

Telemac3d

Reference Manual

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1. Detail list of keywords

1.1 2D CONTINUATION

Type : Logical

Dimension : 1

Mnemo SUIT2

DEFAULT VALUE : NO

French keyword : SUITE 2D

Enables to use a 2D RESULT FILE in FILE FOR 2D CONTINUATION as initial conditions file.

1.2 2D RESULT FILE

Type : String

Dimension : 1

Mnemo T3D_FILES(T3DHYD)%NAME

DEFAULT VALUE : "

French keyword : FICHER DES RESULTATS 2D

Name of the file into which the 2D results of the computation are written with a period given by the keyword GRAPHIC PRINTOUT PERIOD.

1.3 2D RESULT FILE BINARY

Type : String

Dimension : 1

Mnemo BINHYD

DEFAULT VALUE : 'STD'

French keyword : BINAIRE DU FICHER DES RESULTATS 2D

Binary file type used for writing the 2D RESULT FILE. This type depends on the machine on which the file was generated. The possible values are as follows:

- IBM, for a file on an IBM (from a CRAY),
- I3E, for a file on an HP (from a CRAY),
- STD, binary type of the machine on which the user is working.

In that case, normal READ and WRITE commands are used.

1.4 2D RESULT FILE FORMAT

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DHYD)%FMT
 DEFAULT VALUE : 'SERAFIN?'
 French keyword : FORMAT DU FICHIER DES RESULTATS 2D
 Format of the 2D RESULT FILE. Possible choices are:

- SERAFIN : classical single precision format in TELEMAT,
- SERAFIND: classical double precision format in TELEMAT,
- MED : MED double precision format based on HDF5.

1.5 3D RESULT FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DRES)%NAME
 DEFAULT VALUE : ""
 French keyword : FICHIER DES RESULTATS 3D
 Name of the file into which the 3D results of the computation are written, the periodicity being given by the keyword: GRAPHIC PRINTOUT PERIOD.

1.6 3D RESULT FILE BINARY

Type : String
 Dimension : 1
 Mnemo BINRES
 DEFAULT VALUE : 'STD'
 French keyword : BINAIRE DU FICHIER DES RESULTATS 3D
 Binary file type used for writing the 3D RESULT FILE. This type depends on the machine on which the file was generated. The possible values are as follows:

- IBM, for a file on an IBM (from a CRAY),
- I3E, for a file on an HP (from a CRAY),
- STD, binary type of the machine on which the user is working.

In that case, normal READ and WRITE commands are used.

1.7 3D RESULT FILE FORMAT

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DRES)%FMT
 DEFAULT VALUE : 'SERAFIN?'
 French keyword : FORMAT DU FICHIER DES RESULTATS 3D
 Format of the 3D RESULT FILE. Possible choices are:

- SERAFIN : classical single precision format in TELEMAT,
- SERAFIND: classical double precision format in TELEMAT,
- MED : MED double precision format based on HDF5.

1.8 ABSCISSAE OF SOURCES

Type : Real
Dimension : 2
Mnemo XSCE
DEFAULT VALUE : MANDATORY
French keyword : ABSCISSES DES SOURCES

Floats giving the abscissae of potential sources of flow rates (in meters). The source will be located at the nearest node in the mesh.

1.9 ACCURACY FOR DIFFUSION OF K-EPSILON

Type : Real
Dimension : 1
Mnemo SLVDKE%EPS
DEFAULT VALUE : 1.E-6
French keyword : PRECISION POUR LA DIFFUSION DU K-EPSILON

Sets the accuracy needed for the computation of the diffusion of the k - ϵ model.

1.10 ACCURACY FOR DIFFUSION OF SEDIMENT

Type : Real
Dimension : 1
Mnemo SLVDSE%EPS
DEFAULT VALUE : 1.E-6
French keyword : PRECISION POUR LA DIFFUSION DU SEDIMENT

Sets the accuracy needed for the computation of the diffusion of sediments.

1.11 ACCURACY FOR DIFFUSION OF TRACERS

Type : Real
Dimension : 1
Mnemo SLVDTA(ITRAC)%EPS
DEFAULT VALUE : 1.E-6
French keyword : PRECISION POUR LA DIFFUSION DES TRACEURS

Sets the accuracy needed for the computation of the diffusion of the tracers.

1.12 ACCURACY FOR DIFFUSION OF VELOCITIES

Type : Real
Dimension : 1
Mnemo SLVDVI%EPS
DEFAULT VALUE : 1.E-5
French keyword : PRECISION POUR LA DIFFUSION DES VITESSES

Sets the accuracy needed for the computation of the diffusion of the velocities.

1.13 ACCURACY FOR PPE

Type : Real
Dimension : 1
Mnemo SLVPOI%EPS
DEFAULT VALUE : 1.E-4
French keyword : PRECISION POUR PPE

Sets the precision needed for the computation of the Poisson Pressure Equation.

1.14 ACCURACY FOR PROPAGATION

Type : Real
 Dimension : 1
 Mnemo SLVPRO%EPS
 DEFAULT VALUE : 1.E-6
 French keyword : PRECISION POUR LA PROPAGATION
 Sets the accuracy needed for the computation of the propagation step.

1.15 ACCURACY FOR VERTICAL VELOCITY

Type : Real
 Dimension : 1
 Mnemo SLVW%EPS
 DEFAULT VALUE : 1.E-6
 French keyword : PRECISION POUR LA VITESSE VERTICALE
 Sets the accuracy needed for the computation of the vertical velocity.

1.16 AD LINEAR SOLVER DERIVATIVE CONVERGENCE

Type : Logical
 Dimension : 1
 Mnemo AD_LINSOLV_DERIVATIVE_CONVERGENCE
 DEFAULT VALUE : YES
 French keyword : AD CONVERGENCE DES DERIVEES POUR LE SOLVEUR LINEAIRE
 Iterative linear solvers: derivative convergence test for AD.

1.17 AD LINEAR SOLVER RESET DERIVATIVES

Type : Logical
 Dimension : 1
 Mnemo AD_LINSOLV_RESETDERIV
 DEFAULT VALUE : YES
 French keyword : AD REMISE A ZERO DES DERIVEES DU SOLVEUR LINEAIRE
 Resets the derivatives for AD.

1.18 AD NAMES OF DERIVATIVES

Type : String
 Dimension : 2
 Mnemo NAME_ADVAR
 DEFAULT VALUE : 'MANDATORY'
 French keyword : AD NOMS DES DERIVEES
 Name of user derivatives in 32 characters, 16 for the name, 16 for the unit.

1.19 AD NUMBER OF DERIVATIVES

Type : Integer
Dimension : 0
Mnemo NADVAR
DEFAULT VALUE : 0
French keyword : AD NOMBRE DES DERIVEES

Defines the number of user derivatives, within the framework of the algorithmic differentiation.

1.20 AD NUMBER OF DIRECTIONS

Type : Integer
Dimension : 0
Mnemo AD_NUMOFDIR
DEFAULT VALUE : 1
French keyword : AD NOMBRE DE DIRECTIONS

Defines the number of directions for the differentiators.

1.21 AD SYMBOLIC LINEAR SOLVER

Type : Logical
Dimension : 1
Mnemo AD_SYMBLINSOLV
DEFAULT VALUE : NO
French keyword : AD SOLVEUR LINEAIRE SYMBOLIQUE

Enables the symbolic linear solver for AD.

1.22 ADVECTION STEP

Type : Logical
Dimension : 1
Mnemo CONVEC
DEFAULT VALUE : YES
French keyword : ETAPE DE CONVECTION

Takes into account the advection terms or not. If YES, some advection terms can still be ignored with the keywords SCHEME FOR ADVECTION OF...

1.23 ADVECTION-DIFFUSION SCHEME WITH SETTLING VELOCITY

Type : Integer
Dimension : 1
Mnemo SETDEP
DEFAULT VALUE : 0
French keyword : SCHEMA DE CONVECTION DIFFUSION AVEC VITESSE DE CHUTE

Choice of the vertical scheme for diffusion and settling of sediment:

- 0: Implicit-diffusion scheme,
- 1: Implicit-convection scheme (Tridiagonal matrix solver),
- 2: `set_fall.f`

1.24 AIR PRESSURE

Type : Logical
 Dimension : 1
 Mnemo ATMOS
 DEFAULT VALUE : NO
 French keyword : PRESSION ATMOSPHERIQUE

Sets whether the influence of an atmosphere pressure field is taken into account or not.

1.25 ASCII ATMOSPHERIC DATA FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3ATMA)
 DEFAULT VALUE : "
 French keyword : FICHIER ASCII DE DONNEES ATMOSPHERIQUES

ASCII data file containing the atmospheric data varying in time.

1.26 ASCII DATABASE FOR TIDE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DBDD)
 DEFAULT VALUE : "
 French keyword : BASE ASCII DE DONNEES DE MAREE

File name for the tide data base of harmonic constituents extracted from the TIDAL MODEL FILE.

1.27 AVERAGE WATER DENSITY

Type : Real
 Dimension : 1
 Mnemo RHO0
 DEFAULT VALUE : 1025.
 French keyword : MASSE VOLUMIQUE MOYENNE DE L'EAU

Average water density in the domain, see subroutine **DRSURR**.

1.28 BED LAYERS THICKNESS

Type : Real
 Dimension : 1
 Mnemo EPAI0
 DEFAULT VALUE : 5.E-3
 French keyword : EPAISSEUR DES COUCHES DU FOND VASEUX

Reference thickness considered for the creation of new bed layers. This parameter is used if CONSOLIDATION MODEL = 2 (Gibson model (Lenormant)). With this model, the sediment which settles on the bottom arrives at first in the fresh deposit layer. When the thickness of this layer is equal to the BED LAYERS THICKNESS, a new mud layer is added to the mud bed.

1.29 BETA EXPANSION COEFFICIENT FOR TRACERS

Type : Real

Dimension : 2

Mnemo BETAC

DEFAULT VALUE : MANDATORY

French keyword : COEFFICIENT DE DILATATION BETA POUR LES TRACEURS

Unit: K^{-1} . This coefficient is used to define the evolution of the water density with respect to the tracer concentration when using DENSITY LAW = 4.

1.30 BINARY ATMOSPHERIC DATA FILE

Type : String

Dimension : 1

Mnemo T3D_FILES(T3ATMB)

DEFAULT VALUE : "

French keyword : FICHIER BINAIRE DE DONNEES ATMOSPHERIQUES

Binary-coded data file containing the atmospheric data varying in time and space on the mesh.

1.31 BINARY ATMOSPHERIC DATA FILE FORMAT

Type : String

Dimension : 1

Mnemo T3D_FILES(T3ATMB)

DEFAULT VALUE : 'SERAFIN?'

French keyword : FORMAT DU FICHIER BINAIRE DE DONNEES ATMOSPHERIQUES

Format of the BINARY ATMOSPHERIC DATA FILE. Possible choices are:

- SERAFIN : classical single precision format in TELEMAT,
- SERAFIND: classical double precision format in TELEMAT,
- MED : MED double precision format based on HDF5.

1.32 BINARY BOUNDARY DATA FILE

Type : String

Dimension : 1

Mnemo T3D_FILES(T3DBND)%NAME

DEFAULT VALUE : "

French keyword : FICHIER BINAIRE DE DONNEES DE FRONTIERE

Binary-coded data file containing the boundary conditions data varying in time and space.

1.33 BINARY BOUNDARY DATA FILE FORMAT

Type : String

Dimension : 1

Mnemo T3D_FILES(T3DBND)

DEFAULT VALUE : 'SERAFIN?'

French keyword : FORMAT DU FICHIER BINAIRE DE DONNEES DE FRONTIERE

Format of the BINARY BOUNDARY DATA FILE. Possible values are:

- SERAFIN : classical single precision format in Telemac;

- SERAFIND: classical double precision format in Telemac;
- MED : MED format based on HDF5.

1.34 BINARY DATA FILE 1

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DBI1)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DE DONNEES BINAIRE 1
 Data file in binary mode available to the user.

1.35 BINARY DATA FILE 1 FORMAT

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DBI1)%FMT
 DEFAULT VALUE : 'SERAFIN?'
 French keyword : FORMAT DU FICHIER DE DONNEES BINAIRE 1
 Format of the BINARY DATA FILE 1. Possible choices are:

- SERAFIN : classical single precision format in TELEMAC,
- SERAFIND: classical double precision format in TELEMAC,
- MED : MED double precision format based on HDF5.

1.36 BINARY DATA FILE 2

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DBI2)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DE DONNEES BINAIRE 2
 Data file in binary mode available to the user.

1.37 BINARY DATABASE 1 FOR TIDE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DBB1)
 DEFAULT VALUE : "
 French keyword : BASE BINAIRE 1 DE DONNEES DE MAREE
 File name for the binary database 1 of tidal harmonic constants. In the case of the OSU satellite altimetry model (TPXO type), this file should be for free surface level, for instance h_tpxo7.2.

1.38 BINARY DATABASE 2 FOR TIDE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DBB2)
 DEFAULT VALUE : "
 French keyword : BASE BINAIRE 2 DE DONNEES DE MAREE

File name for the binary database 2 of tidal harmonic constants. In the case of the OSU satellite altimetry model (TPXO type), this file should be for tidal velocities, for instance u_tpxo7.2.

1.39 BINARY RESULTS FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DRBI)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DE RESULTATS BINAIRE
 Additional binary-coded result file made available to the user.

1.40 BOTTOM SURFACES DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DDL5)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DELWAQ DES SURFACES DU FOND
 Results file for coupling with DELWAQ.

1.41 BOTTOM TOPOGRAPHY FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DFON)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DES FONDS
 Name of the possible file containing the bathymetric data. Where this keyword is used, these bathymetric data shall be used in the computation.

1.42 BOUNDARY CONDITION ON THE BOTTOM

Type : Integer
 Dimension : 1
 Mnemo BC_BOTTOM
 DEFAULT VALUE : 1
 French keyword : CONDITION A LA LIMITE AU FOND
 Specifies the type of boundary conditions on the bottom layer. Possible choices are:

- 1: Neumann conditions on velocity on bottom,
- 2: velocities will be set to 0. Should be linked to a refined mesh near the bottom.

1.43 BOUNDARY CONDITIONS FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DCLI)%NAME
 DEFAULT VALUE : 'MANDATORY'
 French keyword : FICHIER DES CONDITIONS AUX LIMITES
 Name of the file containing the types of boundary conditions. This file is filled automatically by the mesh generator through colours that are assigned to the boundary nodes.

1.44 BYPASS VOID VOLUMES

Type : Logical
 Dimension : 1
 Mnemo BYPASS
 DEFAULT VALUE : NO
 French keyword : CONTOURNEMENT DES VOLUMES NULS

Will speed-up distributive and finite volumes advection schemes in case of tidal flats or generalised sigma transformation.

1.45 CHECKING THE MESH

Type : Logical
 Dimension : 1
 Mnemo CHECK_MESH
 DEFAULT VALUE : NO
 French keyword : VERIFICATION DU MAILLAGE

If this key word is equal to YES, a call to subroutine **CHECKMESH** will look for errors in the mesh, superimposed points, etc.

1.46 COEFFICIENT FOR HORIZONTAL DIFFUSION OF TRACERS

Type : Real
 Dimension : 2
 Mnemo DNUTAH
 DEFAULT VALUE : MANDATORY
 French keyword : COEFFICIENT DE DIFFUSION HORIZONTAL DES TRACEURS

Sets the values of the horizontal diffusion of tracers. These values may have a significant effect on the evolution of tracers in time. Since version 7.1, it has been an array, with one value per tracer, separated by semicolons.

1.47 COEFFICIENT FOR HORIZONTAL DIFFUSION OF VELOCITIES

Type : Real
 Dimension : 1
 Mnemo DNUVIH
 DEFAULT VALUE : 1.E-6
 French keyword : COEFFICIENT DE DIFFUSION HORIZONTAL DES VITESSES

Sets, in an even way for the whole domain, the value of the coefficient of global (dynamic+turbulent) viscosity for the horizontal direction. This value may have a significant effect both on the shapes and sizes of recirculation zones.

1.48 COEFFICIENT FOR VERTICAL DIFFUSION OF TRACERS

Type : Real
 Dimension : 2
 Mnemo DNUTAV
 DEFAULT VALUE : MANDATORY
 French keyword : COEFFICIENT DE DIFFUSION VERTICAL DES TRACEURS

Sets the values of the vertical diffusion of tracers. These values may have a significant effect on the evolution of tracers in time. Since version 7.1, it has been an array, with one value per tracer, separated by semicolons.

1.49 COEFFICIENT FOR VERTICAL DIFFUSION OF VELOCITIES

Type : Real
 Dimension : 1
 Mnemo DNUVIV
 DEFAULT VALUE : 1.E-6

French keyword : COEFFICIENT DE DIFFUSION VERTICAL DES VITESSES
 Sets, in an even way for the whole domain, the value of the coefficient of global (dynamic+turbulent) viscosity for the horizontal direction. This value may have a significant effect both on the shapes and sizes of recirculation zones.

1.50 COEFFICIENT OF WIND INFLUENCE

Type : Real
 Dimension : 1
 Mnemo FAIR
 DEFAULT VALUE : 0.

French keyword : COEFFICIENT D'INFLUENCE DU VENT
 Sets the value of the wind driving coefficient. See the User Manual for the value to give.

1.51 COEFFICIENT OF WIND INFLUENCE VARYING WITH WIND SPEED

Type : Logical
 Dimension : 0
 Mnemo FAIRACCU
 DEFAULT VALUE : NO

French keyword : COEFFICIENT D'INFLUENCE DU VENT DEPENDANT DE LA VITESSE DU VENT
 If YES, the value of the wind driving coefficient is computed with respect to the wind velocity.
 The value of COEFFICIENT OF WIND INFLUENCE is overwritten.

1.52 COEFFICIENT RELATIVE TO FLOC DESTRUCTION

Type : Real
 Dimension : 1
 Mnemo TURBB
 DEFAULT VALUE : 0.09

French keyword : COEFFICIENT TRADUISANT LA DESTRUCTION DES FLOCS
 When the influence of turbulence on the settling velocity is modelled, this coefficient traduces the breaking of flocs by turbulence (coefficient b of Van Leussen formula). Value to be imposed if INFLUENCE OF TURBULENCE ON SETTLING VELOCITY = YES.

1.53 COEFFICIENT TO CALIBRATE SEA LEVEL

Type : Real
 Dimension : 1
 Mnemo MSL
 DEFAULT VALUE : 0.

French keyword : COEFFICIENT DE CALAGE DU NIVEAU DE MER
 Coefficient to calibrate the sea level. This coefficient usually corresponds to the mean sea level or a close value.

1.54 COEFFICIENT TO CALIBRATE TIDAL RANGE

Type : Real

Dimension : 1

Mnemo CTIDE

DEFAULT VALUE : 1.

French keyword : COEFFICIENT DE CALAGE DU MARNAGE

Coefficient to calibrate the tidal range of tidal wave at tidal open boundary conditions.

1.55 COEFFICIENT TO CALIBRATE TIDAL VELOCITIES

Type : Real

Dimension : 1

Mnemo CTIDEV

DEFAULT VALUE : 999999.

French keyword : COEFFICIENT DE CALAGE DES VITESSES DE COURANT

Coefficient to calibrate the tidal velocities of tidal wave at tidal open boundary conditions. Default value 999999. means that the square root of COEFFICIENT TO CALIBRATE TIDAL RANGE is taken.

1.56 COHESIVE SEDIMENT

Type : Logical

Dimension : 1

Mnemo SEDCO

DEFAULT VALUE : NO

French keyword : SEDIMENT COHESIF

Tells if the sediment is cohesive or not.

1.57 COMPUTATION CONTINUED

Type : Logical

Dimension : 1

Mnemo DEBU

DEFAULT VALUE : NO

French keyword : SUITE DE CALCUL

Determines whether the computation under way is independent or is following an earlier result.

- NO: It is the first run for this computation and a whole set of initial conditions should be defined,
- YES: It follows a former computation: the initial conditions consist in the last time step of the PREVIOUS COMPUTATION FILE defined in the steering file used for submitting the computation.

All the data from the steering file may be defined once again, which provides an opportunity to change, for example, the time step, the turbulence model, the friction, to add or remove a tracer...

It is also possible to define new boundary conditions (in the subroutine **BORD3D** or values defined in the steering file).

In order to get a perfect continued computation, the user has to activate the **RESTART MODE** in a previous computation to generate the file from which the following computation starts (**RESTART FILE**).

1.58 CONSOLIDATION

Type : Logical
 Dimension : 1
 Mnemo TASSE
 DEFAULT VALUE : NO
 French keyword : TASSEMENT DE LA VASE

If this key word is equal to YES, consolidation is simulated thanks to a multi-layers model: the bed layers are characterized by their residence time which is the time after which the quantity of mud which remains in a layer goes into a more consolidated layer.

1.59 CONSOLIDATION MODEL

Type : Integer
 Dimension : 1
 Mnemo ITASS
 DEFAULT VALUE : 1
 French keyword : OPTION DU MODELE DE TASSEMENT

Choice of the consolidation model:

- 1: Empirical multilayer model,
- 2: Gibson model (Lenormant).

1.60 CONSTANT SEDIMENT SETTLING VELOCITY

Type : Real
 Dimension : 1
 Mnemo WCHU0
 DEFAULT VALUE : 0.01
 French keyword : VITESSE DE CHUTE CONSTANTE

Constant sediment settling velocity in m/s (>0 since v6.3). Prescribed value if INFLUENCE OF TURBULENCE ON SETTLING VELOCITY = NO.

1.61 CONTINUITY CORRECTION ON OPEN BOUNDARIES

Type : Logical
 Dimension : 1
 Mnemo CONCOR
 DEFAULT VALUE : NO

French keyword : CORRECTION DE CONTINUITE SUR FRONTIERES OUVERTES
 Changes the free velocities on open boundaries to get a better divergence-free field.

1.62 CORIOLIS

Type : Logical
 Dimension : 1
 Mnemo CORIOL
 DEFAULT VALUE : NO
 French keyword : CORIOLIS

The Coriolis force is taken into account or ignored.

1.63 CORIOLIS COEFFICIENT

Type : Real
 Dimension : 1
 Mnemo FCOR
 DEFAULT VALUE : 0.

French keyword : COEFFICIENT DE CORIOLIS

Sets the value of the Coriolis force coefficient, in cartesian coordinates. This coefficient, denoted **FCOR** in the code, should be equal to $2\omega \sin(l)$ where ω denotes the earth angular speed of rotation and l the latitude. $\omega = 7.29 \cdot 10^{-5}$ rad/s.

The Coriolis force components are then:

$$FU = FCOR \times V,$$

$$FV = -FCOR \times U.$$

When using the spherical coordinates, the Coriolis coefficient is automatically computed.

1.64 COUPLING PERIOD FOR SISYPHE

Type : Integer
 Dimension : 1
 Mnemo PERCOU_SIS
 DEFAULT VALUE : 1

French keyword : PERIODE DE COUPLAGE POUR SISYPHE

Sets the coupling period with the SISYPHE module, in number of time steps. By default, it is coupled at every time step.

1.65 COUPLING PERIOD FOR TOMAWAC

Type : Integer
 Dimension : 1
 Mnemo PERCOU_WAC
 DEFAULT VALUE : 1

French keyword : PERIODE DE COUPLAGE POUR TOMAWAC

Sets the coupling period with the TOMAWAC module, in number of time steps. By default, it is coupled at every time step.

1.66 COUPLING WITH

Type : String
 Dimension : 1
 Mnemo COUPLING, IN BIEF
 DEFAULT VALUE : 'NOTHING'

French keyword : COUPLAGE AVEC

List of codes to be coupled with TELEMAT-3D:

- SISYPHE: internal coupling with SISYPHE,
- TOMAWAC: internal coupling with TOMAWAC,
- WAQTEL: internal coupling with WAQTEL,
- DELWAQ: will yield results file for DELWAQ.

1.67 CRITICAL EROSION SHEAR STRESS OF THE MUD LAYERS

Type : Real
 Dimension : 2
 Mnemo TOCE_LAYER
 DEFAULT VALUE : MANDATORY
 French keyword : CONTRAINTE CRITIQUE D'EROSION DES COUCHES DE VASE
 Critical erosion shear stress of the mud per layer (N/m^2). Needs to be defined for each layer (N/m^2), starting from the consolidated bottom layer upwards.

1.68 CRITICAL SHEAR STRESS FOR DEPOSITION

Type : Real
 Dimension : 1
 Mnemo TOCD
 DEFAULT VALUE : 0.2
 French keyword : CONTRAINTE CRITIQUE DE DEPOT
 Value of the critical bottom shear stress under which deposition of cohesive sediments occurs.

1.69 CULVERTS DATA FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DBUS)
 DEFAULT VALUE : "
 French keyword : FICHER DE DONNEES DES BUSES
 Description of culverts/bridges existing in the model.

1.70 DAMPING FUNCTION

Type : Integer
 Dimension : 1
 Mnemo DAMPING
 DEFAULT VALUE : 0
 French keyword : FONCTION D'AMORTISSEMENT
 Specifies the type of damping function used (when using mixing length turbulence model). The possible choices are:

- 0: nothing,
- 1: user programmed,
- 2: Viollet,
- 3: Munk and Anderson.

1.71 DEBUGGER

Type : Integer
 Dimension : 1
 Mnemo DEBUG
 DEFAULT VALUE : 0
 French keyword : DEBUGGER
 If 1, additional writings will be printed in the listing, in particular the calls of subroutines.

1.72 DEFAULT EXECUTABLE

Type : String
 Dimension : 1
 Mnemo EXEDEF
 DEFAULT VALUE : 'builds\PPP\bin\telemac3d\MMMVVV.exe'
 French keyword : EXECUTABLE PAR DEFAULT
 Default executable for TELEMAC-3D.

1.73 DEFAULT PARALLEL EXECUTABLE

Type : String
 Dimension : 1
 Mnemo EXEDEFPARA
 DEFAULT VALUE : 'builds\PPP\bin\telemac3d\MMMVVV.exe'
 French keyword : EXECUTABLE PARALLELE PAR DEFAULT
 Default parallel executable for TELEMAC-3D.

