



Military Supercomputing: Your HPC Account

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Overview

1 Requesting Your Account

2 HPC Resources

3 HPC Modernization Program



HPCMP Wants Users

With a click from your FSO, you get **100 CPU hours.**



Requesting Your Account

HPC Resources

HPC Modernization Program

You Get 100 Free CPU Hours
Account Process
Registration in pIE
After Requesting Your Account



Google HPCMP or ...

Google
Year in Search 2004

hpcmp

All Images News Videos Shopping Forums Maps More Tools

hpcmp <https://www.hpc.mil/>

The Department of Defense (DoD) established the High Performance Computing Modernization Program (HPCMP) as a department-wide program to provide DoD scientists, ...

Getting Started
Activating your Account. To complete and activate your pIE ...

HPC Centers
Welcome to HPC Centers, one of three organizational pillars of ...

HPC Portal
The HPC Portal provides you with native web tools that allow ...

Unclassified Systems
It has 1,384 standard compute nodes, 16 large-memory nodes ...

Portal to the Information ...
The portal to the Information Environment (pIE) is a web ...

More results from hpc.mil »

People also ask :

What does the acronym HPCMP stand for?

What is the budget of the HPCMP?

What is HPC MIL?

What is the Dren network?

Feedback

W Wikipedia
https://en.wikipedia.org/w/index.php?title=High_Performance_Computing_Modernization_Program&oldid=100000000

High Performance Computing Modernization Program

The HPCMP provides supercomputers, a national research network, high-end software tools, a secure environment, and computational science experts that together ...

DOD HPC
DEFENSE HIGH PERFORMANCE COMPUTING MODERNIZATION

The United States Department of Defense High Performance Computing Modernization Program was initiated in 1992 in response to Congressional direction to modernize the Department of Defense laboratories' high performance computing capabilities. [Wikipedia](#) >

Headquarters: [Vicksburg, MS](#)
Director: [Kevin Newmeyer \(Acting\)](#)
ASN: 668

Profiles

LinkedIn X (Twitter)

Feedback



Your Part Is Easy-ish: Instructions

- ① Connect to the **registration system** at
<https://ieapp.hpc.mil>
- ② Request a **pIE account**
- ③ Complete¹ **Cyber Security Challenge**
- ④ Middleware: CAC reader
- ⑤ Middleware: Kerberos

¹Send a copy of your signed Certificate of Completion to your S/AAC





Requesting Your Account
HPC Resources
HPC Modernization Program

You Get 100 Free CPU Hours
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Start Here: <https://centers.hpc.mil>

The screenshot shows the official website for the High Performance Computing Centers at the Defense Department (DoD HPC). The main banner features a collage of aerospace and defense imagery, including a satellite, a globe, a fighter jet, a helicopter, and a missile, with the text "DAV CENTER DATA ANALYSIS & VISUALIZATION". Below the banner, a message indicates that DAAC is now the DAV Center, noting the renaming from Data Analysis and Assessment Center to Data Analysis and Visualization Center. A "Read More" link is provided. To the right of the banner is a grid of four buttons: "Get an Account" (highlighted with a blue arrow), "HPC Systems", "Technical Documents", and "For Users". Below this grid is a large blue button labeled "Get an Account". The "Upcoming Maintenance" section lists several events with details like date, system affected, and nature of maintenance. At the bottom of the page, there's a footer with links for Home, About, Systems, For Users, News & Publications, and User Dashboard, along with a small note about the DoD's information security policies.

