

TELEMAC-2D

Reference Manual

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1. Detail list of keywords

1.1 ABSCISSAE OF SOURCES

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

Abscissae of sources of flowrate and/or tracer. The source will be located at the nearest node in the mesh.

1.2 ACCURACY FOR DIFFUSION OF TRACERS

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

Sets the required accuracy for computing the tracer diffusion.

1.3 ACCURACY OF EPSILON

Type : Real
Dimension : 1
Mnemo SLVEP%EPS
DEFAULT VALUE : 1.E-9
French keyword : PRECISION SUR EPSILON

Sets the required accuracy for computing ε in the diffusion and source terms step of the ε transport equation.

1.4 ACCURACY OF K

Type : Real
Dimension : 1
Mnemo SLVK%EPS
DEFAULT VALUE : 1.E-9
French keyword : PRECISION SUR K

Sets the required accuracy for computing k in the diffusion and source terms step of the k transport equation.

1.5 ACCURACY OF SPALART-ALLMARAS

Type : Real
 Dimension : 1
 Mnemo SLVNU%EPS
 DEFAULT VALUE : 1.E-9
 French keyword : PRECISION SUR SPALART-ALLMARAS

Sets the required accuracy for the Spalart-Allmaras model in the diffusion and source terms step of the $\tilde{\nu}$.

1.6 AD LINEAR SOLVER DERIVATIVE CONVERGENCE

Type : Logical
 Dimension : 1
 Mnemo AD_LINSOLV_DERIVATIVE_CONVERGENCE
 DEFAULT VALUE : YES
 French keyword : AD CONVERGENCE DES DERIVEES POUR LE SOLVEUR LINEAIRE

Iterative linear solvers: derivative convergence test for AD.

1.7 AD LINEAR SOLVER RESET DERIVATIVES

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

Resets the derivatives for AD.

1.8 AD NAMES OF DERIVATIVES

Type : String
 Dimension : 2
 Mnemo NAMES_ADVAR
 DEFAULT VALUE : 'MANDATORY'
 French keyword : AD NOMS DES DERIVEES

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

1.9 AD NUMBER OF DERIVATIVES

Type : Integer
 Dimension : 1
 Mnemo NADVAR
 DEFAULT VALUE : 0
 French keyword : AD NOMBRE DE DERIVEES

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

1.10 AD SYMBOLIC LINEAR SOLVER

Type : Logical
 Dimension : 1
 Mnemo AD_SYMBLINSOLV
 DEFAULT VALUE : NO
 French keyword : AD SOLVEUR LINEAIRE SYMBOLIQUE
 Enables the symbolic linear solver for AD.

1.11 ADVECTION

Type : Logical
 Dimension : 1
 Mnemo CONV
 DEFAULT VALUE : YES
 French keyword : CONVECTION
 Are the advection terms taken into account or not? If YES, some advection terms can still be deleted using the keywords ADVECTION OF...

1.12 ADVECTION OF H

Type : Logical
 Dimension : 1
 Mnemo CONVV(2)
 DEFAULT VALUE : YES
 French keyword : CONVECTION DE H
 The advection of H is taken into account or ignored.

1.13 ADVECTION OF K AND EPSILON

Type : Logical
 Dimension : 1
 Mnemo CONVV(4)
 DEFAULT VALUE : YES
 French keyword : CONVECTION DE K ET EPSILON
 The k and ε advection is taken into account or ignored (for $k - \varepsilon$ model) or \tilde{v} advection (for Spalart-Allmaras model).

1.14 ADVECTION OF TRACERS

Type : Logical
 Dimension : 1
 Mnemo CONVV(3)
 DEFAULT VALUE : YES
 French keyword : CONVECTION DES TRACEURS
 The advection of the passive tracer is taken into account or ignored.

1.15 ADVECTION OF U AND V

Type : Logical
 Dimension : 1
 Mnemo CONV(1)
 DEFAULT VALUE : YES
 French keyword : CONVECTION DE U ET V
 The advection of U and V is taken into account or ignored.

1.16 AIR PRESSURE

Type : Logical
 Dimension : 1
 Mnemo ATMOS
 DEFAULT VALUE : NO
 French keyword : PRESSION ATMOSPHERIQUE
 Provided to decide whether the influence of an atmosphere pressure field is taken into account or not.

