

Telemac3d

Reference Manual

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1. Detail list of keywords

1.1 2D CONTINUATION

Type : Logical
Dimension : 0
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 : 0
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 : 0
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 : 0
 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 : 0
 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 :

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 : 0
 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 : 0
 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 : 0
 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 : 0
 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 : 0
 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 : 0
 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 : 0
 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 ADVECTION STEP

Type : Logical
 Dimension : 0
 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...

1.17 ADVECTION-DIFFUSION SCHEME WITH SETTLING VELOCITY

Type : Integer
 Dimension : 0
 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`

1.18 AIR PRESSURE

Type : Logical
 Dimension : 0
 Mnemo ATMOS
 DEFAULT VALUE : NO
 French keyword : PRESSION ATMOSPHERIQUE

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

1.19 ASCII ATMOSPHERIC DATA FILE

Type : String
 Dimension : 0
 Mnemo T3D_FILES(T3ATMA)
 DEFAULT VALUE : "
 French keyword : FICHIER ASCII DE DONNEES ATMOSPHERIQUES
 ASCII data file containing the atmospheric data varying in time.

1.20 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.

1.21 AVERAGE WATER DENSITY

Type : Real
 Dimension : 0
 Mnemo RHO0
 DEFAULT VALUE : 1025.
 French keyword : MASSE VOLUMIQUE MOYENNE DE L'EAU
 Average water density in the domain, see subroutine **DRSURR**.

1.22 BED LAYERS THICKNESS

Type : Real
 Dimension : 0
 Mnemo EPAIO
 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.

1.23 BETA EXPANSION COEFFICIENT FOR TRACERS

Type : Real
 Dimension : 2
 Mnemo BETAC
 DEFAULT VALUE :
 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 LAW OF DENSITY = 4.

1.24 BINARY ATMOSPHERIC DATA FILE

Type : String
 Dimension : 0
 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.

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

1.26 BINARY BOUNDARY DATA FILE

Type : String
 Dimension : 0
 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.

1.27 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.

1.28 BINARY DATA FILE 1

Type : String
 Dimension : 0
 Mnemo T3D_FILES(T3DBI1)%NAME
 DEFAULT VALUE : "

French keyword : FICHIER DE DONNEES BINAIRE 1

Data file in binary mode available to the user.

1.29 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.

1.30 BINARY DATA FILE 2

Type : String
 Dimension : 0
 Mnemo T3D_FILES(T3DBI2)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DE DONNEES BINAIRE 2
 Data file in binary mode available to the user.

1.31 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.

1.32 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.

1.33 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.

1.34 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.

1.35 BOTTOM TOPOGRAPHY FILE

Type : String
 Dimension : 0
 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.

1.36 BOUNDARY CONDITION ON THE BOTTOM

Type : Integer
 Dimension : 0
 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.

1.37 BOUNDARY CONDITIONS FILE

Type : String
 Dimension : 0
 Mnemo T3D_FILES(T3DCLI)%NAME
 DEFAULT VALUE : "
 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.

1.38 BYPASS VOID VOLUMES

Type : Logical
 Dimension : 0
 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.

1.39 CHECKING THE MESH

Type : Logical
 Dimension : 0
 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.

1.40 COEFFICIENT FOR HORIZONTAL DIFFUSION OF TRACERS

Type : Real
 Dimension : 2
 Mnemo DNUTAH
 DEFAULT VALUE :

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.

1.41 COEFFICIENT FOR HORIZONTAL DIFFUSION OF VELOCITIES

Type : Real
 Dimension : 0
 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.

1.42 COEFFICIENT FOR VERTICAL DIFFUSION OF TRACERS

Type : Real
 Dimension : 2
 Mnemo DNUTAV
 DEFAULT VALUE :

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.

1.43 COEFFICIENT FOR VERTICAL DIFFUSION OF VELOCITIES

Type : Real
 Dimension : 0
 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.

1.44 COEFFICIENT OF WIND INFLUENCE

Type : Real
 Dimension : 0
 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.

1.45 COEFFICIENT RELATIVE TO FLOC DESTRUCTION

Type : Real
 Dimension : 0
 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.

1.46 COEFFICIENT TO CALIBRATE SEA LEVEL

Type : Real
 Dimension : 0
 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.

1.47 COEFFICIENT TO CALIBRATE TIDAL RANGE

Type : Real
 Dimension : 0
 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.

1.48 COEFFICIENT TO CALIBRATE TIDAL VELOCITIES

Type : Real
 Dimension : 0
 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.

1.49 COHESIVE SEDIMENT

Type : Logical
 Dimension : 1
 Mnemo SEDCO
 DEFAULT VALUE : NO
 French keyword : SEDIMENT COHESIF
 Tells if the sediment is cohesive or not.

1.50 COMPUTATION CONTINUED

Type : Logical
 Dimension : 0
 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).

1.51 CONSOLIDATION

Type : Logical
 Dimension : 0
 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.

1.52 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).

1.53 CONSTANT SEDIMENT SETTLING VELOCITY

Type : Real
 Dimension : 0
 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.

1.54 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.

1.55 CORIOLIS

Type : Logical
 Dimension : 0
 Mnemo CORIOL
 DEFAULT VALUE : NO
 French keyword : CORIOLIS
 The Coriolis force is taken into account or ignored.

1.56 CORIOLIS COEFFICIENT

Type : Real
 Dimension : 0
 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.

1.57 COUPLING PERIOD FOR SISYPHE

Type : Integer
 Dimension : 0
 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.

1.58 COUPLING PERIOD FOR TOMAWAC

Type : Integer
 Dimension : 0
 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.

1.59 COUPLING WITH

Type : String
 Dimension : -1
 Mnemo COUPLING, IN BIEF
 DEFAULT VALUE : "
 French keyword : COUPLAGE AVEC

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

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

1.60 CRITICAL EROSION SHEAR STRESS OF THE MUD LAYERS

Type : Real
 Dimension : 2
 Mnemo TOCE_LAYER
 DEFAULT VALUE :
 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.

1.61 CRITICAL SHEAR STRESS FOR DEPOSITION

Type : Real
 Dimension : 0
 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.

1.62 CULVERTS DATA FILE

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

1.63 DAMPING FUNCTION

Type : Integer
 Dimension : 0
 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.

1.64 DEBUGGER

Type : Integer
 Dimension : 0
 Mnemo DEBUG
 DEFAULT VALUE : 0
 French keyword : DEBUGGER

If 1, additional writings will be printed in the listing, in particular the calls of subroutines.

1.65 DEFAULT EXECUTABLE

Type : String
 Dimension : 1
 Mnemo EXEDEF
 DEFAULT VALUE : 'builds\PPP\bin\telemac3dMMMVVV.exe'
 French keyword : EXECUTABLE PAR DEFALT

Default executable for TELEMAC-3D.

1.66 DEFAULT PARALLEL EXECUTABLE

Type : String
 Dimension : 1
 Mnemo EXEDEFPARA
 DEFAULT VALUE : 'builds\PPP\bin\telemac3dMMMVVV.exe'
 French keyword : EXECUTABLE PARALLELE PAR DEFALT

Default parallel executable for TELEMAC-3D.

1.67 DELWAQ PRINTOUT PERIOD

Type : Integer
 Dimension : 0
 Mnemo WAQPRD
 DEFAULT VALUE : 1
 French keyword : PERIODE DE SORTIE POUR DELWAQ
 Printout period for DELWAQ files.

1.68 DELWAQ STEERING FILE

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

1.69 DENSITY LAW

Type : Integer
 Dimension : 0
 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.

1.70 DENSITY OF THE SEDIMENT

Type : Real
 Dimension : 0
 Mnemo RHOS
 DEFAULT VALUE : 2650.
 French keyword : MASSE VOLUMIQUE DU SEDIMENT
 Value of the sediment density (kg/m³).

1.71 DESCRIPTION OF LIBRARIES

Type : String
 Dimension : 11
 Mnemo LINKLIBS
 DEFAULT VALUE : 'builds|PPP|lib|telemac3d|MMM|VVV.LLL;
 builds|PPP|lib|telemac2d|MMM|VVV.LLL;
 builds|PPP|lib|tomawac|MMM|VVV.LLL;
 builds|PPP|lib|sisyphe|MMM|VVV.LLL;
 builds|PPP|lib|nestor|MMM|VVV.LLL;
 builds|PPP|lib|waqtel|MMM|VVV.LLL;
 builds|PPP|lib|bief|MMM|VVV.LLL;
 builds|PPP|lib|hermes|MMM|VVV.LLL;
 builds|PPP|lib|damo|MMM|VVV.LLL;
 builds|P'

French keyword : DESCRIPTION DES LIBRAIRIES
 Libraries description of TELEMAC-3D.

1.72 DICTIONARY

Type : String
 Dimension : -1
 Mnemo
 DEFAULT VALUE : 'telemac3d.dico'

French keyword : DICTIONNAIRE
 Key word dictionary.

1.73 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.

1.74 DIFFUSION STEP

Type : Logical
 Dimension : 0
 Mnemo DIFFUS
 DEFAULT VALUE : YES

French keyword : ETAPE DE DIFFUSION
 Takes into account the diffusion terms or not. If YES, some diffusion terms can still be ignored with the keywords SCHEME FOR DIFFUSION OF...

