HPCVL / Compute Canada Workshops February 2012:

Parallel Programming With OpenMP and MPI

This workshop will be held twice, once in Kingston and once in Toronto:

Locally at the HPCVL Training Room in Kingston, Ontario
Nationally via Video Conferencing

Monday, February 20, 2012 (OpenMP)
Tuesday, February 21, 2012 (MPI)

Ryerson University, Toronto, Ontario
George Vari Engineering and Computing Centre ENG-162
245 Church Street

Thursday, February 23, 2012 (OpenMP)
Friday, February 24, 2012 (MPI)

Time: **9:00 am - 4:00 pm (EST) each day**

Lecturers:
Hartmut Schmider (hartmut.schmider@queensu.ca) and Gang Liu (gang.liu@queensu.ca)
HPCVL, Queen's University, Kingston, Ontario

The *first* workshop (Feb.20-21) will be made available through *Compute Canada* via Video Conferencing from our Training Room in Kingston. If you would like to participate remotely, please check our web page for locations:
http://www.hpcvl.org/support-and-training/video-conferencing-rooms/across-canada

If you are unsure how to get access, contact your local High-Performance Consortium or University, or our administrative assistant Amanda Bullock <bullocka@queensu.ca> (613) 533-2561

Further details at
http://www.hpcvl.org/support-and-training/hpc-training
Please register at
http://www.hpcvl.org/support-and-training/training-registration

Workshop Overview:

This workshop is directed at scientists and engineers who want to enable their code to run on parallel computers ranging from small multi-core machines to large clusters. The course covers both shared-memory approaches using the OpenMP compiler directives, and distributed-memory frameworks using the Message-Passing Interface MPI.

To address the growing availability of multi-node clusters with multi-core nodes, some time will be devoted to hybrid approaches that combine OpenMP and MPI to achieve optimal utilization of such resources. To this end, we will use a recently developed – and freely available – library that implements a “double-layer master-slave” parallel model and requires a minimum of user programming.

This is an introductory workshop. Course participants are expected to have some programming background with C/C++ or Fortran, but no prior experience with parallel programming is assumed.

The first of the workshops (on February 20-21) will be held locally at the Kingston HPCVL Training Room, but will also be available across Canada through Compute Canada operated Access Grid rooms or other conferencing locations. The second is (on February 23-24) will be held locally at Ryerson University in Toronto.