1.17 AIR TEMPERATURE

Type : Real
 Dimension : 1
 Mnemo CST_TAIR
 DEFAULT VALUE : 20.
 French keyword : TEMPERATURE DE L'AIR
 Gives the value of air temperature when it is constant in time and space. In °C.

1.18 ALGAE RELEASE TYPE

Type : Integer
 Dimension : 2
 Mnemo REL_ALGAE
 DEFAULT VALUE : 1;1
 French keyword : TYPE DE RELACHE DES ALGUES
 Possible values are:

- 1: TIMED : Algae move after a specified time has elapsed,
- 2: DISLODGEEMENT: Algae move after a critical wave orbital velocity is exceeded.

1.19 ALGAE TRANSPORT MODEL

Type : Logical
 Dimension : 1
 Mnemo ALGAE
 DEFAULT VALUE : NO
 French keyword : MODELE DE TRANSPORT DES ALGUES
 If YES, some or all the floats or particles will be algae.

1.20 ALGAE TYPE

Type : Integer
 Dimension : 2
 Mnemo YALGAE
 DEFAULT VALUE : 1;1
 French keyword : TYPE DES ALGUES
 Algae type. Possible choices are:

- 1: Sphere,
- 2: Iridaeca Flaccida,
- 3: Pelvetiopsis Limitata,
- 4: Gigartina Leptorhynchos.

For choice 1 the algae particles will be modeled as spheres, and for the other choices see Gaylord et al. (1994).

1.21 ANTECEDENT MOISTURE CONDITIONS

Type : Integer
 Dimension : 1
 Mnemo AMC
 DEFAULT VALUE : 2
 French keyword : CONDITIONS D'HUMIDITE PRECEDENTE

Gives the antecedent moisture conditions before a rainfall event for the SCS CN and Horton runoff models. Available options are:

- 1: dry antecedent conditions,
- 2: normal antecedent conditions,
- 3: wet antecedent conditions.

This keyword is only usefull for runoff model 1 (SCS CN model) or 2 (Horton).

1.22 ASCII ATMOSPHERIC DATA FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2ATMA)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER ASCII DE DONNEES ATMOSPHERIQUES
 ASCII data file containing the atmospheric data varying in time.

1.23 ASCII DATABASE FOR TIDE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DBDD)
 DEFAULT VALUE : "
 French keyword : BASE ASCII DE DONNEES DE MAREE
 Tide data base of harmonic constituents extracted from the TIDAL MODEL FILE. Old name in release 6.1: TIDE DATA BASE.

1.24 ASCII DROGUES FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DFLO)%NAME
 DEFAULT VALUE : ”
 French keyword : FICHIER ASCII DES FLOTTEURS
 ASCII results file with positions of drogues.

1.25 ATMOSPHERIC PRESSURE AT TIDAL BOUNDARIES

Type : Logical
 Dimension : 1
 Mnemo PRESSBC
 DEFAULT VALUE : NO
 French keyword : PRESSION ATMOSPHERIQUE AUX FRONTIERES A MAREE
 Take in account atmospheric pressure at tidal boundary conditions. Inverted barometer method used to compute the shift.

1.26 BINARY ATMOSPHERIC DATA FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2ATMB)%NAME
 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.

1.27 BINARY ATMOSPHERIC DATA FILE FORMAT

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2ATMB)%FMT
 DEFAULT VALUE : 'SERAFIN'
 French keyword : FORMAT DU FICHIER BINAIRE DE DONNEES ATMOSPHERIQUES
 Format of the BINARY ATMOSPHERIC DATA FILE. Possible values are:

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

1.28 BINARY DATA FILE 1

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DBI1)%NAME
 DEFAULT VALUE : ”
 French keyword : FICHIER DE DONNEES BINAIRE 1
 Binary-coded data file available to the user.

1.29 BINARY DATA FILE 1 FORMAT

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DBI1)%FMT
 DEFAULT VALUE : 'BIN'
 French keyword : FORMAT DU FICHIER DE DONNEES BINAIRE 1
 Format of the BINARY DATA FILE 1. Possible values are:

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

1.30 BINARY DATA FILE 2

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DBI2)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DE DONNEES BINAIRE 2
 Binary-coded data file available to the user.