1.75 DIFFUSIVITY DELWAQ FILE

Type : String
 Dimension : -1
 Mnemo T3D_FILES(T3DL10)%NAME
 DEFAULT VALUE : ''
 French keyword : FICHER DELWAQ DE LA DIFFUSION

Results file for coupling with DELWAQ.

1.76 DROQUES FILE

Type : String
 Dimension : -1
 Mnemo T3D_FILES(T3DFLO)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DES FLOTTEURS

Results file with positions of drogues.

1.77 DURATION

Type : Real
 Dimension : 0
 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.

1.78 DYNAMIC BOUNDARY CONDITION

Type : Logical
 Dimension : 0
 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.

1.79 DYNAMIC PRESSURE IN WAVE EQUATION

Type : Logical
 Dimension : 0
 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.

1.80 ELEMENT

Type : String
 Dimension : 0
 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.

1.81 ELEMENTS MASKED BY USER

Type : Logical
 Dimension : 0
 Mnemo MSKUSE
 DEFAULT VALUE : NO
 French keyword : ELEMENTS MASQUES PAR L'UTILISATEUR
 If YES, fill in the subroutine **MASKOB**.

1.82 ELEVATIONS OF SOURCES

Type : Real
 Dimension : 2
 Mnemo ZSCE
 DEFAULT VALUE :
 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.

1.83 EROSION COEFFICIENT

Type : Real
 Dimension : 0
 Mnemo MPART
 DEFAULT VALUE : 2.E-3
 French keyword : COEFFICIENT D'EROSION
 Value of the erosion coefficient used in Partheniades formula in $\text{kg/m}^2/\text{s}$.

1.84 EXCHANGE AREAS DELWAQ FILE

Type : String
 Dimension : -1
 Mnemo T3D_FILES(T3DDL2)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DELWAQ DES SURFACES DE FLUX
 Results file for coupling with DELWAQ.

1.85 EXCHANGES BETWEEN NODES DELWAQ FILE

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

1.86 FICTITIOUS BED LEVEL

Type : Real
 Dimension : 0
 Mnemo FICT
 DEFAULT VALUE : 2.0
 French keyword : HAUTEUR DU LIT FICTIF
 Ratio between the fictitious bed and the grid size above the bed.

1.87 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.

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

1.89 FLOCCULATION

Type : Logical
 Dimension : 0
 Mnemo FLOC
 DEFAULT VALUE : NO
 French keyword : FLOCCULATION
 Decides if hindered formulation is to be used to compute settling velocity for mud.

1.90 FLOCCULATION COEFFICIENT

Type : Real
 Dimension : 0
 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.

1.91 FLOCCULATION FORMULA

Type : Integer
 Dimension : 0
 Mnemo FLOC_TYPE
 DEFAULT VALUE : 1
 French keyword : FORMULE POUR FLOCCULATION
 Type of flocculation formula:

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

1.92 FORMATTED DATA FILE 1

Type : String
 Dimension : 0
 Mnemo T3D_FILES(T3DFO1)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DE DONNEES FORMATE 1
 Formatted data file available to the user.

1.93 FORMATTED DATA FILE 2

Type : String
 Dimension : 0
 Mnemo T3D_FILES(T3DFO2)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DE DONNEES FORMATE 2
 Formatted data file available to the user.

1.94 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.

1.95 FORTRAN FILE

Type : String
 Dimension : 0
 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.

1.96 FREE SURFACE GRADIENT COMPATIBILITY

Type : Real
 Dimension : 0
 Mnemo TETAZCOMP
 DEFAULT VALUE : 1.
 French keyword : COMPATIBILITE DU GRADIENT DE SURFACE LIBRE
 Values between 0 and 1 may suppress spurious oscillations.

1.97 FRICTION COEFFICIENT FOR LATERAL SOLID BOUNDARIES

Type : Real
 Dimension : 0
 Mnemo RUGOLO
 DEFAULT VALUE : 60.
 French keyword : COEFFICIENT DE FROTTEMENT POUR LES PAROIS LATERALES
 Friction coefficient on the lateral boundaries, if constant.

1.98 FRICTION COEFFICIENT FOR THE BOTTOM

Type : Real
 Dimension : 0
 Mnemo RUGOF0
 DEFAULT VALUE : 60.
 French keyword : COEFFICIENT DE FROTTEMENT POUR LE FOND
 Friction coefficient on the bottom, if constant.

1.99 GEOGRAPHIC SYSTEM

Type : Integer
 Dimension : 0
 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.

1.100 GEOMETRY FILE

Type : String
 Dimension : 0
 Mnemo T3D_FILES(T3DGEO)%NAME
 DEFAULT VALUE : "

French keyword : FICHIER DE GEOMETRIE

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

1.101 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.

1.102 GLOBAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER

Type : Integer
 Dimension : 0
 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.

1.103 GRAPHIC PRINTOUT PERIOD

Type : Integer
 Dimension : 0
 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.

1.104 GRAVITY ACCELERATION

Type : Real
 Dimension : 0
 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 .

1.105 HARMONIC CONSTANTS FILE

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

French keyword : FICHER DES CONSTANTES HARMONIQUES

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

1.106 HINDERED SETTLING

Type : Logical
 Dimension : 0
 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.

1.107 HINDERED SETTLING FORMULA

Type : Integer
 Dimension : 0
 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.

1.108 HORIZONTAL TURBULENCE MODEL

Type : Integer
 Dimension : 0
 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.

1.109 HYDROSTATIC INCONSISTENCY FILTER

Type : Logical
Dimension : 0
Mnemo INCHYD
DEFAULT VALUE : NO
French keyword : FILTRE LES INCONSISTANCES HYDROSTATIQUES
Allows to filter hydrostatic inconsistencies.

1.110 IMPLICITATION FOR DEPTH

Type : Real
Dimension : 0
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.

1.111 IMPLICITATION FOR DIFFUSION

Type : Real
Dimension : 0
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.

1.112 IMPLICITATION FOR VELOCITIES

Type : Real
Dimension : 0
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.

1.113 INFORMATION ABOUT MASS-BALANCE FOR EACH LISTING PRINTOUT

Type : Logical
Dimension : 0
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.

1.114 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.

1.115 INITIAL DEPTH

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

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

1.116 INITIAL ELEVATION

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

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

1.117 INITIAL GUESS FOR DEPTH

Type : Integer
 Dimension : 0
 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).

1.118 INITIAL PERCENTAGE OF NON COHESIVE SEDIMENT

Type : Real
 Dimension : 0
 Mnemo PVSNCO0
 DEFAULT VALUE : 0.
 French keyword : POURCENTAGE INITIAL DE SEDIMENT NON COHESIF
 Initial percentage of non cohesive sediment (mixed sediments).

1.119 INITIAL THICKNESS OF SEDIMENT LAYERS

Type : Real
 Dimension : 2
 Mnemo ES_LAYER
 DEFAULT VALUE :
 French keyword : EPAISSEURS INITIALES DES COUCHES
 Sediment layers thickness (m) for initialisation.

1.120 INITIAL TIME SET TO ZERO

Type : Logical
 Dimension : 0
 Mnemo RAZTIM
 DEFAULT VALUE : NO
 French keyword : REMISE A ZERO DU TEMPS
 Initial time set to zero in case of restart.

1.121 INITIAL VALUES OF TRACERS

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

1.122 KARMAN CONSTANT

Type : Real
 Dimension : 0
 Mnemo KARMAN
 DEFAULT VALUE : 0.4
 French keyword : CONSTANTE DE KARMAN
 Value of Von Karman's constant.

1.123 LATITUDE OF ORIGIN POINT

Type : Real
 Dimension : 0
 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`).

1.124 LAW OF BOTTOM FRICTION

Type : Integer
 Dimension : 0
 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.

1.125 LAW OF FRICTION ON LATERAL BOUNDARIES

Type : Integer
 Dimension : 0
 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.

1.126 LINEARIZED PROPAGATION

Type : Logical
 Dimension : 0
 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.

1.127 LIQUID BOUNDARIES FILE

Type : String
 Dimension : -1
 Mnemo T3D_FILES(T3DIMP)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DES FRONTIERES LIQUIDES
 File containing the variations in time of boundary conditions.

1.128 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 SEDIMENTOLOG'
 French keyword : LISTE DES FICHIERS
 File names of the used files.

1.129 LISTING PRINTOUT

Type : Logical
 Dimension : 0
 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.

1.130 LISTING PRINTOUT PERIOD

Type : Integer
 Dimension : 0
 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.

1.131 LOCAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER

Type : Integer
 Dimension : 0
 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).

1.132 LONGITUDE OF ORIGIN POINT

Type : Real
 Dimension : 0
 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).

1.133 MASS-BALANCE

Type : Logical
 Dimension : 0
 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.

1.134 MASS-LUMPING FOR DEPTH

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

French keyword : MASS-LUMPING POUR LA HAUTEUR
 TELEMAT-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.

1.135 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.

1.136 MASS-LUMPING FOR VELOCITIES

Type : Real
 Dimension : 0
 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.

1.137 MASS-LUMPING FOR WEAK CHARACTERISTICS

Type : Real
 Dimension : 0
 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.

1.138 MATRIX STORAGE

Type : Integer
 Dimension : 0
 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.

