

Practical Parallel Programming Intensive

SciNet HPC Consortium

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Part VII

Best practices

HPC Best Practices

A number of things can make your work more productive

- Programming Practices

- * Select the right tools based on Performance, portability etc.
E.g. MPI or OpenMP
- * Don't hard-code things.
- * K.I.S.S.
- * Write modularly
- * Be portable
- * Use existing libraries
- * Checkpoint!
- * Use version control (more later)

- Performance Analysis: scalability, profiling (yesterday).

- Use debuggers (more later)

- Data management:

- * /home is read-only on compute nodes
- * Compute on /scratch, move results to /home, clean up or archive.
- * Don't make millions of files and write in binary