extract tar files.

Why is it taking so long to copy my files from Lou?

Your files may have been migrated offline, from disk to tape. Depending on the size of the files and how busy the tape drive is, it might take a long time for the Data Migration Facility (DMF) to retrieve them from tape.

You can use the `dmget` command to transfer the files back online, from tape to disk. To learn how to use this command most effectively with your files, see [Dealing with Slow File Retrieval](#).

TIP: Use the Shift transfer tool to copy files from Lou or to extract tar files. Shift automatically retrieves files from tape as part of the transfer operation.

See also:

- [Data Migration Facility \(DMF\) Commands](#)
- [Shift Transfer Tool Overview](#)

How can I find out whether my file is on tape or disk?

On the Lou mass storage system, the Data Migration Facility (DMF) manages disk space by moving unused files to storage on tape.

Use the **dm1s** command on Lou to determine whether a file is on tape or disk. The output shows the state of each file. For example:

```
lou dm1s -l
total 220
-rw-r----- 1 aeneuman madmag      20155 Mar  2 11:24 (REG) A
-rw-r----- 1 aeneuman madmag    1209300 Mar  3 11:24 (OFL) B
-rw-r----- 1 aeneuman madmag     201550 Mar  3 11:18 (DUL) C
```

In this example:

- File A is in REG (regular) state, which indicates it is on disk
- File B is in OFL (offline) state, which indicates it is on tape
- File C is in DUL (dual) state, which indicates that identical copies of the file exist on both disk and tape

When a file is in dual state, the online (disk) copy will persist if there is no demand for free space in its filesystem. When free space is needed, the online copy of the file is removed, leaving just the offline copy. In this case, the file state will change from DUL to OFL. If you make any change to a dual-state file, the offline copy becomes out of date and invalid. In this case, DMF will treat it as a completely new file and the file state will change from DUL to REG.

For a list of other possible file states, see [Data Migration Facility \(DMF\) Commands](#).

How do I retrieve my files from tape?

You can use the **dmget** command to retrieve files that have been archived to tape. For more information about using the **dmget** command, and further explanation of data migration and storage, see [Data Migration Facility \(DMF\) Commands](#).

I accidentally deleted some files. Can I get them back?

Yes, you can recover deleted files if you deleted them from your home directory on Pleiades or Lou. Call NAS User Services at (800) 331-8737 or (650) 604-4444, or send an email to support@nas.nasa.gov with the filenames, paths, and the dates they were last modified.

If you deleted the files from a /nobackup directory, the files cannot be restored. For more information on filesystem management, see [Pleiades Lustre Filesystems](#).

How do I request longer wall time, higher priority, or larger disk quota?

You can make special requests for various job-related changes, such as longer wall-clock time, higher job priority, or increased disk quotas.

- To request longer wall time or higher priority placement in the job queue, call the NAS Control Room at (800) 331-8737 or (650) 604-4444.
- To request a larger disk quota, send an email to support@nas.nasa.gov with a justification for the quota increase and an estimate of the amount needed. Your request will be routed to HECC management for approval.

For more information about how job priority and quotas are determined, see [How PBS Schedules Jobs and Quota Policy on Disk Space and Files](#).

How do I add more hours to my account?

Only principal investigators (PIs) can make allocation requests.

If you want to add more hours to your account, contact your PI.

For PIs: See [Requesting an Allocation](#).

How do I activate and use my RSA SecurID token?

Depending on the type of RSA SecurID token you have, see one of the following articles for step-by-step instructions.

- [Enabling Your RSA SecurID Hard Token \(Fob\)](#)
- [Enabling Your RSA SecurID Soft Token \(Mobile App\)](#)

If you have any difficulty using your RSA SecurID token, contact the NAS Control Room at (800) 331-8737 or (650) 604-4444.

I can't log in/My password is not working/My account is locked

In general, when you have problems logging in with your NAS password or RSA SecurID passcode, call the NAS Control Room at (800) 331-8737 or (650) 604-4444.

- If you are a current user with an existing account on a NAS system, and you are approved to get an account on another machine, your password on the new machine is the same as your current NAS password. If you don't remember this password, call the Control Room. The staff will provide you with a new default password.
- If you are a new user and you do not know your default NAS password, call the Control Room. To learn more about first-time login steps, which include obtaining your default password and enabling your RSA SecurID token, see [Logging Into NAS Systems for the First Time](#).

Note: Due to security requirements, Control Room staff will confirm your identity by asking you the security question that you submitted with your account request form, or by calling you back at your work phone number on record. If your phone number has changed due to office moves or reorganizations, the Principal Investigator (PI) for your project must contact the Control Room and provide the reason for the change, either by phone or by sending an email to support@nas.nasa.gov. If your PI is unavailable, your branch chief or division chief may do this for you.

You will be prompted to change your default password when you log in to a NAS system. See [Password Creation Rules](#) for guidance.

How do I acknowledge the use of NASA computing resources in my publication?

When you publish your research based on the use of NAS-provided high-end computing resources, please include language in your acknowledgments similar to the following example:

Resources supporting this work were provided by the NASA High-End Computing (HEC) Program through the NASA Advanced Supercomputing (NAS) Division at Ames Research Center.

For information on reporting requirements for the Science Mission Directorate (SMD) and examples of acknowledgments for the use of other NASA computing resources, please see the [High-End Computing Program's guide](#).

How do I check my quotas?

To check the disk quota on your Pleiades home directory (or nobackupnfs2 directory), run the `quota -vs` command.

To check the file quota on your Lou home directory, run the `quota -vs` command from a Lou front-end system (lfe).

To check the disk quota on your Pleiades Lustre (/nobackup) directory, use `lfs quota` as follows:

```
% lfs quota -hu your_username /nobackup/your_username
```

For more information about these filesystems and about quota policies, see the following articles:

- [Pleiades Home Filesystem](#)
- [Pleiades Lustre Filesystems](#)
- [The Lou Mass Storage System](#)

How do I profile my Python code?

To profile a Python application on Pleiades, we recommend using Intel's VTune software package.

For information about how to use VTune, see [Finding Hotspots in Your Code with the Intel VTune Command-Line Interface](#).