1.139 MAXIMUM CONCENTRATION OF THE CONSOLIDATED MUD

Type : Real
 Dimension : 0
 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)).

1.140 MAXIMUM NUMBER OF BOUNDARIES

Type : Integer

Dimension : 0

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.

1.141 MAXIMUM NUMBER OF BOUNDARIES ON THE BED

Type : Integer

Dimension : 0

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.

1.142 MAXIMUM NUMBER OF ITERATIONS FOR ADVECTION SCHEMES

Type : Integer

Dimension : 0

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.

1.143 MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF K-EPSILON

Type : Integer

Dimension : 0

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 $k-\epsilon$.

1.144 MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF SEDIMENT

Type : Integer

Dimension : 0

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.

1.145 MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF TRACERS

Type : Integer
Dimension : 0
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.

1.146 MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF VELOCITIES

Type : Integer
Dimension : 0
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.

1.147 MAXIMUM NUMBER OF ITERATIONS FOR PPE

Type : Integer
Dimension : 0
Mnemo SLVPOI%NITMAX
DEFAULT VALUE : 100
French keyword : MAXIMUM D'ITERATIONS POUR PPE
Limits the number of solver iterations for the Poisson Pressure Equation.

1.148 MAXIMUM NUMBER OF ITERATIONS FOR PROPAGATION

Type : Integer
Dimension : 0
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.

1.149 MAXIMUM NUMBER OF ITERATIONS FOR VERTICAL VELOCITY

Type : Integer
Dimension : 0
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.

1.150 MAXIMUM NUMBER OF SOURCES

Type : Integer
 Dimension : 0
 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.

1.151 MAXIMUM NUMBER OF TRACERS

Type : Integer
 Dimension : 0
 Mnemo MAXTRA
 DEFAULT VALUE : 20
 French keyword : NOMBRE MAXIMUM DE TRACEURS

Maximal number of tracers. Used for dimensioning arrays. Can be increased if needed.

1.152 MEAN DEPTH FOR LINEARIZATION

Type : Real
 Dimension : 0
 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.

1.153 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.

1.154 MESH TRANSFORMATION

Type : Integer
 Dimension : 0
 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.

1.155 MINIMAL VALUE FOR DEPTH

Type : Real
 Dimension : 0
 Mnemo HMIN
 DEFAULT VALUE : -1000.
 French keyword : VALEUR MINIMALE POUR LA HAUTEUR
 Sets the minimum water depth value H .

1.156 MINOR CONSTITUENTS INFERENCE

Type : Logical
 Dimension : 0
 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`.

1.157 MIXED SEDIMENT

Type : Logical
 Dimension : 0
 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.

1.158 MIXING LENGTH MODEL

Type : Integer
 Dimension : 0
 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.

1.159 MUD CONCENTRATIONS PER LAYER

Type : Real
 Dimension : 2
 Mnemo CONC_LAYER
 DEFAULT VALUE :
 French keyword : CONCENTRATIONS DES COUCHES DE VASE
 Dry density of the mud-bed layers in g/L starting from the bottom upwards.

1.160 NAMES OF 2D PRIVATE VARIABLES

Type : String
 Dimension : 4
 Mnemo NAMES_PRIVATE2D
 DEFAULT VALUE : "
 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.

1.161 NAMES OF TRACERS

Type : String
 Dimension : 2
 Mnemo NAMETRAC
 DEFAULT VALUE : "
 French keyword : NOMS DES TRACEURS
 Name of tracers in 32 characters, 16 for the name, 16 for the unit.

1.162 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.

1.163 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.

1.164 NON-HYDROSTATIC VERSION

Type : Logical
 Dimension : 0
 Mnemo NONHYD
 DEFAULT VALUE : NO
 French keyword : VERSION NON-HYDROSTATIQUE
 Specifies the use of the non-hydrostatic code version or not.

1.165 NORTH

Type : Real
 Dimension : 0
 Mnemo NORD
 DEFAULT VALUE : 0.
 French keyword : NORD
 Angle of North, counted counter-clockwise, with Oy.

1.166 NUMBER OF 2D PRIVATE ARRAYS

Type : Integer
 Dimension : 0
 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.

1.167 NUMBER OF BOTTOM SMOOTHINGS

Type : Integer
 Dimension : 0
 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.

1.168 NUMBER OF CORRECTIONS OF DISTRIBUTIVE SCHEMES

Type : Integer
 Dimension : 0
 Mnemo NCO_DIST
 DEFAULT VALUE : 1
 French keyword : NOMBRE DE CORRECTIONS DES SCHEMAS DISTRIBUTIFS
 For predictor-corrector options.

1.169 NUMBER OF CULVERTS

Type : Integer
 Dimension : 0
 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).

1.170 NUMBER OF DROGUES

Type : Integer
 Dimension : 0
 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.

1.171 NUMBER OF FIRST TIME STEP FOR GRAPHIC PRINTOUTS

Type : Integer
 Dimension : 0
 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.

1.172 NUMBER OF FIRST TIME STEP FOR LISTING PRINTOUTS

Type : Integer
 Dimension : 0
 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.

1.173 NUMBER OF GAUSS POINTS FOR WEAK CHARACTERISTICS

Type : Integer
 Dimension : 0
 Mnemo NGAUSS
 DEFAULT VALUE : 3

French keyword : NOMBRE DE POINTS DE GAUSS POUR LES CARACTERISTIQUES FAIBLES
 See release notes v6.3.

- 1: 1 point,
- 3: 3 points,

- 6: 6 points.

1.174 NUMBER OF HORIZONTAL LEVELS

Type : Integer
Dimension : 0
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.

1.175 NUMBER OF PRIVATE ARRAYS

Type : Integer
Dimension : 0
Mnemo NPRIV
DEFAULT VALUE : 0
French keyword : NOMBRE DE TABLEAUX PRIVES
Number of arrays for own user programming.

1.176 NUMBER OF SEDIMENT BED LAYERS

Type : Integer
Dimension : 0
Mnemo NCOUCH
DEFAULT VALUE : 1
French keyword : NOMBRE DE COUCHES DU LIT COHESIF
Number of cohesive sediment bed layers, should be less than 20.

1.177 NUMBER OF SUB ITERATIONS FOR NON LINEARITIES

Type : Integer
Dimension : 0
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.

1.178 NUMBER OF SUB-STEPS OF DISTRIBUTIVE SCHEMES

Type : Integer
Dimension : 0
Mnemo NSP_DIST
DEFAULT VALUE : 1
French keyword : NOMBRE DE SOUS-PAS DES SCHEMAS DISTRIBUTIFS
Only for implicit scheme with predictor-corrector.

1.179 NUMBER OF TIME STEPS

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

French keyword : NOMBRE DE PAS DE TEMPS

Specifies the number of time steps performed when running the code.

1.180 NUMBER OF TRACERS

Type : Integer
 Dimension : 0
 Mnemo NTRAC
 DEFAULT VALUE : 0

French keyword : NOMBRE DE TRACEURS

Defines the number of tracers.

1.181 OIL SPILL MODEL

Type : Logical
 Dimension : 0
 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.

1.182 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.

1.183 OPEN BOUNDARY CONDITIONS ON THE BED

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

French keyword : CONDITIONS OUVERTES SUR LE FOND

Defines if there are open boundary conditions on the bed.

1.184 OPTION FOR CHARACTERISTICS

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

French keyword : OPTION POUR LES CARACTERISTIQUES

Possible choices are:

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

1.185 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.

1.186 OPTION FOR LIQUID BOUNDARIES

Type : Integer
 Dimension : 2
 Mnemo FRTYPE
 DEFAULT VALUE :
 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.

1.187 OPTION FOR THE BOUNDARY CONDITIONS OF K-EPSILON

Type : Integer
 Dimension : 0
 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 and Burchard formula.

1.188 OPTION FOR THE DIFFUSION

Type : Integer
 Dimension : 0
 Mnemo OPTDIF
 DEFAULT VALUE : 1
 French keyword : OPTION POUR LA DIFFUSION
 Option to solve the diffusion step. Possible choices are:

- 1: implicit diffusion,
- 2: splitting horizontal-vertical.

1.189 OPTION FOR THE TREATMENT OF TIDAL FLATS

Type : Integer

Dimension : 0

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.

1.190 OPTION FOR TIDAL BOUNDARY CONDITIONS

Type : Integer

Dimension : 2

Mnemo BND_TIDE

DEFAULT VALUE :

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).

1.191 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.

1.192 OPTION OF SOLVER FOR DIFFUSION OF K-EPSILON

Type : Integer
Dimension : 0
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).

1.193 OPTION OF SOLVER FOR DIFFUSION OF THE SEDIMENT

Type : Integer
Dimension : 0
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).

1.194 OPTION OF SOLVER FOR DIFFUSION OF TRACERS

Type : Integer
Dimension : 0
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).

1.195 OPTION OF SOLVER FOR DIFFUSION OF VELOCITIES

Type : Integer
Dimension : 0
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).

1.196 OPTION OF SOLVER FOR PPE

Type : Integer
Dimension : 0
Mnemo SLVPOI%KRYLOV
DEFAULT VALUE : 3
French keyword : OPTION DU SOLVEUR POUR PPE
Dimension of Krylov space for the GMRES method (7).