1.31 BINARY DATA FILE 2 FORMAT

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DBI2)%FMT
 DEFAULT VALUE : 'BIN'
 French keyword : FORMAT DU FICHIER DE DONNEES BINAIRE 2
 Format of the BINARY DATA FILE 2. Possible values are:

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

1.32 BINARY DATABASE 1 FOR TIDE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DBB1)
 DEFAULT VALUE : "
 French keyword : BASE BINAIRE 1 DE DONNEES DE MAREE
 Binary database 1 of harmonic constants. In the case of the TPXO satellite altimetry model, this file should be for free surface level, for instance h_tpxo7.2

1.33 BINARY DATABASE 2 FOR TIDE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DBB2)
 DEFAULT VALUE : "
 French keyword : BASE BINAIRE 2 DE DONNEES DE MAREE

Binary database 2 of harmonic constants. In the case of the TPXO satellite altimetry model, this file should be for tidal velocities, for instance u_tpxo7.2

1.34 BINARY DROGUES FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DBLO)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER BINAIRE DES FLOTTEURS

Binary results file with positions of drogues.

1.35 BINARY RESULTS FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DRBI)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DE RESULTATS BINAIRE

Additional binary-coded result file available to the user.

1.36 BINARY RESULTS FILE FORMAT

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DRBI)%NAME
 DEFAULT VALUE : 'BIN'
 French keyword : FORMAT DU FICHER DE RESULTATS BINAIRE

Format of the BINARY RESULTS FILE. Possible values are:

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

1.37 BINGHAM OPTION

Type : Integer
 Dimension : 1
 Mnemo OPTBGHM
 DEFAULT VALUE : 1
 French keyword : OPTION DU MODELE DE BINGHAM

Bingham model option:

- 1: Papanastasiou (1987) exponential regularization,
- 2: Effective viscosity with cross formulation (Shao & Lo 2003),
- 3: Rickenmann (1990) Cubic equation.

1.38 BOTTOM SMOOTHINGS

Type : Integer
 Dimension : 1
 Mnemo LISFON
 DEFAULT VALUE : 0
 French keyword : 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.

1.39 BOTTOM SMOOTHINGS AFTER USER MODIFICATIONS

Type : Logical
 Dimension : 1
 Mnemo LISFON_AFTER
 DEFAULT VALUE : YES
 French keyword : LISSAGES DU FOND APRES MODIFICATIONS UTILISATEUR

Indicates if the number of potential smoothings on bottom topography is done after (or before otherwise) the topography modifications implemented by the user.

1.40 BOTTOM SURFACES DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DDL5)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DELWAQ DES SURFACES DU FOND

Results file for chaining with DELWAQ.

1.41 BOTTOM TOPOGRAPHY FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DFON)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DES FONDS

Name of the possible file containing the bathymetric data. Where this keyword is used, these bathymetric data shall be used in the computation.

1.42 BOUNDARY CONDITIONS FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DCLI)%NAME
 DEFAULT VALUE : 'MANDATORY'
 French keyword : FICHER DES CONDITIONS AUX LIMITES

Name of the file containing the types of boundary conditions. This file is filled automatically by the mesh generator through through colours that are assigned to the boundary nodes.

1.43 BREACH

Type : Logical
 Dimension : 1
 Mnemo BRECHE
 DEFAULT VALUE : NO
 French keyword : BRECHE

Take in account some breaches during the computation by modifying the bottom level of the mesh. Breach description is done with the BREACHES DATA FILE.

1.44 BREACHES DATA FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DBRC)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DE DONNEES DES BRECHES

Description of breaches.

1.45 C-U PRECONDITIONING

Type : Logical
 Dimension : 1
 Mnemo PRECCU
 DEFAULT VALUE : YES
 French keyword : PRECONDITIONNEMENT C-U

Change of variable from H to C in the final linear system. This option is deactivated with wave equation i.e. TREATMENT OF THE LINEAR SYSTEM = 2.

1.46 CHECKING THE MESH

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

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

1.47 CLOUD COVER

Type : Real
 Dimension : 1
 Mnemo CST_CLDC
 DEFAULT VALUE : 5.
 French keyword : NEBULOSITE

Gives the value of cloud cover when it is constant in time and space. In octas for WAQTEL or tenths for KHIONE.

1.48 COEFFICIENT FOR DIFFUSION OF TRACERS

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

French keyword : COEFFICIENT DE DIFFUSION DES TRACEURS

Sets the value of the tracer diffusivity. These values may have a significant effect on the evolution of tracers in time. Since release 8.2, it has been an array, with one value per tracer, separated by semicolons.