| Date | System | Details |
|---|--------------------|----------------------|
| 2024 Dec 01 00:00 - Dec 15 00:00 ET (In Progress) | AFRL - Raider | System Maintenance |
| 2024 Dec 09 00:00 - Dec 29 13:00 ET (In Progress) | AFRL - All Systems | Network Maintenance |
| 2024 Dec 10 00:00 - 10:00 CT (Completed) | NAVY - Hanibal | Software Maintenance |
| 2024 Dec 11 09:00 - 13:00 CT (Completed) | NAVY - Neutilus | Software Maintenance |
| 2024 Dec 16 00:00 - 17:00 HI | MHPOC - Portal | System Maintenance |
| 2024 Dec 16 07:30 - Dec 17 00:00 HI | MHPOC - Reef | System Maintenance |
| 2024 Dec 17 11:00 - 15:00 CT | NAVY - All Systems | Network Maintenance |
| 2024 Dec 18 20:30 - Dec 19 00:00 HI | MHPOC - Builder | System Maintenance |
| 2024 Dec 23 08:00 - 10:00 ET | AFRL - All Systems | Network Maintenance |
| 2025 Jan 06 08:00 - Jan 20 08:00 CT | EFDC - Carpenter | Software Maintenance |



Start Here: <https://centers.hpc.mil>

The screenshot shows a web browser window for the DOD HPC website at <https://centers.hpc.mil/users/index.html#accounts>. The page has a sidebar on the left with links like 'Getting Started', 'HPC Help Desk', 'Video Series', 'Obtaining an Account', etc. The main content area has a 'Getting Started' section with a brief introduction and a 'Obtaining an Account' section containing a link to instructions and notes about the process. A large blue arrow points to the 'Obtaining an Account' section with the text 'Register here'.

Getting Started

New to our HPC systems, or need a quick refresher? This page will help you get started.

Obtaining an Account

Click here for instructions on obtaining an HPC systems account.

Note: Prospective users should watch the [Getting an Account](#) video tutorial before beginning the account application process.

1. Application Process 2. Approval 3. Activating your Account

Prior to requesting access to any of the systems at one or more of the DoD Supercomputing Resource Centers (DSRCs), a user must register with the HPCMP (commonly referred to as applying for a pIE account).

- Your Service/Agency Approval Authority (S/AAA) will provide you assistance through the account process. If you don't currently have an S/AAA or are unsure as to who is your S/AAA, contact requests@hpc.mil. DoD CAC holders may see the list of S/AAAs by going to <https://hpc.mil/solution-areas/resource-management/service-agency-approvalAuthorities-e-aas>.
- NOTE: All users must have a National Agency Check with Inquiries (NACI) or a Security Clearance to run on all of the HPCMP resources.

To register with the HPCMP:

- Connect to the registration system at <https://app.hpc.mil>
- Click on "Apply for pIE Account" and follow the prompts.
- Read and agree to the HPCMP User Agreement.
- Register your Common Access Card (CAC), if you have one.
- Fill out the New User Account form. You will need the following information:
 - Citizenship Status
 - Preferred Kerberos Realm (HPCMP/HPC.MIL for US Citizens, Green Card Holders, and non-US citizens with a NACI)
 - Organization ID (Get this from your S/AAA.)
 - Name, Title, Position

Register here



Registration: Select Tab - Apply for pIE Account

The screenshot shows a web browser window titled "pIE LoginPage" with the URL "ieapp.hpc.mil/info/login/pieLogin". The page is titled "Portal to the Information Environment" and "DoD High Performance Computing Modernization Program". A sidebar on the left contains links for "More Information", "HPCMP", "IA Training", "HPC Centers", "Section IV", "Visit Request", "Uniform Use-Access Policy", "Kerberos Information", "CTA Info", "HPCMP pIE Notes", "Glossary of Terms", and "Privacy Policy". The main content area features three buttons: "OpenID Login", "Register CAC To Your Existing Account", and "Apply for pIE Account". Below these buttons is a message: "Please click the button below to login using the HPCMP OpenID". A "OpenID Login" button is present. At the bottom of the page, there is a note: "For assistance or questions regarding the IE, contact the HPC Help Desk at (877) 222-2038 or (937) 255-0679 or HPC Help Desk. CUI - Controlled Unclassified Information". The address bar at the bottom shows the URL "https://ieapp.hpc.mil/info/login/pieLogin#openid".