1.197 OPTION OF SOLVER FOR PROPAGATION

Type : Integer
 Dimension : 0
 Mnemo SLVPRO%KRYLOV
 DEFAULT VALUE : 3
 French keyword : OPTION DU SOLVEUR POUR LA PROPAGATION
 Dimension of Krylov space for the GMRES method (7).

1.198 ORDINATES OF SOURCES

Type : Real
 Dimension : 2
 Mnemo YSCE
 DEFAULT VALUE :
 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.

1.199 ORIGIN COORDINATES

Type : Integer
 Dimension : 2
 Mnemo I_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.

1.200 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.

1.201 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.

1.202 PARALLEL PROCESSORS

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

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

1.203 PARTITIONING TOOL

Type : String
Dimension : -1
Mnemo
DEFAULT VALUE : 'METIS'
French keyword : PARTITIONNEUR

Partitioning tool selection:

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

1.204 PRANDTL NUMBER

Type : Real
Dimension : 0
Mnemo PRANDTL
DEFAULT VALUE : 1.0
French keyword : NOMBRE DE PRANDTL

Ratio between eddy viscosity and eddy diffusivity.

1.205 PRECONDITIONING FOR DIFFUSION OF K-EPSILON

Type : Integer
Dimension : 0
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.

1.206 PRECONDITIONING FOR DIFFUSION OF THE SEDIMENT

Type : Integer
 Dimension : 0
 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.

1.207 PRECONDITIONING FOR DIFFUSION OF TRACERS

Type : Integer
 Dimension : 2
 Mnemo SLVDTA(ITRAC)%PRECON
 DEFAULT VALUE :
 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.

1.208 PRECONDITIONING FOR DIFFUSION OF VELOCITIES

Type : Integer

Dimension : 0

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.

1.209 PRECONDITIONING FOR PPE

Type : Integer
 Dimension : 0
 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.

1.210 PRECONDITIONING FOR PROPAGATION

Type : Integer
 Dimension : 0
 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.

1.211 PRECONDITIONING FOR VERTICAL VELOCITY

Type : Integer
 Dimension : 0
 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.

1.212 PRESCRIBED ELEVATIONS

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

1.213 PRESCRIBED FLOWRATES

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

1.214 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.

1.215 PRESCRIBED TRACERS VALUES

Type : Real
 Dimension : 2
 Mnemo TRACER
 DEFAULT VALUE :
 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.

1.216 PRESCRIBED VELOCITIES

Type : Real
 Dimension : 10
 Mnemo VITIMP
 DEFAULT VALUE :
 French keyword : VITESSES IMPOSEES
 Sets the magnitude of velocity on velocity-imposed boundaries.

1.217 PREVIOUS COMPUTATION FILE

Type : String
 Dimension : 0
 Mnemo T3D_FILES(T3DPRE)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER 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'.

1.218 PREVIOUS COMPUTATION FILE FORMAT

Type : String
 Dimension : -1
 Mnemo T3D_FILES(T3DPRE)%FMT
 DEFAULT VALUE : 'SERAFIN'
 French keyword : FORMAT DU FICHER DU CALCUL PRECEDENT
 Format of the PREVIOUS COMPUTATION 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.

1.219 PREVIOUS COMPUTATION SEDIMENTOLOGICAL FILE

Type : String
 Dimension : 0
 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.

1.220 PRINTOUT PERIOD FOR DROGUES

Type : Integer
 Dimension : 0
 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.

1.221 PROPAGATION STEP

Type : Logical
 Dimension : 0
 Mnemo PROP
 DEFAULT VALUE : YES
 French keyword : ETAPE DE PROPAGATION
 Takes into account the propagation terms or not. This step has to be done currently.

1.222 RAIN OR EVAPORATION

Type : Logical
 Dimension : 0
 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.

1.223 RAIN OR EVAPORATION IN MM PER DAY

Type : Real
 Dimension : 0
 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.

1.224 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. $\text{skin roughness} = \text{ratio} \times \text{mean diameter}$.

1.225 READ CRITICAL BED SHEAR STRESS PER LAYER

Type : Logical
 Dimension : 0
 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.

1.226 RECORD NUMBER FOR RESTART

Type : Integer
 Dimension : 0
 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.

1.227 RECORD NUMBER IN WAVE FILE

Type : Integer
 Dimension : 0
 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.

1.228 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).

1.229 REFERENCE FILE

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

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

1.231 RELEASE

Type : String
 Dimension : 0
 Mnemo
 DEFAULT VALUE : 'V7P2'
 French keyword : NUMERO DE VERSION
 TODO: WRITE HELP FOR THAT KEYWORD

1.232 RESIDENCE TIME FOR MUD

Type : Real
 Dimension : 30
 Mnemo TREST(NCOUCH)
 DEFAULT VALUE :
 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).

1.233 RESTART FILE

Type : String
 Dimension : 0
 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'.

1.234 RESTART FILE FORMAT

Type : String
 Dimension : -1
 Mnemo T3D_FILES(T3DRST)%FMT
 DEFAULT VALUE : 'SERAFIND'
 French keyword : FORMAT DU FICHIER POUR SUITE

Format of the `RESTART 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.

Only double precision formats ensure a perfect restart.

1.235 RESTART MODE

Type : Logical
 Dimension : 0
 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`.

1.236 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.

1.237 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.

1.238 SCHEME FOR ADVECTION OF DEPTH

Type : Integer

Dimension : 0

Mnemo SCHCH

DEFAULT VALUE : 5

French keyword : SCHEMA POUR LA CONVECTION DE LA HAUTEUR

The conservative scheme (5) is now mandatory.

1.239 SCHEME FOR ADVECTION OF K-EPSILON

Type : Integer

Dimension : 0

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.

1.240 SCHEME FOR ADVECTION OF TRACERS

Type : Integer

Dimension : 2

Mnemo SCHCTA

DEFAULT VALUE :

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.

1.241 SCHEME FOR ADVECTION OF VELOCITIES

Type : Integer
 Dimension : 0
 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.

1.242 SCHEME FOR DIFFUSION OF K-EPSILON

Type : Integer
 Dimension : 0
 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.

1.243 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.

1.244 SCHEME FOR DIFFUSION OF VELOCITIES

Type : Integer
 Dimension : 0
 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.

1.245 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.

1.246 SCHEME OPTION FOR ADVECTION OF TRACERS

Type : Integer
 Dimension : 1
 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.

1.247 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.

1.248 SEDIMENT

Type : Logical
 Dimension : 0
 Mnemo SEDI
 DEFAULT VALUE : NO
 French keyword : SEDIMENT
 If YES, sediment transport is modelled.

1.249 SEDIMENTOLOGICAL RESULT FILE

Type : String
 Dimension : 0
 Mnemo T3D_FILES(T3DSED)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER 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.

1.250 SEDIMENTOLOGICAL RESULT FILE BINARY

Type : String
 Dimension : 0
 Mnemo BIRSED
 DEFAULT VALUE : 'STD'
 French keyword : BINAIRE DU FICHIER 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.

1.251 SETTLING VELOCITY OF SANDS

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

1.252 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.

1.253 SISYPHE STEERING FILE

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

1.254 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 ($KSP = \mathbf{KSPRATIO} \times \mathbf{D50}$),
- 2: Ripple correction factor (not yet implemented).

1.255 SOLVER FOR DIFFUSION OF K-EPSILON

Type : Integer
 Dimension : 0
 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.

1.256 SOLVER FOR DIFFUSION OF THE SEDIMENT

Type : Integer
 Dimension : 0
 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.

1.257 SOLVER FOR DIFFUSION OF TRACERS

Type : Integer
 Dimension : 2
 Mnemo SLVDTA(ITRAC)%SLV
 DEFAULT VALUE :
 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.

1.258 SOLVER FOR DIFFUSION OF VELOCITIES

Type : Integer
 Dimension : 0
 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.

1.259 SOLVER FOR PPE

Type : Integer
 Dimension : 0
 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.

1.260 SOLVER FOR PROPAGATION

Type : Integer
 Dimension : 0
 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.

1.261 SOLVER FOR VERTICAL VELOCITY

Type : Integer
 Dimension : 0
 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.

1.262 SOURCES FILE

Type : String
 Dimension : 0
 Mnemo T3D_FILES(T3DVEF)%NAME
 DEFAULT VALUE : "

French keyword : FICHIER DES SOURCES

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

1.263 SPATIAL PROJECTION TYPE

Type : Integer
 Dimension : 0
 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.

1.264 SPHERICAL COORDINATES

Type : Logical
 Dimension : 0
 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.

1.265 STAGE-DISCHARGE CURVES

Type : Integer
 Dimension : 10
 Mnemo STA_DIS_CURVES
 DEFAULT VALUE :
 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.

1.266 STAGE-DISCHARGE CURVES FILE

Type : String
 Dimension : 0
 Mnemo T3D_FILES(T3DPAR)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DES COURBES DE TARAGE

Name of the file containing stage-discharge curves.

1.267 STANDARD VALUES FOR TRACERS

Type : Real
 Dimension : 2
 Mnemo T0AC
 DEFAULT VALUE :

French keyword : VALEURS DE REFERENCE DES TRACEURS
 Reference value of tracers corresponding to the given density.

