

Getting Started with the National Systems
Video Series



computecanada

Summary of the environment

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Software environment

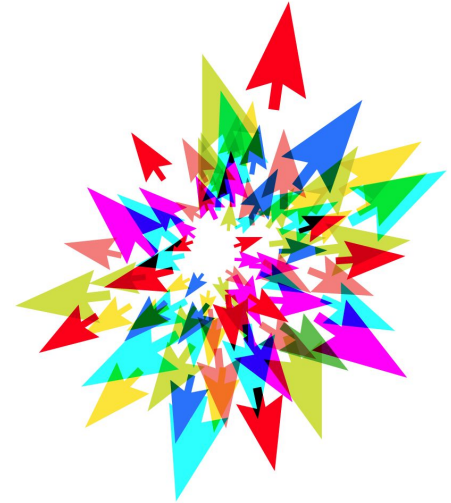
This applies to new national CC systems, in particular to cedar and graham

Operating system:
Linux - CentOS 7

Languages for development:
C/C++, Fortran, Python, Java,
Matlab, all available in different
versions and flavours

Parallel development support:
MPI, OpenMP, OpenACC,
CUDA, OpenCL

Job Scheduler: SLURM
Please see another webinar for
detailed discussion on how to
submit a job



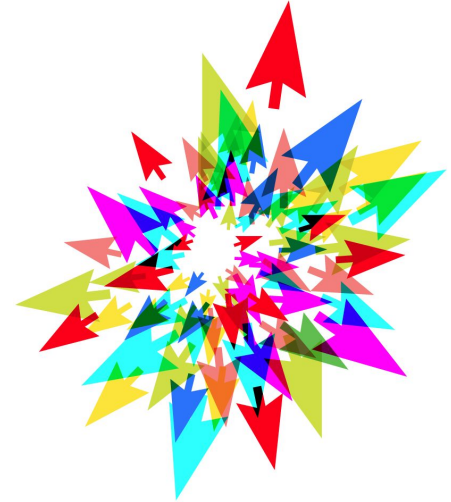
Installed software

Compute Canada installs and maintains software packages which are in high demand

Currently installed software is listed in a table at docs.computecanada.ca under **Modules**

If the software package you need is not listed, and you want it installed, please email support@computecanada.ca with your request

You can compile and install your own packages in your own space - please ask CC staff for help and advice



Software installation setup

Lower level, not performance sensitive packages are installed via the Nix package manager

General packages installed using the EasyBuild framework

Software is located in /cvmfs directory

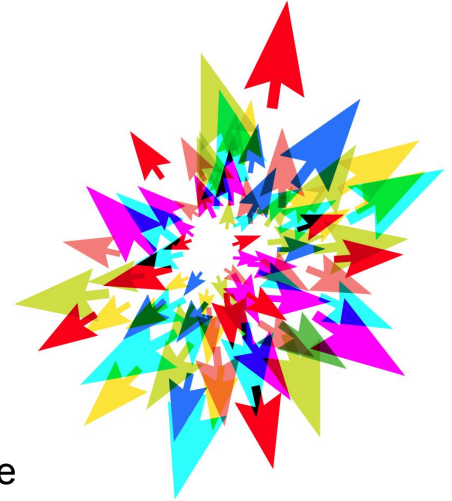
Users can access these software packages by loading appropriate modules

Multiple versions of a given software package may be installed, so the users must load the right one

Modules use **lmod** software which ensures that only a compatible set of modules is loaded at any one time

Desired modules must be loaded before job using them is submitted, or in your job scripts

For more, search for “**Using Modules**” on docs.computecanada.ca



Module operations

Consider GROMACS software as example

Search for which versions are available as modules with:

```
module spider gromacs
```

Then load particular module with:

```
module load gromacs/2016.3
```

Check currently loaded modules with:

```
module list
```