1.49 COEFFICIENT FOR SOFT BOUNDARIES

Type : Real
 Dimension : 2
 Mnemo COEF_SOFT
 DEFAULT VALUE : MANDATORY

French keyword : COEFFICIENT POUR LES FRONTIERES DOUCES

Values of the coefficients for each soft boundary.

1.50 COEFFICIENT OF WIND INFLUENCE

Type : Real
 Dimension : 1
 Mnemo FAIR
 DEFAULT VALUE : 1.55E-6

French keyword : COEFFICIENT D'INFLUENCE DU VENT

Sets the value of the wind driving coefficient. See the User Manual or the principle note for the value to give.

1.51 COEFFICIENT OF WIND INFLUENCE VARYING WITH WIND SPEED

Type : Logical
 Dimension : 1
 Mnemo FAIRACCU
 DEFAULT VALUE : YES

French keyword : COEFFICIENT D'INFLUENCE DU VENT DEPENDANT DE LA VITESSE DU VENT

If YES, the value of the wind driving coefficient is computed with respect to the wind velocity.

The value of COEFFICIENT OF WIND INFLUENCE is overwritten. Old default value = NO until V8P1.

1.52 COEFFICIENT TO CALIBRATE SEA LEVEL

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

French keyword : COEFFICIENT DE CALAGE DU NIVEAU DE MER

Coefficient to calibrate the sea level. It may depend on the altimetric reference used in the model, for example Chart Datum, Mean Sea Level...

1.53 COEFFICIENT TO CALIBRATE TIDAL RANGE

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

French keyword : COEFFICIENT DE CALAGE DU MARNAGE

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

1.54 COEFFICIENT TO CALIBRATE TIDAL VELOCITIES

Type : Real
 Dimension : 1
 Mnemo CTIDEV
 DEFAULT VALUE : 999999.

French keyword : COEFFICIENT DE CALAGE DES VITESSES DE COURANT

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

Default value 999,999. means that the square root of COEFFICIENT TO CALIBRATE TIDAL RANGE is taken.

1.55 COMPATIBLE COMPUTATION OF FLUXES

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

French keyword : CALCUL COMPATIBLE DES FLUX

Flowrates through control sections, computation compatible with the weak formulation of no-flux boundary condition.

1.56 COMPUTATION CONTINUED

Type : Logical
 Dimension : 1
 Mnemo .NOT.DEBU
 DEFAULT VALUE : NO

French keyword : SUITE DE CALCUL

Determines whether the computation under way is independent result 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 **BORD** or values defined in the steering file).

1.57 CONCATENATE PARTEL OUTPUT

Type : Logical
 Dimension : 1
 Mnemo CONCAT_PARTEL
 DEFAULT VALUE : NO
 French keyword : CONCATENATION SORTIE PARTEL

With this option parTEL no more generates a file (GEO/CLI/PAR) per process but a single concatenate file of them, associated to an index file. Then instead of having parTEL generating 3P files, it only generates 6 files.

1.58 CONTINUITY CORRECTION

Type : Logical
 Dimension : 1
 Mnemo CORCON
 DEFAULT VALUE : NO
 French keyword : CORRECTION DE CONTINUITE

Correction of the velocities on points with a prescribed elevation, where the continuity equation has not been solved. It has to be activated with tidal flats and TREATMENT OF NEGATIVE DEPTHS = 2 or 3.

1.59 CONTROL OF LIMITS

Type : Logical
 Dimension : 1
 Mnemo VERLIM
 DEFAULT VALUE : NO
 French keyword : CONTROLE DES LIMITES

Use with the key-word: LIMIT VALUES. The program is stopped if the limits on U , V , H or tracers are trepassed.

1.60 CONTROL SECTIONS

Type : Integer
 Dimension : 2
 Mnemo CTRLSC
 DEFAULT VALUE : MANDATORY
 French keyword : SECTIONS DE CONTROLE

Couples of points (global numbers in the mesh) defining sections where the instantaneous and cumulated discharges will be given.

1.61 CONVERGENCE STUDY

Type : Logical
 Dimension : 1
 Mnemo CONVERGENCE
 DEFAULT VALUE : NO
 French keyword : ETUDE DE CONVERGENCE

Activates a convergence study compared to an analytical solution on a fine mesh.