1.268 STEERING FILE

Type : String

Dimension : 0

Mnemo

DEFAULT VALUE : ”

French keyword : FICHIER DES PARAMETRES

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

1.269 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 .

1.270 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.

1.271 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.

1.272 THRESHOLD CONCENTRATION FOR HINDERED SETTLING

Type : Real
Dimension : 0
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`.

1.273 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.

1.274 THRESHOLD FOR SEDIMENT FLUX CORRECTION ON TIDAL FLATS

Type : Real
Dimension : 0
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**.

1.275 THRESHOLD FOR VISCOSITY CORRECTION ON TIDAL FLATS

Type : Real
Dimension : 0
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**.

1.276 TIDAL DATA BASE

Type : Integer
Dimension : 0
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.

1.277 TIDAL FLATS

Type : Logical
 Dimension : 0
 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.

1.278 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).

1.279 TIDE GENERATING FORCE

Type : Logical
 Dimension : 0
 Mnemo MAREE
 DEFAULT VALUE : NO
 French keyword : FORCE GENERATRICE DE LA MAREE

The tide generating force is taken into account.

1.280 TIME STEP

Type : Real
 Dimension : 0
 Mnemo DT
 DEFAULT VALUE : 1.
 French keyword : PAS DE TEMPS

Specifies the time step in seconds.

1.281 TIME STEP FOR CONSOLIDATION

Type : Real
 Dimension : 0
 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)).

1.282 TITLE

Type : String
 Dimension : 0
 Mnemo TITCAS
 DEFAULT VALUE : "
 French keyword : TITRE
 Title of the case being considered.

1.283 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.

1.284 TRACERS VERTICAL PROFILES

Type : Integer
 Dimension : 2
 Mnemo VERPROTRA
 DEFAULT VALUE :
 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.

1.285 TREATMENT OF FLUXES AT THE BOUNDARIES

Type : Integer
 Dimension : 2
 Mnemo DIRFLU
 DEFAULT VALUE :
 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.

1.286 TREATMENT OF NEGATIVE DEPTHS

Type : Integer
 Dimension : 0
 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.

1.287 TREATMENT ON TIDAL FLATS FOR K-EPSILON

Type : Integer
 Dimension : 0
 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.

1.288 TREATMENT ON TIDAL FLATS FOR TRACERS

Type : Integer
 Dimension : 0
 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.

1.289 TREATMENT ON TIDAL FLATS FOR VELOCITIES

Type : Integer
 Dimension : 0
 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.

1.290 TURBULENCE REGIME FOR LATERAL SOLID BOUNDARIES

Type : Integer
Dimension : 0
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.

1.291 TURBULENCE REGIME FOR THE BOTTOM

Type : Integer
Dimension : 0
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).

1.292 TYPE OF SOURCES

Type : Integer
Dimension : 0
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).

1.293 VALIDATION

Type : Logical
Dimension : 0
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.

1.294 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.

1.295 VALUE OF THE TRACERS AT THE SOURCES

Type : Real
 Dimension : 2
 Mnemo TASCE
 DEFAULT VALUE :
 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

1.296 VALUES OF TRACERS IN THE RAIN

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

1.297 VARIABLES FOR 2D GRAPHIC PRINTOUTS

Type : String
 Dimension : -1
 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).

1.298 VARIABLES FOR 3D GRAPHIC PRINTOUTS

Type : String
 Dimension : -1
 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.

1.299 VECTOR LENGTH

Type : Integer
 Dimension : 0
 Mnemo LVMAC
 DEFAULT VALUE : 1
 French keyword : LONGUEUR DU VECTEUR
 Vector length on vector machines.

1.300 VELOCITIES OF THE SOURCES ALONG X

Type : Real
 Dimension : 2
 Mnemo USCE
 DEFAULT VALUE :
 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).

1.301 VELOCITIES OF THE SOURCES ALONG Y

Type : Real
 Dimension : 2
 Mnemo VSCE
 DEFAULT VALUE :

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).

1.302 VELOCITIES OF THE SOURCES ALONG Z

Type : Real
 Dimension : 2
 Mnemo WSCE
 DEFAULT VALUE :

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).

1.303 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.

1.304 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.

1.305 VELOCITY PROFILES

Type : Integer
 Dimension : 2
 Mnemo PROFVEL
 DEFAULT VALUE :

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.

1.306 VELOCITY PROJECTED ON BOTTOM

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

1.307 VELOCITY PROJECTED ON SOLID LATERAL BOUNDARIES

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

1.308 VELOCITY VERTICAL PROFILES

Type : Integer
 Dimension : 2
 Mnemo VERPROVEL
 DEFAULT VALUE :
 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.

1.309 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.

1.310 VERTICAL TURBULENCE MODEL

Type : Integer
 Dimension : 0
 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.

1.311 VERTICAL VELOCITY DERIVATIVES

Type : Integer
 Dimension : 0
 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).

1.312 VOLUMES DELWAQ FILE

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

1.313 WAQTEL STEERING FILE

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

1.314 WATER DISCHARGE OF SOURCES

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

1.315 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 5):

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

1.316 WAVE DRIVEN CURRENTS

Type : Logical
 Dimension : 0
 Mnemo COUROU
 DEFAULT VALUE : NO
 French keyword : COURANTS DE HOULE

Wave driven currents are taken into account, see subroutine **TRISOU**.

1.317 WEAK SOIL CONCENTRATION FOR MUD

Type : Real
 Dimension : 0
 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`.

1.318 WIND

Type : Logical
 Dimension : 0
 Mnemo VENT
 DEFAULT VALUE : NO
 French keyword : VENT

Determines whether the wind effects are to be taken into account or not.

1.319 WIND VELOCITY ALONG X

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

1.320 WIND VELOCITY ALONG Y

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

1.321 ZERO

Type : Real
Dimension : 0
Mnemo
DEFAULT VALUE : 1.E-10
French keyword : ZERO
Not used so far.

1.322 ZONE NUMBER IN GEOGRAPHIC SYSTEM

Type : Integer
Dimension : 0
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,
- X: UTM zone with WGS84 (X is the number of the zone).

2. List of keywords classified according to type

2.1 AIR PRESSURE

AIR PRESSURE

2.2 BOUNDARY CONDITIONS

OPTION FOR THE BOUNDARY CONDITIONS OF K-EPSILON
STAGE-DISCHARGE CURVES

2.3 COHESIVE SEDIMENT

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

2.4 COMPUTATION ENVIRONMENT

DICTIONARY

2.5 COMPUTATIONAL INFORMATION

COMPUTATION CONTINUED
DEFAULT EXECUTABLE
DEFAULT PARALLEL EXECUTABLE
DESCRIPTION OF LIBRARIES
RELEASE
TITLE
VALIDATION

2.6 CONSOLIDATION

CONSOLIDATION MODEL
NUMBER OF SEDIMENT BED LAYERS

2.7 CONSTANT VISCOSITY

ACCURACY FOR DIFFUSION OF K-EPSILON
ACCURACY FOR DIFFUSION OF SEDIMENT
ACCURACY FOR DIFFUSION OF TRACERS
ACCURACY FOR DIFFUSION OF VELOCITIES
ACCURACY FOR PPE
COEFFICIENT FOR HORIZONTAL DIFFUSION OF TRACERS
COEFFICIENT FOR HORIZONTAL DIFFUSION OF VELOCITIES
COEFFICIENT FOR VERTICAL DIFFUSION OF TRACERS
COEFFICIENT FOR VERTICAL DIFFUSION OF VELOCITIES

2.8 CONTROL

DELWAQ PRINTOUT PERIOD
OIL SPILL MODEL
ORIGIN COORDINATES

2.9 CORIOLIS

CORIOLIS

2.10 DEPTH

MEAN DEPTH FOR LINEARIZATION

2.11 DURATION

DURATION
FREE SURFACE GRADIENT COMPATIBILITY
NUMBER OF TIME STEPS
TIME STEP

2.12 EQUATIONS

2D CONTINUATION
ABSCISSAE OF SOURCES
ACCURACY FOR DIFFUSION OF K-EPSILON
ACCURACY FOR DIFFUSION OF SEDIMENT
ACCURACY FOR DIFFUSION OF TRACERS