1.74 DELWAQ PRINTOUT PERIOD

Type : Integer
 Dimension : 1
 Mnemo WAQPRD
 DEFAULT VALUE : 1
 French keyword : PERIODE DE SORTIE POUR DELWAQ
 Printout period for DELWAQ files.

1.75 DELWAQ STEERING FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DL11)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DE COMMANDE DELWAQ
 Steering file for coupling with DELWAQ.

1.76 DENSITY LAW

Type : Integer
 Dimension : 1
 Mnemo DENLAW
 DEFAULT VALUE : 0
 French keyword : LOI DE DENSITE

Gives the type of the law of density used in the case of active tracers. The possible choices are:

- 0: nothing,
- 1: function of temperature,
- 2: function of salinity,
- 3: function of temperature and salinity,
- 4: function of BETA given coefficient.

1.77 DENSITY OF THE SEDIMENT

Type : Real
 Dimension : 1
 Mnemo RHOS
 DEFAULT VALUE : 2650.
 French keyword : MASSE VOLUMIQUE DU SEDIMENT
 Value of the sediment density (kg/m³).

1.78 DESCRIPTION OF LIBRARIES

Type : String
 Dimension : 11
 Mnemo LINKLIBS
 DEFAULT VALUE : 'builds\PPP\lib\telemac3dMMMVVV.LLL;
 builds\PPP\lib\telemac2dMMMVVV.LLL;
 builds\PPP\lib\tomawacMMMVVV.LLL;
 builds\PPP\lib\sisypheMMMVVV.LLL;
 builds\PPP\lib\nestorMMMVVV.LLL;
 builds\PPP\lib\waqtelMMMVVV.LLL;
 builds\PPP\lib\biefMMMVVV.LLL;
 builds\PPP\lib\hermesMMMVVV.LLL;
 builds\PPP\lib\damoMMMVVV.LLL;
 builds\PPP\lib\parallelMMMVVV.LLL;
 builds\PPP\lib\specialMMMVVV.LLL'
 French keyword : DESCRIPTION DES LIBRAIRIES
 Libraries description of TELEMAC-3D.

1.79 DICTIONARY

Type : String
 Dimension : 1
 Mnemo
 DEFAULT VALUE : 'telemac3d.dico'
 French keyword : DICTIONNAIRE
 Key word dictionary.

1.80 DIFFUSION FOR DELWAQ

Type : Logical
 Dimension : 1
 Mnemo DIFF_DEL
 DEFAULT VALUE : NO
 French keyword : DIFFUSION POUR DELWAQ
 Triggers the output of diffusion for DELWAQ.

1.81 DIFFUSIVITY DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DL10)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DELWAQ DE LA DIFFUSION
 Results file for coupling with DELWAQ.

1.82 DROGUES FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DFLO)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DES FLOTTEURS
 Results file with positions of drogues.

1.83 DURATION

Type : Real
 Dimension : 1
 Mnemo DUREE
 DEFAULT VALUE : 0.
 French keyword : DUREE DU CALCUL
 Sets the duration of the simulation in seconds. May be used instead of the parameter NUMBER OF TIME STEPS. The nearest integer to (duration/time step) is taken. If NUMBER OF TIME STEPS is also given, the greater value is taken.

1.84 DYNAMIC BOUNDARY CONDITION

Type : Logical
 Dimension : 1
 Mnemo CLDYN
 DEFAULT VALUE : NO
 French keyword : CONDITION LIMITE DYNAMIQUE
 If YES, will set at the free surface a velocity obeying the dynamic boundary condition.

1.85 DYNAMIC PRESSURE IN WAVE EQUATION

Type : Logical
 Dimension : 1
 Mnemo DPWAVEQ
 DEFAULT VALUE : NO
 French keyword : PRESSION DYNAMIQUE DANS L'EQUATION D'ONDE
 Defines if an estimated pressure gradient is taken into account in the wave equation.

1.86 ELEMENT

Type : String
 Dimension : 1
 Mnemo ELEMENT
 DEFAULT VALUE : 'PRISM'
 French keyword : ELEMENT

Specifies the type of elements used in the computation. The possible choices are:

- PRISM: superimposed meshes of triangles,
- TETRAHEDRON: the same but prisms are split into tetrahedrons.

1.87 ELEMENTS MASKED BY USER

Type : Logical
 Dimension : 1
 Mnemo MSKUSE
 DEFAULT VALUE : NO
 French keyword : ELEMENTS MASQUES PAR L'UTILISATEUR

If YES, fill in the subroutine **MASKOB**.

1.88 ELEVATIONS OF SOURCES

Type : Real
 Dimension : 2
 Mnemo ZSCE
 DEFAULT VALUE : MANDATORY
 French keyword : COTES DES SOURCES

Sets the height of the sources. The source will be located at the nearest plane in the mesh. The use of a fixed plane is then recommended to avoid the change of the nearest plane in case of variation of local water height.

1.89 EROSION COEFFICIENT

Type : Real
 Dimension : 1
 Mnemo MPART
 DEFAULT VALUE : 2.E-3
 French keyword : COEFFICIENT D'EROSION

Value of the erosion coefficient used in Partheniades formula in $\text{kg/m}^2/\text{s}$.

1.90 EXCHANGE AREAS DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DDL2)%NAME
 DEFAULT VALUE : ""
 French keyword : FICHIER DELWAQ DES SURFACES DE FLUX

Results file for coupling with DELWAQ.

1.91 EXCHANGES BETWEEN NODES DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DDL6)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DELWAQ DES ECHANGES ENTRE NOEUDS
 Results file for coupling with DELWAQ.

1.92 FICTITIOUS BED LEVEL

Type : Real
 Dimension : 1
 Mnemo FICT
 DEFAULT VALUE : 2.0
 French keyword : HAUTEUR DU LIT FICTIF
 Ratio between the fictitious bed and the grid size above the bed.

1.93 FILE FOR 2D CONTINUATION

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DS2D)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER POUR SUITE 2D
 File to be used in case of 2D continuation.

1.94 FILE FOR 2D CONTINUATION FORMAT

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DS2D)%FMT
 DEFAULT VALUE : 'SERAFIN?'
 French keyword : FORMAT DU FICHIER POUR SUITE 2D
 Format of the FILE FOR 2D CONTINUATION. Possible choices are:

- SERAFIN : classical single precision format in TELEMAC,
- SERAFIND: classical double precision format in TELEMAC,
- MED : MED double precision format based on HDF5.

1.95 FLOCCULATION

Type : Logical
 Dimension : 1
 Mnemo FLOC
 DEFAULT VALUE : NO
 French keyword : FLOCCULATION
 Decides if hindered formulation is to be used to compute settling velocity for mud.

1.96 FLOCCULATION COEFFICIENT

Type : Real
 Dimension : 1
 Mnemo TURBA
 DEFAULT VALUE : 0.3

French keyword : COEFFICIENT TRADUISANT LA FORMATION DES FLOCS
 When the influence of turbulence on the settling velocity is modelled, this coefficient traduces the formation of flocs by turbulence (coefficient a of Van Leussen formula). Value to be imposed if INFLUENCE OF TURBULENCE ON SETTLING VELOCITY = YES.

1.97 FLOCCULATION FORMULA

Type : Integer
 Dimension : 1
 Mnemo FLOC_TYPE
 DEFAULT VALUE : 1

French keyword : FORMULE POUR FLOCCULATION
 Type of flocculation formula:

- 1: Van Leussen,
- 2: Soulsby et al. (2013).

1.98 FORMATTED DATA FILE 1

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DFO1)%NAME
 DEFAULT VALUE : "

French keyword : FICHIER DE DONNEES FORMATE 1
 Formatted data file available to the user.

1.99 FORMATTED DATA FILE 2

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DFO2)%NAME
 DEFAULT VALUE : "

French keyword : FICHIER DE DONNEES FORMATE 2
 Formatted data file available to the user.

1.100 FORMATTED RESULTS FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DRFO)%NAME
 DEFAULT VALUE : "

French keyword : FICHIER DE RESULTATS FORMATE
 Formatted file of results made available to the user.

1.101 FORTRAN FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DFORT)%NAME
 DEFAULT VALUE : 'DEFAULT'
 French keyword : FICHIER FORTRAN

Name of the FORTRAN file to be submitted, including specific subroutines of the model.

1.102 FREE SURFACE GRADIENT COMPATIBILITY

Type : Real
 Dimension : 1
 Mnemo TETAZCOMP
 DEFAULT VALUE : 1.
 French keyword : COMPATIBILITE DU GRADIENT DE SURFACE LIBRE

Values between 0 and 1 may suppress spurious oscillations.

1.103 FRICTION COEFFICIENT FOR LATERAL SOLID BOUNDARIES

Type : Real
 Dimension : 1
 Mnemo RUGOLO
 DEFAULT VALUE : 60.
 French keyword : COEFFICIENT DE FROTTEMENT POUR LES PAROIS LATERALES

Friction coefficient on the lateral boundaries, if constant.

1.104 FRICTION COEFFICIENT FOR THE BOTTOM

Type : Real
 Dimension : 1
 Mnemo RUGOF0
 DEFAULT VALUE : 60.
 French keyword : COEFFICIENT DE FROTTEMENT POUR LE FOND

Friction coefficient on the bottom, if constant.

1.105 GEOGRAPHIC SYSTEM

Type : Integer
 Dimension : 1
 Mnemo GEOSYST
 DEFAULT VALUE : -1
 French keyword : SYSTEME GEOGRAPHIQUE

Geographic coordinates system in which the numerical model is built. Indicate the corresponding zone with the keyword. The possible choices are:

- 0: defined by the user,
- 1: WGS84 longitude/latitude in real degrees,
- 2: WGS84 Northern UTM,
- 3: WGS84 Southern UTM,

- 4: Lambert,
- 5: Mercator projection.

1.106 GEOMETRY FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DGEO)%NAME
 DEFAULT VALUE : 'MANDATORY'
 French keyword : FICHIER DE GEOMETRIE

Name of the file containing the mesh. This file may also contain the topography and the friction coefficients.

1.107 GEOMETRY FILE FORMAT

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DGEO)%FMT
 DEFAULT VALUE : 'SERAFIN?'
 French keyword : FORMAT DU FICHIER DE GEOMETRIE

Format of the GEOMETRY FILE. Possible choices are:

- SERAFIN : classical single precision format in TELEMAC,
- SERAFIND: classical double precision format in TELEMAC,
- MED : MED double precision format based on HDF5.

1.108 GLOBAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER

Type : Integer
 Dimension : 1
 Mnemo ICALHWG
 DEFAULT VALUE : 0

French keyword : NUMERO GLOBAL DU POINT POUR CALER LA PLEINE MER

Global number of the point with respect to which the tidal constituents have their phase shifted to start the calculation with a high water (for schematic tides only). Only harmonic constants databases like TPXO are concerned.

1.109 GLOBAL NUMBERS OF SOURCE NODES

Type : Integer
 Dimension : 2
 Mnemo ISCE
 DEFAULT VALUE : MANDATORY

French keyword : NUMEROS GLOBAUX DES NOEUDS DES SOURCES

Global numbers of nodes in the 2D mesh that correspond to source point locations.

1.110 GRAPHIC PRINTOUT PERIOD

Type : Integer
 Dimension : 1
 Mnemo GRAPRD
 DEFAULT VALUE : 1

French keyword : PERIODE POUR LES SORTIES GRAPHIQUES

Determines, in number of time steps, the printout period for the VARIABLES FOR 2D (or 3D) GRAPHIC PRINTOUTS in the 2D or 3D RESULT FILE.

1.111 GRAVITY ACCELERATION

Type : Real
 Dimension : 1
 Mnemo GRAV
 DEFAULT VALUE : 9.81

French keyword : ACCELERATION DE LA PESANTEUR

Sets the value of the acceleration due to gravity in m/s^2 .

1.112 HARMONIC CONSTANTS FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DHAR)%NAME
 DEFAULT VALUE : "

French keyword : FICHIER DES CONSTANTES HARMONIQUES

Name of the file containing the harmonic constants extracted from the tidal model file (JMJ) or other atlases (FES, NEA, PREVIMER).

1.113 HINDERED SETTLING

Type : Logical
 Dimension : 1
 Mnemo HINDER
 DEFAULT VALUE : NO

French keyword : VITESSE DE CHUTE ENTRAVEE

Decides if hindered formulation is to be used to compute settling velocity for mud.

1.114 HINDERED SETTLING FORMULA

Type : Integer
 Dimension : 1
 Mnemo HIND_TYPE
 DEFAULT VALUE : 1

French keyword : FORMULE POUR VITESSE DE CHUTE ENTRAVEE

Type of hindered settling:

- 1: Whitehouse et al. (2000) - working,
- 2: Winterwerp (1999) - not currently working.

1.115 HORIZONTAL TURBULENCE MODEL

Type : Integer
 Dimension : 1
 Mnemo ITURBH
 DEFAULT VALUE : 1
 French keyword : MODELE DE TURBULENCE HORIZONTAL
 Specifies the horizontal turbulence model. The available choices are:

- 1: constant viscosity,
- 3: k - ε model,
- 4: Smagorinski,
- 7: k - ω model.

Caution: if option 1 is chosen, give the right COEFFICIENT FOR... DIFFUSION OF VELOCITIES... If option 3 ou 7 is chosen, this parameter must get its real physical value of molecular diffusivity, generally about 10^{-6} because it is used as well in the turbulence model.

1.116 HYDROSTATIC INCONSISTENCY FILTER

Type : Logical
 Dimension : 1
 Mnemo INCHYD
 DEFAULT VALUE : NO
 French keyword : FILTRE LES INCONSISTANCES HYDROSTATIQUES
 Allows to filter hydrostatic inconsistencies.

1.117 IMPLICITATION FOR DEPTH

Type : Real
 Dimension : 1
 Mnemo TETAH
 DEFAULT VALUE : 0.55
 French keyword : IMPLICITATION POUR LA HAUTEUR
 Sets the value of the implicitation coefficient for water depth in the propagation step (cf. Principe note). The values lower than 0.5 give an instable scheme.

1.118 IMPLICITATION FOR DIFFUSION

Type : Real
 Dimension : 1
 Mnemo TETADI
 DEFAULT VALUE : 1.
 French keyword : IMPLICITATION POUR LA DIFFUSION
 Sets the value of the implicitation coefficient for the diffusion step. When OPTION FOR THE DIFFUSION = 2, this value is changed at 0 and a specific treatment is done for the diffusion.

1.119 IMPLICITATION FOR VELOCITIES

Type : Real
 Dimension : 1
 Mnemo TETAU
 DEFAULT VALUE : 1.
 French keyword : IMPLICITATION POUR LES VITESSES

Sets the value of the implicitation coefficient for the velocity in the propagation step (cf. Principe note). The values lower than 0.5 give an instable scheme.

1.120 INFORMATION ABOUT MASS-BALANCE FOR EACH LISTING PRINTOUT

Type : Logical
 Dimension : 1
 Mnemo INFMAS
 DEFAULT VALUE : YES
 French keyword : INFORMATION SUR LE BILAN DE MASSE A CHAQUE SORTIE LISTING

Gives the information about mass-balance at every LISTING PRINTOUT PERIOD.

1.121 INITIAL CONDITIONS

Type : String
 Dimension : 1
 Mnemo CDTINI
 DEFAULT VALUE : 'ZERO ELEVATION'
 French keyword : CONDITIONS INITIALES

Makes it possible to define the initial conditions of the water depth. The possible values are as follows:

- ZERO ELEVATION: Initializes the free surface elevation to 0. The initial water depths are then found by computing the difference between the free surface and the bottom,
- CONSTANT ELEVATION: Initializes the water elevation to the value given by the keyword INITIAL ELEVATION. The initial water depths are computed as in the previous case,
- ZERO DEPTH: Initializes the water depths to 0.
- CONSTANT DEPTH: Initializes the water depths to the value given by the keyword INITIAL DEPTH,
- TPXO SATELITE ALTIMETRY: The initial conditions on the free surface and velocities are established from the satellite program data given by the harmonic constants database coming from OSU (e.g. TPXO),
- SPECIAL or PARTICULAR: The initial conditions with the water depth should be stated in the **CONDIN** subroutine.

1.122 INITIAL DEPTH

Type : Real
 Dimension : 1
 Mnemo HAUTIN
 DEFAULT VALUE : 0.
 French keyword : HAUTEUR INITIALE

Value to be used along with the option: INITIAL CONDITIONS : "CONSTANT DEPTH".

1.123 INITIAL ELEVATION

Type : Real
 Dimension : 1
 Mnemo COTINI
 DEFAULT VALUE : 0.
 French keyword : COTE INITIALE

Value to be used with the option : INITIAL CONDITIONS : "CONSTANT ELEVATION".

1.124 INITIAL GUESS FOR DEPTH

Type : Integer
 Dimension : 1
 Mnemo IORDRH
 DEFAULT VALUE : 1
 French keyword : ORDRE DU TIR INITIAL POUR LA HAUTEUR

Initial guess for the solver in the propagation step. Makes it possible to modify the initial value of δh , upon each iteration in the propagation step, by using the ultimate values this variable had in the earlier time steps. Thus, the convergence can be speeded up when the system is being solved. 3 options are available:

- 0: $\delta h = 0$,
- 1: $\delta h = \delta h_n$ (ultimate δh value in the next previous time step),
- 2: $\delta h = 2 \delta h_n - \delta h_{n-1}$ (extrapolation).

1.125 INITIAL PERCENTAGE OF NON COHESIVE SEDIMENT

Type : Real
 Dimension : 1
 Mnemo PVSNCOO
 DEFAULT VALUE : 0.
 French keyword : POURCENTAGE INITIAL DE SEDIMENT NON COHESIF

Initial percentage of non cohesive sediment (mixed sediments).

1.126 INITIAL THICKNESS OF SEDIMENT LAYERS

Type : Real
 Dimension : 2
 Mnemo ES_LAYER
 DEFAULT VALUE : MANDATORY
 French keyword : EPAISSEURS INITIALES DES COUCHES

Sediment layers thickness (m) for initialisation.

1.127 INITIAL TIME SET TO ZERO

Type : Logical
 Dimension : 1
 Mnemo RAZTIM
 DEFAULT VALUE : NO
 French keyword : REMISE A ZERO DU TEMPS

Initial time set to zero in case of restart.

1.128 INITIAL VALUES OF TRACERS

Type : Real
 Dimension : 2
 Mnemo TRAC0
 DEFAULT VALUE : MANDATORY
 French keyword : VALEURS INITIALES DES TRACEURS
 Sets the initial values of tracers.

1.129 KARMAN CONSTANT

Type : Real
 Dimension : 1
 Mnemo KARMAN
 DEFAULT VALUE : 0.4
 French keyword : CONSTANTE DE KARMAN
 Value of Von Karman's constant.

1.130 LAMBERT 93 CONVERSION FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DL93)
 DEFAULT VALUE : "
 French keyword : FICHIER DE CONVERSION LAMBERT 93
 Name of file gr3df97a.txt, conversion grid for Lambert 93.

1.131 LATITUDE OF ORIGIN POINT

Type : Real
 Dimension : 1
 Mnemo LATIT
 DEFAULT VALUE : 0.
 French keyword : LATITUDE DU POINT ORIGINE
 Gives the value of the latitude of the origin point of the mesh (for the Mercator projection, see the keyword GEOGRAPHIC SYSTEM).

1.132 LAW OF BOTTOM FRICTION

Type : Integer
 Dimension : 1
 Mnemo KFROT
 DEFAULT VALUE : 2
 French keyword : LOI DE FROTTEMENT SUR LE FOND
 Selects the type of formulation used for the bottom friction. The possible laws are as follows (refer to the Principle note):

- 0: no friction against bottom,
- 1: Haaland's formula,

- 2: Chezy's formula,
- 3: Strickler's formula,
- 4: Manning's formula,
- 5: Nikuradse's formula.

1.133 LAW OF FRICTION ON LATERAL BOUNDARIES

Type : Integer
 Dimension : 1
 Mnemo KFROTL
 DEFAULT VALUE : 0

French keyword : LOI DE FROTTEMENT SUR LES PAROIS LATERALES

Selects the type of formulation used for the friction on lateral boundaries. The possible laws are as follows (refer to the Principle note):

- 0: no friction, or **AUBOR** given by the BOUNDARY CONDITION FILE,
- 5: Nikuradse's formula.

1.134 LINEARIZED PROPAGATION

Type : Logical
 Dimension : 1
 Mnemo PROLIN
 DEFAULT VALUE : NO

French keyword : PROPAGATION LINEARISEE

Provided for linearizing the propagation step, e.g. when performing test-cases for which an analytical solution in the linearized case is available.

1.135 LIQUID BOUNDARIES FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DIMP)%NAME
 DEFAULT VALUE : "

French keyword : FICHER DES FRONTIERES LIQUIDES

File containing the variations in time of boundary conditions.

1.136 LIST OF FILES

Type :	String
Dimension :	46
Mnemo	
DEFAULT VALUE :	'STEERING FILE; DICTIONARY; FORTRAN FILE; GEOMETRY FILE; BOUNDARY CONDITIONS FILE; PREVIOUS COMPUTATION FILE; 3D RESULT FILE; BOTTOM TOPOGRAPHY FILE; 2D RESULT FILE; FORMATTED DATA FILE 1; FORMATTED DATA FILE 2; BINARY DATA FILE 1; BINARY DATA FILE 2; SEDIMENTOLOGICAL RESULT FILE; PREVIOUS COMPUTATION SEDIMENTOLOGICAL FILE; REFERENCE FILE; RESULT FILE FOR SUBIEF-3D; LIQUID BOUNDARIES FILE; VOLUMES DELWAQ FILE; EXCHANGE AREAS DELWAQ FILE; VERTICAL FLUXES DELWAQ FILE; SALINITY DELWAQ FILE; BOTTOM SURFACES DELWAQ FILE; EXCHANGES BETWEEN NODES DELWAQ FILE; NODES DISTANCES DELWAQ FILE; TEMPERATURE DELWAQ FILE; VELOCITY DELWAQ FILE; DIFFUSIVITY DELWAQ FILE; DELWAQ STEERING FILE; STAGE-DISCHARGE CURVES FILE; SOURCES FILE; BINARY RESULTS FILE; FORMATTED RESULTS FILE; RESTART FILE; OIL SPILL STEERING FILE; HARMONIC CONSTANTS FILE; TIDAL MODEL FILE; ASCII DATABASE FOR TIDE; BINARY DATABASE 1 FOR TIDE; BINARY DATABASE 2 FOR TIDE; DROGUES FILE; FILE FOR 2D CONTINUATION; CULVERTS DATA FILE; ASCII ATMOSPHERIC DATA FILE; BINARY ATMOSPHERIC DATA FILE; BINARY BOUNDARY DATA FILE'
French keyword :	LISTE DES FICHIERS

File names of the used files.

1.137 LISTING PRINTOUT

Type : Logical
 Dimension : 1
 Mnemo LISTIN
 DEFAULT VALUE : YES
 French keyword : SORTIE LISTING

Result printout on hard copy. When NO is selected, the listing only includes the heading and the phrase "NORMAL END OF PROGRAM". In addition, the options MASS-BALANCE and VALIDATION are inhibited. Not recommended for use.

1.138 LISTING PRINTOUT PERIOD

Type : Integer
 Dimension : 1
 Mnemo LISPRD
 DEFAULT VALUE : 1
 French keyword : PERIODE POUR LES SORTIES LISTING

Determines, in number of time steps, the printout period of the VARIABLES TO BE PRINTED. The results are systematically printed out on the listing file.

1.139 LOCAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER

Type : Integer
 Dimension : 1
 Mnemo ICALHWB
 DEFAULT VALUE : 0
 French keyword : NUMERO LOCAL DU POINT POUR CALER LA PLEINE MER

Local number between 1 and the number of tidal boundary points (of the HARMONIC CONSTANTS FILE) where the tidal boundary conditions are computed with JMJ, NEA, FES, PREVIMER databases (except TPXO-type databases). The tidal constituents have their phase shifted with respect to this point to start the simulation with a high water (for schematic tides only).

1.140 LONGITUDE OF ORIGIN POINT

Type : Real
 Dimension : 1
 Mnemo LONGIT
 DEFAULT VALUE : 0.
 French keyword : LONGITUDE DU POINT ORIGINE

Gives the value of the longitude of the origin point of the mesh (for the Mercator projection, see the keyword GEOGRAPHIC SYSTEM).

1.141 MASS-BALANCE

Type : Logical
 Dimension : 1
 Mnemo BILMAS
 DEFAULT VALUE : NO
 French keyword : BILAN DE MASSE

Determines whether a check of the mass-balance over the domain is done or not. This procedure computes the following at each time step:

- the domain inflows and outflows,
- the overall flow across all the boundaries,
- the relative error in the mass for that time step.

The relative error in the mass over the whole computation can be found at the end of the listing.

1.142 MASS-LUMPING FOR DEPTH

Type : Real
 Dimension : 1
 Mnemo AGGLOH
 DEFAULT VALUE : 0.

French keyword : MASS-LUMPING POUR LA HAUTEUR

TELEMAC-3D offers the possibility to perform mass-lumping on H or U . This gathers all or part (given the value of the coefficient) of the **AM1(H)** or **AM2(Ut)** and **AM3(V)** matrices on their diagonal. This technique can speed-up the code a lot and also render it more stable. Yet, the solutions are smoothened. This parameter sets the mass-lumping amount done for H . Not recommended for use.

1.143 MASS-LUMPING FOR DIFFUSION

Type : Real
 Dimension : 1
 Mnemo AGGLOD
 DEFAULT VALUE : 0.

French keyword : MASS-LUMPING POUR LA DIFFUSION

Mass-lumping of the mass-matrix in the diffusion step.

1.144 MASS-LUMPING FOR VELOCITIES

Type : Real
 Dimension : 1
 Mnemo AGGLOU
 DEFAULT VALUE : 0.

French keyword : MASS-LUMPING POUR LES VITESSES

Sets the amount of mass-lumping that is performed on the velocity. Not recommended for use.

1.145 MASS-LUMPING FOR WEAK CHARACTERISTICS

Type : Real
 Dimension : 1
 Mnemo AGGLOW
 DEFAULT VALUE : 0.

French keyword : MASS-LUMPING POUR LES CARACTERISTIQUES FAIBLES

Sets the amount of mass-lumping that is applied to the mass matrix when using weak characteristics.

