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hola.f

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c -----
c G95 and MPICH and LD LIBRARY_PATH:
c export LD_LIBRARY_PATH="/usr/local/mpich2-1.0.3-g95/lib"
c g95 -w -fpic -I/usr/local/mpich2-1.0.3-g95/include
c -c hello_world.f90
c g95 -w -o hello_world.exe hello_world.o
c -lc -L/usr/local/mpich2-1.0.3-g95/lib -lmpich
c -----
c G95 and MPICH without LD LIBRARY_PATH:
c g95 -w -fpic -I/usr/local/mpich2-1.0.3-g95/include
c -c hello_world.f90
c g95 -w -o hello_world.exe hello_world.o
c -lc -L/usr/local/mpich2-1.0.3-g95/lib -lmpich
c -Wl,-E,-rpath,/usr/local/mpich2-1.0.3-g95/lib
c -----
c G95 and MPICH2 with static libraries:
c g95 -w -fpic -I/usr/local/mpich2-1.0.3-noshared/include
c -c hello_world.f90
c g95 -w -o hello_world.exe hello_world.o
c -lc -L/usr/local/mpich2-1.0.3-noshared/lib -lmpich
c -----
c G95 and MPICH2 with dynamic libraries (but with warnings):
c g95 -w -fpic -I/usr/local/mpich2-1.0.3/include -c hello_world.f90
c g95 -w -o hello_world.exe hello_world.o -static
c -lc -L/usr/local/mpich2-1.0.3/lib -lmpich
c -----
c INTEL and MPICH2 (no-shared):
c ifort -c -free -auto
c -I/usr/local/mpich2-1.0.3-intel-ns/include hello_world.f90
c ifort -w -o hello_world.exe hello_world.o
c -lc -L/usr/local/mpich2-1.0.3-intel-ns/lib -lmpich
c -----
c INTEL and MPICH and LD LIBRARY_PATH:
c export LD_LIBRARY_PATH="/net/local/mpich2-1.0.3/lib"
c ifort -fpic -I/net/local/mpich2-1.0.3/include -c hola_f90.f90
c ifort -o hola_f90.exe hola_f90.o -lc -L/net/local/mpich2-1.0.3/lib -lmpich
c -----
c MPD:
c mpdboot -n 21 -f ~/mpd.hosts
c mpdtrace
c mpdringtest
c mpiexec -machinefile ~/machi.dat -np 3 hello_world.exe
c mpdallexit
c pdsh -a hostname
c -----
c program hola
c use mpi
c implicit none
c integer :: myid=0, siza=0, ierr
c write (*,*)
c call MPI_Init ( ierr )
c call MPI_Comm_size (MPI_COMM_WORLD, siza, ierr) ! nro de proces.
c call MPI_Comm_rank (MPI_COMM_WORLD, myid, ierr) ! my rank
c write (*,*)"hola desde ", myid, " de ", siza
c call MPI_Finalize ( ierr )
c write (*,*)
c end program
c -----

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hola_cpp.cpp

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// -----
// Ahora el "mpicxx" en MPICH2 reemplaza a la llamada al compilador:
//
// Compila y enlaza por separado
// mpicxx -DMPICH_IGNORE_CXX_SEEK -L/usr/local/mpich2-1.0.3/lib
// -c hola_cpp.cpp
// mpicxx -DMPICH_IGNORE_CXX_SEEK -L/usr/local/mpich2-1.0.3/lib
// -o hola_cpp.exe hola_cpp.o -lmpich -lpthread -lrt
//
// Compila y enlaza de una sola vez
// mpicxx -DMPICH_IGNORE_CXX_SEEK -L/usr/local/mpich2-1.0.3/lib
// -o hola_cpp.exe hola_cpp.cpp -lmpich -lpthread -lrt
//
// Nota: si ya esta en el PATH donde estan los include de MPI,
// entonces no hace falta dar toda la ruta en el fuente, i.e.
// #include "/usr/local/mpich2-1.0.3/include/mpi.h"
//
// Antes se podia hacerlo por separado, eg. con g++:
// g++ -w -fpic -I/usr/local/mpich2-1.0.3/include -c hola_cpp.cpp
// g++ -w -o hola_cpp.exe hola_cpp.o -lc
// -L /usr/local/mpich2-1.0.3/lib -lmpich
//
// -----
// MPD:
// mpdboot -n 4 -f ~/mpd.hosts
// mpdtrace
// mpdringtest
// mpiexec -machinefile ~/machi.dat -np 4 hola_cpp.exe
// mpdallexit
// pdsh -a hostname
//
// -----
#include <iostream>
#include <mpi.h>
using namespace std;

