

# High Performance Computing

FORTRAN, OpenMP and MPI

41391

# Revision Control

- Use a revision control system to keep track of changes in the source code. Open source tools include:
  - SCCS: (Source Code Control System. 1972 IBM); obsolete and difficult to use.
  - RCS (Revision Control System. 1980ies); for single user. [www.cs.purdue.edu/homes/trinkle/RCS](http://www.cs.purdue.edu/homes/trinkle/RCS).
  - CVS (Concurrent Version System; 1986); multiple users. [cvshome.org](http://cvshome.org).
  - SVN (Subversion; 1999); multiple users: [subversion.tigris.org](http://subversion.tigris.org).
  - Git (Global Information Tracker; or “slang for a stupid or unpleasant person” Linus Torvaldsen; 2005); multiple and distributed users: [git-scm.com](http://git-scm.com).
  - Mercurial (written in python); multiple and distributed users: [mercurial.selenic.com](http://mercurial.selenic.com)

# RCS

- Once: (we assume we are in the src directory):
  - `mkdir -p RCS`.
  - `ci *.f *.h Makefile` (check-in all the source files).
  - `co Makefile` (check-out the Makefile).
- “Make” (will check-out the required source).
- `co -l main.f` (co: check-out; -l: lock)
- `ci main.f` (add comments to describe changes).
- Add `$Log$` to the source to keep track of the log messages.

# RCS

- Installing:
  - Download rcs (eg., rcs-5.8.tar.gz).
  - Unpack rcs:
    - `gunzip rcs-5.8.tar.gz`
    - `tar xvf rcs-5.8.tar`
  - Configure:
    - `cd rcs-5.8`
    - `./configure --prefix=$HOME`
    - `make` (will compile and link locally in `./rcs-5.8`)
    - `make install` (will install in `~/bin`, `~/man`)
  - Update ENVs: add to `.bashrc` (if you use bash):
    - `export PATH=$PATH:$HOME/bin`
    - `Export MANPATH=$MANPATH:$HOME/man`

`tar tvzf rcs.5.8.tar.gz`: will list the content  
`tar xvzf rcs-5.8.tar.gz`: will unzip and untar

# Revision control at DTU

- The gbar offers repositories:
  - CVS
  - SVN
  - Git
- Use <https://repos.gbar.dtu.dk/>
- Or your own at ~/share/