1.146 MATRIX STORAGE

Type : Integer
 Dimension : 1
 Mnemo OPTASS
 DEFAULT VALUE : 3
 French keyword : STOCKAGE DES MATRICES
 Defines the method to store matrices. The possible choices are:

- 1: classical EBE,
- 3: edge-based storage.

1.147 MAXIMUM CONCENTRATION OF THE CONSOLIDATED MUD

Type : Real
 Dimension : 1
 Mnemo CFMAX
 DEFAULT VALUE : 500.
 French keyword : CONCENTRATION MAXIMUM DE LA VASE TASSEE
 Maximum concentration which may be reached by a mud layer during consolidation. This value is used if CONSOLIDATION MODEL = 2 (Gibson model (Lenormant)).

1.148 MAXIMUM NUMBER OF BOUNDARIES

Type : Integer
 Dimension : 1
 Mnemo MAXFRO
 DEFAULT VALUE : 30
 French keyword : NOMBRE MAXIMUM DE FRONTIERES
 Maximal number of boundaries in the mesh. Used for dimensioning arrays. Can be increased if needed.

1.149 MAXIMUM NUMBER OF BOUNDARIES ON THE BED

Type : Integer
 Dimension : 1
 Mnemo MAXBLB
 DEFAULT VALUE : 30
 French keyword : NOMBRE MAXIMUM DE FRONTIERES SUR LE FOND
 Maximal number of liquid boundaries on the bed. Used for dimensioning arrays. Can be increased if needed.

1.150 MAXIMUM NUMBER OF ITERATIONS FOR ADVECTION SCHEMES

Type : Integer
 Dimension : 1
 Mnemo MAXADV
 DEFAULT VALUE : 10
 French keyword : MAXIMUM D'ITERATIONS POUR LES SCHEMAS DE CONVECTION
 Limits the number of solver iterations for the advection schemes, only for schemes 13 and 14.

1.151 MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF K-EPSILON

Type : Integer

Dimension : 1

Mnemo SLVDKE%NITMAX

DEFAULT VALUE : 200

French keyword : MAXIMUM D'ITERATIONS POUR LA DIFFUSION DU K-EPSILON

Limits the number of solver iterations for the diffusion of k - ϵ .**1.152 MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF SEDIMENT**

Type : Integer

Dimension : 1

Mnemo SLVDSE%NITMAX

DEFAULT VALUE : 60

French keyword : MAXIMUM D'ITERATIONS POUR LA DIFFUSION DU SEDIMENT

Limits the number of solver iterations for the diffusion of sediment.

1.153 MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF TRACERS

Type : Integer

Dimension : 1

Mnemo SLVDTA(ITRAC)%NITMAX

DEFAULT VALUE : 60

French keyword : MAXIMUM D'ITERATIONS POUR LA DIFFUSION DES TRACEURS

Limits the number of solver iterations for the diffusion of tracers.

1.154 MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF VELOCITIES

Type : Integer

Dimension : 1

Mnemo SLVDVI%NITMAX

DEFAULT VALUE : 60

French keyword : MAXIMUM D'ITERATIONS POUR LA DIFFUSION DES VITESSES

Limits the number of solver iterations for the diffusion of velocities.

1.155 MAXIMUM NUMBER OF ITERATIONS FOR PPE

Type : Integer

Dimension : 1

Mnemo SLVPOI%NITMAX

DEFAULT VALUE : 100

French keyword : MAXIMUM D'ITERATIONS POUR PPE

Limits the number of solver iterations for the Poisson Pressure Equation.

1.156 MAXIMUM NUMBER OF ITERATIONS FOR PROPAGATION

Type : Integer

Dimension : 1

Mnemo SLVPRO%NITMAX

DEFAULT VALUE : 200

French keyword : MAXIMUM D'ITERATIONS POUR LA PROPAGATION

Since the algorithms used for solving the propagation step are iterative, the allowed number of

iterations should be limited. NOTE: a maximum number of 40 iterations per time step seems to be reasonable.

1.157 MAXIMUM NUMBER OF ITERATIONS FOR VERTICAL VELOCITY

Type : Integer
 Dimension : 1
 Mnemo SLVW%NITMAX
 DEFAULT VALUE : 100
 French keyword : MAXIMUM D'ITERATIONS POUR LA VITESSE VERTICALE
 Limits the number of solver iterations for the diffusion of vertical velocity.

1.158 MAXIMUM NUMBER OF SOURCES

Type : Integer
 Dimension : 1
 Mnemo MAXSCE
 DEFAULT VALUE : 20
 French keyword : NOMBRE MAXIMUM DE SOURCES
 Maximal number of source points in the mesh, including punctual sources and twice the number of culverts. Used for dimensioning arrays. Can be increased if needed.

1.159 MAXIMUM NUMBER OF TRACERS

Type : Integer
 Dimension : 1
 Mnemo MAXTRA
 DEFAULT VALUE : 20
 French keyword : NOMBRE MAXIMUM DE TRACEURS
 Maximal number of tracers. Used for dimensioning arrays. Can be increased if needed.

1.160 MEAN DEPTH FOR LINEARIZATION

Type : Real
 Dimension : 1
 Mnemo HAULIN
 DEFAULT VALUE : 0.
 French keyword : PROFONDEUR MOYENNE POUR LA LINEARISATION
 Sets the water depth about which the linearization is done when the LINEARIZED PROPAGATION option is selected.

1.161 MEAN DIAMETER OF THE SEDIMENT

Type : Real
 Dimension : 1
 Mnemo D50
 DEFAULT VALUE : .01
 French keyword : DIAMETRE MOYEN DES GRAINS
 Sets the value of the diameter D50 for non cohesive sediments.

1.162 MESH TRANSFORMATION

Type : Integer
 Dimension : 1
 Mnemo TRANSF
 DEFAULT VALUE : 1
 French keyword : TRANSFORMATION DU MAILLAGE

Specifies the distribution of vertical planes of the mesh. Possible choices are:

- 0: user defined (then subroutine **CALCOT** to be implemented),
- 1: sigma,
- 2: zstar,
- 3: horizontal fixed planes,
- 5: adaptive mesh.

This keyword must comply with what is done in **CONDIM** subroutine.

1.163 MINIMAL VALUE FOR DEPTH

Type : Real
 Dimension : 1
 Mnemo HMIN
 DEFAULT VALUE : -1000.
 French keyword : VALEUR MINIMALE POUR LA HAUTEUR

Sets the minimum water depth value *H*.

1.164 MINOR CONSTITUENTS INFERENCE

Type : Logical
 Dimension : 1
 Mnemo INTMICON
 DEFAULT VALUE : NO
 French keyword : INTERPOLATION DE COMPOSANTES MINEURES

For tidal solutions developed by OSU (e.g. TPXO) only. Inference of minor constituents from the ones read in input files linked to keywords **BINARY DATABASE 1 FOR TIDE** and **BINARY DATABASE 2 FOR TIDE**.

1.165 MIXED SEDIMENT

Type : Logical
 Dimension : 1
 Mnemo MIXTE
 DEFAULT VALUE : NO
 French keyword : SEDIMENT MIXTE

If YES, calculation of mixed sediment transport, there will be one cohesive sediment and one non cohesive sediment.

1.166 MIXING LENGTH MODEL

Type : Integer
 Dimension : 1
 Mnemo MIXING
 DEFAULT VALUE : 1
 French keyword : MODELE DE LONGUEUR DE MELANGE

Specifies the mixing length model used for vertical turbulence. Possible choices are:

- 1: Prandtl,
- 3: Nezu and Nakawaga,
- 5: Quetin,
- 6: TsaniS.

4 (jet) has been suppressed.

1.167 MUD CONCENTRATIONS PER LAYER

Type : Real
 Dimension : 2
 Mnemo CONC_LAYER
 DEFAULT VALUE : MANDATORY
 French keyword : CONCENTRATIONS DES COUCHES DE VASE

Dry density of the mud-bed layers in g/L starting from the bottom upwards.

1.168 NAMES OF 2D PRIVATE VARIABLES

Type : String
 Dimension : 4
 Mnemo NAMES_PRIVATE2D
 DEFAULT VALUE : 'MANDATORY'
 French keyword : NOMS DES VARIABLES PRIVEES 2D

Name of variables in 2D private arrays in 32 characters, 16 for the name, 16 for the unit. If present, will be read in the GEOMETRY FILE. Maximum number of 4 names.

1.169 NAMES OF TRACERS

Type : String
 Dimension : 2
 Mnemo NAMETRAC
 DEFAULT VALUE : 'MANDATORY'
 French keyword : NOMS DES TRACEURS

Name of tracers in 32 characters, 16 for the name, 16 for the unit.

1.170 NODES DISTANCES DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DDL7)%NAME
 DEFAULT VALUE : ""
 French keyword : FICHIER DELWAQ DES DISTANCES ENTRE NOEUDS

Results file for coupling with DELWAQ.

1.171 NON COHESIVE BED POROSITY

Type : Real
 Dimension : 1
 Mnemo XKV
 DEFAULT VALUE : 0.4

French keyword : POROSITE DU LIT NON COHESIF

The bed volume concentration $CFDEP = (1 - XKV) \times RHOS$ is used to calculate the bed evolution of non-cohesive sand transport.

1.172 NON-HYDROSTATIC VERSION

Type : Logical
 Dimension : 1
 Mnemo NONHYD
 DEFAULT VALUE : NO

French keyword : VERSION NON-HYDROSTATIQUE

Specifies the use of the non-hydrostatic code version or not.

1.173 NORTH

Type : Real
 Dimension : 1
 Mnemo NORD
 DEFAULT VALUE : 0.

French keyword : NORD

Angle of North, counted counter-clockwise, with Oy.

1.174 NUMBER OF 2D PRIVATE ARRAYS

Type : Integer
 Dimension : 1
 Mnemo NPRIV2D
 DEFAULT VALUE : 0

French keyword : NOMBRE DE TABLEAUX PRIVES 2D

Number of 2D arrays for own user programming in block **PRIVE2D**. It has to be lower or equal to 4.

1.175 NUMBER OF BOTTOM SMOOTHINGS

Type : Integer
 Dimension : 1
 Mnemo LISFON
 DEFAULT VALUE : 0

French keyword : NOMBRE DE LISSAGES DU FOND

Number of smoothings on bottom topography. Each smoothing is mass conservative. To be used when interpolation of bathymetry on the mesh gives very rough results.

1.176 NUMBER OF CORRECTIONS OF DISTRIBUTIVE SCHEMES

Type : Integer
 Dimension : 1
 Mnemo NCO_DIST
 DEFAULT VALUE : 1
 French keyword : NOMBRE DE CORRECTIONS DES SCHEMAS DISTRIBUTIFS
 For predictor-corrector options.

1.177 NUMBER OF CULVERTS

Type : Integer
 Dimension : 1
 Mnemo NBUSE
 DEFAULT VALUE : 0
 French keyword : NOMBRE DE BUSES

Number of culverts, tubes or bridges treated as source terms. They must be described as sources in the domain and their features are given in the CULVERTS DATA FILE (see written documentation).

1.178 NUMBER OF DROGUES

Type : Integer
 Dimension : 1
 Mnemo NFLOT
 DEFAULT VALUE : 0
 French keyword : NOMBRE DE FLOTTEURS

Number of drogues in the computation. The user must then fill the subroutine **FLOT3D** specifying the coordinates of the starting points, their departure and arrival times. The trajectory of drogues is recorded in the DROGUES FILE that must be given in the steering file.

1.179 NUMBER OF FIRST TIME STEP FOR GRAPHIC PRINTOUTS

Type : Integer
 Dimension : 1
 Mnemo GRADEB
 DEFAULT VALUE : 0
 French keyword : NUMERO DU PREMIER PAS DE TEMPS POUR LES SORTIES GRAPHIQUES
 Determines the number of time steps after which the results are first written into the 2D or 3D RESULT FILE.

1.180 NUMBER OF FIRST TIME STEP FOR LISTING PRINTOUTS

Type : Integer
 Dimension : 1
 Mnemo LISDEB
 DEFAULT VALUE : 0
 French keyword : NUMERO DU PREMIER PAS DE TEMPS POUR LES SORTIES LISTING
 Determines the number of time steps after which the results are first written into the listing.

1.181 NUMBER OF GAUSS POINTS FOR WEAK CHARACTERISTICS

Type : Integer

Dimension : 1

Mnemo NGAUSS

DEFAULT VALUE : 6

French keyword : NOMBRE DE POINTS DE GAUSS POUR LES CARACTERISTIQUES FAIBLES

See release notes v6.3. 6 (points) is the only choice for TELEMAT-3D.

1.182 NUMBER OF HORIZONTAL LEVELS

Type : Integer

Dimension : 1

Mnemo NPLAN

DEFAULT VALUE : 2

French keyword : NOMBRE DE PLANS HORIZONTAUX

Gives the number of planes from bottom to free surface. Must be at least 2.

1.183 NUMBER OF PRIVATE ARRAYS

Type : Integer

Dimension : 1

Mnemo NPRIV

DEFAULT VALUE : 0

French keyword : NOMBRE DE TABLEAUX PRIVES

Number of arrays for own user programming.

1.184 NUMBER OF SEDIMENT BED LAYERS

Type : Integer

Dimension : 1

Mnemo NCOUCH

DEFAULT VALUE : 1

French keyword : NOMBRE DE COUCHES DU LIT COHESIF

Number of cohesive sediment bed layers, should be less than 20.

1.185 NUMBER OF SUB ITERATIONS FOR NON LINEARITIES

Type : Integer

Dimension : 1

Mnemo NSOUSI

DEFAULT VALUE : 1

French keyword : NOMBRE DE SOUS ITERATIONS POUR LES NON LINEARITES

Used for updating, within one time step, the advection and propagation fields. Upon the first sub-iteration, these fields are given by *C* and the velocity field in the previous time step. At subsequent iterations, the results of the previous sub-iteration is used to update the advection and propagation field. The non-linearities can be taken into account through this technique.

1.186 NUMBER OF SUB-STEPS OF DISTRIBUTIVE SCHEMES

Type : Integer
 Dimension : 1
 Mnemo NSP_DIST
 DEFAULT VALUE : 1
 French keyword : NOMBRE DE SOUS-PAS DES SCHEMAS DISTRIBUTIFS
 Only for implicit scheme with predictor-corrector.

1.187 NUMBER OF TIME STEPS

Type : Integer
 Dimension : 1
 Mnemo NIT
 DEFAULT VALUE : 1
 French keyword : NOMBRE DE PAS DE TEMPS
 Specifies the number of time steps performed when running the code.

1.188 NUMBER OF TRACERS

Type : Integer
 Dimension : 1
 Mnemo NTRAC
 DEFAULT VALUE : 0
 French keyword : NOMBRE DE TRACEURS
 Defines the number of tracers.

1.189 OIL SPILL MODEL

Type : Logical
 Dimension : 1
 Mnemo SPILL_MODEL
 DEFAULT VALUE : NO
 French keyword : MODELE DE NAPPES D'HYDROCARBURES
 Will trigger the oil spill model, in this case the OIL SPILL STEERING FILE is needed.

1.190 OIL SPILL STEERING FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DMIG)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DE COMMANDES HYDROCARBURES
 Contains data for the oil spill model.

1.191 OPEN BOUNDARY CONDITIONS ON THE BED

Type : Logical
 Dimension : 1
 Mnemo BEDBOU
 DEFAULT VALUE : NO
 French keyword : CONDITIONS OUVERTES SUR LE FOND
 Defines if there are open boundary conditions on the bed.

1.192 OPTION FOR CHARACTERISTICS

Type : Integer
 Dimension : 1
 Mnemo OPTCHA
 DEFAULT VALUE : 1
 French keyword : OPTION POUR LES CARACTERISTIQUES
 Possible choices are:

- 1: strong form,
- 2: weak form.

1.193 OPTION FOR CULVERTS

Type : Integer
 Dimension : 1
 Mnemo OPTBUSE
 DEFAULT VALUE : 1
 French keyword : OPTION POUR LES BUSES
 Option for the treatment of culverts. There are two options in TELEMAC.

1.194 OPTION FOR LIQUID BOUNDARIES

Type : Integer
 Dimension : 2
 Mnemo FRTYPE
 DEFAULT VALUE : MANDATORY
 French keyword : OPTION POUR LES FRONTIERES LIQUIDES
 One integer per liquid boundary is given. Possible choices are:

- 1: classical boundary conditions,
- 2: Thompson method based on characteristics.

1.195 OPTION FOR THE BOUNDARY CONDITIONS OF K-EPSILON

Type : Integer
 Dimension : 1
 Mnemo OPTBCKE
 DEFAULT VALUE : 1
 French keyword : OPTION POUR LES CONDITIONS AUX LIMITES DU K-EPSILON
 Computation of the lateral boundary conditions of k and ϵ . Possible choices are:

- 1: no turbulence = the minimum values **KMIN** and **EMIN** defined in **CSTKEP**,
- 2: Hans Burchard formula.

1.196 OPTION FOR THE TREATMENT OF TIDAL FLATS

Type : Integer
 Dimension : 1
 Mnemo OPTBAN
 DEFAULT VALUE : 1
 French keyword : OPTION DE TRAITEMENT DES BANCS DECOUVRANTS
 Used if **TIDAL FLATS** is true. Possible choices are:

- 1: equations solved everywhere with correction on tidal flats,
- 2: dry elements frozen.

1.197 OPTION FOR TIDAL BOUNDARY CONDITIONS

Type : Integer

Dimension : 2

Mnemo BND_TIDE

DEFAULT VALUE : MANDATORY

French keyword : OPTION POUR LES CONDITIONS AUX LIMITES DE MAREE

Option for tidal boundary conditions. For real tides, option 1 is recommended. This keyword has been an array with a value given per liquid boundary, separated by semicolons, since version 7.1. This enables to have tidal conditions (or not) computed on liquid boundaries with prescribed velocities or depths, avoiding a clash when using weirs in the domain. 0 codes for conditions other than tidal. BEWARE since version 7.1! Old models must be changed if their tidal boundary is not number 1. In that case this keyword must be changed and more values given. Possible calibration with the keywords COEFFICIENT TO CALIBRATE TIDAL RANGE, COEFFICIENT TO CALIBRATE TIDAL VELOCITIES, and COEFFICIENT TO CALIBRATE SEA LEVEL. Possible choices are:

- 0: No tide,
- 1: Real tide (recommended methodology),
- 2: Astronomical tide,
- 3: Mean spring tide,
- 4: Mean tide,
- 5: Mean neap tide,
- 6: Astronomical neap tide,
- 7: Real tide (methodology before 2010).

1.198 OPTION FOR WIND

Type : Integer

Dimension : 1

Mnemo OPTWIND

DEFAULT VALUE : 1

French keyword : OPTION DU VENT

Gives the option for managing the wind:

- 1: constant in time and space, given by the keywords WIND VELOCITY ALONG X and WIND VELOCITY ALONG Y,
- 2: variable in time and constant in space, given by formatted file,
- 3: variable in time and space, given by formatted file or by a binary file.

1.199 OPTION OF SOLVER FOR DIFFUSION OF K-EPSILON

Type : Integer
Dimension : 1
Mnemo SLVDKE%KRYLOV
DEFAULT VALUE : 3
French keyword : OPTION DU SOLVEUR POUR LA DIFFUSION DU K-EPSILON
Dimension of Krylov space for the GMRES method (7).

1.200 OPTION OF SOLVER FOR DIFFUSION OF THE SEDIMENT

Type : Integer
Dimension : 1
Mnemo SLVDSE%KRYLOV
DEFAULT VALUE : 3
French keyword : OPTION DU SOLVEUR POUR LA DIFFUSION DU SEDIMENT
Dimension of Krylov space for the GMRES method (7).

1.201 OPTION OF SOLVER FOR DIFFUSION OF TRACERS

Type : Integer
Dimension : 1
Mnemo SLVDTA(ITRAC)%KRYLOV
DEFAULT VALUE : 3
French keyword : OPTION DU SOLVEUR POUR LA DIFFUSION DES TRACEURS
Dimension of Krylov space for the GMRES method (7).

1.202 OPTION OF SOLVER FOR DIFFUSION OF VELOCITIES

Type : Integer
Dimension : 1
Mnemo SLVDVI%KRYLOV
DEFAULT VALUE : 3
French keyword : OPTION DU SOLVEUR POUR LA DIFFUSION DES VITESSES
Dimension of Krylov space for the GMRES method (7).

1.203 OPTION OF SOLVER FOR PPE

Type : Integer
Dimension : 1
Mnemo SLVPOI%KRYLOV
DEFAULT VALUE : 3
French keyword : OPTION DU SOLVEUR POUR PPE
Dimension of Krylov space for the GMRES method (7).

1.204 OPTION OF SOLVER FOR PROPAGATION

Type : Integer
Dimension : 1
Mnemo SLVPRO%KRYLOV
DEFAULT VALUE : 3
French keyword : OPTION DU SOLVEUR POUR LA PROPAGATION
Dimension of Krylov space for the GMRES method (7).

1.205 ORDINATES OF SOURCES

Type : Real
 Dimension : 2
 Mnemo YSCE
 DEFAULT VALUE : MANDATORY
 French keyword : ORDONNEES DES SOURCES

Floats giving the ordinates of potential sources of flow rates (in meters). The source will be located at the nearest node in the mesh.

1.206 ORIGIN COORDINATES

Type : Integer
 Dimension : 2
 Mnemo L_ORIG,J_ORIG
 DEFAULT VALUE : 0;0
 French keyword : COORDONNEES DE L'ORIGINE

Values in metres, used to avoid large real numbers, added in SERAFIN format, but so far no other treatment.

1.207 ORIGINAL DATE OF TIME

Type : Integer
 Dimension : 3
 Mnemo MARDAT
 DEFAULT VALUE : 1900;1;1
 French keyword : DATE DE L'ORIGINE DES TEMPS

Enables to set the date of the time origin of the model when taking into account of the tide (tide generator force and/or the tidal boundary conditions). Also used when chaining with DELWAQ.

1.208 ORIGINAL HOUR OF TIME

Type : Integer
 Dimension : 3
 Mnemo MARTIM
 DEFAULT VALUE : 0;0;0
 French keyword : HEURE DE L'ORIGINE DES TEMPS

Enables to set the time of the time origin of the model when taking into account of the tide (tide generator force and/or the tidal boundary conditions). Also used when chaining with DELWAQ.

1.209 PARALLEL PROCESSORS

Type : Integer
 Dimension : 1
 Mnemo NCSIZE
 DEFAULT VALUE : 0
 French keyword : PROCESSEURS PARALLELES

Number of processors for domain partition. Value 0 corresponds to a scalar computation.

1.210 PARTITIONING TOOL

Type : String
Dimension : 1
Mnemo
DEFAULT VALUE : 'METIS'
French keyword : PARTITIONNEUR
Partitioning tool selection:

- 1: METIS,
- 2: SCOTCH,
- 3: PARMETIS,
- 4: PTSCOTCH.

1.211 PRANDTL NUMBER

Type : Real
Dimension : 1
Mnemo PRANDTL
DEFAULT VALUE : 1.0
French keyword : NOMBRE DE PRANDTL
Ratio between eddy viscosity and eddy diffusivity.

1.212 PRECONDITIONING FOR DIFFUSION OF K-EPSILON

Type : Integer
Dimension : 1
Mnemo SLVDKE%PRECON
DEFAULT VALUE : 2
French keyword : PRECONDITIONNEMENT POUR LA DIFFUSION DU K-EPSILON
Choice of preconditioning for the diffusion of the k - ϵ model. Possible choices are:

- 0: no preconditioning,
- 2: diagonal,
- 3: diagonal with the condensed matrix,
- 5: diagonal with absolute values,
- 7: Crout,
- 11: Gauss-Seidel EBE,
- 13: matrix defined by the user,
- 14: diagonal and Crout,
- 17: direct solver on the vertical,
- 21: diagonal condensed and Crout,
- 34: diagonal and direct solver on the vertical.

1.213 PRECONDITIONING FOR DIFFUSION OF THE SEDIMENT

Type : Integer

Dimension : 1

Mnemo SLVDSE%PRECON

DEFAULT VALUE : 2

French keyword : PRECONDITIONNEMENT POUR LA DIFFUSION DU SEDIMENT

Choice of the preconditioning in the sediment diffusion system that the convergence is speeded up when it is being solved. Possible choices are:

- 0: no preconditioning,
- 2: diagonal,
- 3: diagonal with the condensed matrix,
- 5: diagonal with absolute values,
- 7: Crout,
- 11: Gauss-Seidel EBE,
- 13: matrix defined by the user,
- 14: diagonal and Crout,
- 17: direct solver on the vertical,
- 21: diagonal condensed and Crout,
- 34: diagonal and direct solver on the vertical.

Some operations (either 2 or 3 diagonal preconditioning) can be performed concurrently with the others. Only prime numbers are therefore kept to denote the preconditioning operations. When several of them are to be performed concurrently, the product of relevant options shall be done.

1.214 PRECONDITIONING FOR DIFFUSION OF TRACERS

Type : Integer

Dimension : 2

Mnemo SLVDTA(ITRAC)%PRECON

DEFAULT VALUE : MANDATORY

French keyword : PRECONDITIONNEMENT POUR LA DIFFUSION DES TRACEURS

Choice of preconditioning for the diffusion of tracers. Possible choices are:

- 0: no preconditioning,
- 2: diagonal,
- 3: diagonal with the condensed matrix,
- 5: diagonal with absolute values,
- 7: Crout,
- 11: Gauss-Seidel EBE,

- 13: matrix defined by the user,
- 14: diagonal and Crout,
- 17: direct solver on the vertical,
- 21: diagonal condensed and Crout,
- 34: diagonal and direct solver on the vertical.

1.215 PRECONDITIONING FOR DIFFUSION OF VELOCITIES

Type : Integer
Dimension : 1
Mnemo SLVDVI%PRECON
DEFAULT VALUE : 2
French keyword : PRECONDITIONNEMENT POUR LA DIFFUSION DES VITESSES
Choice of preconditioning for the diffusion of velocities. Possible choices are:

- 0: no preconditioning,
- 2: diagonal,
- 3: diagonal with the condensed matrix,
- 5: diagonal with absolute values,
- 7: Crout,
- 11: Gauss-Seidel EBE,
- 13: matrix defined by the user,
- 14: diagonal and Crout,
- 17: direct solver on the vertical,
- 21: diagonal condensed and Crout,
- 34: diagonal and direct solver on the vertical.