ACCURACY FOR DIFFUSION OF VELOCITIES
ACCURACY FOR PPE
ACCURACY FOR PROPAGATION
ACCURACY FOR VERTICAL VELOCITY
AIR PRESSURE
BOUNDARY CONDITION ON THE BOTTOM
COEFFICIENT FOR HORIZONTAL DIFFUSION OF TRACERS
COEFFICIENT FOR HORIZONTAL DIFFUSION OF VELOCITIES
COEFFICIENT FOR VERTICAL DIFFUSION OF TRACERS
COEFFICIENT FOR VERTICAL DIFFUSION OF VELOCITIES
COEFFICIENT OF WIND INFLUENCE
CORIOLIS
DYNAMIC BOUNDARY CONDITION
DYNAMIC PRESSURE IN WAVE EQUATION
ELEVATIONS OF SOURCES
FRICTION COEFFICIENT FOR LATERAL SOLID BOUNDARIES
FRICTION COEFFICIENT FOR THE BOTTOM
HORIZONTAL TURBULENCE MODEL
LATITUDE OF ORIGIN POINT
LAW OF BOTTOM FRICTION
LAW OF FRICTION ON LATERAL BOUNDARIES
LINEARIZED PROPAGATION
LONGITUDE OF ORIGIN POINT
MAXIMUM NUMBER OF ITERATIONS FOR PROPAGATION
MAXIMUM NUMBER OF ITERATIONS FOR VERTICAL VELOCITY
MEAN DEPTH FOR LINEARIZATION
MIXING LENGTH MODEL
NON-HYDROSTATIC VERSION
NORTH
NUMBER OF BOTTOM SMOOTHINGS
ORDINATES OF SOURCES
PARALLEL PROCESSORS
PRECONDITIONING FOR PROPAGATION
PRECONDITIONING FOR VERTICAL VELOCITY
PRESCRIBED TRACERS VALUES
SOLVER FOR PROPAGATION
SOLVER FOR VERTICAL VELOCITY
SPATIAL PROJECTION TYPE
THRESHOLD DEPTH FOR WIND
TREATMENT ON TIDAL FLATS FOR K-EPSILON
TREATMENT ON TIDAL FLATS FOR TRACERS
TREATMENT ON TIDAL FLATS FOR VELOCITIES
TURBULENCE REGIME FOR LATERAL SOLID BOUNDARIES
TURBULENCE REGIME FOR THE BOTTOM
VALUE OF THE TRACERS AT THE SOURCES
VELOCITIES OF THE SOURCES ALONG X
VELOCITIES OF THE SOURCES ALONG Y
VELOCITIES OF THE SOURCES ALONG Z
VERTICAL TURBULENCE MODEL

WATER DISCHARGE OF SOURCES
WIND
WIND VELOCITY ALONG X
WIND VELOCITY ALONG Y

2.13 EQUATIONS, ADVECTION

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SCHEME FOR ADVECTION OF DEPTH
SCHEME FOR ADVECTION OF K-EPSILON
SCHEME FOR ADVECTION OF TRACERS
SCHEME FOR ADVECTION OF VELOCITIES
SCHEME OPTION FOR ADVECTION OF K-EPSILON
SCHEME OPTION FOR ADVECTION OF TRACERS
SCHEME OPTION FOR ADVECTION OF VELOCITIES

2.14 EQUATIONS, BOUNDARY CONDITIONS

OPTION FOR LIQUID BOUNDARIES
TRACERS VERTICAL PROFILES
TREATMENT OF FLUXES AT THE BOUNDARIES
VELOCITY PROFILES
VELOCITY VERTICAL PROFILES

2.15 EQUATIONS, DIFFUSION

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MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF SEDIMENT
MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF TRACERS
MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF VELOCITIES
MAXIMUM NUMBER OF ITERATIONS FOR PPE
PRECONDITIONING FOR DIFFUSION OF K-EPSILON
PRECONDITIONING FOR DIFFUSION OF TRACERS
PRECONDITIONING FOR DIFFUSION OF VELOCITIES
PRECONDITIONING FOR PPE
SCHEME FOR DIFFUSION OF K-EPSILON
SCHEME FOR DIFFUSION OF TRACERS
SCHEME FOR DIFFUSION OF VELOCITIES
SOLVER FOR DIFFUSION OF K-EPSILON
SOLVER FOR DIFFUSION OF TRACERS
SOLVER FOR DIFFUSION OF VELOCITIES
SOLVER FOR PPE

2.16 EQUATIONS, INITIAL CONDITIONS

IMPLICITATION FOR DIFFUSION
INITIAL CONDITIONS
INITIAL DEPTH
INITIAL ELEVATION
OPTION FOR THE TREATMENT OF TIDAL FLATS

2.17 EQUATIONS, PROPAGATION

PROPAGATION STEP

2.18 EQUATIONS, SOURCE

WATER QUALITY PROCESS

2.19 EQUATIONS, SOURCE TERMS

TYPE OF SOURCES

2.20 EQUATIONS, SOURCES

OPTION FOR WIND

2.21 EQUATIONS, TRACER

NUMBER OF TRACERS
STANDARD VALUES FOR TRACERS

2.22 FILES

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LIST OF FILES

2.23 FRICTION

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

2.24 GENERAL

ACCURACY FOR VERTICAL VELOCITY
BOUNDARY CONDITION ON THE BOTTOM
CHECKING THE MESH
CONTINUITY CORRECTION ON OPEN BOUNDARIES
COUPLING PERIOD FOR SISYPHE
COUPLING PERIOD FOR TOMAWAC
DENSITY LAW
ELEMENTS MASKED BY USER
GLOBAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER
HYDROSTATIC INCONSISTENCY FILTER
INITIAL TIME SET TO ZERO
LATITUDE OF ORIGIN POINT
LOCAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER
LONGITUDE OF ORIGIN POINT
MASS-LUMPING FOR DIFFUSION
MATRIX STORAGE
MAXIMUM NUMBER OF BOUNDARIES
MAXIMUM NUMBER OF BOUNDARIES ON THE BED
MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF VELOCITIES
MAXIMUM NUMBER OF ITERATIONS FOR PPE
MAXIMUM NUMBER OF ITERATIONS FOR VERTICAL VELOCITY
MAXIMUM NUMBER OF SOURCES
MAXIMUM NUMBER OF TRACERS
MESH TRANSFORMATION
NORTH
NUMBER OF 2D PRIVATE ARRAYS
NUMBER OF CORRECTIONS OF DISTRIBUTIVE SCHEMES
NUMBER OF CULVERTS
NUMBER OF HORIZONTAL LEVELS
NUMBER OF PRIVATE ARRAYS
NUMBER OF SUB ITERATIONS FOR NON LINEARITIES
NUMBER OF SUB-STEPS OF DISTRIBUTIVE SCHEMES
OPTION FOR CULVERTS
OPTION FOR THE DIFFUSION
OPTION FOR TIDAL BOUNDARY CONDITIONS
ORIGINAL DATE OF TIME
ORIGINAL HOUR OF TIME
PARALLEL PROCESSORS
PARTITIONING TOOL
PRECONDITIONING FOR DIFFUSION OF K-EPSILON
PRECONDITIONING FOR DIFFUSION OF TRACERS
PRECONDITIONING FOR DIFFUSION OF VELOCITIES
PRECONDITIONING FOR PPE
PRECONDITIONING FOR VERTICAL VELOCITY
RAIN OR EVAPORATION
RAIN OR EVAPORATION IN MM PER DAY
RATIO BETWEEN SKIN FRICTION AND MEAN DIAMETER
RECORD NUMBER FOR RESTART

RECORD NUMBER IN WAVE FILE
SCHEME FOR ADVECTION OF DEPTH
SCHEME FOR ADVECTION OF K-EPSILON
SCHEME FOR ADVECTION OF TRACERS
SCHEME FOR ADVECTION OF VELOCITIES
SCHEME FOR DIFFUSION OF K-EPSILON
SCHEME FOR DIFFUSION OF TRACERS
SCHEME FOR DIFFUSION OF VELOCITIES
SCHEME OPTION FOR ADVECTION OF K-EPSILON
SCHEME OPTION FOR ADVECTION OF TRACERS
SCHEME OPTION FOR ADVECTION OF VELOCITIES
SOLVER FOR DIFFUSION OF K-EPSILON
SOLVER FOR DIFFUSION OF TRACERS
SOLVER FOR DIFFUSION OF VELOCITIES
SOLVER FOR PPE
SOLVER FOR VERTICAL VELOCITY
SPATIAL PROJECTION TYPE
SPHERICAL COORDINATES
SUPG OPTION
TIDAL FLATS
TIDE GENERATING FORCE
TREATMENT ON TIDAL FLATS FOR K-EPSILON
TREATMENT ON TIDAL FLATS FOR TRACERS
TREATMENT ON TIDAL FLATS FOR VELOCITIES
VECTOR LENGTH
WAVE DRIVEN CURRENTS
ZERO

2.25 INPUT-OUTPUT, FILES

2D RESULT FILE
2D RESULT FILE BINARY
2D RESULT FILE FORMAT
3D RESULT FILE
3D RESULT FILE BINARY
3D RESULT FILE FORMAT
ASCII ATMOSPHERIC DATA FILE
ASCII DATABASE FOR TIDE
BINARY ATMOSPHERIC DATA FILE
BINARY ATMOSPHERIC DATA FILE FORMAT
BINARY BOUNDARY DATA FILE
BINARY BOUNDARY DATA FILE FORMAT
BINARY DATA FILE 1
BINARY DATA FILE 1 FORMAT
BINARY DATA FILE 2
BINARY DATABASE 1 FOR TIDE
BINARY DATABASE 2 FOR TIDE
BINARY RESULTS FILE
BOTTOM SURFACES DELWAQ FILE