Registration: Click here - New User Application

The screenshot shows a web browser window with the URL ieapp.hpc.mil/info/login/pieLogin. The page title is "Portal to the Information Environment" and the subtitle is "DoD High Performance Computing Modernization Program". On the left, there's a sidebar with links like "More Information", "HPCMP", "IA Training", etc. The main content area has three buttons: "OpenID Login", "Register CAC To Your Existing Account", and "Apply for pIE Account". Below these buttons, a text box contains instructions for new user applications. A large blue arrow points from the text "For new user application instructions" to the "New User" button. At the bottom of the page, there are links for "Request login account with CAC" and "Request login account without CAC". The browser status bar at the bottom shows the URL <https://ieapp.hpc.mil/info/login/pieLogin>.



You Will Need...

- ① Contract number**
- ② Contract expiration**
- ③ Government sponsor**
 - ① Name**
 - ② eMail**
 - ③ Phone number**
- ④ Business address**
- ⑤ FSO eMail**
- ⑥ Your eMail**



You Will Select...

- ① Your **moniker**² (e.g. dantopa)
- ② **Shell** (bash)

²Preferred Username



pIE Registration Cheat Sheet

The screenshot shows the 'New User Account' page of the DOD HPC Portal. The page title is 'Portal to the Information Environment DOD High Performance Computing Modernization Program'. The form is titled 'New User Account' and contains instructions: 'Instructions for completing user account info' and 'These fields are required'. The form fields include:

- Status for this account:
Citizenship: United States, Dual Citizenship: AFRL/HPC/LC, AFRL/AF/AFRL Space Vehicles at Kirtland AFB, NM, DANIEL
- Legal First Name: Daniel
- Legal Middle Name: Topa
- Legal Last Name: Topa
- Legal Last Name Suffix:
- Title (Mr., Ms., Dr., Military): M (Male)
- Nicknames:
- Company/Organization: Huntington Ingalls - Mission Technologies
- Office Symbol:
- Business/School Address 1 (do not use a PO Box):
City: Albuquerque
State: NM
Country: United States
Zip Code: 87123
- Primary Phone (include area code): Ext: _____
- Alternate Phone (include area code): Ext: _____
- Email Address: daniel.m.topa@hpc.mil
- DoD Government Employee?: Yes No
- If you are not a government employee you must have a government sponsor and must provide their email address.
- Email Address:
- Contract Number:
- Contract Expiration Date (mm/yyyy): _____
- Add a new comment to this user:
Directions Remaining: 999

At the bottom, there are 'Submit Application' and 'Cancel' buttons, and a note: 'For assistance or questions regarding this application, contact the HPC Help Desk at 871.223.0200 or 871.223.0201 or hpc@afrl.mil'.



Configuration Choices: Drop Down Drama

- Citizenship: (No change)
- Preferred Kerberos Realm: **HPCMP.HPC.MIL**
- Org ID: **AFVSK**
- Legal Last Name Suffix: (No change)
- Title: **Mr.**
- State: **New Mexico**
- Country: (No change)
- Shell: **GNU Bourne-again Shell (bash)**



You Have Started an eMail Avalanche

- ① Complete Cyber Security Challenge
- ② Middleware: CAC reader
- ③ Middleware: Kerberos
- ④ Enjoy documentation
 - ① How to use modules
 - ② How to batch
 - ③ Simple scripts (.bashrc)
 - ④ Compilers and software
 - ⑤ Parallel programming



High Performance Computing

- ① World Class Hardware
- ② Superb Software Environment
- ③ Support Staff³

³Vicksburg, MS



DoD Supercomputing Resource Centers I

The screenshot shows a web browser window for the "HPC Centers: HPC Portal" at centers.hpc.mil/portal/. The page features the DOD HPC logo and navigation links for Home, About, Systems, For Users, News & Publications, and User Dashboard. A sidebar on the left provides links to Portal Home, Portal Overview, FAQs, Portal Applications, Technical Papers, Posters, Video Demonstration, Apply for an Account, Gallery/CREATE, and Contact Us. The main content area is titled "HPC Portal" and displays five icons for different DSRCs: AFRL, ARL, ERDC, NAVY, and MHPCC. Below each icon is a link to "HPC Portal at [Center]". A note states: "If you have an account on any system at a DSRC, you also have a Portal account at that DSRC. Click on the appropriate DSRC link above to access its HPC Portal." Another note says: "The HPC Portal provides you with native web tools that allow command-line access and the ability to manage files and jobs from a web browser. The HPC Portal also provides custom web applications that allow you to submit jobs from a web interface. The HPC Portal supports pre/post-processing and data visualization by making DSRC hosted desktop applications that are not web-based accessible from a web browser." A link to a training video is provided. A status message at the bottom right indicates: "For status on the HPC Portal's availability or maintenance schedule, please check the DoD HPC Centers website at <https://centers.hpc.mil/>."

