

Starting VisIt on Cheyenne

Users run **VisIt** on the Cheyenne system in a **remote client-server session**; that is, with the graphical interface and viewer on a local workstation while running simulations on Cheyenne. To do that, you need to start the VisIt client and create a **host profile** as described below.

*To run VisIt on the **Casper** cluster instead, follow the process described on this page: [Using remote desktops on Casper with VNC](#).*

The following documentation assumes that you have already downloaded and installed VisIt locally. You will need to match your local VisIt version to the system version documented below to use these instructions.

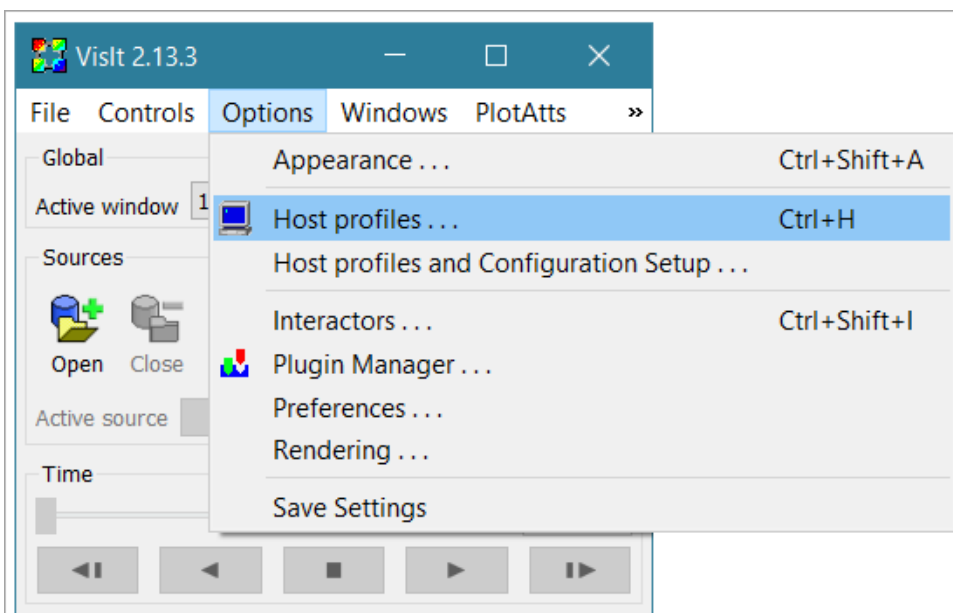
VisIt 2.13.3 host profile

This **host profile** works with version 2.13.3 in the Cheyenne environment. As part of the host profile, you can create **launch profiles** for using VisIt in these queues:

- “share” queue jobs with low core counts and shared resources
- “economy” queue jobs with high core counts and exclusive resources

Start your VisIt client.

Select *Options*, then *Host profiles...*



Create an “NCAR Cheyenne” host profile with the **Host Settings** as shown below, entering your own username where indicated.

You can copy and paste this text for the path to VisIt installation:

```
/glade/u/apps/ch/opt/visit/2.13.3/mpt/2.19/gnu/7.4.0/server
```

Host profiles

Hosts

NCAR Cheyenne

New Host Delete Host

Copy Host Export Host

Apply

Post Dismiss

Host Settings Launch Profiles

Machine

Host nickname NCAR Cheyenne

Remote host name cheyenne.ucar.edu

Host name aliases cheyenne

Maximum nodes 100

Maximum processors 3600

Path to Visit installation glade/u/apps/ch/opt/visit/2.13.3/mpt/2.19/gnu/7.4.0/server

Account

Username

Connection

Share batch job with Metadata Server

Tunnel data connections through SSH

Method used to determine local host name when not tunneling:

Use local machine name

Parse from SSH_CLIENT environment variable

Specify manually:

SSH command ssh

SSH port 22

Use gateway

Select the **Launch Profiles** tab.

Follow the steps below to create a launch profile for each queue that you will use to run Visit jobs. For example, create one called "share" to use Cheyenne non-exclusive nodes via the "share" queue.

Host profiles

Hosts

NCAR Cheyenne

New Host Delete Host

Copy Host Export Host

Apply

Post Dismiss

Host Settings Launch Profiles

Machine

Remote Profiles

share

New Profile Delete Profile Copy Profile Make Default

Settings Parallel GPU Acceleration

Profile name share

Timeout (minutes) 480

Number of threads per task 0

Additional arguments

Select the **Parallel** tab and make the following adjustments:

- Check "Launch parallel engine."
- Check "Parallel launch method" and select the **qsub/mpiexec** option from the drop-down menu.
- Check "Partition / Pool / Queue" and enter the name of the queue.

- Specify the number of processors you want to use (up to 18 for the share queue and up to 36 for the economy queue).
- Check "Number of nodes" and specify a default. (This must be 1 for the share queue.)
- Check "Bank / Account" and enter your project code.
- Check "Time Limit" and specify a default in PBS format (HH:MM:SS).

Host profiles

Hosts

NCAR Cheyenne

Machines

Remote Profiles

Host Settings Launch Profiles

☒ share

New Profile Delete Profile Copy Profile Make Default

Settings Parallel GPU Acceleration

☒ Launch parallel engine

Launch Advanced

☒ Parallel launch method qsub/mpirun

☒ Partition / Pool / Queue share

Defaults

Number of processors 8

☒ Number of nodes 1

☒ Bank / Account project_code

☒ Time Limit 02:00:00

☐ Machine File

☐ Constraints

Add row Delete row

Nodes Processors

New Host Delete Host

Copy Host Export Host

Apply

Post Dismiss

Click **Apply**.

Select the name of the host that you want to export — "NCAR Cheyenne," for example.

Click **Export Host**.

At that point, you can use the host profile and access the GLADE file spaces to open a file in VisIt.