**NEMO parallel executable**

Requirements:

gfortran+openmpi

gfortran

gfortran44 must be present..

In Linux SL5.7 (95% of the resources) the default version is gfortran 4.1.2.

This version has several bugs (compatibility with fortran) that appear at runtime.

For this reason the code (at present) has to be compiled statically if gfortran44 is not present in the WN(s)

Moreover openmpi has to be compiled with the gfortran44 compiler.

openmpi

openmpi-1.4.5 must be present (required by the user) and compiled with gfortran44.

MPI library has to be compiled with --enable-static --disable-shared

By default NEMO is linked to dynamic libmpi; static libmpi prevent problems during running

Requirements for openmpi compilation

export CC=gcc44

export FC=gfortran44

export CXX=g++44

export CFLAGS=-DgFortran

export CPPFLAGS=-DgFortran

export F77=gfortran44

export F90=gfortran44

./configure --enable-static --disable-shared

netcdf

NEMO by default require netcdf (netcdf-4.0.1) compiled with gfortran44

Requirements for netcdf compilation

export CC=gcc44

export FC=gfortran44

export CXX=g++44

export CFLAGS=-DgFortran

export CPPFLAGS=-DgFortran

export F77=gfortran44

export F90=gfortran44

./configure

NEMO

Instructions on compilation have beed provided by the user as a pdf file

The configuration file has to be modified as following

#cat /home/User/NEMO/oofs02/NEMO\_3.4/nemo/NEMOGCM/ARCH/ arch-grid.fcm

%NCDF\_INC -I/opt/netcdf-4.0.1-gfortran44/include

%NCDF\_LIB -L/opt/netcdf-4.0.1-gfortran44/lib -lnetcdf

%FC /opt/openmpi-1.4.5-gfortran44/bin/mpif90

%FCFLAGS -fdefault-real-8 -O3 -funroll-all-loops -fcray-pointer

%FFLAGS %FCFLAGS

%LD /opt/openmpi-1.4.5-gfortran44/bin/mpif90

%LDFLAGS -static-libgfortran

%FPPFLAGS -P -C -traditional

%AR ar

%ARFLAGS -rs

%MK gmake

%USER\_INC %NCDF\_INC

%USER\_LIB %NCDF\_LIB