Home | About | Systems | For Users | News & Publications | User Dashboard

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DoD Supercomputing Resource Centers II

- ① Army Research Laboratory (ARL) DSRC: [Aberdeen Proving Ground, Maryland.](#)
- ② Air Force Research Laboratory (AFRL) DSRC: [Wright-Patterson Air Force Base, Ohio.](#)
- ③ Engineer Research and Development Center (ERDC) DSRC: [Vicksburg, Mississippi.](#)
- ④ Maui High Performance Computing Center (MHPCC) DSRC: [Kihei, Hawaii.](#)
- ⑤ Navy DSRC: [Stennis Space Center, Mississippi.](#)



HPC Machines

me HPC Centers: Unclassified S X

centers.hpc.mil/systems/unclassified.html

Bookmarks Export Topic Dirs Books William Format Home Libraries Math Topics Print All Bookmarks

Search... HPC Help Feedback

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Unclassified Systems

Caper

Narwhal

Nautlius

Rader

SCOUT

Warhawk

More Info

Nautilus is an HPE Cray XC system located at the Navy DODC. It has 1,802 standard compute nodes, 4 large-memory nodes, and 8 GPU nodes (a total of 213,349 compute cores). It has 646 TB of usable memory and is rated at 17.46 peak PFLOPS.

More Info

Narwhal is an IBM Power8 system located at the Navy DODC. It has 2,344 standard compute nodes, 26 large-memory nodes, 16 visualization accelerated nodes, 32 GPU-accelerated nodes, and 32 Dual-GPU ML accelerated nodes (a total of 2,410 compute nodes or 306,486 compute cores). It has 640 TB of memory and is rated at 6.8 peak PFLOPS.

More Info

Nautlius is a Penguin Computing TrueHPC system located at the Navy DODC. It has 1,354 standard compute nodes, 10 large-memory nodes, 10 visualization accelerated nodes, 32 GPU-accelerated nodes, and 32 High Core Performance nodes (a total of 1,400 compute nodes or 186,308 compute cores). It has 580 TB of memory and is rated at 6.8 peak PFLOPS.

More Info

Rader is a Penguin Computing TrueHPC system located at the AFRL DODC. It has 1,480 standard compute nodes, 8 large-memory nodes, and 24 Visualization nodes, 32 MLX nodes, and 64 High Clock nodes (a total of 198,680 compute cores). It has 447 TB of memory and is rated at 9 peak PFLOPS.

More Info

SCOUT is an IBM Power8 system located at the AFRL DODC. It has 82 Training nodes, each with 6 Intel® Xeon® V100 GPUs, 128 inference nodes, each with 4 Intel® T4 GPUs, and 2 Visualization nodes, each with 2 V100 GPUs (a total of 102 compute nodes or 6,895 cores). It has 40 TB of memory.

More Info

Warhawk is an HPE Cray XC system located at the AFRL DODC. It has 1,024 standard compute nodes, 6 large-memory nodes, 24 1-GPU visualization nodes, and 40 8-GPU Machine-Learning nodes (a total of 1,080 compute nodes or 158,176 compute cores). It has 567 TB of memory and is rated at 6.86 peak PFLOPS.

More Info

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FDOA | Information Quality | FOIA Compliance | No FEAR Act | Open Gov | Plan Writing Act | Privacy Program | USA.gov | Strategic API | Imagery Use | Link Disclaimer



HPC Machines: First Choice = Carpenter

www.HPC Centers: Unclassified Systems

centers.hpc.mil/systems/unclassified.html#Carpenter

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Search... HPC Help Desk Feedback

Carpenter

Carpenter is an HPC Cray EX4000 system located at the ERDC DSRIC. It has 1,632 standard compute nodes, 4 large-memory nodes, and 8 GPU nodes (a total of 313,344 compute cores). It has 565 TB of useable memory and is rated at 17.85 peak PFLOPS.