1.62 CORIOLIS

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

The Coriolis force is taken into account or ignored.

1.63 CORIOLIS COEFFICIENT

Type : Real
 Dimension : 1
 Mnemo FCOR
 DEFAULT VALUE : 0.
 French keyword : COEFFICIENT DE CORIOLIS

Sets the value of the Coriolis force coefficient, in cartesian coordinates. This coefficient, denoted **FCOR** in the code, should be equal to $2\omega \sin(l)$ where ω denotes the earth angular speed of rotation and l the latitude. $\omega = 7.2921 \cdot 10^{-5}$ rad/s.

The Coriolis force components are then:

$$FU = FCOR \times V,$$

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

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

1.64 COST FUNCTION

Type : Integer
 Dimension : 1
 Mnemo OPTCOST
 DEFAULT VALUE : 1
 French keyword : FONCTION COUT

Possible choices:

- computed with h, u, v ,
- computed with c, u, v .

1.65 COUPLING PERIOD FOR TOMAWAC

Type : Integer
 Dimension : 1
 Mnemo PERCOU_WAC
 DEFAULT VALUE : 1
 French keyword : PERIODE DE COUPLAGE POUR TOMAWAC

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

1.66 COUPLING WITH

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

List of codes to be coupled with TELEMAC-2D:

- TOMAWAC: internal coupling with TOMAWAC,
- TOMAWAC2: internal coupling with TOMAWAC, meshes and domains can be different,
- WAQTEL: internal coupling with WAQTEL,
- KHIONE: internal coupling with KHIONE,
- DELWAQ: will yield results file for DELWAQ,
- GAIA: internal coupling with GAIA.

1.67 CULVERTS DATA FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DBUS)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DE DONNEES DES BUSES
 Description of culverts/tubes/bridges existing in the model.

1.68 DEBUGGER

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

1.69 DEFINITION OF ZONES

Type : Logical
 Dimension : 1
 Mnemo DEFZON
 DEFAULT VALUE : NO
 French keyword : DEFINITION DE ZONES
 Triggers the call to **USER_DEF_ZONES** subroutine to give a zone number to every point.

1.70 DELWAQ PRINTOUT PERIOD

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

1.71 DELWAQ STEERING FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DL11)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DE COMMANDE DELWAQ
 Steering file for chaining with DELWAQ.

1.72 DENSITY EFFECTS

Type : Logical
 Dimension : 1
 Mnemo ROVAR
 DEFAULT VALUE : NO
 French keyword : EFFETS DE DENSITE
 The horizontal gradient of density is taken into account. The 1st tracer is then the salinity.
 $\rho_{\text{water}} = 999.972 \cdot (1 - 7 \cdot 10^{-6} (T_{\text{mean}} - 4)^2)$.

1.73 DENSITY OF ALGAE

Type : Real
 Dimension : 2
 Mnemo RALGAE
 DEFAULT VALUE : 1050.;1050.
 French keyword : MASSE VOLUMIQUE DES ALGUES
 Density of algae in kg/m³.

1.74 DEPTH IN FRICTION TERMS

Type : Integer
 Dimension : 1
 Mnemo HFROT
 DEFAULT VALUE : 1
 French keyword : HAUTEUR DANS LES TERMES DE FROTTEMENT
 Possible choices:

- 1: nodal,
- 2: average.

1.75 DESIRED COURANT NUMBER

Type : Real
 Dimension : 1
 Mnemo CFLWTD
 DEFAULT VALUE : 1.
 French keyword : NOMBRE DE COURANT SOUHAITE
 Desired Courant number when VARIABLE TIME-STEP is set to YES.

1.76 DESIRED FOURIER NUMBER

Type : Real
 Dimension : 1
 Mnemo FWTD
 DEFAULT VALUE : 1.
 French keyword : NOMBRE DE FOURIER SOUHAITE
 Desired Fourier number when VARIABLE TIME-STEP is set to YES.

1.77 DIAMETER OF ALGAE

Type : Real
 Dimension : 2
 Mnemo DALGAE
 DEFAULT VALUE : 0.1;0.1
 French keyword : DIAMETRE DES ALGUES
 Diameter of algae in m.

1.78 DICTIONARY

Type : String
 Dimension : 1
 Mnemo
 DEFAULT VALUE : 'telemac2d.dico'
 French keyword : DICTIONNAIRE
 Key word dictionary.