// -----
int main (int argc, char * argv []) {
    MPI_Init (& argc, & argv);
    int myid ;
    int siza ;
    MPI_Comm_size (MPI_COMM_WORLD, & siza); // number of processors
    MPI_Comm_rank (MPI_COMM_WORLD, & myid); // my myid in the row of processors
    cout << "hola desde " << myid << " de " << siza << endl ;
    MPI_Finalize ( ) ;
    cout << endl ;
    return 0 ;
} // end main
// -----
```

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hola_f90.f90

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! -----
! G95 and MPICH and LD LIBRARY_PATH:
! export LD_LIBRARY_PATH="/usr/local/mpich2-1.0.3-g95/lib"
! g95 -w -fpic -I/usr/local/mpich2-1.0.3-g95/include
! -c hello_world.f90
! g95 -w -o hello_world.exe hello_world.o
! -lc -L/usr/local/mpich2-1.0.3-g95/lib -lmpich
!
! -----
! G95 and MPICH without LD LIBRARY_PATH:
! g95 -w -fpic -I/usr/local/mpich2-1.0.3-g95/include
! -c hello_world.f90
! g95 -w -o hello_world.exe hello_world.o
! -lc -L/usr/local/mpich2-1.0.3-g95/lib -lmpich
! -Wl,-E,-rpath,/usr/local/mpich2-1.0.3-g95/lib
!
! -----
! G95 and MPICH2 with static libraries:
! g95 -w -fpic -I/usr/local/mpich2-1.0.3-noshared/include
! -c hello_world.f90
! g95 -w -o hello_world.exe hello_world.o
! -lc -L/usr/local/mpich2-1.0.3-noshared/lib -lmpich
!
! -----
! G95 and MPICH2 with dynamic libraries (but with warnings):
! g95 -w -fpic -I/usr/local/mpich2-1.0.3/include -c hello_world.f90
! g95 -w -o hello_world.exe hello_world.o -static
! -lc -L/usr/local/mpich2-1.0.3/lib -lmpich
!
! -----
! INTEL and MPICH2 (no-shared):
! ifort -c -free -auto
! -I/usr/local/mpich2-1.0.3-intel-ns/include hello_world.f90
! ifort -w -o hello_world.exe hello_world.o
! -lc -L/usr/local/mpich2-1.0.3-intel-ns/lib -lmpich
!
! -----
! INTEL and MPICH and LD LIBRARY_PATH:
! export LD_LIBRARY_PATH="/net/local/mpich2-1.0.3/lib"
! ifort -fpic -I/net/local/mpich2-1.0.3/include -c hola_f90.f90
! ifort -o hola_f90.exe hola_f90.o -lc -L/net/local/mpich2-1.0.3/lib -lmpich
!
! -----
! MPD:
! mpdboot -n 21 -f ~/mpd.hosts
! mpdtrace
! mpdringtest
! mpiexec -machinefile ~/machi.dat -np 3 hello_world.exe
! mpdallexit
! pdsh -a hostname
!
! -----
program hola
  use mpi
  implicit none
  integer :: myid, siza, ierr
  write (*,*)
  call MPI_Init ( ierr )
  call MPI_Comm_size (MPI_COMM_WORLD, siza, ierr) ! nro de proces.
  call MPI_Comm_rank (MPI_COMM_WORLD, myid, ierr) ! my rank
  write (*,*)"hola desde ", myid, " de ", siza
  call MPI_Finalize ( ierr )
  write (*,*)
end program
! -----

```