Unclassified Systems

CARPENTER

Carpenter is an HPC Cray EX4000 system located at the ERDC DSRIC. It has 1,632 standard compute nodes, 4 large-memory nodes, and 8 GPU nodes (a total of 313,344 compute cores). It has 565 TB of useable memory and is rated at 17.85 peak PFLOPS.

Available Documentation

- ERDC DSRIC User's Guide
- Carpenter Quick Start Guide
- Carpenter User Guide
- Carpenter PBS Guide
- Carpenter SLURM Guide
- ERDC DSRIC Archive Guide
- ERDC DSRIC Modules Guide
- Carpenter Software

Maintenance

| Date / Time | Details |
|-------------------------------------|----------------------|
| 2025 Jan 06 08:00 - Jan 30 08:00 CT | Software Maintenance |

Node Configuration

| Total Nodes | Login | Standard | Large-Memory | Visualization |
|----------------------|-----------------------|-----------------------|-----------------------|---------------------|
| Processor | AMD Ryzen Generations | AMD Ryzen Generations | AMD Ryzen Generations | AMD Ryzen Max |
| Processor Speed | 2.4 GHz | 2.4 GHz | 2.4 GHz | 2.4 GHz |
| Stones / Node | 2 | 2 | 2 | 2 |
| Cores / Node | 162 | 162 | 162 | 162 |
| Total GPU Cores | 1,600 | 212,344 | 768 | 1,024 |
| Usable Memory / Node | 8 GB | 349 GB | 2,973 TB | 407 GB |
| Accelerators / Node | None | None | None | 1 |
| Accelerator | N/A | N/A | N/A | NVIDIA A10 PCIe 4.0 |
| Memory / Accelerator | N/A | N/A | N/A | 40 GB |
| Storage on Node | 1.3 TB NVMe SSD | None | 8.8 TB NVMe SSD | None |
| Interconnect | Ethernet | HPC Ethernet | HPC Ethernet | HPC Ethernet |
| Operating System | SLES 15 | SLES 15 | SLES 15 | SLES 15 |

Queue Descriptions and Limits on Carpenter

| Priority | Queue Name | Min Wall Clock Time | Max Cores Per Job | Max Queued Per User | Max Running Per User | Description |
|----------|------------|---------------------|-------------------|---------------------|----------------------|---|
| Highest | urgent | 24 Hours | 5,408 | N/A | N/A | Jobs belonging to DoD HPCMP Urgent Projects |
| Default | default | 1 Hour | 13,064 | N/A | 2 | Time-limited for user testing and debug purposes |
| High | HIC | 24 Hours | 192 | 1 | 1 | Rapid response for interactive work. For more information see the HPC Interactive Environment (HIE) User Guide. |
| High | lrg_ml | 168 Hours | 7,496 | N/A | 3 | Long-waittime jobs belonging to DoD HPCMP High Priority Projects |
| High | lrg_sg | 24 Hours | 130,032 | N/A | 2 | Large jobs belonging to DoD HPCMP High Priority Projects |



Freeware & COTS

HPCMP Commercial Enterprise Software License Portfolio for FY2024

Renewals, Changes, and Additions

The HPCMP Enterprise Software Management Team (ESMT) are pleased to announce the HPCMP Commercial Scientific and Engineering Software license portfolio agreements for the period of 1 Apr 2024 to 31 Mar 2025, which apply to the unclassified enclosures of each DSNIC.

The transition from FY2023 to FY2024 includes the following changes:

ADDITIONS:

- New StarCD+ Serial Product licenses
- Increases in Parflow licenses

To meet demand, FY2024 StarCD+ Serial Product licenses have been increased by an additional unit. There will also be an increase of three units of Parflow licensing software.

