

param.h file

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! $Id: param.h 1619 2015-01-07 13:53:03Z marchesielo $
!
!=====
! CROCO is a branch of ROMS developped at IRD and INRIA, in France
! The two other branches from UCLA (Shchepetkin et al)
! and Rutgers University (Arango et al) are under MIT/X style license.
! CROCO specific routines (nesting) are under CeCILL-C license.
!
! CROCO website : http://www.croco-ocean.org
!=====
!
!-----
! Dimensions of Physical Grid and array dimensions
!-----
!
! LLm,MMm Number of the internal points of the PHYSICAL grid.
!             in the XI- and ETA-directions [physical side boundary
!             points and perodic ghost points (if any) are excluded].
!
! Lm,Mm   Number of the internal points [see above] of array
!             covering a Message Passing subdomain. In the case when
!             no Message Passing partitioning is used, these two are
!             the same as LLm,MMm.
!
! N       Number of vertical levels.
!
      integer LLm,Lm,MMm,Mm,N, LLm0,MMm0
#ifndef AGRIF
      integer LLmm2, MMmm2
#endif

#if defined BASIN
      parameter (LLm0=60,    MMm0=50,    N=10)
#elif defined CANYON
      parameter (LLm0=65,    MMm0=48,    N=16)
#elif defined EQUATOR
:
:
:
#endif

#if defined ESTUARY
      parameter (LLm0=200,   MMm0=90,    N=5)    ! ESTUARY
#if defined REGIONAL
# if defined BENGUELA_LR
      parameter (LLm0=41,    MMm0=42,    N=32)    ! BENGUELA_LR
# elif defined BENGUELA_HR
      parameter (LLm0=83,    MMm0=85,    N=32)    ! BENGUELA_HR
# elif defined BENGUELA_VHR
      parameter (LLm0=167,   MMm0=170,   N=32)    ! BENGUELA_VHR
# elif defined TROPATL
      parameter (LLm0=953,   MMm0=498,   N=37)    ! <----- TropAtl simu 1/12 ERA5
# else
      parameter (LLm0=xx,   MMm0=xx,   N=xx)    ! YOUR REGIONAL CONFIG
# endif
#elif defined COASTAL
# if defined VILAINE
      parameter (LLm0=180,   MMm0=130,   N=10)    ! VILAINE
# else
      parameter (LLm0=94,    MMm0=81,    N=40)    ! YOUR COASTAL CONFIG
# endif
#else
      parameter (LLm0=xxx,   MMm0=xxx,   N=xxx)
#endif

#ifndef AGRIF
      common /scrum_physical_grid/ LLm,Lm,LLmm2,MMm,Mm,MMmm2
#else
      parameter (LLm=LLm0,   MMm=MMm0)
#endif

!
```

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!-----
! MPI related variables
!-----
!
integer Lmmpi,Mmmp,iiminmpi,imaxmpi,jminmpi,jmaxmpi
common /comm_setup_mpi1/ Lmmpi,Mmmp
common /comm_setup_mpi2/ iiminmpi,imaxmpi,jminmpi,jmaxmpi
!
! Domain subdivision parameters
! ===== ===== =====
!
! NPP Maximum allowed number of parallel threads;
! NSUB_X,NSUB_E Number of SHARED memory subdomains in XI- and
! ETA-directions;
!
NNODES Total number of MPI processes (nodes);
NP_XI,NP_ETA Number of MPI subdomains in XI- and ETA-directions;
!
integer NSUB_X, NSUB_E, NPP
#endif MPI
integer NP_XI, NP_ETA, NNODES
parameter (NP_XI=21, NP_ETA=9, NNODES=144)
parameter (NPP=1)
parameter (NSUB_X=1, NSUB_E=1)
#ifndef OPENMP
parameter (NPP=4)
#endif AUTOTILING
common/distrib/NSUB_X, NSUB_E
#else
parameter (NSUB_X=1, NSUB_E=NPP)
#endif
#endif
!
!
!-----  

! Point sources, Floast, Stations
!-----
!
#ifndef PSOURCE || defined PSOURCE_MASS || defined PSOURCE_NCFILE
integer Msrc ! Number of point sources
#endif RIVER
parameter (Msrc=2) ! ===== == ===== ==
#ifndef VILAINE
parameter (Msrc=2) ! ===== == ===== ==
#endif ESTUARY
parameter (Msrc=1) ! ===== == ===== ==
#else
parameter (Msrc=10) ! ===== == ===== ==
#endif
!
!
```