BOTTOM TOPOGRAPHY FILE
BOUNDARY CONDITIONS FILE
COUPLING WITH
CULVERTS DATA FILE
DELWAQ STEERING FILE
DIFFUSIVITY DELWAQ FILE
DROGUES FILE
EXCHANGE AREAS DELWAQ FILE
EXCHANGES BETWEEN NODES DELWAQ FILE
FILE FOR 2D CONTINUATION
FILE FOR 2D CONTINUATION FORMAT
FORMATTED DATA FILE 1
FORMATTED DATA FILE 2
FORMATTED RESULTS FILE
FORTRAN FILE
GEOMETRY FILE
GEOMETRY FILE FORMAT
HARMONIC CONSTANTS FILE
LIQUID BOUNDARIES FILE
NAMES OF 2D PRIVATE VARIABLES
NAMES OF TRACERS
NODES DISTANCES DELWAQ FILE
OIL SPILL STEERING FILE
PREVIOUS COMPUTATION FILE
PREVIOUS COMPUTATION FILE FORMAT
PREVIOUS COMPUTATION SEDIMENTOLOGICAL FILE
REFERENCE FILE
REFERENCE FILE FORMAT
RESTART FILE
RESTART FILE FORMAT
SALINITY DELWAQ FILE
SEDIMENTOLOGICAL RESULT FILE
SEDIMENTOLOGICAL RESULT FILE BINARY
SISYPHE STEERING FILE
SOURCES FILE
STAGE-DISCHARGE CURVES FILE
STEERING FILE
TEMPERATURE DELWAQ FILE
TIDAL MODEL FILE
TOMAWAC STEERING FILE
VELOCITY DELWAQ FILE
VERTICAL FLUXES DELWAQ FILE
VOLUMES DELWAQ FILE
WAQTEL STEERING FILE

2.26 INPUT-OUTPUT, GRAPHICS AND LISTING

DIFFUSION FOR DELWAQ
GRAPHIC PRINTOUT PERIOD

INFORMATION ABOUT MASS-BALANCE FOR EACH LISTING PRINTOUT
LISTING PRINTOUT
LISTING PRINTOUT PERIOD
MASS-BALANCE
NUMBER OF DROGUES
NUMBER OF FIRST TIME STEP FOR GRAPHIC PRINTOUTS
NUMBER OF FIRST TIME STEP FOR LISTING PRINTOUTS
PRINTOUT PERIOD FOR DROGUES
SALINITY FOR DELWAQ
TEMPERATURE FOR DELWAQ
VARIABLES FOR 2D GRAPHIC PRINTOUTS
VARIABLES FOR 3D GRAPHIC PRINTOUTS
VELOCITY FOR DELWAQ

2.27 INPUT-OUTPUT, INFORMATION

COMPUTATION CONTINUED
DEFAULT EXECUTABLE
DEFAULT PARALLEL EXECUTABLE
DELWAQ PRINTOUT PERIOD
DESCRIPTION OF LIBRARIES
DICTIONARY
OIL SPILL MODEL
ORIGIN COORDINATES
RELEASE
TITLE
VALIDATION

2.28 K-EPSILON MODEL

MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF K-EPSILON
TURBULENCE REGIME FOR LATERAL SOLID BOUNDARIES
TURBULENCE REGIME FOR THE BOTTOM

2.29 NAMES

2D RESULT FILE
3D RESULT FILE
ASCII ATMOSPHERIC DATA FILE
ASCII DATABASE FOR TIDE
BINARY ATMOSPHERIC DATA FILE
BINARY BOUNDARY DATA FILE
BINARY DATA FILE 1
BINARY DATA FILE 2
BINARY DATABASE 1 FOR TIDE
BINARY DATABASE 2 FOR TIDE
BINARY RESULTS FILE

BOTTOM SURFACES DELWAQ FILE
BOTTOM TOPOGRAPHY FILE
BOUNDARY CONDITIONS FILE
COUPLING WITH
CULVERTS DATA FILE
DELWAQ STEERING FILE
DIFFUSIVITY DELWAQ FILE
DROGUES FILE
EXCHANGE AREAS DELWAQ FILE
EXCHANGES BETWEEN NODES DELWAQ FILE
FILE FOR 2D CONTINUATION
FORMATTED DATA FILE 1
FORMATTED DATA FILE 2
FORMATTED RESULTS FILE
FORTRAN FILE
GEOMETRY FILE
HARMONIC CONSTANTS FILE
LIQUID BOUNDARIES FILE
NAMES OF 2D PRIVATE VARIABLES
NAMES OF TRACERS
NODES DISTANCES DELWAQ FILE
OIL SPILL STEERING FILE
PREVIOUS COMPUTATION FILE
PREVIOUS COMPUTATION SEDIMENTOLOGICAL FILE
REFERENCE FILE
RESTART FILE
SALINITY DELWAQ FILE
SEDIMENTOLOGICAL RESULT FILE
SISYPHE STEERING FILE
SOURCES FILE
STAGE-DISCHARGE CURVES FILE
STEERING FILE
TEMPERATURE DELWAQ FILE
TIDAL MODEL FILE
TOMAWAC STEERING FILE
VELOCITY DELWAQ FILE
VERTICAL FLUXES DELWAQ FILE
VOLUMES DELWAQ FILE
WAQTEL STEERING FILE

2.30 NUMERICAL PARAMETERS

BYPASS VOID VOLUMES
COEFFICIENT TO CALIBRATE SEA LEVEL
COEFFICIENT TO CALIBRATE TIDAL RANGE
COEFFICIENT TO CALIBRATE TIDAL VELOCITIES
CONTINUITY CORRECTION ON OPEN BOUNDARIES
COUPLING PERIOD FOR SISYPHE
COUPLING PERIOD FOR TOMAWAC

DEBUGGER
DENSITY LAW
DURATION
ELEMENTS MASKED BY USER
FREE SURFACE GRADIENT COMPATIBILITY
GEOGRAPHIC SYSTEM
GLOBAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER
HYDROSTATIC INCONSISTENCY FILTER
IMPLICITATION FOR DEPTH
IMPLICITATION FOR VELOCITIES
INITIAL GUESS FOR DEPTH
INITIAL TIME SET TO ZERO
INITIAL VALUES OF TRACERS
LOCAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER
MASS-LUMPING FOR DEPTH
MASS-LUMPING FOR DIFFUSION
MASS-LUMPING FOR VELOCITIES
MATRIX STORAGE
MAXIMUM NUMBER OF ITERATIONS FOR ADVECTION SCHEMES
MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF K-EPSILON
MESH TRANSFORMATION
MINIMAL VALUE FOR DEPTH
MINOR CONSTITUENTS INFERENCE
NUMBER OF 2D PRIVATE ARRAYS
NUMBER OF CORRECTIONS OF DISTRIBUTIVE SCHEMES
NUMBER OF CULVERTS
NUMBER OF GAUSS POINTS FOR WEAK CHARACTERISTICS
NUMBER OF HORIZONTAL LEVELS
NUMBER OF PRIVATE ARRAYS
NUMBER OF SUB ITERATIONS FOR NON LINEARITIES
NUMBER OF SUB-STEPS OF DISTRIBUTIVE SCHEMES
NUMBER OF TIME STEPS
OPEN BOUNDARY CONDITIONS ON THE BED
OPTION FOR CULVERTS
OPTION FOR THE DIFFUSION
OPTION FOR TIDAL BOUNDARY CONDITIONS
ORIGINAL DATE OF TIME
ORIGINAL HOUR OF TIME
PARTITIONING TOOL
PRESCRIBED ELEVATIONS
PRESCRIBED FLOWRATES
PRESCRIBED FLOWRATES ON THE BED
PRESCRIBED VELOCITIES
RAIN OR EVAPORATION
RAIN OR EVAPORATION IN MM PER DAY
RATIO BETWEEN SKIN FRICTION AND MEAN DIAMETER
RECORD NUMBER FOR RESTART
RECORD NUMBER IN WAVE FILE
RESTART MODE

SPHERICAL COORDINATES
SUPG OPTION
THRESHOLD FOR SEDIMENT FLUX CORRECTION ON TIDAL FLATS
THRESHOLD FOR VISCOSITY CORRECTION ON TIDAL FLATS
TIDAL DATA BASE
TIDAL FLATS
TIDE GENERATING FORCE
TIME STEP
TREATMENT OF NEGATIVE DEPTHS
VALUES OF TRACERS IN THE RAIN
VECTOR LENGTH
VELOCITY PROJECTED ON BOTTOM
VELOCITY PROJECTED ON SOLID LATERAL BOUNDARIES
VERTICAL VELOCITY DERIVATIVES
WAVE DRIVEN CURRENTS
ZERO
ZONE NUMBER IN GEOGRAPHIC SYSTEM

2.31 NUMERICS VALUES

COEFFICIENT OF WIND INFLUENCE
THRESHOLD DEPTH FOR WIND
WIND VELOCITY ALONG X
WIND VELOCITY ALONG Y

2.32 PARAMETER FOR BED MATERIAL

MEAN DIAMETER OF THE SEDIMENT

2.33 PHYSICAL CONSTANTS

AVERAGE WATER DENSITY
BETA EXPANSION COEFFICIENT FOR TRACERS
CORIOLIS COEFFICIENT
GRAVITY ACCELERATION

2.34 PHYSICAL PARAMETERS

MASS-LUMPING FOR WEAK CHARACTERISTICS
OPTION FOR CHARACTERISTICS
SHIELDS PARAMETER
VALUE OF ATMOSPHERIC PRESSURE

2.35 PHYSICS

NON COHESIVE BED POROSITY
READ CRITICAL BED SHEAR STRESS PER LAYER

2.36 PROPAGATION

ACCURACY FOR PROPAGATION
LINEARIZED PROPAGATION
MAXIMUM NUMBER OF ITERATIONS FOR PROPAGATION
PRECONDITIONING FOR PROPAGATION
SOLVER FOR PROPAGATION