1.79 DIFFUSION OF TRACERS

Type : Logical
 Dimension : 1
 Mnemo DIFT
 DEFAULT VALUE : YES
 French keyword : DIFFUSION DES TRACEURS
 The diffusion of the passive tracer is taken into account or ignored.

1.80 DIFFUSION OF VELOCITY

Type : Logical
 Dimension : 1
 Mnemo DIFVIT
 DEFAULT VALUE : YES
 French keyword : DIFFUSION DES VITESSES
 Makes it possible to decide whether the diffusion of velocity (i.e. viscosity) is taken into account or not.

1.81 DIFFUSIVITY DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DL10)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DELWAQ DE LA DIFFUSION

Results file for chaining with DELWAQ.

1.82 DIFFUSIVITY FOR DELWAQ

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

1.83 DISCRETIZATIONS IN SPACE

Type : Integer
 Dimension : 5
 Mnemo DISCRE
 DEFAULT VALUE : 11;11;11;11;11
 French keyword : DISCRETISATIONS EN ESPACE
 Choice of space discretisation for every variable. These coefficients are respectively applied to:

- 1) U and V ,
- 2) H ,
- 3) T ,
- 4) k and ε ($k - \varepsilon$ model),
- 5) $\tilde{\nu}$ (Spalart-Allmaras model).

Possible choices are:

- 11: linear,
- 12: quasi-bubble,
- 13: quadratic.

Quadratic elements (13) have not been implemented for wave equation (TREATMENT OF THE LINEAR SYSTEM = 2).

1.84 DISSIPATION COEFFICIENT FOR SECONDARY CURRENTS

Type : Real
 Dimension : 1
 Mnemo SEC_DS
 DEFAULT VALUE : 5.E-1
 French keyword : COEFFICIENT DE DISSIPATION POUR COURANTS SECONDAIRES
 Coefficient of dissipation term of Ω .

1.85 DROGUES FILE FORMAT

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DBLO)%FMT
 DEFAULT VALUE : 'TECPLOT'
 French keyword : FORMAT DU FICHIER DES FLOTTEURS
 Format of the BINARY DROGUES FILE. Possible choices are:

- BKBINPCL: format binary PCL native to BlueKenue,
- TECPLOT: format Tecplot original (ASCII).

1.86 DROGUES INITIAL POSITIONING DATA FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DPLY)%NAME
 DEFAULT VALUE : ''
 French keyword : FICHIER POSITIONNANT LES DROGUES INITIALES
 ASCII data file containing polygons or points defining the initial positioning of drogues at the start of the simulation.

1.87 DURATION

Type : Real
 Dimension : 1
 Mnemo DUREE
 DEFAULT VALUE : 0.
 French keyword : DUREE DU CALCUL
 Sets the duration of 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.

1.88 DURATION BEFORE ALGAE RELEASE

Type : Real
 Dimension : 2
 Mnemo TALGAE
 DEFAULT VALUE : 0.0;0.0
 French keyword : DUREE AVANT RELACHE DES ALGUES
 Duration in seconds before the release of the algae from the start of the simulation.

1.89 DURATION OF RAIN OR EVAPORATION IN HOURS

Type : Real
 Dimension : 1
 Mnemo RAIN_HDUR
 DEFAULT VALUE : 1.E6
 French keyword : DUREE DE LA PLUIE OU EVAPORATION EN HEURES
 Gives the duration of the rain in hours, default value is infinite.

1.90 ELEMENTS MASKED BY USER

Type : Logical
 Dimension : 1
 Mnemo MSKUSE
 DEFAULT VALUE : NO
 French keyword : ELEMENTS MASQUES PAR L'UTILISATEUR
 If YES, fill in the subroutine **USER_MASKOB**.

1.91 EQUATIONS

Type : String
 Dimension : 1
 Mnemo EQUA
 DEFAULT VALUE : 'SAINT-VENANT FE'
 French keyword : EQUATIONS
 Choice of equations to solve:

- Shallow Water Finite Elements,
- Shallow Water Finite Volumes,
- Boussinesq 20 Characters.

1.92 EXCHANGE AREAS DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DDL2)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DELWAQ DES SURFACES DE FLUX
 Results file for chaining with DELWAQ.