1.216 PRECONDITIONING FOR PPE

Type : Integer
Dimension : 1
Mnemo SLVPOI%PRECON
DEFAULT VALUE : 2
French keyword : PRECONDITIONNEMENT POUR PPE
Preconditioning for the Poisson Pressure Equation. Possible choices are:

- 0: no preconditioning,
- 2: diagonal,
- 3: diagonal with the condensed matrix,
- 5: diagonal with absolute values,

- 7: Crout,
- 11: Gauss-Seidel EBE,
- 13: matrix defined by the user,
- 14: diagonal and Crout,
- 17: direct solver on the vertical,
- 21: diagonal condensed and Crout,
- 34: diagonal and direct solver on the vertical.

1.217 PRECONDITIONING FOR PROPAGATION

Type : Integer
 Dimension : 1
 Mnemo SLVPRO%PRECON
 DEFAULT VALUE : 2

French keyword : PRECONDITIONNEMENT POUR LA PROPAGATION

Choice of the preconditioning in the propagation step linear system that the convergence is speeded up when it is being solved. Possible choices are:

- 0: no preconditioning,
- 2: diagonal,
- 3: diagonal with the condensed matrix,
- 5: diagonal with absolute values,
- 7: Crout,
- 11: Gauss-Seidel EBE,
- 13: matrix defined by the user,
- 14: diagonal and Crout,
- 17: direct solver on the vertical,
- 21: diagonal condensed and Crout,
- 34: diagonal and direct solver on the vertical.

Some operations (either 2 or 3 diagonal preconditioning) can be performed concurrently with the others. Only prime numbers are therefore kept to denote the preconditioning operations. When several of them are to be performed concurrently, the product of relevant options shall be done.

1.218 PRECONDITIONING FOR VERTICAL VELOCITY

Type : Integer
 Dimension : 1
 Mnemo SLVW%PRECON
 DEFAULT VALUE : 2
 French keyword : PRECONDITIONNEMENT POUR LA VITESSE VERTICALE
 Choice of preconditioning for the diffusion of vertical velocity. Possible choices are:

- 0: no preconditioning,
- 2: diagonal,
- 3: diagonal with the condensed matrix,
- 5: diagonal with absolute values,
- 7: Crout,
- 11: Gauss-Seidel EBE,
- 13: matrix defined by the user,
- 14: diagonal and Crout,
- 17: direct solver on the vertical,
- 21: diagonal condensed and Crout,
- 34: diagonal and direct solver on the vertical.

1.219 PRESCRIBED ELEVATIONS

Type : Real
 Dimension : 10
 Mnemo COTIMP
 DEFAULT VALUE : MANDATORY
 French keyword : COTES IMPOSEES
 Sets the elevation on elevation-imposed boundaries.

1.220 PRESCRIBED FLOWRATES

Type : Real
 Dimension : 10
 Mnemo DEBIMP
 DEFAULT VALUE : MANDATORY
 French keyword : DEBITS IMPOSES
 Sets the value for flow rate on flow rate-imposed boundaries.

1.221 PRESCRIBED FLOWRATES ON THE BED

Type : Real
 Dimension : 10
 Mnemo BEDFLO
 DEFAULT VALUE : 0.;0.;0.;0.;0.;0.;0.;0.;0.;0.
 French keyword : DEBITS IMPOSES SUR LE FOND
 Sets the value for flow rate on flow rate-imposed bed boundaries.

1.222 PRESCRIBED TRACERS VALUES

Type : Real
 Dimension : 2
 Mnemo TRACER
 DEFAULT VALUE : MANDATORY
 French keyword : VALEURS IMPOSEES DES TRACEURS

Determines the imposed value of tracers at the first boundary, then at the second, and so on, with the same logic as VALUE OF THE TRACERS AT THE SOURCES.

1.223 PRESCRIBED VELOCITIES

Type : Real
 Dimension : 10
 Mnemo VITIMP
 DEFAULT VALUE : MANDATORY
 French keyword : VITESSES IMPOSEES

Sets the magnitude of velocity on velocity-imposed boundaries.

1.224 PREVIOUS COMPUTATION FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DPRE)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DU CALCUL PRECEDENT

Name of a file containing the results of an earlier computation which was made on the same mesh. The last recorded time step will provide the initial conditions for the new computation. In case of a perfect continued computation, the PREVIOUS COMPUTATION FILE has to be the RESTART FILE of the last computation. This last file is then an output file of the last computation. The PREVIOUS COMPUTATION FILE FORMAT and the RESTART FILE FORMAT have to be set with "SERAFIND" or "MED".

1.225 PREVIOUS COMPUTATION FILE FORMAT

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DPRE)%FMT
 DEFAULT VALUE : 'SERAFIN?'
 French keyword : FORMAT DU FICHIER DU CALCUL PRECEDENT

Format of the PREVIOUS COMPUTATION FILE. Possible choices are:

- SERAFIN : classical single precision format in TELEMAC,
- SERAFIND: classical double precision format in TELEMAC,
- MED : MED double precision format based on HDF5.

1.226 PREVIOUS COMPUTATION SEDIMENTOLOGICAL FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DSUS)%NAME
 DEFAULT VALUE : ”

French keyword : FICHIER SEDIMENTOLOGIQUE DU CALCUL PRECEDENT
 Name of a file containing the sedimentological parameters (thickness and concentration of the bed...), results of an earlier computation which was made on the same mesh. The last recorded time step will provide the initial conditions for the new computation.

1.227 PRINTOUT PERIOD FOR DROGUES

Type : Integer
 Dimension : 1
 Mnemo FLOPRD
 DEFAULT VALUE : 1

French keyword : PERIODE POUR LES SORTIES DE FLOTTEURS
 Number of time steps between 2 outputs of drogues positions in the binary file. It does not disturb the quality of the computation of the trajectory.

1.228 RAIN OR EVAPORATION

Type : Logical
 Dimension : 1
 Mnemo RAIN
 DEFAULT VALUE : NO

French keyword : PLUIE OU EVAPORATION
 Enables to add or remove water at the free surface. See the keyword RAIN OR EVAPORATION IN MM PER DAY.

1.229 RAIN OR EVAPORATION IN MM PER DAY

Type : Real
 Dimension : 1
 Mnemo RAIN_MMPD
 DEFAULT VALUE : 0.

French keyword : PLUIE OU EVAPORATION EN MM PAR JOUR
 Specifies the amount of water to add or remove at the free surface.

1.230 RATIO BETWEEN SKIN FRICTION AND MEAN DIAMETER

Type : Real
 Dimension : 1
 Mnemo KSPRATIO
 DEFAULT VALUE : 3.0

French keyword : RATIO ENTRE LA RUGOSITE DE PEAU ET LE DIAMETRE MOYEN
 Ratio for the computation of skin friction. skin roughness = ratio \times mean diameter.

1.231 READ CRITICAL BED SHEAR STRESS PER LAYER

Type : Logical
 Dimension : 1
 Mnemo READ_TOCE
 DEFAULT VALUE : NO
 French keyword : LECTURE CONTRAINTE CRITIQUE POUR CHAQUE COUCHE
 Decides if erosion shear stress at each layer is read from GEOMETRY FILE.

1.232 RECORD NUMBER FOR RESTART

Type : Integer
 Dimension : 1
 Mnemo START_RECORD
 DEFAULT VALUE : 0
 French keyword : ENREGISTREMENT POUR SUITE DE CALCUL
 In case of COMPUTATION CONTINUED, record number to start from in the PREVIOUS COMPUTATION FILE. 0 means that the last record is taken.

1.233 RECORD NUMBER IN WAVE FILE

Type : Integer
 Dimension : 1
 Mnemo NPTH
 DEFAULT VALUE : 1
 French keyword : NUMERO DE L'ENREGISTREMENT DANS LE FICHIER DE HOULE
 Record number to be read by TELEMAT-3D in the wave driven currents file.

1.234 REFERENCE CONCENTRATION FORMULA

Type : Integer
 Dimension : 1
 Mnemo ICQ
 DEFAULT VALUE : 1
 French keyword : FORMULE POUR LA CONCENTRATION DE REFERENCE

- 1: Zyserman and Fredsoe, equilibrium formula,
- 3: Van Rijn formula (1987).

1.235 REFERENCE FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DREF)%NAME
 DEFAULT VALUE : ""
 French keyword : FICHIER DE REFERENCE
 Binary-coded result file for validation.

1.236 REFERENCE FILE FORMAT

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DREF)%FMT
 DEFAULT VALUE : 'SERAFIN?'
 French keyword : FORMAT DU FICHIER DE REFERENCE
 Format of the REFERENCE FILE. Possible choices are:

- SERAFIN : classical single precision format in TELEMAC,
- SERAFIND: classical double precision format in TELEMAC,
- MED : MED double precision format based on HDF5.

1.237 RELEASE

Type : String
 Dimension : 1
 Mnemo
 DEFAULT VALUE : 'TRUNK'
 French keyword : NUMERO DE VERSION
 TODO: WRITE HELP FOR THAT KEYWORD

1.238 RESIDENCE TIME FOR MUD

Type : Real
 Dimension : 30
 Mnemo TREST(NCOUCH)
 DEFAULT VALUE : MANDATORY
 French keyword : TEMPS DE SEJOUR DE LA VASE
 Array which contains the residence times of the mud bed layers (the first value is related to the bottom layer and the last one to the top layer). These values are needed when CONSOLIDATION MODEL = 1 (Empirical multilayer model).

1.239 RESTART FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DRST)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER POUR SUITE
 Name of the file into which the last computation results shall be written in order to get a perfect continued computation. It is then an output file for the current computation, which will be used as an input file when a continued computation is expected to be perfect (the keyword PREVIOUS COMPUTATION FILE is then used). The RESTART FILE FORMAT and the PREVIOUS COMPUTATION FILE FORMAT have to be set with "SERAFIND" or "MED".

1.240 RESTART FILE FORMAT

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DRST)%FMT
 DEFAULT VALUE : 'SERAFIN?'
 French keyword : FORMAT DU FICHIER POUR SUITE
 Format of the RESTART FILE. Possible choices are:

- SERAFIN : classical single precision format in TELEMAC,
- SERAFIND: classical double precision format in TELEMAC,
- MED : MED double precision format based on HDF5.

Only double precision formats ensure a perfect restart.

1.241 RESTART MODE

Type : Logical
 Dimension : 1
 Mnemo RESTART_MODE
 DEFAULT VALUE : NO
 French keyword : MODE SUITE
 Triggers the filling of the RESTART FILE, which ensures a perfect restart of a computation, unlike using the 3D RESULT FILE.

1.242 RESULT FILE IN LONGITUDE-LATITUDE

Type : Logical
 Dimension : 1
 Mnemo KEEP_LONLAT
 DEFAULT VALUE : YES
 French keyword : FICHIER RESULTAT EN LONGITUDE-LATITUDE
 Gives the coordinates of the result file in longitude-latitude if the geometry file is also given in longitude-latitude.

1.243 SALINITY DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DDL4)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DELWAQ DE LA SALINITE
 Results file for coupling with DELWAQ.

1.244 SALINITY FOR DELWAQ

Type : Logical
 Dimension : 1
 Mnemo SALI_DEL
 DEFAULT VALUE : NO
 French keyword : SALINITE POUR DELWAQ
 Triggers the output of salinity for DELWAQ.

1.245 SCHEME FOR ADVECTION OF DEPTH

Type : Integer
 Dimension : 1
 Mnemo SCHCH
 DEFAULT VALUE : 5
 French keyword : SCHEMA POUR LA CONVECTION DE LA HAUTEUR
 The conservative scheme (5) is now mandatory.

1.246 SCHEME FOR ADVECTION OF K-EPSILON

Type : Integer
 Dimension : 1
 Mnemo SCHCKE
 DEFAULT VALUE : 1
 French keyword : SCHEMA POUR LA CONVECTION DU K-EPSILON
 Sets the advection scheme for the k - ε model. Possible choices are:

- 0: no convection,
- 1: characteristics,
- 2: explicit + SUPG,
- 3: explicit Leo Postma,
- 4: explicit + MURD scheme N,
- 5: explicit + MURD scheme PSI,
- 13: Leo Postma for tidal flats,
- 14: N-scheme for tidal flats.

1.247 SCHEME FOR ADVECTION OF TRACERS

Type : Integer
 Dimension : 2
 Mnemo SCHCTA
 DEFAULT VALUE : MANDATORY
 French keyword : SCHEMA POUR LA CONVECTION DES TRACEURS
 Sets the advection scheme for the tracers. Possible choices are:

- 0: no convection,
- 1: characteristics,
- 2: explicit + SUPG,
- 3: explicit Leo Postma,
- 4: explicit + MURD scheme N,
- 5: explicit + MURD scheme PSI,
- 13: Leo Postma for tidal flats,
- 14: N-scheme for tidal flats.

1.248 SCHEME FOR ADVECTION OF VELOCITIES

Type : Integer
 Dimension : 1
 Mnemo SCHCVI
 DEFAULT VALUE : 1
 French keyword : SCHEMA POUR LA CONVECTION DES VITESSES
 Sets the advection scheme for the velocities. Possible choices are:

- 0: no convection,
- 1: characteristics,
- 2: explicit + SUPG,
- 3: explicit Leo Postma,
- 4: explicit + MURD scheme N,
- 5: explicit + MURD scheme PSI,
- 13: Leo Postma for tidal flats,
- 14: N-scheme for tidal flats.

1.249 SCHEME FOR DIFFUSION OF K-EPSILON

Type : Integer
 Dimension : 1
 Mnemo SCHDKE
 DEFAULT VALUE : 1
 French keyword : SCHEMA POUR LA DIFFUSION DU K-EPSILON
 Monitors the choice of the diffusion scheme for k and ϵ . Possible choices are:

- 0: no diffusion,
- 1: implicit.

1.250 SCHEME FOR DIFFUSION OF TRACERS

Type : Integer
 Dimension : 1
 Mnemo SCHDTA
 DEFAULT VALUE : 1
 French keyword : SCHEMA POUR LA DIFFUSION DES TRACEURS
 Monitors the choice of the diffusion scheme for tracers. Possible choices are:

- 0: no diffusion,
- 1: implicit,
- 2: vertical diffusion only.

1.251 SCHEME FOR DIFFUSION OF VELOCITIES

Type : Integer
Dimension : 1
Mnemo SCHDVI
DEFAULT VALUE : 1
French keyword : SCHEMA POUR LA DIFFUSION DES VITESSES
Monitors the choice of the diffusion scheme for velocities. Possible choices are:

- 0: no diffusion,
- 1: implicit.

1.252 SCHEME OPTION FOR ADVECTION OF K-EPSILON

Type : Integer
Dimension : 1
Mnemo OPTADV_KE
DEFAULT VALUE : 1
French keyword : OPTION DU SCHEMA POUR LA CONVECTION DU K-EPSILON
If present replaces and has priority over: OPTION FOR CHARACTERISTICS and SUPG
OPTION. If N or PSI scheme:

- 1: explicit,
- 2: predictor-corrector,
- 3: predictor-corrector second-order in time,
- 4: implicit.

1.253 SCHEME OPTION FOR ADVECTION OF TRACERS

Type : Integer
Dimension : 2
Mnemo OPTADV_TR
DEFAULT VALUE : 1
French keyword : OPTION DU SCHEMA POUR LA CONVECTION DES TRACEURS
If present replaces and has priority over: OPTION FOR CHARACTERISTICS and SUPG
OPTION. If N or PSI scheme:

- 1: explicit,
- 2: predictor-corrector,
- 3: predictor-corrector second-order in time,
- 4: implicit.

1.254 SCHEME OPTION FOR ADVECTION OF VELOCITIES

Type : Integer
Dimension : 1
Mnemo OPTADV_VI
DEFAULT VALUE : 1
French keyword : OPTION DU SCHEMA POUR LA CONVECTION DES VITESSES
If present replaces and has priority over: OPTION FOR CHARACTERISTICS and SUPG
OPTION. If N or PSI scheme:

- 1: explicit,
- 2: predictor-corrector,
- 3: predictor-corrector second-order in time,
- 4: implicit.

1.255 SEDIMENT

Type : Logical
 Dimension : 1
 Mnemo SEDI
 DEFAULT VALUE : NO
 French keyword : SEDIMENT
 If YES, sediment transport is modelled.

1.256 SEDIMENTOLOGICAL RESULT FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DSED)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DES RESULTATS SEDIMENTOLOGIQUES
 Name of the file into which the sedimentological computation results (thickness and concentration of the mud bed...) shall be written, the periodicity being given by the keyword GRAPHIC PRINTOUT PERIOD.

1.257 SEDIMENTOLOGICAL RESULT FILE BINARY

Type : String
 Dimension : 1
 Mnemo BIRSED
 DEFAULT VALUE : 'STD'
 French keyword : BINAIRE DU FICHER DES RESULTATS SEDIMENTOLOGIQUES
 Binary file type used for writing the results file. This type depends on the machine on which the file was generated. The possible values are as follows:

- IBM, for a file on an IBM (from a CRAY),
- I3E, for a file on an HP (from a CRAY),
- STD, binary type of the machine on which the user is working.

In that case, normal READ and WRITE commands are used.

1.258 SETTLING VELOCITY OF SANDS

Type : Real
 Dimension : 1
 Mnemo WCS0
 DEFAULT VALUE : 0.
 French keyword : VITESSE DE CHUTE DES SABLES
 Non cohesive sediment settling velocity.

1.259 SHIELDS PARAMETER

Type : Real
 Dimension : 1
 Mnemo AC
 DEFAULT VALUE : 0.047
 French keyword : PARAMETRE DE SHIELDS
 Used to determine the critical bed shear stress value.

1.260 SISYPHE STEERING FILE

Type : String
 Dimension : 1
 Mnemo PAS DE MNEMO
 DEFAULT VALUE : "
 French keyword : FICHER DES PARAMETRES DE SISYPHE
 SISYPHE parameter file in case of internal coupling.

1.261 SKIN FRICTION CORRECTION

Type : Integer
 Dimension : 1
 Mnemo ICR
 DEFAULT VALUE : 0
 French keyword : CORRECTION FROTTEMENT DE PEAU
 Formula to predict the skin bed roughness:

- 0: No correction ($TAUP = TOB$) see also $RATIO$ ENTRE LA RUGOSITE DE PEAU ET LE DIAMETRE MOYEN **KSPRATIO**,
- 1: Flat bed ($KSP = KSPRATIO \times D50$),
- 2: Ripple correction factor (not yet implemented).

1.262 SOLVER FOR DIFFUSION OF K-EPSILON

Type : Integer
 Dimension : 1
 Mnemo SLVDKE%SLV
 DEFAULT VALUE : 1
 French keyword : SOLVEUR POUR LA DIFFUSION DU K-EPSILON
 Choice of the solver for the diffusion of k and ϵ . Possible choices are:

- 1: conjugate gradient,
- 2: conjugate residual,
- 3: conjugate gradient on a normal equation,
- 4: minimum error,
- 5: squared conjugate gradient,
- 6: CGSTAB,
- 7: GMRES,
- 8: direct solver.

1.263 SOLVER FOR DIFFUSION OF THE SEDIMENT

Type : Integer
 Dimension : 1
 Mnemo SLVDSE%SLV
 DEFAULT VALUE : 3
 French keyword : SOLVEUR POUR LA DIFFUSION DU SEDIMENT
 Choice of the solver for the sediment equation. Possible choices are:

- 1: conjugate gradient,
- 2: conjugate residual,
- 3: conjugate gradient on a normal equation,
- 4: minimum error,
- 5: squared conjugate gradient,
- 6: CGSTAB,
- 7: GMRES,
- 8: direct solver.

1.264 SOLVER FOR DIFFUSION OF TRACERS

Type : Integer
 Dimension : 2
 Mnemo SLVDTA(ITRAC)%SLV
 DEFAULT VALUE : MANDATORY
 French keyword : SOLVEUR POUR LA DIFFUSION DES TRACEURS
 Choice of the solver for the diffusion of tracers. Possible choices are:

- 1: conjugate gradient,
- 2: conjugate residual,
- 3: conjugate gradient on a normal equation,
- 4: minimum error,
- 5: squared conjugate gradient,
- 6: CGSTAB,
- 7: GMRES,
- 8: direct solver.

1.265 SOLVER FOR DIFFUSION OF VELOCITIES

Type : Integer
 Dimension : 1
 Mnemo SLVDVI%SLV
 DEFAULT VALUE : 1
 French keyword : SOLVEUR POUR LA DIFFUSION DES VITESSES
 Choice of the solver for the diffusion of velocities U and V . Possible choices are:

- 1: conjugate gradient,
- 2: conjugate residual,
- 3: conjugate gradient on a normal equation,
- 4: minimum error,
- 5: squared conjugate gradient,
- 6: CGSTAB,
- 7: GMRES,
- 8: direct solver.

1.266 SOLVER FOR PPE

Type : Integer
Dimension : 1
Mnemo SLVPOI%SLV
DEFAULT VALUE : 1
French keyword : SOLVEUR POUR PPE

Choice of the solver for the Poisson Pressure Equation. Possible choices are:

- 1: conjugate gradient,
- 2: conjugate residual,
- 3: conjugate gradient on a normal equation,
- 4: minimum error,
- 5: squared conjugate gradient,
- 6: CGSTAB,
- 7: GMRES,
- 8: direct solver.

1.267 SOLVER FOR PROPAGATION

Type : Integer
Dimension : 1
Mnemo SLVPRO%SLV
DEFAULT VALUE : 1
French keyword : SOLVEUR POUR LA PROPAGATION

Choice of the solver for the propagation equation. Possible choices are:

- 1: conjugate gradient,
- 2: conjugate residual,
- 3: conjugate gradient on a normal equation,
- 4: minimum error,

- 5: squared conjugate gradient,
- 6: CGSTAB,
- 7: GMRES,
- 8: direct solver.

1.268 SOLVER FOR VERTICAL VELOCITY

Type : Integer
 Dimension : 1
 Mnemo SLVW%SLV
 DEFAULT VALUE : 1

French keyword : SOLVEUR POUR LA VITESSE VERTICALE

Choice of the solver for the diffusion of vertical velocity W . Possible choices are:

- 1: conjugate gradient,
- 2: conjugate residual,
- 3: conjugate gradient on a normal equation,
- 4: minimum error,
- 5: squared conjugate gradient,
- 6: CGSTAB,
- 7: GMRES,
- 8: direct solver.

1.269 SOURCES FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DVEF)%NAME
 DEFAULT VALUE : "

French keyword : FICHER DES SOURCES

Name of the file containing time-dependent information on sources.

1.270 SPATIAL PROJECTION TYPE

Type : Integer
 Dimension : 1
 Mnemo PROTYP
 DEFAULT VALUE : 2

French keyword : TYPE DE PROJECTION SPATIALE

Specifies the type of spatial projection used (for example when using spherical coordinates).

Possible choices are:

- 1: Cartesian, not georeferenced,
- 2: Mercator,

- 3: latitude/longitude (in degrees).

Option 2 or 3 mandatory for spherical coordinates. Option 3: latitude and longitude in degrees! When using option 3, the coordinates are automatically treated by TELEMAC-3D using Mercator projection.

1.271 SPHERICAL COORDINATES

Type : Logical
 Dimension : 1
 Mnemo SPHERI
 DEFAULT VALUE : NO
 French keyword : COORDONNEES SPHERIQUES

Selection of spherical coordinates to perform the computation (for large computation domains).

Warning: this option is closely related to the mesh that should have been entered onto a nautical chart drawn as per Mercator projection. The LATITUDE OF ORIGIN POINT, which corresponds to ordinate $y = 0$ in the mesh, must moreover be given.

1.272 STAGE-DISCHARGE CURVES

Type : Integer
 Dimension : 10
 Mnemo STA_DIS_CURVES
 DEFAULT VALUE : MANDATORY
 French keyword : COURBES DE TARAGE

Specifies if a discharge-elevation curve must be used for a given boundary (one value per open boundary):

- 0: no,
- 1: $Z(Q)$,
- 2: $Q(Z)$. Not yet implemented.

1.273 STAGE-DISCHARGE CURVES FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DPAR)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DES COURBES DE TARAGE

Name of the file containing stage-discharge curves.

1.274 STANDARD VALUES FOR TRACERS

Type : Real
 Dimension : 2
 Mnemo T0AC
 DEFAULT VALUE : MANDATORY
 French keyword : VALEURS DE REFERENCE DES TRACEURS

Reference value of tracers corresponding to the given density when using DENSITY LAW = 4.

1.275 STEERING FILE

Type : String

Dimension : 1

Mnemo

DEFAULT VALUE : ”

French keyword : FICHIER DES PARAMETRES

Name of the file containing the parameters of the computation. Written by the user.

1.276 SUPG OPTION

Type : Integer

Dimension : 4

Mnemo OPTSUP

DEFAULT VALUE : 1;0;1;1

French keyword : OPTION DE SUPG

Specifies the type of upwinding used. Possible choices are:

- 0: no upwinding,
- 1: classical SUPG,
- 2: modified SUPG.

These coefficients are applied respectively to:

- 1) U , V and W ,
- 2) H ,
- 3) T ,
- 4) k and ε .

1.277 TEMPERATURE DELWAQ FILE

Type : String

Dimension : 1

Mnemo T3D_FILES(T3DDL8)%NAME

DEFAULT VALUE : ”

French keyword : FICHIER DELWAQ DE LA TEMPERATURE

Results file for coupling with DELWAQ.

1.278 TEMPERATURE FOR DELWAQ

Type : Logical

Dimension : 1

Mnemo TEMP_DEL

DEFAULT VALUE : NO

French keyword : TEMPERATURE POUR DELWAQ

Triggers the output of temperature for DELWAQ.

1.279 THRESHOLD CONCENTRATION FOR HINDERED SETTLING

Type : Real
Dimension : 1
Mnemo CINI
DEFAULT VALUE : 0.0

French keyword : CONCENTRATION LIMITE POUR VITESSE DE CHUTE ENTRAVEE

The sediment concentration at which hindered settling is initiated. These values are needed when `HINDERED SETTLING = YES`.

1.280 THRESHOLD DEPTH FOR WIND

Type : Real
Dimension : 1
Mnemo HWIND
DEFAULT VALUE : 1.