REMOVALS:

- Removal of Ansys HPC Pack
- Decrease in Ansys CFD Fluent licenses
- Discontinued support of MAP

No users will be impacted by the removal of Ansys licenses. The Ansys HPC Pack and CFD Fluent licenses have been decommissioned to help balance usage-load ratio. Due to extremely limited usage, the HPCMP has discontinued support for GIMP in FY2024. Due to the selection of perpetual licenses, users will have access to Q3-2024 builds of GIMP 2.10 above for easy transition of the code.

Licence availability can be monitored through the User Dashboard. Additional information is available by contacting the HPC Help Desk by email (helpdesk@hpc.mil) or phone (1-877-222-2020).

Software Breakdown

Abaqus

Abaqus is a general purpose, finite element analysis program that places special emphasis on advanced linear and nonlinear structural engineering and heat transfer applications.

Abaqus Standard

Abaqus Standard provides a variety of time- and frequency domain analysis procedures. These procedures fall into two classes (linear/linear) and a single simulation can include multiple analysis types.

1. General Analysis - the response may be linear or nonlinear.
2. Linear Perturbation Analysis - linear response is computed about a general, possibly nonlinear, base state.



Computational Software Environment

The screenshot shows a web browser window with the URL centers.hpc.mil/software/index.html. The page title is "Software". It contains a table of software packages, their descriptions, and their ANHPC-ID and Boost IDs. Below the table, there is a note about the HPCMP providing a wide array of software and a link to the Computational Science Environment (CSE) Quick Reference Guide and the HPCMP Commercial Enterprise Software License Portfolio for FY2024.

| Name | Description | ANHPC-ID | Boost ID |
|----------|-------------|----------|----------|
| CMake | CMake | CMake | CMake |
| CPLEX | CPLEX | CPLEX | CPLEX |
| DrEIGHT | DrEIGHT | DrEIGHT | DrEIGHT |
| Gaussian | Gaussian | Gaussian | Gaussian |
| HDF5 | LAPACK | LAPACK | LAPACK |
| MATLAB | MATLAB | MATLAB | MATLAB |
| Octave | OpenMPI | OpenMPI | OpenMPI |
| Python | Python3 | Python3 | Python3 |
| SCALASDA | SQLite | SQLite | SQLite |
| Tesla | UG3D | UG3D | UG3D |
| XV | ZeeMQ | ZeeMQ | ZeeMQ |



Technical and Customer Support

Screenshot of the HPC Center's Technical and Customer Support page.

The page features a sidebar with links to Home, About, Systems, For Users, News & Publications, User Dashboard, Who We Are, Feedback, News & Publications, HPC Help Desk, and HPCMP.

Technical and Customer Support

Hours of Operation: 8:00 a.m. - 9:00 p.m. Eastern, Monday - Friday (excluding Federal holidays)

After Hours: Calls, e-mails and tickets received after normal operating hours will be addressed the following business day.

HPC Help Desk

Help: helpdesk@hpc.mil
Accounts: accounts@hpc.mil
Help Desk Manager: manager@helpdesk.hpc.mil
Tel/Fax: 703-222-2239
Local: 957-269-6879
DSN: 785-0679

Mailing Address:
AFRL/RCM
2435 Fifth Street
Wright-Patterson Air Force Base
OH - 45433-7002

Getting Help

Active User Help Ticket
Inactive User Help Ticket
Getting Help video tutorial
User Productivity and Enhancement Training (PET)
System Status
Web Feedback: feedback@centers.hpc.mil

DoD High Performance Computing Modernization Program (HPCMP)

HPCMP Visitors

For physical visits to the HPCMP Office please submit a Visit Request (VR) if required by your HPCMP sponsor. Visit Requests are used for visitor controlled access for either unclassified or classified visits. To submit your VR please follow the procedures below.