1.93 EXCHANGES BETWEEN NODES DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DDL6)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DELWAQ DES ECHANGES ENTRE NOEUDS
 Results file for chaining with DELWAQ.

1.94 FINITE ELEMENT ASSEMBLY

Type : Integer
 Dimension : 1
 Mnemo MODASS
 DEFAULT VALUE : 1
 French keyword : ASSEMBLAGE EN ELEMENTS FINIS
 Possible choices are:

- 1: normal,
- 2: with I8 integers,
- 3: compensation (for reproducibility).

1.95 FINITE VOLUME SCHEME

Type : Integer
 Dimension : 1
 Mnemo OPTVF
 DEFAULT VALUE : 1
 French keyword : SCHEMA EN VOLUMES FINIS
 Possible choices:

- 0: Roe scheme,
- 1: kinetic,
- 3: Zokagoa scheme,
- 4: Tchamen scheme,
- 5: HLLC,
- 6: WAF.

1.96 FINITE VOLUME SCHEME FOR TRACER DIFFUSION

Type : Integer
 Dimension : 2
 Mnemo MVIST
 DEFAULT VALUE : 1;1
 French keyword : SCHEMA VOLUMES FINIS POUR LA DIFFUSION DES TRACEURS
 Choice of the finite volume diffusion model:

- 1: explicit P1 finite element ;
- 2: two points flux ;
- 3: reconstructed two points flux.

1.97 FINITE VOLUME SCHEME FOR VELOCITY DIFFUSION

Type : Integer
 Dimension : 1
 Mnemo MVISUV
 DEFAULT VALUE : 1
 French keyword : SCHEMA VOLUMES FINIS POUR LA DIFFUSION DES VITESSES
 Choice of the finite volume diffusion model:

- 1: explicit P1 finite element ;
- 2: two points flux ;
- 3: reconstructed two points flux.

1.98 FINITE VOLUME SCHEME SPACE ORDER

Type : Integer
 Dimension : 1
 Mnemo SORDER
 DEFAULT VALUE : 1
 French keyword : ORDRE EN ESPACE DU SCHEMA VOLUME FINIS

Possible choices:

- 1: first order in space,
- 2: second order in space.

1.99 FINITE VOLUME SCHEME TIME ORDER

Type : Integer
 Dimension : 1
 Mnemo TORDER
 DEFAULT VALUE : 1
 French keyword : ORDRE EN TEMPS DU SCHEMA VOLUME FINIS

Possible choices:

- 1: first order in time,
- 2: second order in time.

1.100 FLUX LIMITOR FOR H PLUS Z

Type : Integer
 Dimension : 1
 Mnemo ILIMHZ
 DEFAULT VALUE : 1
 French keyword : LIMITEUR DE FLUX POUR H PLUS Z

Possible choices:

- 1 : Minmod,
- 2 : Van Albada,
- 3 : MC (Monotonized Central-difference),
- 4 : GenMinmod.

1.101 FLUX LIMITOR FOR TRACERS

Type : Integer
 Dimension : 1
 Mnemo ILIMIT
 DEFAULT VALUE : 2
 French keyword : LIMITEUR DE FLUX POUR LES TRACEURS

Possible choices:

- 1 : Minmod,
- 2 : Van Albada,
- 3 : MC (Monotonized Central-difference),
- 4 : GenMinmod.

1.102 FLUX LIMITOR FOR U AND V

Type : Integer
 Dimension : 1
 Mnemo ILIMUV
 DEFAULT VALUE : 2
 French keyword : LIMITEUR DE FLUX POUR U ET V
 Possible choices:

- 1 : Minmod,
- 2 : Van Albada,
- 3 : MC (Monotonized Central-difference),
- 4 : GenMinmod.

1.103 FLUXLINE

Type : Logical
 Dimension : 1
 Mnemo DOFLUX
 DEFAULT VALUE : NO
 French keyword : FLUXLINE
 Use Fluxline to compute flux over lines.

1.104 FLUXLINE INPUT FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DFLX)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DE FLUXLINE
 Name of the fluxline file, with data on cross-sections.

1.105 FORMAT OF THE DROGUES POSITIONING DATA FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DPLY)%FMT
 DEFAULT VALUE : 'BKASCII2S'
 French keyword : FORMAT DU FICHER POSITIONNANT LES DROGUES
 Format of the DROGUES INITIAL POSITIONING DATA FILE. Single possible choice is:

- BKASCII2S: format AXCI I2S native of BlueKenue.