French keyword : PROFONDEUR LIMITE POUR LE VENT

Wind is not taken into account for depths smaller than this value.

1.281 THRESHOLD FOR SEDIMENT FLUX CORRECTION ON TIDAL FLATS

Type : Real
Dimension : 1
Mnemo HSED
DEFAULT VALUE : 0.2

French keyword : SEUIL LIMITE POUR EROSION SUR BANCS DECOUVRANTS

Below this limiting depth, all sediment erosion rates are set to zero. See subroutine **FLUSED**.

1.282 THRESHOLD FOR VISCOSITY CORRECTION ON TIDAL FLATS

Type : Real
Dimension : 1
Mnemo HLIM
DEFAULT VALUE : 0.2

French keyword : SEUIL POUR CORRECTION DE VISCOSITE SUR BANCS DECOUVRANTS

Below the threshold, viscosity will be progressively cancelled. See subroutine **VISCLIP**.

1.283 TIDAL DATA BASE

Type : Integer
Dimension : 1
Mnemo TIDALDB
DEFAULT VALUE : -1

French keyword : BASE DE DONNEES DE MAREE

Gives the name of the data base used to automatically generate the boundary conditions. Possible choices are:

- 1: JMJ,
- 2: TPXO,
- 3: MISCELLANEOUS (LEGOS-NEA, FES20XX, PREVIMER...).

For JMJ, indicate the location of the files `bdd_jmj` and `geofin` with keywords `ASCII DATABASE FOR TIDE` and `TIDAL MODEL FILE`. For `TPXO`, `LEGOS-NEA`, `FES20XX` and `PREVIMER`, the user has to download files of harmonic constituents on the internet.

1.284 TIDAL FLATS

Type : Logical
 Dimension : 1
 Mnemo BANDEC
 DEFAULT VALUE : YES
 French keyword : BANCS DECOUVRANTS

When NO, the specific treatments for tidal flats are by-passed. This spares time, but of course you must be sure that you have no tidal flats.

1.285 TIDAL MODEL FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DTID)
 DEFAULT VALUE : "
 French keyword : FICHER DU MODELE DE MAREE

Geometry file of the model from which harmonic constituents are extracted (JMJ only).

1.286 TIDE GENERATING FORCE

Type : Logical
 Dimension : 1
 Mnemo MAREE
 DEFAULT VALUE : NO
 French keyword : FORCE GENERATRICE DE LA MAREE

The tide generating force is taken into account.

1.287 TIME STEP

Type : Real
 Dimension : 1
 Mnemo DT
 DEFAULT VALUE : 1.
 French keyword : PAS DE TEMPS

Specifies the time step in seconds.

1.288 TIME STEP FOR CONSOLIDATION

Type : Real
 Dimension : 1
 Mnemo DTC
 DEFAULT VALUE : 1200.
 French keyword : PAS DE TEMPS DE LA CONSOLIDATION

Time step for the modelling consolidation, which can be greater than the hydrodynamic time step. This parameter is used if `CONSOLIDATION MODEL = 1` (Empirical multilayer model) or 2 (Gibson model (Lenormant)).

1.289 TITLE

Type : String
 Dimension : 1
 Mnemo TITCAS
 DEFAULT VALUE : "
 French keyword : TITRE
 Title of the case being considered.

1.290 TOMAWAC STEERING FILE

Type : String
 Dimension : 1
 Mnemo PAS DE MNEMO
 DEFAULT VALUE : "
 French keyword : FICHIER DES PARAMETRES DE TOMAWAC
 TOMAWAC parameter file in case of internal coupling.

1.291 TRACERS VERTICAL PROFILES

Type : Integer
 Dimension : 2
 Mnemo VERPROTRA
 DEFAULT VALUE : MANDATORY
 French keyword : PROFILS DES TRACEURS SUR LA VERTICALE
 Specifies the type of profiles of tracer concentration on the vertical. Possible choices are:

- 0: user defined,
- 1: constant,
- 2: Rouse equilibrium, constant (diluted tracer) or Rouse (sediment),
- 3: Rouse (normalized) and imposed concentration.
- 4: Rouse modified with molecular viscosity.

1.292 TREATMENT OF FLUXES AT THE BOUNDARIES

Type : Integer
 Dimension : 2
 Mnemo DIRFLU
 DEFAULT VALUE : MANDATORY
 French keyword : TRAITEMENT DES FLUX AUX FRONTIERES
 Used so far only with the SUPG, PSI and N schemes. Possible choices are:

- 1: priority to prescribed values,
- 2: priority to fluxes.

With option 2, Dirichlet prescribed values are not obeyed, but the fluxes are correct.

1.293 TREATMENT OF NEGATIVE DEPTHS

Type : Integer
 Dimension : 1
 Mnemo OPT_HNEG
 DEFAULT VALUE : 1

French keyword : TRAITEMENT DES HAUTEURS NEGATIVES

Only with OPTION FOR THE TREATMENT OF TIDAL FLATS = 1. Possible choices are:

- 0: no treatment,
- 1: smoothing,
- 2: flux control.

1.294 TREATMENT ON TIDAL FLATS FOR K-EPSILON

Type : Integer
 Dimension : 1
 Mnemo TRBAKE
 DEFAULT VALUE : 0

French keyword : TRAITEMENT SUR LES BANCS DECOUVRANTS POUR LE K-EPSILON

Treatment of tidal flats at the diffusion step for k and ε .

- 0: forced to zero,
- 1: value before masked.

1.295 TREATMENT ON TIDAL FLATS FOR TRACERS

Type : Integer
 Dimension : 1
 Mnemo TRBATA
 DEFAULT VALUE : 0

French keyword : TRAITEMENT SUR LES BANCS DECOUVRANTS POUR LES TRACEURS

Treatment of tidal flats at the diffusion step for tracers.

- 0: forced to zero,
- 1: value before masked.

1.296 TREATMENT ON TIDAL FLATS FOR VELOCITIES

Type : Integer
 Dimension : 1
 Mnemo TRBAVI
 DEFAULT VALUE : 0

French keyword : TRAITEMENT SUR LES BANCS DECOUVRANTS POUR LES VITESSES

Treatment of tidal flats at the diffusion step for velocities.

- 0: forced to zero,
- 1: value before masked.

1.297 TURBULENCE REGIME FOR LATERAL SOLID BOUNDARIES

Type : Integer
Dimension : 1
Mnemo LISRUL
DEFAULT VALUE : 2
French keyword : REGIME DE TURBULENCE POUR LES PAROIS LATERALES
Defines the turbulence regime for the lateral boundaries:

- 1: smooth,
- 2: rough.

1.298 TURBULENCE REGIME FOR THE BOTTOM

Type : Integer
Dimension : 1
Mnemo LISRUF
DEFAULT VALUE : 2
French keyword : REGIME DE TURBULENCE POUR LE FOND
Defines the turbulence regime for the bottom in the case of a k - ϵ or mixing-length model:

- 1: smooth,
- 2: rough,
- 3: rough also (for compatibility with old versions).

1.299 TYPE OF SOURCES

Type : Integer
Dimension : 1
Mnemo OPTSOU
DEFAULT VALUE : 1
French keyword : TYPE DES SOURCES
Defines how the sources are computed:

- 1: Source term multiplied by a finite element basis,
- 2: Source term multiplied by a Dirac function (recommended with high numbers of sources).

1.300 VALIDATION

Type : Logical
Dimension : 1
Mnemo VALID
DEFAULT VALUE : NO
French keyword : VALIDATION

This option is primarily used for the validation documents. The `REFERENCE FILE` is then considered as a reference which the computation is going to be compared with. The comparison is done by the subroutine `VALIDA`, which can be modified so as to include, for example, a comparison with an exact solution.

1.301 VALUE OF ATMOSPHERIC PRESSURE

Type : Real
 Dimension : 1
 Mnemo PATMOS_VALUE
 DEFAULT VALUE : 100000.
 French keyword : VALEUR DE LA PRESSION ATMOSPHERIQUE
 Gives the value of atmospheric pressure when it is constant in time and space.

1.302 VALUE OF THE TRACERS AT THE SOURCES

Type : Real
 Dimension : 2
 Mnemo TASCE
 DEFAULT VALUE : MANDATORY
 French keyword : VALEURS DES TRACEURS DES SOURCES
 Sets the value of the tracers at the sources. All sources for the first tracer, then all sources for the second tracer, etc. (see user manual). For example, if there are 3 tracers (T1, T2 and T3) and 2 sources (S1 and S2), the following syntax is used:
 S1_T1;S1_T2;S1_T3;S2_T1;S2_T2;S2_T3
 10.0; 10.0; 0.0; 0.0; 10.0; 10.0

1.303 VALUES OF TRACERS IN THE RAIN

Type : Real
 Dimension : 2
 Mnemo TRAIN
 DEFAULT VALUE : MANDATORY
 French keyword : VALEURS DES TRACEURS DANS LA PLUIE
 Sets the value of the tracers in the rain.

1.304 VARIABLES FOR 2D GRAPHIC PRINTOUTS

Type : String
 Dimension : 4
 Mnemo SORT2D
 DEFAULT VALUE : 'U;V;H;B'
 French keyword : VARIABLES POUR LES SORTIES GRAPHIQUES 2D
 Names of variables that may be written in the 2D RESULT FILE. Every variable is represented by a group of letters with any separator between them , ; or blank possibilities are the following:

- U: depth averaged velocity along x axis (m/s),
- V: depth averaged velocity along y axis (m/s),
- C: celerity (m/s),
- H: water depth (m),
- S: free surface elevation (m),
- B: bottom elevation (m),

- F: Froude number,
- Q: scalar discharge (m^2/s),
- I: discharge along x (m^2/s),
- J: discharge along y (m^2/s),
- M: norm of velocity (m/s),
- X: wind along x axis (m/s),
- Y: wind along y axis (m/s),
- P: atmospheric pressure (Pa),
- W: friction coefficient,
- RB: non erodible bottom elevation (m),
- FD: thickness of the fresh deposits (m),
- EF: erosion rate ($\text{kg/m}^2/\text{s}$),
- DP: probability of deposition ($\text{kg/m}^2/\text{s}$),
- PRIVE1: work array PRIVE 1,
- PRIVE2: work array PRIVE 2,
- PRIVE3: work array PRIVE 3,
- PRIVE4: work array PRIVE 4,
- US: friction velocity (m/s),
- MAXZ: maximum value of the free surface elevation during the computation (m),
- TMXZ: time corresponding to this maximum elevation (s).

1.305 VARIABLES FOR 3D GRAPHIC PRINTOUTS

Type : String
 Dimension : 4
 Mnemo SORT3D
 DEFAULT VALUE : 'Z;U;V;W'

French keyword : VARIABLES POUR LES SORTIES GRAPHIQUES 3D

Names of variables to be written in the 3D RESULT FILE. Free choice of separator. You can ask for:

- U : velocity along x (m/s),
- V : velocity along y (m/s),
- W : velocity along z (m/s),
- Z : elevation z (m),
- TAx: concentration of tracers,

- NUX: viscosity for U and V along x (m^2/s),
- NUY: viscosity for U and V along y (m^2/s),
- NUZ: viscosity for U and V along z (m^2/s),
- NAX: viscosity for tracers along x (m^2/s),
- NAY: viscosity for tracers along y (m^2/s),
- NAZ: viscosity for tracers along z (m^2/s),
- RI : Richardson number for mixing length model,
- K : turbulent kinetic energy for k - ϵ model (J/kg),
- EPS: dissipation of turbulent kinetic energy (W/kg),
- DP : dynamic pressure (multiplied by DT/RHO),
- PH : hydrostatic pressure (Pa),
- RHO: relative density,
- P1 : private variable 1,
- P2 : private variable 2,
- P3 : private variable 3,
- P4 : private variable 4.

1.306 VECTOR LENGTH

Type : Integer
 Dimension : 1
 Mnemo LVMAC
 DEFAULT VALUE : 1
 French keyword : LONGUEUR DU VECTEUR
 Vector length on vector machines.

1.307 VELOCITIES OF THE SOURCES ALONG X

Type : Real
 Dimension : 2
 Mnemo USCE
 DEFAULT VALUE : MANDATORY
 French keyword : VITESSES DES SOURCES SELON X
 Specifies the compoment along x of the velocities of the sources. If nothing is specified, the sources diffuse without any velocity in every direction (cf. validation case source).

1.308 VELOCITIES OF THE SOURCES ALONG Y

Type : Real
 Dimension : 2
 Mnemo VSCE
 DEFAULT VALUE : MANDATORY
 French keyword : VITESSES DES SOURCES SELON Y

Specifies the compoment along y of the velocities of the sources. If nothing is specified, the sources diffuse without any velocity in every direction (cf. validation case source).

1.309 VELOCITIES OF THE SOURCES ALONG Z

Type : Real
 Dimension : 2
 Mnemo WSCE
 DEFAULT VALUE : MANDATORY
 French keyword : VITESSES DES SOURCES SELON Z

Specifies the compoment along z of the velocities of the sources. If nothing is specified, the sources diffuse without any velocity in every direction (cf. validation case source).

1.310 VELOCITY DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DDL9)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DELWAQ DE LA VITESSE

Results file for coupling with DELWAQ.

1.311 VELOCITY FOR DELWAQ

Type : Logical
 Dimension : 1
 Mnemo VELO_DEL
 DEFAULT VALUE : NO
 French keyword : VITESSE POUR DELWAQ

Triggers the output of velocity for DELWAQ.

1.312 VELOCITY PROFILES

Type : Integer
 Dimension : 2
 Mnemo PROFVEL
 DEFAULT VALUE : MANDATORY
 French keyword : PROFILS DE VITESSE

Specifies the type of horizontal profile of velocities. Possible choices are:

- 1: constant normal profile,
- 2: u and v given in the BOUNDARY CONDITION FILE,
- 3: normal velocity given in **UBOR** in the BOUNDARY CONDITION FILE,
- 4: normal velocity in \sqrt{h} ,

- 5: like 4 but virtual depth based on the lowest elevation of the boundary.

1.313 VELOCITY PROJECTED ON BOTTOM

Type : Logical
 Dimension : 1
 Mnemo VELPROBOT
 DEFAULT VALUE : YES
 French keyword : VITESSE PROJETEE SUR LE FOND
 Will ensure $\mathbf{U} \cdot \mathbf{n} = 0$ on bottom by a projection at the end of time loop.

1.314 VELOCITY PROJECTED ON SOLID LATERAL BOUNDARIES

Type : Logical
 Dimension : 1
 Mnemo VELPROLAT
 DEFAULT VALUE : YES
 French keyword : VITESSE PROJETEE SUR LES PAROIS LATERALES SOLIDES
 Will ensure $\mathbf{U} \cdot \mathbf{n} = 0$ on solid lateral boundaries by a projection at the end of time loop.

1.315 VELOCITY VERTICAL PROFILES

Type : Integer
 Dimension : 2
 Mnemo VERPROVEL
 DEFAULT VALUE : MANDATORY
 French keyword : PROFILS DE VITESSE SUR LA VERTICALE
 Specifies the type of vertical profile of velocity. Possible choices are:

- 0: defined by user,
- 1: constant,
- 2: logarithmic.

1.316 VERTICAL FLUXES DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DDL3)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DELWAQ DES FLUX VERTICAUX
 Results file for coupling with DELWAQ.

1.317 VERTICAL TURBULENCE MODEL

Type : Integer
 Dimension : 1
 Mnemo ITURBV
 DEFAULT VALUE : 1
 French keyword : MODELE DE TURBULENCE VERTICAL
 Specifies the horizontal turbulence model. The available choices are:

- 1: constant viscosity,
- 2: mixing length,
- 3: k - ε model,
- 4: Smagorinski,
- 7: k - ω model.

Caution: if option 1 is chosen, give the right COEFFICIENT FOR... DIFFUSION OF VELOCITIES... If option 3 ou 7 is chosen, this parameter must get its real physical value of molecular diffusivity, generally about 10^{-6} because it is used as well in the turbulence model.

1.318 VERTICAL VELOCITY DERIVATIVES

Type : Integer
 Dimension : 1
 Mnemo LINLOG
 DEFAULT VALUE : 1
 French keyword : DERIVEES VERTICALES DES VITESSES
 Way of computing the velocity derivatives along z :

- 1: linear derivative (classic),
- 2: logarithmic derivative (better for logarithmic profiles).

1.319 VOLUMES DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T3D_FILES(T3DDL1)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DELWAQ DES VOLUMES
 Results file for coupling with DELWAQ.

1.320 WAQTEL STEERING FILE

Type : String
 Dimension : 1
 Mnemo
 DEFAULT VALUE : "
 French keyword : FICHIER DES PARAMETRES DE WAQTEL
 File for physical parameters of water quality processes (local ones of TELEMAT- TRACER not those of DELWAQ).

1.321 WATER DISCHARGE OF SOURCES

Type : Real
 Dimension : 2
 Mnemo QSCE
 DEFAULT VALUE : MANDATORY
 French keyword : DEBITS DES SOURCES
 Specifies the discharge for every source. A positive discharge means that fluid is added.

1.322 WATER QUALITY PROCESS

Type : Integer
 Dimension : 1
 Mnemo WAQPROCESS
 DEFAULT VALUE : 0
 French keyword : PROCESSUS DE QUALITE D'EAU
 Gives the water quality process number (from 1 to 6):

- 0: nothing,
- 1: O2,
- 2: BIOMASS,
- 3: EUTRO,
- 4: MICROPOL,
- 5: THERMIC,
- 6: AED2.

1.323 WAVE DRIVEN CURRENTS

Type : Logical
 Dimension : 1
 Mnemo COUROU
 DEFAULT VALUE : NO
 French keyword : COURANTS DE HOULE
 Wave driven currents are taken into account, see subroutine **TRISOU**.

1.324 WEAK SOIL CONCENTRATION FOR MUD

Type : Real
 Dimension : 1
 Mnemo CGEL
 DEFAULT VALUE : 0.0
 French keyword : CONCENTRATION LIMITE FLUIDE-SOLIDE
 The sediment concentration at which sediment forms a weak soil in kg/m^3 . These values are needed when `HINDERED SETTLING = YES`.

1.325 WIND

Type : Logical
 Dimension : 1
 Mnemo VENT
 DEFAULT VALUE : NO
 French keyword : VENT
 Determines whether the wind effects are to be taken into account or not.

1.326 WIND VELOCITY ALONG X

Type : Real
Dimension : 1
Mnemo FUAIR
DEFAULT VALUE : 0.
French keyword : VITESSE DU VENT SUIVANT X
Wind velocity, component along x axis (m/s), if constant.

1.327 WIND VELOCITY ALONG Y

Type : Real
Dimension : 1
Mnemo FVAIR
DEFAULT VALUE : 0.
French keyword : VITESSE DU VENT SUIVANT Y
Wind velocity, component along y axis (m/s), if constant.

1.328 ZERO

Type : Real
Dimension : 1
Mnemo
DEFAULT VALUE : 1.E-10
French keyword : ZERO
Not used so far.

1.329 ZONE NUMBER IN GEOGRAPHIC SYSTEM

Type : Integer
Dimension : 1
Mnemo NUMZONE
DEFAULT VALUE : -1
French keyword : NUMERO DE FUSEAU OU PROJECTION DANS LE SYSTEME GEOGRAPHIQUE
Number of zone when using a plane projection. Indicate the geographic system in which the numerical model is built with the keyword GEOGRAPHIC SYSTEM. Possible choices are:

- 1: Lambert 1 north,
- 2: Lambert 2 center,
- 3: Lambert 3 south,
- 4: Lambert 4 Corsica,
- 22: Lambert 22 extended,
- 93: Lambert 93,
- X: UTM zone with WGS84 (X is the number of the zone).

2. List of keywords classified according to type

2.1 AUTOMATIC DIFFERENTIATION

AD LINEAR SOLVER DERIVATIVE CONVERGENCE
AD LINEAR SOLVER RESET DERIVATIVES
AD NAMES OF DERIVATIVES
AD NUMBER OF DERIVATIVES
AD NUMBER OF DIRECTIONS
AD SYMBOLIC LINEAR SOLVER

2.2 COMPUTATION ENVIRONMENT

2.2.1 GLOBAL

CHECKING THE MESH
MAXIMUM NUMBER OF BOUNDARIES
MAXIMUM NUMBER OF BOUNDARIES ON THE BED
MAXIMUM NUMBER OF SOURCES
MAXIMUM NUMBER OF TRACERS
PARALLEL PROCESSORS
TITLE
VECTOR LENGTH

2.2.2 INPUT DATA

BINARY BOUNDARY DATA FILE
BINARY BOUNDARY DATA FILE FORMAT
BINARY DATA FILE 1
BINARY DATA FILE 1 FORMAT
BINARY DATA FILE 2
BOTTOM TOPOGRAPHY FILE
BOUNDARY CONDITIONS FILE
FORMATTED DATA FILE 1
FORMATTED DATA FILE 2

FORTRAN FILE
GEOMETRY FILE
GEOMETRY FILE FORMAT
NUMBER OF BOTTOM SMOOTHINGS
REFERENCE FILE
REFERENCE FILE FORMAT
VALIDATION

2.2.3 OUTPUT

LISTING

INFORMATION ABOUT MASS-BALANCE FOR EACH LISTING PRINTOUT
LISTING PRINTOUT
LISTING PRINTOUT PERIOD
MASS-BALANCE
NUMBER OF FIRST TIME STEP FOR LISTING PRINTOUTS

RESULTS

2D RESULT FILE
2D RESULT FILE BINARY
2D RESULT FILE FORMAT
3D RESULT FILE
3D RESULT FILE BINARY
3D RESULT FILE FORMAT
BINARY RESULTS FILE
FORMATTED RESULTS FILE
GRAPHIC PRINTOUT PERIOD
NAMES OF 2D PRIVATE VARIABLES
NUMBER OF 2D PRIVATE ARRAYS
NUMBER OF FIRST TIME STEP FOR GRAPHIC PRINTOUTS
NUMBER OF PRIVATE ARRAYS
RESULT FILE IN LONGITUDE-LATITUDE
VARIABLES FOR 2D GRAPHIC PRINTOUTS
VARIABLES FOR 3D GRAPHIC PRINTOUTS

2.2.4 RESTART

2D CONTINUATION
COMPUTATION CONTINUED
FILE FOR 2D CONTINUATION
FILE FOR 2D CONTINUATION FORMAT
INITIAL TIME SET TO ZERO
PREVIOUS COMPUTATION FILE
PREVIOUS COMPUTATION FILE FORMAT
RECORD NUMBER FOR RESTART
RESTART FILE
RESTART FILE FORMAT
RESTART MODE

2.3 COUPLING

COUPLING WITH

2.3.1 DELWAQ

BOTTOM SURFACES DELWAQ FILE
DELWAQ PRINTOUT PERIOD
DELWAQ STEERING FILE
DIFFUSION FOR DELWAQ
DIFFUSIVITY DELWAQ FILE
EXCHANGE AREAS DELWAQ FILE
EXCHANGES BETWEEN NODES DELWAQ FILE
NODES DISTANCES DELWAQ FILE
SALINITY DELWAQ FILE
SALINITY FOR DELWAQ
TEMPERATURE DELWAQ FILE
TEMPERATURE FOR DELWAQ
VELOCITY DELWAQ FILE
VELOCITY FOR DELWAQ
VERTICAL FLUXES DELWAQ FILE
VOLUMES DELWAQ FILE

2.3.2 SISYPHE

COUPLING PERIOD FOR SISYPHE
SISYPHE STEERING FILE

2.3.3 TOMAWAC

COUPLING PERIOD FOR TOMAWAC
TOMAWAC STEERING FILE

2.3.4 WAQTEL

WAQTEL STEERING FILE
WATER QUALITY PROCESS

2.4 GENERAL PARAMETERS

DEBUGGER

2.4.1 LOCATION

LATITUDE OF ORIGIN POINT
LONGITUDE OF ORIGIN POINT

NORTH
ORIGIN COORDINATES
SPATIAL PROJECTION TYPE
SPHERICAL COORDINATES

2.4.2 TIME

DURATION
NUMBER OF TIME STEPS
ORIGINAL DATE OF TIME
ORIGINAL HOUR OF TIME
TIME STEP

2.5 HYDRODYNAMICS

ELEMENTS MASKED BY USER
NON-HYDROSTATIC VERSION

2.5.1 BOUNDARY CONDITIONS

BOUNDARY CONDITION ON THE BOTTOM
LIQUID BOUNDARIES FILE
OPEN BOUNDARY CONDITIONS ON THE BED
OPTION FOR LIQUID BOUNDARIES
PRESCRIBED ELEVATIONS
PRESCRIBED FLOWRATES
PRESCRIBED FLOWRATES ON THE BED
PRESCRIBED VELOCITIES
STAGE-DISCHARGE CURVES
STAGE-DISCHARGE CURVES FILE
TURBULENCE REGIME FOR LATERAL SOLID BOUNDARIES
TURBULENCE REGIME FOR THE BOTTOM
VELOCITY PROFILES
VELOCITY PROJECTED ON BOTTOM
VELOCITY PROJECTED ON SOLID LATERAL BOUNDARIES
VELOCITY VERTICAL PROFILES

2.5.2 HYDRAULIC STRUCTURES

CULVERTS

CULVERTS DATA FILE
NUMBER OF CULVERTS
OPTION FOR CULVERTS

2.5.3 INITIALIZATION

INITIAL CONDITIONS
INITIAL DEPTH

INITIAL ELEVATION

2.5.4 NUMERICAL PARAMETERS

HYDROSTATIC INCONSISTENCY FILTER
MASS-LUMPING FOR DEPTH
MATRIX STORAGE

ADVECTION

BYPASS VOID VOLUMES
FREE SURFACE GRADIENT COMPATIBILITY
MASS-LUMPING FOR VELOCITIES
MASS-LUMPING FOR WEAK CHARACTERISTICS
NUMBER OF GAUSS POINTS FOR WEAK CHARACTERISTICS
OPTION FOR CHARACTERISTICS
SCHEME FOR ADVECTION OF DEPTH
SCHEME FOR ADVECTION OF VELOCITIES
SCHEME OPTION FOR ADVECTION OF VELOCITIES