Visit Request Procedures

1. Visit requests must be submitted via DRSB to the U.S. Army ERDC Office.
2. Required DRSB Information:
SMO Code: W3R04A, level: 1
Date: (check day, month, year)
Reason: Meeting (If no appropriate reason, select 'Other')
POC: HPC plus the name of the person to be visited (HPC-T17)
Phone Number: 703-812-8200

If the requesting agency has no DRSB SMO Code:

3. Verify the receipt of your VR

Questionnaire verification of receipt: call HPC ERDC POC at 601-634-4218
Verify HPCMP Lurton receipt by calling 703-812-8200

Please allow four days for processing. If less than four days before the visit, please process the visit in DRSB and then contact HPCMP at 703-812-8200, providing the visitor's name, date of visit, and person to be visited. HPCMP will inform ERDC of the urgency.

HPCMP Contacts

Email: hpcmp@hpc.mil

Lorton Office
7701 Telegraph Rd.
Alexandria, VA 22315-3864

Phone: 703-812-8205

Vicksburg Office
3809 Hall Ferry Road
Building 800
Vicksburg, MS 39180

Phone: 601-634-7499



Modules and Guides

CSE Quick Reference Guide

The Computational Science Environment project, or CSE, is a stack of tools and combines all Baseline Configuration Team (BCT) mandated packages and are built in a similar way on every HPC system in the program. This allows users of the HPC systems to have a common environment on every machine in the program to develop software or have their jobs run in a similar fashion, independent of the machine.

| Packages and Libraries Included | | | |
|---------------------------------|-----------|-----------|---------|
| Abacus | ATPACK-46 | Boost C++ | C-Blas |
| Caliper | Dense | BLAS | FFTW |
| Flex | DR | BlasNL | Gmsh |
| GSL | HDF5 | LAPACK | Immerse |
| Mesa | METIS | NGL | NetCDF |
| Octave | OpenMPI | PAR | PETSc |
| Python | Pybind11 | QT | R |
| ScaLAPACK | RCALAPACK | SQLite | RootLU |
| TBB | Vapour | VTK | XDMF |
| XV | Zenith | | |

How to Use the CSE Software and Libraries

Initial module setup:
module load csminit

View what software is available:
module avail cse

Load the desired module (GSL as an example):
module load cse/gsl/latest



Connecting to HPC from the Internet

The screenshot shows a web browser window with the URL centers.hpc.mil/users/index.html#connect. The page is titled "Connecting to a System". It contains sections for "Using SSH" and "System Login Information".

Using SSH
Users who have installed an HPDCMP Kerberos Client Kit and who have a Kerberos ticket may then access many systems via a simple Kerberized ssh, as follows:

| |
|-----------------|
| SSH user@System |
|-----------------|

For some systems, however, you may have to specify a numbered login node. Please review the table below, to get specific system login information.

System Login Information

| System | Login | Center |
|-----------|------------------------|--------|
| Caperator | caperator.oecd.hpc.mil | ODD |
| Nanohub | nanohub.raylab.hpc.mil | NAVY |
| Nasilia | nasilia.raylab.hpc.mil | NAVY |
| Rader | rader.oecd.hpc.mil | AIR |
| SCOUT | scout.oecd.hpc.mil | AIR |
| Wormhole | wormhole.afrlrc.mil | AIR |

Information about installing Kerberos clients on your Windows desktop can be found in the Kerberos & Authentication section of this page.

Video Tutorial
A video tutorial is available on logging into a system.

Using HPC Portal
Information about the HPC Portal may be found on the HPC Portal page.

Computing Environment
The HPDCMP Centers Team provides an assortment of classified and unclassified computational, storage, visualization, and support resources for DoD scientists and engineers. Please select the Systems tab in the main menu bar to find detailed information about the equipment we make available to users.



HPC Modernization Program - HPCMP

- **Advanced Supercomputers:** Regular acquisition of new, state-of-the-art machines.
- **PET Program:** The Programming Environment and Training (PET) program enhances user expertise and productivity.
- **Support for Innovation:** Access to vast computational resources for research in fluid dynamics, climate modeling, ...
- **Collaboration:** Facilitates partnerships among researchers, engineers, and military personnel .



Military Supercomputing: Your HPC Account

Daniel Topa
daniel.topa@hii.com

Huntington Ingalls Industries
Mission Technologies

December 13, 2024