2.37 SEDIMENT

ADVECTION-DIFFUSION SCHEME WITH SETTLING VELOCITY
BED LAYERS THICKNESS
COEFFICIENT RELATIVE TO FLOC DESTRUCTION
COHESIVE SEDIMENT
CONSOLIDATION
CONSTANT SEDIMENT SETTLING VELOCITY
CRITICAL SHEAR STRESS FOR DEPOSITION
DENSITY OF THE SEDIMENT
EROSION COEFFICIENT
FLOCCULATION
FLOCCULATION COEFFICIENT
FLOCCULATION FORMULA
HINDERED SETTLING
HINDERED SETTLING FORMULA
INITIAL PERCENTAGE OF NON COHESIVE SEDIMENT
MAXIMUM CONCENTRATION OF THE CONSOLIDATED MUD
MIXED SEDIMENT
PRECONDITIONING FOR DIFFUSION OF THE SEDIMENT
RESIDENCE TIME FOR MUD
SEDIMENT
SETTLING VELOCITY OF SANDS
SOLVER FOR DIFFUSION OF THE SEDIMENT
THRESHOLD CONCENTRATION FOR HINDERED SETTLING
TIME STEP FOR CONSOLIDATION
WEAK SOIL CONCENTRATION FOR MUD

2.38 SEDIMENT TRANSPORT

SHIELDS PARAMETER

2.39 SMOOTHINGS

NUMBER OF BOTTOM SMOOTHINGS

2.40 SOURCES

ABSCISSAE OF SOURCES
ELEVATIONS OF SOURCES
ORDINATES OF SOURCES
PRESCRIBED TRACERS VALUES
VALUE OF THE TRACERS AT THE SOURCES
VELOCITIES OF THE SOURCES ALONG X
VELOCITIES OF THE SOURCES ALONG Y
VELOCITIES OF THE SOURCES ALONG Z
WATER DISCHARGE OF SOURCES

2.41 SUSPENSION

REFERENCE CONCENTRATION FORMULA

2.42 TRACER

MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF SEDIMENT
MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF TRACERS
WATER QUALITY PROCESS

2.43 TURBULENCE

FICTITIOUS BED LEVEL
KARMAN CONSTANT
PRANDTL NUMBER

2.44 TURBULENCE MODEL

ACCURACY FOR DIFFUSION OF K-EPSILON
ACCURACY FOR DIFFUSION OF SEDIMENT
ACCURACY FOR DIFFUSION OF TRACERS
ACCURACY FOR DIFFUSION OF VELOCITIES
ACCURACY FOR PPE
COEFFICIENT FOR HORIZONTAL DIFFUSION OF TRACERS
COEFFICIENT FOR HORIZONTAL DIFFUSION OF VELOCITIES
COEFFICIENT FOR VERTICAL DIFFUSION OF TRACERS
COEFFICIENT FOR VERTICAL DIFFUSION OF VELOCITIES
HORIZONTAL TURBULENCE MODEL
MIXING LENGTH MODEL
OPTION FOR THE BOUNDARY CONDITIONS OF K-EPSILON

TURBULENCE REGIME FOR LATERAL SOLID BOUNDARIES
TURBULENCE REGIME FOR THE BOTTOM
VERTICAL TURBULENCE MODEL

2.45 TYPE OF BINARY

2D RESULT FILE BINARY
3D RESULT FILE BINARY
SEDIMENTOLOGICAL RESULT FILE BINARY

2.46 VELOCITY-CELERITY-DEPTH

IMPLICITATION FOR DEPTH
IMPLICITATION FOR VELOCITIES
INITIAL GUESS FOR DEPTH
MASS-LUMPING FOR DEPTH
MASS-LUMPING FOR VELOCITIES
MINIMAL VALUE FOR DEPTH

2.47 WIND

COEFFICIENT OF WIND INFLUENCE
THRESHOLD DEPTH FOR WIND
WIND
WIND VELOCITY ALONG X
WIND VELOCITY ALONG Y

3. Glossary

3.1 English/French glossary

2D CONTINUATION	SUITE 2D
2D RESULT FILE	FICHIER DES RESULTATS 2D
2D RESULT FILE BINARY	BINAIRE DU FICHIER DES RESULTATS 2D
2D RESULT FILE FORMAT	FORMAT DU FICHIER DES RESULTATS 2D
3D RESULT FILE	FICHIER DES RESULTATS 3D
3D RESULT FILE BINARY	BINAIRE DU FICHIER DES RESULTATS 3D
3D RESULT FILE FORMAT	FORMAT DU FICHIER 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
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 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
DIFFUSION STEP	ETAPE DE DIFFUSION
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	FLOCULATION
FLOCCULATION COEFFICIENT	COEFFICIENT TRADUISANT LA FORMATION DES FLOCS
FLOCCULATION FORMULA	FORMULE POUR FLOCULATION
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
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
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 DIFFUSION	OPTION POUR LA DIFFUSION
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
PROPAGATION STEP	ETAPE DE PROPAGATION
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
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	FICHIER DES PARAMETRES
SUPG OPTION	OPTION DE SUPG
TEMPERATURE DELWAQ FILE	FICHIER 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	FICHIER 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	FICHIER 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
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 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
DICTIONNAIRE	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
ETAPE DE DIFFUSION	DIFFUSION STEP
ETAPE DE PROPAGATION	PROPAGATION STEP
EXECUTABLE PAR DEFAUT	DEFAULT EXECUTABLE
EXECUTABLE PARALLELE PAR DEFAUT	DEFAULT PARALLEL EXECUTABLE
FICHIER ASCII DE DONNEES ATMOSPHERIQUES	ASCII ATMOSPHERIC DATA FILE
FICHIER BINAIRE DE DONNEES ATMOSPHERIQUES	BINARY ATMOSPHERIC DATA FILE
FICHIER BINAIRE DE DONNEES DE FRONTIERE	BINARY BOUNDARY DATA FILE
FICHIER DE COMMANDE DELWAQ	DELWAQ STEERING FILE
FICHIER DE COMMANDES HYDROCARBURES	OIL SPILL STEERING FILE
FICHIER DE DONNEES BINAIRE 1	BINARY DATA FILE 1
FICHIER 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

FICHIER POUR SUITE 2D	FILE FOR 2D CONTINUATION
FICHIER 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 FICHIER BINAIRE DE DONNEES ATMOSPHERIQUES	BINARY ATMOSPHERIC DATA FILE FORMAT
FORMAT DU FICHIER BINAIRE DE DONNEES DE FRONTIERE	BINARY BOUNDARY DATA FILE FORMAT
FORMAT DU FICHIER DE DONNEES BINAIRE 1	BINARY DATA FILE 1 FORMAT
FORMAT DU FICHIER DE GEOMETRIE	GEOMETRY FILE FORMAT
FORMAT DU FICHIER DE REFERENCE	REFERENCE FILE FORMAT
FORMAT DU FICHIER 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
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 LA DIFFUSION	OPTION FOR THE DIFFUSION
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
PRESSION ATMOSPHERIQUE	AIR PRESSURE
PRESSION 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

- [1] JOLY A., GOEURY C., and HERVOUET J.-M. Adding a particle transport module to telemac-2d with applications to algae blooms and oil spills. Technical Report H-P74-2013-02317-EN, EDF R&D-LNHE, 2013.
- [2] AUTHOR. Title. *Journal de Mickey*, 666.
- [3] PHAM C.-T., BOURBAN S., DURAND N., and TURNBULL M. Méthodologie pour la simulation de la marée avec la version 6.2 de telemac-2d et telemac-3d. Technical Report H-P74-2012-02534-FR, EDF R&D-LNHE, 2012.
- [4] Sampath Kumar Gurram, Karam S. Karki, and Willi H. Hager. Subcritical junction flow. *Journal of Hydraulic Engineering*, 123(5):447–455, may 1997.
- [5] TSANIS I. Simulation of wind-induced water currents. *Journal of hydraulic Engineering*, 115(8):1113–1134, 1989.
- [6] SMAGORINSKY J. General simulation experiments with the primitive equations. *Monthly Weather Review*, 91(3):99–164, March 1963.
- [7] HERVOUET J.-M. *Méthodes itératives pour la solution des systèmes matriciels*. Rapport EDF HE43/93.049/A, 1996.
- [8] HERVOUET J.-M. *Hydrodynamics of Free Surface Flows. Modelling with the finite element method*. Wiley, 2007.
- [9] HERVOUET J.-M. Guide to programming in the telemac system version 6.0. Technical Report H-P74-2009-00801-EN, EDF R&D-LNHE, 2009.
- [10] JANIN J.-M., HERVOUET J.-M., and MOULIN C. *A positive conservative scheme for scalar advection using the M.U.R.D technique in 3D free-surface flow problems*. XIth International Conference on Computational methods in water resources, 1996.
- [11] GAUTHIER M. and QUETIN B. Modèles mathématiques de calcul des écoulements induits par le vent. In *17e congrès de l’AIRH*, Baden-Baden, August 1977.
- [12] METCALF M. and REID J. *Fortran 90 explained*. Oxford Science Publications, 1990.