DIFFUSION

ACCURACY FOR DIFFUSION OF VELOCITIES
IMPLICITATION FOR DIFFUSION
MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF VELOCITIES
OPTION OF SOLVER FOR DIFFUSION OF VELOCITIES
PRECONDITIONING FOR DIFFUSION OF VELOCITIES
SCHEME FOR DIFFUSION OF VELOCITIES
SOLVER FOR DIFFUSION OF VELOCITIES

DISCRETISATION

ELEMENT

IMPLICITATION

IMPLICITATION FOR DEPTH
IMPLICITATION FOR VELOCITIES

NON HYDROSTATIC

ACCURACY FOR PPE
CONTINUITY CORRECTION ON OPEN BOUNDARIES
DYNAMIC BOUNDARY CONDITION
DYNAMIC PRESSURE IN WAVE EQUATION
MAXIMUM NUMBER OF ITERATIONS FOR PPE
OPTION OF SOLVER FOR PPE
PRECONDITIONING FOR PPE
SOLVER FOR PPE

PROPAGATION

ACCURACY FOR PROPAGATION
INITIAL GUESS FOR DEPTH
LINEARIZED PROPAGATION
MAXIMUM NUMBER OF ITERATIONS FOR PROPAGATION
MEAN DEPTH FOR LINEARIZATION
OPTION OF SOLVER FOR PROPAGATION
PRECONDITIONING FOR PROPAGATION
SOLVER FOR PROPAGATION

VERTICAL

ACCURACY FOR VERTICAL VELOCITY
MAXIMUM NUMBER OF ITERATIONS FOR VERTICAL VELOCITY
PRECONDITIONING FOR VERTICAL VELOCITY
SOLVER FOR VERTICAL VELOCITY

2.5.5 PARTICLES TRANSPORT**DROGUES**

DROGUES FILE
NUMBER OF DROGUES
PRINTOUT PERIOD FOR DROGUES

OIL SPILL

OIL SPILL MODEL
OIL SPILL STEERING FILE

2.5.6 PHYSICAL PARAMETERS

AVERAGE WATER DENSITY
GRAVITY ACCELERATION

CORIOLIS EFFECT

CORIOLIS
CORIOLIS COEFFICIENT

FRICTION

FRICTION COEFFICIENT FOR LATERAL SOLID BOUNDARIES
FRICTION COEFFICIENT FOR THE BOTTOM
LAW OF BOTTOM FRICTION
LAW OF FRICTION ON LATERAL BOUNDARIES

METEOROLOGY

AIR PRESSURE
ASCII ATMOSPHERIC DATA FILE
BINARY ATMOSPHERIC DATA FILE

BINARY ATMOSPHERIC DATA FILE FORMAT
COEFFICIENT OF WIND INFLUENCE
COEFFICIENT OF WIND INFLUENCE VARYING WITH WIND SPEED
OPTION FOR WIND
RAIN OR EVAPORATION
RAIN OR EVAPORATION IN MM PER DAY
THRESHOLD DEPTH FOR WIND
VALUE OF ATMOSPHERIC PRESSURE
WIND
WIND VELOCITY ALONG X
WIND VELOCITY ALONG Y

SOURCES

ABSCISSAE OF SOURCES
ELEVATIONS OF SOURCES
GLOBAL NUMBERS OF SOURCE NODES
ORDINATES OF SOURCES
SOURCES FILE
TYPE OF SOURCES
VELOCITIES OF THE SOURCES ALONG X
VELOCITIES OF THE SOURCES ALONG Y
VELOCITIES OF THE SOURCES ALONG Z
WATER DISCHARGE OF SOURCES

WAVE

RECORD NUMBER IN WAVE FILE
WAVE DRIVEN CURRENTS

2.5.7 TIDAL FLATS INFO

MINIMAL VALUE FOR DEPTH
OPTION FOR THE TREATMENT OF TIDAL FLATS
THRESHOLD FOR VISCOSITY CORRECTION ON TIDAL FLATS
TIDAL FLATS
TREATMENT OF NEGATIVE DEPTHS
TREATMENT ON TIDAL FLATS FOR VELOCITIES

2.5.8 TIDES

BINARY DATABASE 1 FOR TIDE
BINARY DATABASE 2 FOR TIDE
COEFFICIENT TO CALIBRATE SEA LEVEL
GEOGRAPHIC SYSTEM
GLOBAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER
LAMBERT 93 CONVERSION FILE
MINOR CONSTITUENTS INFERENCE
ZONE NUMBER IN GEOGRAPHIC SYSTEM

BOUNDARY CONDITIONS

ASCII DATABASE FOR TIDE
COEFFICIENT TO CALIBRATE TIDAL RANGE
COEFFICIENT TO CALIBRATE TIDAL VELOCITIES
HARMONIC CONSTANTS FILE
LOCAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER
OPTION FOR TIDAL BOUNDARY CONDITIONS
TIDAL DATA BASE
TIDAL MODEL FILE

PHYSICAL PARAMETERS

TIDE GENERATING FORCE

2.6 INTERNAL

DEFAULT EXECUTABLE
DEFAULT PARALLEL EXECUTABLE
DESCRIPTION OF LIBRARIES
DICTIONARY
LIST OF FILES
PARTITIONING TOOL
RELEASE
STEERING FILE

2.7 NUMERICAL PARAMETERS

NUMBER OF SUB ITERATIONS FOR NON LINEARITIES
ZERO

2.7.1 ADVECTION

ADVECTION STEP
MAXIMUM NUMBER OF ITERATIONS FOR ADVECTION SCHEMES
NUMBER OF CORRECTIONS OF DISTRIBUTIVE SCHEMES
NUMBER OF SUB-STEPS OF DISTRIBUTIVE SCHEMES
SUPG OPTION
TREATMENT OF FLUXES AT THE BOUNDARIES

2.7.2 DIFFUSION

MASS-LUMPING FOR DIFFUSION

2.8 SEDIMENT INFO

COHESIVE SEDIMENT
DENSITY OF THE SEDIMENT

MIXED SEDIMENT
NUMBER OF SEDIMENT BED LAYERS
SEDIMENT
SHIELDS PARAMETER
TIME STEP FOR CONSOLIDATION

2.8.1 DEPOSITION

CRITICAL SHEAR STRESS FOR DEPOSITION
NON COHESIVE BED POROSITY

2.8.2 DEPRECATED

CLEANING TO BE DONE

BED LAYERS THICKNESS
MAXIMUM CONCENTRATION OF THE CONSOLIDATED MUD
RESIDENCE TIME FOR MUD

TO BE CHECKED

CONSOLIDATION
CONSOLIDATION MODEL

2.8.3 EROSION

EROSION COEFFICIENT

2.8.4 FLOCCULATION INFO

COEFFICIENT RELATIVE TO FLOC DESTRUCTION
FLOCCULATION
FLOCCULATION COEFFICIENT
FLOCCULATION FORMULA

2.8.5 INITIALIZATION

CRITICAL EROSION SHEAR STRESS OF THE MUD LAYERS
INITIAL PERCENTAGE OF NON COHESIVE SEDIMENT
INITIAL THICKNESS OF SEDIMENT LAYERS
MUD CONCENTRATIONS PER LAYER

2.8.6 INPUT

DATA

READ CRITICAL BED SHEAR STRESS PER LAYER

2.8.7 NUMERICAL PARAMETERS

DIFFUSION

ACCURACY FOR DIFFUSION OF SEDIMENT
MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF SEDIMENT
OPTION OF SOLVER FOR DIFFUSION OF THE SEDIMENT
PRECONDITIONING FOR DIFFUSION OF THE SEDIMENT
SOLVER FOR DIFFUSION OF THE SEDIMENT

2.8.8 OUTPUT

RESULTS

SEDIMENTOLOGICAL RESULT FILE
SEDIMENTOLOGICAL RESULT FILE BINARY

2.8.9 PHYSICAL PARAMETERS

MEAN DIAMETER OF THE SEDIMENT

FRICTION

RATIO BETWEEN SKIN FRICTION AND MEAN DIAMETER
SKIN FRICTION CORRECTION

2.8.10 RESTART

PREVIOUS COMPUTATION SEDIMENTOLOGICAL FILE

2.8.11 SETTLING VELOCITY

ADVECTION-DIFFUSION SCHEME WITH SETTLING VELOCITY
CONSTANT SEDIMENT SETTLING VELOCITY
HINDERED SETTLING
HINDERED SETTLING FORMULA
SETTLING VELOCITY OF SANDS
THRESHOLD CONCENTRATION FOR HINDERED SETTLING
WEAK SOIL CONCENTRATION FOR MUD

2.8.12 SUSPENSION

REFERENCE CONCENTRATION FORMULA

2.8.13 TIDAL FLATS INFO

THRESHOLD FOR SEDIMENT FLUX CORRECTION ON TIDAL FLATS

2.9 TRACERS

NAMES OF TRACERS
NUMBER OF TRACERS

2.9.1 BOUNDARY CONDITIONS

PRESCRIBED TRACERS VALUES
TRACERS VERTICAL PROFILES

2.9.2 INITIALIZATION

INITIAL VALUES OF TRACERS

2.9.3 NUMERICAL PARAMETERS

ADVECTION

SCHEME FOR ADVECTION OF TRACERS
SCHEME OPTION FOR ADVECTION OF TRACERS

DIFFUSION

ACCURACY FOR DIFFUSION OF TRACERS
MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF TRACERS
OPTION OF SOLVER FOR DIFFUSION OF TRACERS
PRECONDITIONING FOR DIFFUSION OF TRACERS
SCHEME FOR DIFFUSION OF TRACERS
SOLVER FOR DIFFUSION OF TRACERS

2.9.4 PHYSICAL PARAMETERS

DENSITY

BETA EXPANSION COEFFICIENT FOR TRACERS
DENSITY LAW
STANDARD VALUES FOR TRACERS

METEOROLOGY

VALUES OF TRACERS IN THE RAIN

SOURCES

VALUE OF THE TRACERS AT THE SOURCES

2.9.5 TIDAL FLATS INFO

TREATMENT ON TIDAL FLATS FOR TRACERS

2.9.6 TURBULENCE

COEFFICIENT FOR HORIZONTAL DIFFUSION OF TRACERS
COEFFICIENT FOR VERTICAL DIFFUSION OF TRACERS

2.10 TURBULENCE**2.10.1 BOUNDARY CONDITIONS**

FICTITIOUS BED LEVEL
OPTION FOR THE BOUNDARY CONDITIONS OF K-EPSILON

2.10.2 NUMERICAL PARAMETERS

VERTICAL VELOCITY DERIVATIVES

ADVECTION

SCHEME FOR ADVECTION OF K-EPSILON
SCHEME OPTION FOR ADVECTION OF K-EPSILON

DIFFUSION

ACCURACY FOR DIFFUSION OF K-EPSILON
MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF K-EPSILON
OPTION OF SOLVER FOR DIFFUSION OF K-EPSILON
PRECONDITIONING FOR DIFFUSION OF K-EPSILON
SCHEME FOR DIFFUSION OF K-EPSILON
SOLVER FOR DIFFUSION OF K-EPSILON

2.10.3 PHYSICAL PARAMETERS

COEFFICIENT FOR HORIZONTAL DIFFUSION OF VELOCITIES
COEFFICIENT FOR VERTICAL DIFFUSION OF VELOCITIES
DAMPING FUNCTION
HORIZONTAL TURBULENCE MODEL
KARMAN CONSTANT
MIXING LENGTH MODEL
PRANDTL NUMBER
VERTICAL TURBULENCE MODEL

2.10.4 TIDAL FLATS INFO

TREATMENT ON TIDAL FLATS FOR K-EPSILON

2.11 VERTICAL

MESH TRANSFORMATION
NUMBER OF HORIZONTAL LEVELS

3. glossary

3.1 english/french glossary

2D CONTINUATION	SUITE 2D
2D RESULT FILE	FICHER DES RESULTATS 2D
2D RESULT FILE BINARY	BINAIRE DU FICHER DES RESULTATS 2D
2D RESULT FILE FORMAT	FORMAT DU FICHER DES RESULTATS 2D
3D RESULT FILE	FICHER DES RESULTATS 3D
3D RESULT FILE BINARY	BINAIRE DU FICHER DES RESULTATS 3D
3D RESULT FILE FORMAT	FORMAT DU FICHER DES RESULTATS 3D
ABSCISSAE OF SOURCES	ABSCISSES DES SOURCES
ACCURACY FOR DIFFUSION OF K-EPSILON	PRECISION POUR LA DIFFUSION DU K-EPSILON
ACCURACY FOR DIFFUSION OF SEDIMENT	PRECISION POUR LA DIFFUSION DU SEDIMENT
ACCURACY FOR DIFFUSION OF TRACERS	PRECISION POUR LA DIFFUSION DES TRACEURS
ACCURACY FOR DIFFUSION OF VELOCITIES	PRECISION POUR LA DIFFUSION DES VITESSES
ACCURACY FOR PPE	PRECISION POUR PPE
ACCURACY FOR PROPAGATION	PRECISION POUR LA PROPAGATION
ACCURACY FOR VERTICAL VELOCITY	PRECISION POUR LA VITESSE VERTICALE
AD LINEAR SOLVER DERIVATIVE CONVERGENCE	AD CONVERGENCE DES DERIVEES POUR LE SOLVEUR LINEAIRE
AD LINEAR SOLVER RESET DERIVATIVES	AD REMISE A ZERO DES DERIVEES DU SOLVEUR LINEAIRE
AD NAMES OF DERIVATIVES	AD NOMS DES DERIVEES
AD NUMBER OF DERIVATIVES	AD NOMBRE DES DERIVEES
AD NUMBER OF DIRECTIONS	AD NOMBRE DE DIRECTIONS

AD SYMBOLIC LINEAR SOLVER	AD SOLVEUR LINEAIRE SYMBOLIQUE
ADVECTION STEP	ETAPE DE CONVECTION
ADVECTION-DIFFUSION SCHEME WITH SETTLING VELOCITY	SCHEMA DE CONVECTION DIFFUSION AVEC VITESSE DE CHUTE
AIR PRESSURE	PRESSION ATMOSPHERIQUE
ASCII ATMOSPHERIC DATA FILE	FICHIER ASCII DE DONNEES ATMOSPHERIQUES
ASCII DATABASE FOR TIDE	BASE ASCII DE DONNEES DE MAREE
AVERAGE WATER DENSITY	MASSE VOLUMIQUE MOYENNE DE L'EAU
BED LAYERS THICKNESS	EPAISSEUR DES COUCHES DU FOND VASEUX
BETA EXPANSION COEFFICIENT FOR TRACERS	COEFFICIENT DE DILATATION BETA POUR LES TRACEURS
BINARY ATMOSPHERIC DATA FILE	FICHIER BINAIRE DE DONNEES ATMOSPHERIQUES
BINARY ATMOSPHERIC DATA FILE FORMAT	FORMAT DU FICHIER BINAIRE DE DONNEES ATMOSPHERIQUES
BINARY BOUNDARY DATA FILE	FICHIER BINAIRE DE DONNEES DE FRONTIERE
BINARY BOUNDARY DATA FILE FORMAT	FORMAT DU FICHIER BINAIRE DE DONNEES DE FRONTIERE
BINARY DATA FILE 1	FICHIER DE DONNEES BINAIRE 1
BINARY DATA FILE 1 FORMAT	FORMAT DU FICHIER DE DONNEES BINAIRE 1
BINARY DATA FILE 2	FICHIER DE DONNEES BINAIRE 2
BINARY DATABASE 1 FOR TIDE	BASE BINAIRE 1 DE DONNEES DE MAREE
BINARY DATABASE 2 FOR TIDE	BASE BINAIRE 2 DE DONNEES DE MAREE
BINARY RESULTS FILE	FICHIER DE RESULTATS BINAIRE
BOTTOM SURFACES DELWAQ FILE	FICHIER DELWAQ DES SURFACES DU FOND
BOTTOM TOPOGRAPHY FILE	FICHIER DES FONDS
BOUNDARY CONDITION ON THE BOTTOM	CONDITION A LA LIMITE AU FOND
BOUNDARY CONDITIONS FILE	FICHIER DES CONDITIONS AUX LIMITES
BYPASS VOID VOLUMES	CONTOURNEMENT DES VOLUMES NULS
CHECKING THE MESH	VERIFICATION DU MAILLAGE
COEFFICIENT FOR HORIZONTAL DIFFUSION OF TRACERS	COEFFICIENT DE DIFFUSION HORIZONTAL DES TRACEURS
COEFFICIENT FOR HORIZONTAL DIFFUSION OF VELOCITIES	COEFFICIENT DE DIFFUSION HORIZONTAL DES VITESSES
COEFFICIENT FOR VERTICAL DIFFUSION OF TRACERS	COEFFICIENT DE DIFFUSION VERTICAL DES TRACEURS

COEFFICIENT FOR VERTICAL DIFFUSION OF VELOCITIES	COEFFICIENT DE DIFFUSION VERTICAL DES VITESSES
COEFFICIENT OF WIND INFLUENCE	COEFFICIENT D'INFLUENCE DU VENT
COEFFICIENT OF WIND INFLUENCE VARYING WITH WIND SPEED	COEFFICIENT D'INFLUENCE DU VENT DEPENDANT DE LA VITESSE DU VENT
COEFFICIENT RELATIVE TO FLOC DESTRUCTION	COEFFICIENT TRADUISANT LA DESTRUCTION DES FLOCS
COEFFICIENT TO CALIBRATE SEA LEVEL	COEFFICIENT DE CALAGE DU NIVEAU DE MER
COEFFICIENT TO CALIBRATE TIDAL RANGE	COEFFICIENT DE CALAGE DU MARNAGE
COEFFICIENT TO CALIBRATE TIDAL VELOCITIES	COEFFICIENT DE CALAGE DES VITESSES DE COURANT
COHESIVE SEDIMENT	SEDIMENT COHESIF
COMPUTATION CONTINUED	SUITE DE CALCUL
CONSOLIDATION	TASSEMENT DE LA VASE
CONSOLIDATION MODEL	OPTION DU MODELE DE TASSEMENT
CONSTANT SEDIMENT SETTLING VELOCITY	VITESSE DE CHUTE CONSTANTE
CONTINUITY CORRECTION ON OPEN BOUNDARIES	CORRECTION DE CONTINUITE SUR FRONTIERES OUVERTES
CORIOLIS	CORIOLIS
CORIOLIS COEFFICIENT	COEFFICIENT DE CORIOLIS
COUPLING PERIOD FOR SISYPHE	PERIODE DE COUPLAGE POUR SISYPHE
COUPLING PERIOD FOR TOMAWAC	PERIODE DE COUPLAGE POUR TOMAWAC
COUPLING WITH	COUPLAGE AVEC
CRITICAL EROSION SHEAR STRESS OF THE MUD LAYERS	CONTRAINTE CRITIQUE D'EROSION DES COUCHES DE VASE
CRITICAL SHEAR STRESS FOR DEPOSITION	CONTRAINTE CRITIQUE DE DEPOT
CULVERTS DATA FILE	FICHIER DE DONNEES DES BUSES
DAMPING FUNCTION	FONCTION D'AMORTISSEMENT
DEBUGGER	DEBUGGER
DEFAULT EXECUTABLE	EXECUTABLE PAR DEFAUT
DEFAULT PARALLEL EXECUTABLE	EXECUTABLE PARALLELE PAR DEFAUT
DELWAQ PRINTOUT PERIOD	PERIODE DE SORTIE POUR DELWAQ
DELWAQ STEERING FILE	FICHIER DE COMMANDE DELWAQ
DENSITY LAW	LOI DE DENSITE
DENSITY OF THE SEDIMENT	MASSE VOLUMIQUE DU SEDIMENT
DESCRIPTION OF LIBRARIES	DESCRIPTION DES LIBRAIRIES
DICTIONARY	DICTIONNAIRE
DIFFUSION FOR DELWAQ	DIFFUSION POUR DELWAQ
DIFFUSIVITY DELWAQ FILE	FICHIER DELWAQ DE LA DIFFUSION
DROGUES FILE	FICHIER DES FLOTTEURS
DURATION	DUREE DU CALCUL

DYNAMIC BOUNDARY CONDITION	CONDITION LIMITE DYNAMIQUE
DYNAMIC PRESSURE IN WAVE EQUATION	PRESSION DYNAMIQUE DANS L'EQUATION D'ONDE
ELEMENT	ELEMENT
ELEMENTS MASKED BY USER	ELEMENTS MASQUES PAR L'UTILISATEUR
ELEVATIONS OF SOURCES	COTES DES SOURCES
EROSION COEFFICIENT	COEFFICIENT D'EROSION
EXCHANGE AREAS DELWAQ FILE	FICHIER DELWAQ DES SURFACES DE FLUX
EXCHANGES BETWEEN NODES DELWAQ FILE	FICHIER DELWAQ DES ECHANGES ENTRE NOEUDS
FICTITIOUS BED LEVEL	HAUTEUR DU LIT FICTIF
FILE FOR 2D CONTINUATION	FICHIER POUR SUITE 2D
FILE FOR 2D CONTINUATION FORMAT	FORMAT DU FICHIER POUR SUITE 2D
FLOCCULATION	FLOCCULATION
FLOCCULATION COEFFICIENT	COEFFICIENT TRADUISANT LA FORMATION DES FLOCS
FLOCCULATION FORMULA	FORMULE POUR FLOCCULATION
FORMATTED DATA FILE 1	FICHIER DE DONNEES FORMATE 1
FORMATTED DATA FILE 2	FICHIER DE DONNEES FORMATE 2
FORMATTED RESULTS FILE	FICHIER DE RESULTATS FORMATE
FORTRAN FILE	FICHIER FORTRAN
FREE SURFACE GRADIENT COMPATIBILITY	COMPATIBILITE DU GRADIENT DE SURFACE LIBRE
FRICTION COEFFICIENT FOR LATERAL SOLID BOUNDARIES	COEFFICIENT DE FROTTEMENT POUR LES PAROIS LATERALES
FRICTION COEFFICIENT FOR THE BOTTOM	COEFFICIENT DE FROTTEMENT POUR LE FOND
GEOGRAPHIC SYSTEM	SYSTEME GEOGRAPHIQUE
GEOMETRY FILE	FICHIER DE GEOMETRIE
GEOMETRY FILE FORMAT	FORMAT DU FICHIER DE GEOMETRIE
GLOBAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER	NUMERO GLOBAL DU POINT POUR CALER LA PLEINE MER
GLOBAL NUMBERS OF SOURCE NODES	NUMEROS GLOBAUX DES NOEUDS DES SOURCES
GRAPHIC PRINTOUT PERIOD	PERIODE POUR LES SORTIES GRAPHIQUES
GRAVITY ACCELERATION	ACCELERATION DE LA PESANTEUR
HARMONIC CONSTANTS FILE	FICHIER DES CONSTANTES HARMONIQUES
HINDERED SETTLING	VITESSE DE CHUTE ENTRAVEE
HINDERED SETTLING FORMULA	FORMULE POUR VITESSE DE CHUTE ENTRAVEE
HORIZONTAL TURBULENCE MODEL	MODELE DE TURBULENCE HORIZONTAL
HYDROSTATIC INCONSISTENCY FILTER	FILTRE LES INCONSISTANCES HYDROSTATIQUES

IMPLICITATION FOR DEPTH	IMPLICITATION POUR LA HAUTEUR
IMPLICITATION FOR DIFFUSION	IMPLICITATION POUR LA DIFFUSION
IMPLICITATION FOR VELOCITIES	IMPLICITATION POUR LES VITESSES
INFORMATION ABOUT MASS-BALANCE FOR EACH LISTING PRINTOUT	INFORMATION SUR LE BILAN DE MASSE A CHAQUE SORTIE LISTING
INITIAL CONDITIONS	CONDITIONS INITIALES
INITIAL DEPTH	HAUTEUR INITIALE
INITIAL ELEVATION	COTE INITIALE
INITIAL GUESS FOR DEPTH	ORDRE DU TIR INITIAL POUR LA HAUTEUR
INITIAL PERCENTAGE OF NON COHESIVE SEDIMENT	POURCENTAGE INITIAL DE SEDIMENT NON COHESIF
INITIAL THICKNESS OF SEDIMENT LAYERS	EPAISSEURS INITIALES DES COUCHES
INITIAL TIME SET TO ZERO	REMISE A ZERO DU TEMPS
INITIAL VALUES OF TRACERS	VALEURS INITIALES DES TRACEURS
KARMAN CONSTANT	CONSTANTE DE KARMAN
LAMBERT 93 CONVERSION FILE	FICHIER DE CONVERSION LAMBERT 93
LATITUDE OF ORIGIN POINT	LATITUDE DU POINT ORIGINE
LAW OF BOTTOM FRICTION	LOI DE FROTTEMENT SUR LE FOND
LAW OF FRICTION ON LATERAL BOUNDARIES	LOI DE FROTTEMENT SUR LES PAROIS LATERALES
LINEARIZED PROPAGATION	PROPAGATION LINEARISEE
LIQUID BOUNDARIES FILE	FICHIER DES FRONTIERES LIQUIDES
LIST OF FILES	LISTE DES FICHIERS
LISTING PRINTOUT	SORTIE LISTING
LISTING PRINTOUT PERIOD	PERIODE POUR LES SORTIES LISTING
LOCAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER	NUMERO LOCAL DU POINT POUR CALER LA PLEINE MER
LONGITUDE OF ORIGIN POINT	LONGITUDE DU POINT ORIGINE
MASS-BALANCE	BILAN DE MASSE
MASS-LUMPING FOR DEPTH	MASS-LUMPING POUR LA HAUTEUR
MASS-LUMPING FOR DIFFUSION	MASS-LUMPING POUR LA DIFFUSION
MASS-LUMPING FOR VELOCITIES	MASS-LUMPING POUR LES VITESSES
MASS-LUMPING FOR WEAK CHARACTERISTICS	MASS-LUMPING POUR LES CARACTERISTIQUES FAIBLES
MATRIX STORAGE	STOCKAGE DES MATRICES
MAXIMUM CONCENTRATION OF THE CONSOLIDATED MUD	CONCENTRATION MAXIMUM DE LA VASE TASSEE
MAXIMUM NUMBER OF BOUNDARIES	NOMBRE MAXIMUM DE FRONTIERES
MAXIMUM NUMBER OF BOUNDARIES ON THE BED	NOMBRE MAXIMUM DE FRONTIERES SUR LE FOND
MAXIMUM NUMBER OF ITERATIONS FOR ADVECTION SCHEMES	MAXIMUM D'ITERATIONS POUR LES SCHEMAS DE CONVECTION

MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF K-EPSILON	MAXIMUM D'ITERATIONS POUR LA DIFFUSION DU K-EPSILON
MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF SEDIMENT	MAXIMUM D'ITERATIONS POUR LA DIFFUSION DU SEDIMENT
MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF TRACERS	MAXIMUM D'ITERATIONS POUR LA DIFFUSION DES TRACEURS
MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF VELOCITIES	MAXIMUM D'ITERATIONS POUR LA DIFFUSION DES VITESSES
MAXIMUM NUMBER OF ITERATIONS FOR PPE	MAXIMUM D'ITERATIONS POUR PPE
MAXIMUM NUMBER OF ITERATIONS FOR PROPAGATION	MAXIMUM D'ITERATIONS POUR LA PROPAGATION
MAXIMUM NUMBER OF ITERATIONS FOR VERTICAL VELOCITY	MAXIMUM D'ITERATIONS POUR LA VITESSE VERTICALE
MAXIMUM NUMBER OF SOURCES	NOMBRE MAXIMUM DE SOURCES
MAXIMUM NUMBER OF TRACERS	NOMBRE MAXIMUM DE TRACEURS
MEAN DEPTH FOR LINEARIZATION	PROFONDEUR MOYENNE POUR LA LINEARISATION
MEAN DIAMETER OF THE SEDIMENT	DIAMETRE MOYEN DES GRAINS
MESH TRANSFORMATION	TRANSFORMATION DU MAILLAGE
MINIMAL VALUE FOR DEPTH	VALEUR MINIMALE POUR LA HAUTEUR
MINOR CONSTITUENTS INFERENCE	INTERPOLATION DE COMPOSANTES MINEURES
MIXED SEDIMENT	SEDIMENT MIXTE
MIXING LENGTH MODEL	MODELE DE LONGUEUR DE MELANGE
MUD CONCENTRATIONS PER LAYER	CONCENTRATIONS DES COUCHES DE VASE
NAMES OF 2D PRIVATE VARIABLES	NOMS DES VARIABLES PRIVEES 2D
NAMES OF TRACERS	NOMS DES TRACEURS
NODES DISTANCES DELWAQ FILE	FICHIER DELWAQ DES DISTANCES ENTRE NOEUDS
NON COHESIVE BED POROSITY	POROSITE DU LIT NON COHESIF
NON-HYDROSTATIC VERSION	VERSION NON-HYDROSTATIQUE
NORTH	NORD
NUMBER OF 2D PRIVATE ARRAYS	NOMBRE DE TABLEAUX PRIVES 2D
NUMBER OF BOTTOM SMOOTHINGS	NOMBRE DE LISSAGES DU FOND
NUMBER OF CORRECTIONS OF DISTRIBUTIVE SCHEMES	NOMBRE DE CORRECTIONS DES SCHEMAS DISTRIBUTIFS
NUMBER OF CULVERTS	NOMBRE DE BUSES
NUMBER OF DROGUES	NOMBRE DE FLOTTEURS
NUMBER OF FIRST TIME STEP FOR GRAPHIC PRINTOUTS	NUMERO DU PREMIER PAS DE TEMPS POUR LES SORTIES GRAPHIQUES
NUMBER OF FIRST TIME STEP FOR LISTING PRINTOUTS	NUMERO DU PREMIER PAS DE TEMPS POUR LES SORTIES LISTING
NUMBER OF GAUSS POINTS FOR WEAK CHARACTERISTICS	NOMBRE DE POINTS DE GAUSS POUR LES CARACTERISTIQUES FAIBLES
NUMBER OF HORIZONTAL LEVELS	NOMBRE DE PLANS HORIZONTAUX

NUMBER OF PRIVATE ARRAYS	NOMBRE DE TABLEAUX PRIVES
NUMBER OF SEDIMENT BED LAYERS	NOMBRE DE COUCHES DU LIT COHESIF
NUMBER OF SUB ITERATIONS FOR NON LINEARITIES	NOMBRE DE SOUS ITERATIONS POUR LES NON LINEARITES
NUMBER OF SUB-STEPS OF DISTRIBUTIVE SCHEMES	NOMBRE DE SOUS-PAS DES SCHEMAS DISTRIBUTIFS
NUMBER OF TIME STEPS	NOMBRE DE PAS DE TEMPS
NUMBER OF TRACERS	NOMBRE DE TRACEURS
OIL SPILL MODEL	MODELE DE NAPPES D'HYDROCARBURES
OIL SPILL STEERING FILE	FICHIER DE COMMANDES HYDROCARBURES
OPEN BOUNDARY CONDITIONS ON THE BED	CONDITIONS OUVERTES SUR LE FOND
OPTION FOR CHARACTERISTICS	OPTION POUR LES CARACTERISTIQUES
OPTION FOR CULVERTS	OPTION POUR LES BUSES
OPTION FOR LIQUID BOUNDARIES	OPTION POUR LES FRONTIERES LIQUIDES
OPTION FOR THE BOUNDARY CONDITIONS OF K-EPSILON	OPTION POUR LES CONDITIONS AUX LIMITES DU K-EPSILON
OPTION FOR THE TREATMENT OF TIDAL FLATS	OPTION DE TRAITEMENT DES BANCs DECOUVRANTS
OPTION FOR TIDAL BOUNDARY CONDITIONS	OPTION POUR LES CONDITIONS AUX LIMITES DE MAREE
OPTION FOR WIND	OPTION DU VENT
OPTION OF SOLVER FOR DIFFUSION OF K-EPSILON	OPTION DU SOLVEUR POUR LA DIFFUSION DU K-EPSILON
OPTION OF SOLVER FOR DIFFUSION OF THE SEDIMENT	OPTION DU SOLVEUR POUR LA DIFFUSION DU SEDIMENT
OPTION OF SOLVER FOR DIFFUSION OF TRACERS	OPTION DU SOLVEUR POUR LA DIFFUSION DES TRACEURS
OPTION OF SOLVER FOR DIFFUSION OF VELOCITIES	OPTION DU SOLVEUR POUR LA DIFFUSION DES VITESSES
OPTION OF SOLVER FOR PPE	OPTION DU SOLVEUR POUR PPE
OPTION OF SOLVER FOR PROPAGATION	OPTION DU SOLVEUR POUR LA PROPAGATION
ORDINATES OF SOURCES	ORDONNEES DES SOURCES
ORIGIN COORDINATES	COORDONNEES DE L'ORIGINE
ORIGINAL DATE OF TIME	DATE DE L'ORIGINE DES TEMPS
ORIGINAL HOUR OF TIME	HEURE DE L'ORIGINE DES TEMPS
PARALLEL PROCESSORS	PROCESSEURS PARALLELES
PARTITIONING TOOL	PARTITIONNEUR
PRANDTL NUMBER	NOMBRE DE PRANDTL
PRECONDITIONING FOR DIFFUSION OF K-EPSILON	PRECONDITIONNEMENT POUR LA DIFFUSION DU K-EPSILON

PRECONDITIONING FOR DIFFUSION OF THE SEDIMENT	PRECONDITIONNEMENT POUR LA DIFFUSION DU SEDIMENT
PRECONDITIONING FOR DIFFUSION OF TRACERS	PRECONDITIONNEMENT POUR LA DIFFUSION DES TRACEURS
PRECONDITIONING FOR DIFFUSION OF VELOCITIES	PRECONDITIONNEMENT POUR LA DIFFUSION DES VITESSES
PRECONDITIONING FOR PPE	PRECONDITIONNEMENT POUR PPE
PRECONDITIONING FOR PROPAGATION	PRECONDITIONNEMENT POUR LA PROPAGATION
PRECONDITIONING FOR VERTICAL VELOCITY	PRECONDITIONNEMENT POUR LA VITESSE VERTICALE
PRESCRIBED ELEVATIONS	COTES IMPOSEES
PRESCRIBED FLOWRATES	DEBITS IMPOSES
PRESCRIBED FLOWRATES ON THE BED	DEBITS IMPOSES SUR LE FOND
PRESCRIBED TRACERS VALUES	VALEURS IMPOSEES DES TRACEURS
PRESCRIBED VELOCITIES	VITESSES IMPOSEES
PREVIOUS COMPUTATION FILE	FICHIER DU CALCUL PRECEDENT
PREVIOUS COMPUTATION FILE FORMAT	FORMAT DU FICHIER DU CALCUL PRECEDENT
PREVIOUS COMPUTATION SEDIMENTOLOGICAL FILE	FICHIER SEDIMENTOLOGIQUE DU CALCUL PRECEDENT
PRINTOUT PERIOD FOR DROGUES	PERIODE POUR LES SORTIES DE FLOTTEURS
RAIN OR EVAPORATION	PLUIE OU EVAPORATION
RAIN OR EVAPORATION IN MM PER DAY	PLUIE OU EVAPORATION EN MM PAR JOUR
RATIO BETWEEN SKIN FRICTION AND MEAN DIAMETER	RATIO ENTRE LA RUGOSITE DE PEAU ET LE DIAMETRE MOYEN
READ CRITICAL BED SHEAR STRESS PER LAYER	LECTURE CONTRAINTE CRITIQUE POUR CHAQUE COUCHE
RECORD NUMBER FOR RESTART	ENREGISTREMENT POUR SUITE DE CALCUL
RECORD NUMBER IN WAVE FILE	NUMERO DE L'ENREGISTREMENT DANS LE FICHIER DE HOULE
REFERENCE CONCENTRATION FORMULA	FORMULE POUR LA CONCENTRATION DE REFERENCE
REFERENCE FILE	FICHIER DE REFERENCE
REFERENCE FILE FORMAT	FORMAT DU FICHIER DE REFERENCE
RELEASE	NUMERO DE VERSION
RESIDENCE TIME FOR MUD	TEMPS DE SEJOUR DE LA VASE
RESTART FILE	FICHIER POUR SUITE
RESTART FILE FORMAT	FORMAT DU FICHIER POUR SUITE
RESTART MODE	MODE SUITE
RESULT FILE IN LONGITUDE-LATITUDE	FICHIER RESULTAT EN LONGITUDE-LATITUDE
SALINITY DELWAQ FILE	FICHIER DELWAQ DE LA SALINITE
SALINITY FOR DELWAQ	SALINITE POUR DELWAQ

SCHEME FOR ADVECTION OF DEPTH	SCHEMA POUR LA CONVECTION DE LA HAUTEUR
SCHEME FOR ADVECTION OF K-EPSILON	SCHEMA POUR LA CONVECTION DU K-EPSILON
SCHEME FOR ADVECTION OF TRACERS	SCHEMA POUR LA CONVECTION DES TRACEURS
SCHEME FOR ADVECTION OF VELOCITIES	SCHEMA POUR LA CONVECTION DES VITESSES
SCHEME FOR DIFFUSION OF K-EPSILON	SCHEMA POUR LA DIFFUSION DU K-EPSILON
SCHEME FOR DIFFUSION OF TRACERS	SCHEMA POUR LA DIFFUSION DES TRACEURS
SCHEME FOR DIFFUSION OF VELOCITIES	SCHEMA POUR LA DIFFUSION DES VITESSES
SCHEME OPTION FOR ADVECTION OF K-EPSILON	OPTION DU SCHEMA POUR LA CONVECTION DU K-EPSILON
SCHEME OPTION FOR ADVECTION OF TRACERS	OPTION DU SCHEMA POUR LA CONVECTION DES TRACEURS
SCHEME OPTION FOR ADVECTION OF VELOCITIES	OPTION DU SCHEMA POUR LA CONVECTION DES VITESSES
SEDIMENT	SEDIMENT
SEDIMENTOLOGICAL RESULT FILE	FICHIER DES RESULTATS SEDIMENTOLOGIQUES
SEDIMENTOLOGICAL RESULT FILE BINARY	BINAIRE DU FICHIER DES RESULTATS SEDIMENTOLOGIQUES
SETTLING VELOCITY OF SANDS	VITESSE DE CHUTE DES SABLES
SHIELDS PARAMETER	PARAMETRE DE SHIELDS
SISYPHE STEERING FILE	FICHIER DES PARAMETRES DE SISYPHE
SKIN FRICTION CORRECTION	CORRECTION FROTTEMENT DE PEAU
SOLVER FOR DIFFUSION OF K-EPSILON	SOLVEUR POUR LA DIFFUSION DU K-EPSILON
SOLVER FOR DIFFUSION OF THE SEDIMENT	SOLVEUR POUR LA DIFFUSION DU SEDIMENT
SOLVER FOR DIFFUSION OF TRACERS	SOLVEUR POUR LA DIFFUSION DES TRACEURS
SOLVER FOR DIFFUSION OF VELOCITIES	SOLVEUR POUR LA DIFFUSION DES VITESSES
SOLVER FOR PPE	SOLVEUR POUR PPE
SOLVER FOR PROPAGATION	SOLVEUR POUR LA PROPAGATION
SOLVER FOR VERTICAL VELOCITY	SOLVEUR POUR LA VITESSE VERTICALE
SOURCES FILE	FICHIER DES SOURCES
SPATIAL PROJECTION TYPE	TYPE DE PROJECTION SPATIALE
SPHERICAL COORDINATES	COORDONNEES SPHERIQUES
STAGE-DISCHARGE CURVES	COURBES DE TARAGE
STAGE-DISCHARGE CURVES FILE	FICHIER DES COURBES DE TARAGE

STANDARD VALUES FOR TRACERS	VALEURS DE REFERENCE DES TRACEURS
STEERING FILE	FICHER DES PARAMETRES
SUPG OPTION	OPTION DE SUPG
TEMPERATURE DELWAQ FILE	FICHER DELWAQ DE LA TEMPERATURE
TEMPERATURE FOR DELWAQ	TEMPERATURE POUR DELWAQ
THRESHOLD CONCENTRATION FOR HINDERED SETTLING	CONCENTRATION LIMITE POUR VITESSE DE CHUTE ENTRAVEE
THRESHOLD DEPTH FOR WIND	PROFONDEUR LIMITE POUR LE VENT
THRESHOLD FOR SEDIMENT FLUX CORRECTION ON TIDAL FLATS	SEUIL LIMITE POUR EROSION SUR BANCS DECOUVRANTS
THRESHOLD FOR VISCOSITY CORRECTION ON TIDAL FLATS	SEUIL POUR CORRECTION DE VISCOSITE SUR BANCS DECOUVRANTS
TIDAL DATA BASE	BASE DE DONNEES DE MAREE
TIDAL FLATS	BANCS DECOUVRANTS
TIDAL MODEL FILE	FICHER DU MODELE DE MAREE
TIDE GENERATING FORCE	FORCE GENERATRICE DE LA MAREE
TIME STEP	PAS DE TEMPS
TIME STEP FOR CONSOLIDATION	PAS DE TEMPS DE LA CONSOLIDATION
TITLE	TITRE
TOMAWAC STEERING FILE	FICHER DES PARAMETRES DE TOMAWAC
TRACERS VERTICAL PROFILES	PROFILS DES TRACEURS SUR LA VERTICALE
TREATMENT OF FLUXES AT THE BOUNDARIES	TRAITEMENT DES FLUX AUX FRONTIERES
TREATMENT OF NEGATIVE DEPTHS	TRAITEMENT DES HAUTEURS NEGATIVES
TREATMENT ON TIDAL FLATS FOR K-EPSILON	TRAITEMENT SUR LES BANCS DECOUVRANTS POUR LE K-EPSILON
TREATMENT ON TIDAL FLATS FOR TRACERS	TRAITEMENT SUR LES BANCS DECOUVRANTS POUR LES TRACEURS
TREATMENT ON TIDAL FLATS FOR VELOCITIES	TRAITEMENT SUR LES BANCS DECOUVRANTS POUR LES VITESSES
TURBULENCE REGIME FOR LATERAL SOLID BOUNDARIES	REGIME DE TURBULENCE POUR LES PAROIS LATERALES
TURBULENCE REGIME FOR THE BOTTOM	REGIME DE TURBULENCE POUR LE FOND
TYPE OF SOURCES	TYPE DES SOURCES
VALIDATION	VALIDATION
VALUE OF ATMOSPHERIC PRESSURE	VALEUR DE LA PRESSION ATMOSPHERIQUE
VALUE OF THE TRACERS AT THE SOURCES	VALEURS DES TRACEURS DES SOURCES

VALUES OF TRACERS IN THE RAIN	VALEURS DES TRACEURS DANS LA PLUIE
VARIABLES FOR 2D GRAPHIC PRINTOUTS	VARIABLES POUR LES SORTIES GRAPHIQUES 2D
VARIABLES FOR 3D GRAPHIC PRINTOUTS	VARIABLES POUR LES SORTIES GRAPHIQUES 3D
VECTOR LENGTH	LONGUEUR DU VECTEUR
VELOCITIES OF THE SOURCES ALONG X	VITESSES DES SOURCES SELON X
VELOCITIES OF THE SOURCES ALONG Y	VITESSES DES SOURCES SELON Y
VELOCITIES OF THE SOURCES ALONG Z	VITESSES DES SOURCES SELON Z
VELOCITY DELWAQ FILE	FICHIER DELWAQ DE LA VITESSE
VELOCITY FOR DELWAQ	VITESSE POUR DELWAQ
VELOCITY PROFILES	PROFILS DE VITESSE
VELOCITY PROJECTED ON BOTTOM	VITESSE PROJETEE SUR LE FOND
VELOCITY PROJECTED ON SOLID LATERAL BOUNDARIES	VITESSE PROJETEE SUR LES PAROIS LATERALES SOLIDES
VELOCITY VERTICAL PROFILES	PROFILS DE VITESSE SUR LA VERTICALE
VERTICAL FLUXES DELWAQ FILE	FICHIER DELWAQ DES FLUX VERTICAUX
VERTICAL TURBULENCE MODEL	MODELE DE TURBULENCE VERTICAL
VERTICAL VELOCITY DERIVATIVES	DERIVEES VERTICALES DES VITESSES
VOLUMES DELWAQ FILE	FICHIER DELWAQ DES VOLUMES
WAQTEL STEERING FILE	FICHIER DES PARAMETRES DE WAQTEL
WATER DISCHARGE OF SOURCES	DEBITS DES SOURCES
WATER QUALITY PROCESS	PROCESSUS DE QUALITE D'EAU
WAVE DRIVEN CURRENTS	COURANTS DE HOULE
WEAK SOIL CONCENTRATION FOR MUD	CONCENTRATION LIMITE FLUIDE-SOLIDE
WIND	VENT
WIND VELOCITY ALONG X	VITESSE DU VENT SUIVANT X
WIND VELOCITY ALONG Y	VITESSE DU VENT SUIVANT Y
ZERO	ZERO
ZONE NUMBER IN GEOGRAPHIC SYSTEM	NUMERO DE FUSEAU OU PROJECTION DANS LE SYSTEME GEOGRAPHIQUE

3.2 French/English glossary

ABSCISSES DES SOURCES	ABSCISSAE OF SOURCES
ACCELERATION DE LA PESANTEUR	GRAVITY ACCELERATION
AD CONVERGENCE DES DERIVEES POUR LE SOLVEUR LINEAIRE	AD LINEAR SOLVER DERIVATIVE CONVERGENCE
AD NOMBRE DE DIRECTIONS	AD NUMBER OF DIRECTIONS

AD NOMBRE DES DERIVEES	AD NUMBER OF DERIVATIVES
AD NOMS DES DERIVEES	AD NAMES OF DERIVATIVES
AD REMISE A ZERO DES DERIVEES DU SOLVEUR LINEAIRE	AD LINEAR SOLVER RESET DERIVATIVES
AD SOLVEUR LINEAIRE SYMBOLIQUE	AD SYMBOLIC LINEAR SOLVER
BANCS DECOUVRANTS	TIDAL FLATS
BASE ASCII DE DONNEES DE MAREE	ASCII DATABASE FOR TIDE
BASE BINAIRE 1 DE DONNEES DE MAREE	BINARY DATABASE 1 FOR TIDE
BASE BINAIRE 2 DE DONNEES DE MAREE	BINARY DATABASE 2 FOR TIDE
BASE DE DONNEES DE MAREE	TIDAL DATA BASE
BILAN DE MASSE	MASS-BALANCE
BINAIRE DU FICHIER DES RESULTATS 2D	2D RESULT FILE BINARY
BINAIRE DU FICHIER DES RESULTATS 3D	3D RESULT FILE BINARY
BINAIRE DU FICHIER DES RESULTATS SEDIMENTOLOGIQUES	SEDIMENTOLOGICAL RESULT FILE BINARY
COEFFICIENT D'EROSION	EROSION COEFFICIENT
COEFFICIENT D'INFLUENCE DU VENT	COEFFICIENT OF WIND INFLUENCE
COEFFICIENT D'INFLUENCE DU VENT DEPENDANT DE LA VITESSE DU VENT	COEFFICIENT OF WIND INFLUENCE VARYING WITH WIND SPEED
COEFFICIENT DE CALAGE DES VITESSES DE COURANT	COEFFICIENT TO CALIBRATE TIDAL VELOCITIES
COEFFICIENT DE CALAGE DU MARNAGE	COEFFICIENT TO CALIBRATE TIDAL RANGE
COEFFICIENT DE CALAGE DU NIVEAU DE MER	COEFFICIENT TO CALIBRATE SEA LEVEL
COEFFICIENT DE CORIOLIS	CORIOLIS COEFFICIENT
COEFFICIENT DE DIFFUSION HORIZONTAL DES TRACEURS	COEFFICIENT FOR HORIZONTAL DIFFUSION OF TRACERS
COEFFICIENT DE DIFFUSION HORIZONTAL DES VITESSES	COEFFICIENT FOR HORIZONTAL DIFFUSION OF VELOCITIES
COEFFICIENT DE DIFFUSION VERTICAL DES TRACEURS	COEFFICIENT FOR VERTICAL DIFFUSION OF TRACERS
COEFFICIENT DE DIFFUSION VERTICAL DES VITESSES	COEFFICIENT FOR VERTICAL DIFFUSION OF VELOCITIES
COEFFICIENT DE DILATATION BETA POUR LES TRACEURS	BETA EXPANSION COEFFICIENT FOR TRACERS
COEFFICIENT DE FROTTEMENT POUR LE FOND	FRICTION COEFFICIENT FOR THE BOTTOM
COEFFICIENT DE FROTTEMENT POUR LES PAROIS LATERALES	FRICTION COEFFICIENT FOR LATERAL SOLID BOUNDARIES
COEFFICIENT TRADUISANT LA DESTRUCTION DES FLOCS	COEFFICIENT RELATIVE TO FLOC DESTRUCTION

COEFFICIENT TRADUISANT LA FORMATION DES FLOCS	FLOCCULATION COEFFICIENT
COMPATIBILITE DU GRADIENT DE SURFACE LIBRE	FREE SURFACE GRADIENT COMPATIBILITY
CONCENTRATION LIMITE FLUIDE-SOLIDE	WEAK SOIL CONCENTRATION FOR MUD
CONCENTRATION LIMITE POUR VITESSE DE CHUTE ENTRAVEE	THRESHOLD CONCENTRATION FOR HINDERED SETTLING
CONCENTRATION MAXIMUM DE LA VASE TASSEE	MAXIMUM CONCENTRATION OF THE CONSOLIDATED MUD
CONCENTRATIONS DES COUCHES DE VASE	MUD CONCENTRATIONS PER LAYER
CONDITION A LA LIMITE AU FOND	BOUNDARY CONDITION ON THE BOTTOM
CONDITION LIMITE DYNAMIQUE	DYNAMIC BOUNDARY CONDITION
CONDITIONS INITIALES	INITIAL CONDITIONS
CONDITIONS OUVERTES SUR LE FOND	OPEN BOUNDARY CONDITIONS ON THE BED
CONSTANTE DE KARMAN	KARMAN CONSTANT
CONTOURNEMENT DES VOLUMES NULS	BYPASS VOID VOLUMES
CONTRAINTES CRITIQUE D'EROSION DES COUCHES DE VASE	CRITICAL EROSION SHEAR STRESS OF THE MUD LAYERS
CONTRAINTES CRITIQUE DE DEPOT	CRITICAL SHEAR STRESS FOR DEPOSITION
COORDONNEES DE L'ORIGINE	ORIGIN COORDINATES
COORDONNEES SPHERIQUES	SPHERICAL COORDINATES
CORIOLIS	CORIOLIS
CORRECTION DE CONTINUITE SUR FRONTIERES OUVERTES	CONTINUITY CORRECTION ON OPEN BOUNDARIES
CORRECTION FROTTEMENT DE PEAU	SKIN FRICTION CORRECTION
COTE INITIALE	INITIAL ELEVATION
COTES DES SOURCES	ELEVATIONS OF SOURCES
COTES IMPOSEES	PRESCRIBED ELEVATIONS
COUPLAGE AVEC	COUPLING WITH
COURANTS DE HOULE	WAVE DRIVEN CURRENTS
COURBES DE TARAGE	STAGE-DISCHARGE CURVES
DATE DE L'ORIGINE DES TEMPS	ORIGINAL DATE OF TIME
DEBITS DES SOURCES	WATER DISCHARGE OF SOURCES
DEBITS IMPOSES	PRESCRIBED FLOWRATES
DEBITS IMPOSES SUR LE FOND	PRESCRIBED FLOWRATES ON THE BED
DEBUGGER	DEBUGGER
DERIVEES VERTICALES DES VITESSES	VERTICAL VELOCITY DERIVATIVES
DESCRIPTION DES LIBRAIRIES	DESCRIPTION OF LIBRARIES
DIAMETRE MOYEN DES GRAINS	MEAN DIAMETER OF THE SEDIMENT
DICIONNAIRE	DICTIONARY
DIFFUSION POUR DELWAQ	DIFFUSION FOR DELWAQ

DUREE DU CALCUL	DURATION
ELEMENT	ELEMENT
ELEMENTS MASQUES PAR L'UTILISATEUR	ELEMENTS MASKED BY USER
ENREGISTREMENT POUR SUITE DE CALCUL	RECORD NUMBER FOR RESTART
EPAISSEUR DES COUCHES DU FOND VASEUX	BED LAYERS THICKNESS
EPAISSEURS INITIALES DES COUCHES	INITIAL THICKNESS OF SEDIMENT LAYERS
ETAPE DE CONVECTION	ADVECTION STEP
EXECUTABLE PAR DEFAUT	DEFAULT EXECUTABLE
EXECUTABLE PARALLELE PAR DEFAUT	DEFAULT PARALLEL EXECUTABLE
FICHER ASCII DE DONNEES ATMOSPHERIQUES	ASCII ATMOSPHERIC DATA FILE
FICHER BINAIRE DE DONNEES ATMOSPHERIQUES	BINARY ATMOSPHERIC DATA FILE
FICHER BINAIRE DE DONNEES DE FRONTIERE	BINARY BOUNDARY DATA FILE
FICHER DE COMMANDE DELWAQ	DELWAQ STEERING FILE
FICHER DE COMMANDES HYDROCARBURES	OIL SPILL STEERING FILE
FICHER DE CONVERSION LAMBERT 93	LAMBERT 93 CONVERSION FILE
FICHER DE DONNEES BINAIRE 1	BINARY DATA FILE 1
FICHER DE DONNEES BINAIRE 2	BINARY DATA FILE 2
FICHER DE DONNEES DES BUSES	CULVERTS DATA FILE
FICHER DE DONNEES FORMATE 1	FORMATTED DATA FILE 1
FICHER DE DONNEES FORMATE 2	FORMATTED DATA FILE 2
FICHER DE GEOMETRIE	GEOMETRY FILE
FICHER DE REFERENCE	REFERENCE FILE
FICHER DE RESULTATS BINAIRE	BINARY RESULTS FILE
FICHER DE RESULTATS FORMATE	FORMATTED RESULTS FILE
FICHER DELWAQ DE LA DIFFUSION	DIFFUSIVITY DELWAQ FILE
FICHER DELWAQ DE LA SALINITE	SALINITY DELWAQ FILE
FICHER DELWAQ DE LA TEMPERATURE	TEMPERATURE DELWAQ FILE
FICHER DELWAQ DE LA VITESSE	VELOCITY DELWAQ FILE
FICHER DELWAQ DES DISTANCES ENTRE NOEUDS	NODES DISTANCES DELWAQ FILE
FICHER DELWAQ DES ECHANGES ENTRE NOEUDS	EXCHANGES BETWEEN NODES DELWAQ FILE
FICHER DELWAQ DES FLUX VERTICAUX	VERTICAL FLUXES DELWAQ FILE
FICHER DELWAQ DES SURFACES DE FLUX	EXCHANGE AREAS DELWAQ FILE

FICHER DELWAQ DES SURFACES DU FOND	BOTTOM SURFACES DELWAQ FILE
FICHER DELWAQ DES VOLUMES	VOLUMES DELWAQ FILE
FICHER DES CONDITIONS AUX LIMITES	BOUNDARY CONDITIONS FILE
FICHER DES CONSTANTES HARMONIQUES	HARMONIC CONSTANTS FILE
FICHER DES COURBES DE TARAGE	STAGE-DISCHARGE CURVES FILE
FICHER DES FLOTTEURS	DROGUES FILE
FICHER DES FONDS	BOTTOM TOPOGRAPHY FILE
FICHER DES FRONTIERES LIQUIDES	LIQUID BOUNDARIES FILE
FICHER DES PARAMETRES	STEERING FILE
FICHER DES PARAMETRES DE SISYPHE	SISYPHE STEERING FILE
FICHER DES PARAMETRES DE TOMAWAC	TOMAWAC STEERING FILE
FICHER DES PARAMETRES DE WAQTEL	WAQTEL STEERING FILE
FICHER DES RESULTATS 2D	2D RESULT FILE
FICHER DES RESULTATS 3D	3D RESULT FILE
FICHER DES RESULTATS SEDIMENTOLOGIQUES	SEDIMENTOLOGICAL RESULT FILE
FICHER DES SOURCES	SOURCES FILE
FICHER DU CALCUL PRECEDENT	PREVIOUS COMPUTATION FILE
FICHER DU MODELE DE MAREE	TIDAL MODEL FILE
FICHER FORTRAN	FORTRAN FILE
FICHER POUR SUITE	RESTART FILE
FICHER POUR SUITE 2D	FILE FOR 2D CONTINUATION
FICHER RESULTAT EN LONGITUDE-LATITUDE	RESULT FILE IN LONGITUDE-LATITUDE
FICHER SEDIMENTOLOGIQUE DU CALCUL PRECEDENT	PREVIOUS COMPUTATION SEDIMENTOLOGICAL FILE
FILTRE LES INCONSISTANCES HYDROSTATIQUES	HYDROSTATIC INCONSISTENCY FILTER
FLOCCULATION	FLOCCULATION
FONCTION D'AMORTISSEMENT	DAMPING FUNCTION
FORCE GENERATRICE DE LA MAREE	TIDE GENERATING FORCE
FORMAT DU FICHER BINAIRE DE DONNEES ATMOSPHERIQUES	BINARY ATMOSPHERIC DATA FILE FORMAT
FORMAT DU FICHER BINAIRE DE DONNEES DE FRONTIERE	BINARY BOUNDARY DATA FILE FORMAT
FORMAT DU FICHER DE DONNEES BINAIRE 1	BINARY DATA FILE 1 FORMAT
FORMAT DU FICHER DE GEOMETRIE	GEOMETRY FILE FORMAT
FORMAT DU FICHER DE REFERENCE	REFERENCE FILE FORMAT
FORMAT DU FICHER DES RESULTATS 2D	2D RESULT FILE FORMAT

FORMAT DU FICHIER DES RESULTATS 3D	3D RESULT FILE FORMAT
FORMAT DU FICHIER DU CALCUL PRECEDENT	PREVIOUS COMPUTATION FILE FORMAT
FORMAT DU FICHIER POUR SUITE	RESTART FILE FORMAT
FORMAT DU FICHIER POUR SUITE 2D	FILE FOR 2D CONTINUATION FORMAT
FORMULE POUR FLOCCULATION	FLOCCULATION FORMULA
FORMULE POUR LA CONCENTRATION DE REFERENCE	REFERENCE CONCENTRATION FORMULA
FORMULE POUR VITESSE DE CHUTE ENTRAVEE	HINDERED SETTLING FORMULA
HAUTEUR DU LIT FICTIF	FICTITIOUS BED LEVEL
HAUTEUR INITIALE	INITIAL DEPTH
HEURE DE L'ORIGINE DES TEMPS	ORIGINAL HOUR OF TIME
IMPLICITATION POUR LA DIFFUSION	IMPLICITATION FOR DIFFUSION
IMPLICITATION POUR LA HAUTEUR	IMPLICITATION FOR DEPTH
IMPLICITATION POUR LES VITESSES	IMPLICITATION FOR VELOCITIES
INFORMATION SUR LE BILAN DE MASSE A CHAQUE SORTIE LISTING	INFORMATION ABOUT MASS-BALANCE FOR EACH LISTING PRINTOUT
INTERPOLATION DE COMPOSANTES MINEURES	MINOR CONSTITUENTS INFERENCE
LATITUDE DU POINT ORIGINE	LATITUDE OF ORIGIN POINT
LECTURE CONTRAINTE CRITIQUE POUR CHAQUE COUCHE	READ CRITICAL BED SHEAR STRESS PER LAYER
LISTE DES FICHIERS	LIST OF FILES
LOI DE DENSITE	DENSITY LAW
LOI DE FROTTEMENT SUR LE FOND	LAW OF BOTTOM FRICTION
LOI DE FROTTEMENT SUR LES PAROIS LATERALES	LAW OF FRICTION ON LATERAL BOUNDARIES
LONGITUDE DU POINT ORIGINE	LONGITUDE OF ORIGIN POINT
LONGUEUR DU VECTEUR	VECTOR LENGTH
MASS-LUMPING POUR LA DIFFUSION	MASS-LUMPING FOR DIFFUSION
MASS-LUMPING POUR LA HAUTEUR	MASS-LUMPING FOR DEPTH
MASS-LUMPING POUR LES CARACTERISTIQUES FAIBLES	MASS-LUMPING FOR WEAK CHARACTERISTICS
MASS-LUMPING POUR LES VITESSES	MASS-LUMPING FOR VELOCITIES
MASSE VOLUMIQUE DU SEDIMENT	DENSITY OF THE SEDIMENT
MASSE VOLUMIQUE MOYENNE DE L'EAU	AVERAGE WATER DENSITY
MAXIMUM D'ITERATIONS POUR LA DIFFUSION DES TRACEURS	MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF TRACERS
MAXIMUM D'ITERATIONS POUR LA DIFFUSION DES VITESSES	MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF VELOCITIES
MAXIMUM D'ITERATIONS POUR LA DIFFUSION DU K-EPSILON	MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF K-EPSILON
MAXIMUM D'ITERATIONS POUR LA DIFFUSION DU SEDIMENT	MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF SEDIMENT

MAXIMUM D'ITERATIONS POUR LA PROPAGATION	MAXIMUM NUMBER OF ITERATIONS FOR PROPAGATION
MAXIMUM D'ITERATIONS POUR LA VITESSE VERTICALE	MAXIMUM NUMBER OF ITERATIONS FOR VERTICAL VELOCITY
MAXIMUM D'ITERATIONS POUR LES SCHEMAS DE CONVECTION	MAXIMUM NUMBER OF ITERATIONS FOR ADVECTION SCHEMES
MAXIMUM D'ITERATIONS POUR PPE	MAXIMUM NUMBER OF ITERATIONS FOR PPE
MODE SUITE	RESTART MODE
MODELE DE LONGUEUR DE MELANGE	MIXING LENGTH MODEL
MODELE DE NAPPES D'HYDROCARBURES	OIL SPILL MODEL
MODELE DE TURBULENCE HORIZONTAL	HORIZONTAL TURBULENCE MODEL
MODELE DE TURBULENCE VERTICAL	VERTICAL TURBULENCE MODEL
NOMBRE DE BUSES	NUMBER OF CULVERTS
NOMBRE DE CORRECTIONS DES SCHEMAS DISTRIBUTIFS	NUMBER OF CORRECTIONS OF DISTRIBUTIVE SCHEMES
NOMBRE DE COUCHES DU LIT COHESIF	NUMBER OF SEDIMENT BED LAYERS
NOMBRE DE FLOTTEURS	NUMBER OF DROGUES
NOMBRE DE LISSAGES DU FOND	NUMBER OF BOTTOM SMOOTHINGS
NOMBRE DE PAS DE TEMPS	NUMBER OF TIME STEPS
NOMBRE DE PLANS HORIZONTAUX	NUMBER OF HORIZONTAL LEVELS
NOMBRE DE POINTS DE GAUSS POUR LES CARACTERISTIQUES FAIBLES	NUMBER OF GAUSS POINTS FOR WEAK CHARACTERISTICS
NOMBRE DE PRANDTL	PRANDTL NUMBER
NOMBRE DE SOUS ITERATIONS POUR LES NON LINEARITES	NUMBER OF SUB ITERATIONS FOR NON LINEARITIES
NOMBRE DE SOUS-PAS DES SCHEMAS DISTRIBUTIFS	NUMBER OF SUB-STEPS OF DISTRIBUTIVE SCHEMES
NOMBRE DE TABLEAUX PRIVES	NUMBER OF PRIVATE ARRAYS
NOMBRE DE TABLEAUX PRIVES 2D	NUMBER OF 2D PRIVATE ARRAYS
NOMBRE DE TRACEURS	NUMBER OF TRACERS
NOMBRE MAXIMUM DE FRONTIERES	MAXIMUM NUMBER OF BOUNDARIES
NOMBRE MAXIMUM DE FRONTIERES SUR LE FOND	MAXIMUM NUMBER OF BOUNDARIES ON THE BED
NOMBRE MAXIMUM DE SOURCES	MAXIMUM NUMBER OF SOURCES
NOMBRE MAXIMUM DE TRACEURS	MAXIMUM NUMBER OF TRACERS
NOMS DES TRACEURS	NAMES OF TRACERS
NOMS DES VARIABLES PRIVEES 2D	NAMES OF 2D PRIVATE VARIABLES
NORD	NORTH
NUMERO DE FUSEAU OU PROJECTION DANS LE SYSTEME GEOGRAPHIQUE	ZONE NUMBER IN GEOGRAPHIC SYSTEM
NUMERO DE L'ENREGISTREMENT DANS LE FICHIER DE HOULE	RECORD NUMBER IN WAVE FILE
NUMERO DE VERSION	RELEASE

NUMERO DU PREMIER PAS DE TEMPS POUR LES SORTIES GRAPHIQUES	NUMBER OF FIRST TIME STEP FOR GRAPHIC PRINTOUTS
NUMERO DU PREMIER PAS DE TEMPS POUR LES SORTIES LISTING	NUMBER OF FIRST TIME STEP FOR LISTING PRINTOUTS
NUMERO GLOBAL DU POINT POUR CALER LA PLEINE MER	GLOBAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER
NUMERO LOCAL DU POINT POUR CALER LA PLEINE MER	LOCAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER
NUMEROS GLOBAUX DES NOEUDS DES SOURCES	GLOBAL NUMBERS OF SOURCE NODES
OPTION DE SUPG	SUPG OPTION
OPTION DE TRAITEMENT DES BANCS DECOUVRANTS	OPTION FOR THE TREATMENT OF TIDAL FLATS
OPTION DU MODELE DE TASSEMENT	CONSOLIDATION MODEL
OPTION DU SCHEMA POUR LA CONVECTION DES TRACEURS	SCHEME OPTION FOR ADVECTION OF TRACERS
OPTION DU SCHEMA POUR LA CONVECTION DES VITESSES	SCHEME OPTION FOR ADVECTION OF VELOCITIES
OPTION DU SCHEMA POUR LA CONVECTION DU K-EPSILON	SCHEME OPTION FOR ADVECTION OF K-EPSILON
OPTION DU SOLVEUR POUR LA DIFFUSION DES TRACEURS	OPTION OF SOLVER FOR DIFFUSION OF TRACERS
OPTION DU SOLVEUR POUR LA DIFFUSION DES VITESSES	OPTION OF SOLVER FOR DIFFUSION OF VELOCITIES
OPTION DU SOLVEUR POUR LA DIFFUSION DU K-EPSILON	OPTION OF SOLVER FOR DIFFUSION OF K-EPSILON
OPTION DU SOLVEUR POUR LA DIFFUSION DU SEDIMENT	OPTION OF SOLVER FOR DIFFUSION OF THE SEDIMENT
OPTION DU SOLVEUR POUR LA PROPAGATION	OPTION OF SOLVER FOR PROPAGATION
OPTION DU SOLVEUR POUR PPE	OPTION OF SOLVER FOR PPE
OPTION DU VENT	OPTION FOR WIND
OPTION POUR LES BUSES	OPTION FOR CULVERTS
OPTION POUR LES CARACTERISTIQUES	OPTION FOR CHARACTERISTICS
OPTION POUR LES CONDITIONS AUX LIMITES DE MAREE	OPTION FOR TIDAL BOUNDARY CONDITIONS
OPTION POUR LES CONDITIONS AUX LIMITES DU K-EPSILON	OPTION FOR THE BOUNDARY CONDITIONS OF K-EPSILON
OPTION POUR LES FRONTIERES LIQUIDES	OPTION FOR LIQUID BOUNDARIES
ORDONNEES DES SOURCES	ORDINATES OF SOURCES
ORDRE DU TIR INITIAL POUR LA HAUTEUR	INITIAL GUESS FOR DEPTH
PARAMETRE DE SHIELDS	SHIELDS PARAMETER
PARTITIONNEUR	PARTITIONING TOOL
PAS DE TEMPS	TIME STEP

PAS DE TEMPS DE LA CONSOLIDATION	TIME STEP FOR CONSOLIDATION
PERIODE DE COUPLAGE POUR SISYPHE	COUPLING PERIOD FOR SISYPHE
PERIODE DE COUPLAGE POUR TOMAWAC	COUPLING PERIOD FOR TOMAWAC
PERIODE DE SORTIE POUR DELWAQ	DELWAQ PRINTOUT PERIOD
PERIODE POUR LES SORTIES DE FLOTTEURS	PRINTOUT PERIOD FOR DROGUES
PERIODE POUR LES SORTIES GRAPHIQUES	GRAPHIC PRINTOUT PERIOD
PERIODE POUR LES SORTIES LISTING	LISTING PRINTOUT PERIOD
PLUIE OU EVAPORATION	RAIN OR EVAPORATION
PLUIE OU EVAPORATION EN MM PAR JOUR	RAIN OR EVAPORATION IN MM PER DAY
POROSITE DU LIT NON COHESIF	NON COHESIVE BED POROSITY
POURCENTAGE INITIAL DE SEDIMENT NON COHESIF	INITIAL PERCENTAGE OF NON COHESIVE SEDIMENT
PRECISION POUR LA DIFFUSION DES TRACEURS	ACCURACY FOR DIFFUSION OF TRACERS
PRECISION POUR LA DIFFUSION DES VITESSES	ACCURACY FOR DIFFUSION OF VELOCITIES
PRECISION POUR LA DIFFUSION DU K-EPSILON	ACCURACY FOR DIFFUSION OF K-EPSILON
PRECISION POUR LA DIFFUSION DU SEDIMENT	ACCURACY FOR DIFFUSION OF SEDIMENT
PRECISION POUR LA PROPAGATION	ACCURACY FOR PROPAGATION
PRECISION POUR LA VITESSE VERTICALE	ACCURACY FOR VERTICAL VELOCITY
PRECISION POUR PPE	ACCURACY FOR PPE
PRECONDITIONNEMENT POUR LA DIFFUSION DES TRACEURS	PRECONDITIONING FOR DIFFUSION OF TRACERS
PRECONDITIONNEMENT POUR LA DIFFUSION DES VITESSES	PRECONDITIONING FOR DIFFUSION OF VELOCITIES
PRECONDITIONNEMENT POUR LA DIFFUSION DU K-EPSILON	PRECONDITIONING FOR DIFFUSION OF K-EPSILON
PRECONDITIONNEMENT POUR LA DIFFUSION DU SEDIMENT	PRECONDITIONING FOR DIFFUSION OF THE SEDIMENT
PRECONDITIONNEMENT POUR LA PROPAGATION	PRECONDITIONING FOR PROPAGATION
PRECONDITIONNEMENT POUR LA VITESSE VERTICALE	PRECONDITIONING FOR VERTICAL VELOCITY
PRECONDITIONNEMENT POUR PPE	PRECONDITIONING FOR PPE
PRESSIION ATMOSPHERIQUE	AIR PRESSURE
PRESSIION DYNAMIQUE DANS L'EQUATION D'ONDE	DYNAMIC PRESSURE IN WAVE EQUATION

PROCESSEURS PARALLELES	PARALLEL PROCESSORS
PROCESSUS DE QUALITE D'EAU	WATER QUALITY PROCESS
PROFILS DE VITESSE	VELOCITY PROFILES
PROFILS DE VITESSE SUR LA VERTICALE	VELOCITY VERTICAL PROFILES
PROFILS DES TRACEURS SUR LA VERTICALE	TRACERS VERTICAL PROFILES
PROFONDEUR LIMITE POUR LE VENT	THRESHOLD DEPTH FOR WIND
PROFONDEUR MOYENNE POUR LA LINEARISATION	MEAN DEPTH FOR LINEARIZATION
PROPAGATION LINEARISEE	LINEARIZED PROPAGATION
RATIO ENTRE LA RUGOSITE DE PEAU ET LE DIAMETRE MOYEN	RATIO BETWEEN SKIN FRICTION AND MEAN DIAMETER
REGIME DE TURBULENCE POUR LE FOND	TURBULENCE REGIME FOR THE BOTTOM
REGIME DE TURBULENCE POUR LES PAROIS LATERALES	TURBULENCE REGIME FOR LATERAL SOLID BOUNDARIES
REMISE A ZERO DU TEMPS	INITIAL TIME SET TO ZERO
SALINITE POUR DELWAQ	SALINITY FOR DELWAQ
SCHEMA DE CONVECTION DIFFUSION AVEC VITESSE DE CHUTE	ADVECTION-DIFFUSION SCHEME WITH SETTLING VELOCITY
SCHEMA POUR LA CONVECTION DE LA HAUTEUR	SCHEME FOR ADVECTION OF DEPTH
SCHEMA POUR LA CONVECTION DES TRACEURS	SCHEME FOR ADVECTION OF TRACERS
SCHEMA POUR LA CONVECTION DES VITESSES	SCHEME FOR ADVECTION OF VELOCITIES
SCHEMA POUR LA CONVECTION DU K-EPSILON	SCHEME FOR ADVECTION OF K-EPSILON
SCHEMA POUR LA DIFFUSION DES TRACEURS	SCHEME FOR DIFFUSION OF TRACERS
SCHEMA POUR LA DIFFUSION DES VITESSES	SCHEME FOR DIFFUSION OF VELOCITIES
SCHEMA POUR LA DIFFUSION DU K-EPSILON	SCHEME FOR DIFFUSION OF K-EPSILON
SEDIMENT	SEDIMENT
SEDIMENT COHESIF	COHESIVE SEDIMENT
SEDIMENT MIXTE	MIXED SEDIMENT
SEUIL LIMITE POUR EROSION SUR BANCS DECOUVRANTS	THRESHOLD FOR SEDIMENT FLUX CORRECTION ON TIDAL FLATS
SEUIL POUR CORRECTION DE VISCOSITE SUR BANCS DECOUVRANTS	THRESHOLD FOR VISCOSITY CORRECTION ON TIDAL FLATS
SOLVEUR POUR LA DIFFUSION DES TRACEURS	SOLVER FOR DIFFUSION OF TRACERS
SOLVEUR POUR LA DIFFUSION DES VITESSES	SOLVER FOR DIFFUSION OF VELOCITIES

SOLVEUR POUR LA DIFFUSION DU K-EPSILON	SOLVER FOR DIFFUSION OF K-EPSILON
SOLVEUR POUR LA DIFFUSION DU SEDIMENT	SOLVER FOR DIFFUSION OF THE SEDIMENT
SOLVEUR POUR LA PROPAGATION	SOLVER FOR PROPAGATION
SOLVEUR POUR LA VITESSE VERTICALE	SOLVER FOR VERTICAL VELOCITY
SOLVEUR POUR PPE	SOLVER FOR PPE
SORTIE LISTING	LISTING PRINTOUT
STOCKAGE DES MATRICES	MATRIX STORAGE
SUITE 2D	2D CONTINUATION
SUITE DE CALCUL	COMPUTATION CONTINUED
SYSTEME GEOGRAPHIQUE	GEOGRAPHIC SYSTEM
TASSEMENT DE LA VASE	CONSOLIDATION
TEMPERATURE POUR DELWAQ	TEMPERATURE FOR DELWAQ
TEMPS DE SEJOUR DE LA VASE	RESIDENCE TIME FOR MUD
TITRE	TITLE
TRAITEMENT DES FLUX AUX FRONTIERES	TREATMENT OF FLUXES AT THE BOUNDARIES
TRAITEMENT DES HAUTEURS NEGATIVES	TREATMENT OF NEGATIVE DEPTHS
TRAITEMENT SUR LES BANCS DECOUVRANTS POUR LE K-EPSILON	TREATMENT ON TIDAL FLATS FOR K-EPSILON
TRAITEMENT SUR LES BANCS DECOUVRANTS POUR LES TRACEURS	TREATMENT ON TIDAL FLATS FOR TRACERS
TRAITEMENT SUR LES BANCS DECOUVRANTS POUR LES VITESSES	TREATMENT ON TIDAL FLATS FOR VELOCITIES
TRANSFORMATION DU MAILLAGE	MESH TRANSFORMATION
TYPE DE PROJECTION SPATIALE	SPATIAL PROJECTION TYPE
TYPE DES SOURCES	TYPE OF SOURCES
VALEUR DE LA PRESSION ATMOSPHERIQUE	VALUE OF ATMOSPHERIC PRESSURE
VALEUR MINIMALE POUR LA HAUTEUR	MINIMAL VALUE FOR DEPTH
VALEURS DE REFERENCE DES TRACEURS	STANDARD VALUES FOR TRACERS
VALEURS DES TRACEURS DANS LA PLUIE	VALUES OF TRACERS IN THE RAIN
VALEURS DES TRACEURS DES SOURCES	VALUE OF THE TRACERS AT THE SOURCES
VALEURS IMPOSEES DES TRACEURS	PRESCRIBED TRACERS VALUES
VALEURS INITIALES DES TRACEURS	INITIAL VALUES OF TRACERS
VALIDATION	VALIDATION
VARIABLES POUR LES SORTIES GRAPHIQUES 2D	VARIABLES FOR 2D GRAPHIC PRINTOUTS
VARIABLES POUR LES SORTIES GRAPHIQUES 3D	VARIABLES FOR 3D GRAPHIC PRINTOUTS
VENT	WIND

VERIFICATION DU MAILLAGE	CHECKING THE MESH
VERSION NON-HYDROSTATIQUE	NON-HYDROSTATIC VERSION
VITESSE DE CHUTE CONSTANTE	CONSTANT SEDIMENT SETTLING VELOCITY
VITESSE DE CHUTE DES SABLES	SETTLING VELOCITY OF SANDS
VITESSE DE CHUTE ENTRAVEE	HINDERED SETTLING
VITESSE DU VENT SUIVANT X	WIND VELOCITY ALONG X
VITESSE DU VENT SUIVANT Y	WIND VELOCITY ALONG Y
VITESSE POUR DELWAQ	VELOCITY FOR DELWAQ
VITESSE PROJETEE SUR LE FOND	VELOCITY PROJECTED ON BOTTOM
VITESSE PROJETEE SUR LES PAROIS LATERALES SOLIDES	VELOCITY PROJECTED ON SOLID LATERAL BOUNDARIES
VITESSES DES SOURCES SELON X	VELOCITIES OF THE SOURCES ALONG X
VITESSES DES SOURCES SELON Y	VELOCITIES OF THE SOURCES ALONG Y
VITESSES DES SOURCES SELON Z	VELOCITIES OF THE SOURCES ALONG Z
VITESSES IMPOSEES	PRESCRIBED VELOCITIES
ZERO	ZERO

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- [1] HERVOUET J.-M. *Hydrodynamics of Free Surface Flows. Modelling with the finite element method*. Wiley, 2007.