1.106 FORMATTED DATA FILE 1

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DFO1)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DE DONNEES FORMATE 1
 Formatted data file available to the user.

1.107 FORMATTED DATA FILE 2

Type : String
Dimension : 1
Mnemo T2D_FILES(T2DFO2)%NAME
DEFAULT VALUE : "
French keyword : FICHER DE DONNEES FORMATE 2
Formatted data file available to the user.

1.108 FORMATTED RESULTS FILE

Type : String
Dimension : 1
Mnemo T2D_FILES(T2DRFO)%NAME
DEFAULT VALUE : "
French keyword : FICHER DE RESULTATS FORMATE
Formatted file of results available to the user.

1.109 FORMATTED RESULTS FILE 1

Type : String
Dimension : 1
Mnemo T2D_FILES(T2DRF1)%NAME
DEFAULT VALUE : "
French keyword : FICHER DE RESULTATS FORMATE 1
Formatted file of results 1 available to the user.

1.110 FORMATTED RESULTS FILE 2

Type : String
Dimension : 1
Mnemo T2D_FILES(T2DRF2)%NAME
DEFAULT VALUE : "
French keyword : FICHER DE RESULTATS FORMATE 2
Formatted file of results 2 available to the user.

1.111 FORMATTED RESULTS FILE 3

Type : String
Dimension : 1
Mnemo T2D_FILES(T2DRF3)%NAME
DEFAULT VALUE : "
French keyword : FICHER DE RESULTATS FORMATE 3
Formatted file of results 3 available to the user.

1.112 FORMATTED RESULTS FILE 4

Type : String
Dimension : 1
Mnemo T2D_FILES(T2DRF4)%NAME
DEFAULT VALUE : "
French keyword : FICHER DE RESULTATS FORMATE 4
Formatted file of results 4 available to the user.

1.113 FORMATTED RESULTS FILE 5

Type : String
Dimension : 1
Mnemo T2D_FILES(T2DRF5)%NAME
DEFAULT VALUE : "
French keyword : FICHER DE RESULTATS FORMATE 5
Formatted file of results 5 available to the user.

1.114 FORMATTED RESULTS FILE 6

Type : String
Dimension : 1
Mnemo T2D_FILES(T2DRF6)%NAME
DEFAULT VALUE : "
French keyword : FICHER DE RESULTATS FORMATE 6
Formatted file of results 6 available to the user.

1.115 FORTRAN FILE

Type : String
Dimension : 1
Mnemo NOMFOR
DEFAULT VALUE : "
French keyword : FICHER FORTRAN
Name of the FORTRAN file or directory to be submitted, including specific subroutines of the model.

1.116 FOURIER ANALYSIS PERIODS

Type : Real
Dimension : 2
Mnemo PERIAF
DEFAULT VALUE : MANDATORY
French keyword : PERIODES D'ANALYSE DE FOURIER
List of periods to be analysed.

1.117 FREE FORMAT FOR ATMOSPHERIC DATA FILE

Type : Logical
Dimension : 1
Mnemo FREE_ATMO
DEFAULT VALUE : NO
French keyword : FORMAT LIBRE POUR FICHER DE DONNEES ATMOSPHERIQUES
Indicates if the atmospheric data file (ASCII or binary) has to follow the format expected by the **METEO_TELEMAC** module or if it can be handled outside this module. If a special treatment has to be implemented for this file, e.g. with option `OPTION FOR WIND = 3`, set to YES.

1.118 FREE SURFACE GRADIENT COMPATIBILITY

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

1.119 FRICTION COEFFICIENT

Type : Real
 Dimension : 1
 Mnemo FFON
 DEFAULT VALUE : 50.
 French keyword : COEFFICIENT DE FROTTEMENT

Sets the value of the friction coefficient for the selected formulation. It is noteworthy that the meaning of this figure changes according to the selected formula (Chezy, Strickler, etc.):

- 1: linear coefficient,
- 2: Chezy coefficient,
- 3: Strickler coefficient,
- 4: Manning coefficient,
- 5: Nikuradse grain size.

1.120 FRICTION DATA

Type : Logical
 Dimension : 1
 Mnemo FRICTB
 DEFAULT VALUE : NO
 French keyword : DONNEES POUR LE FROTTEMENT
 Logical to say if friction laws are defined by area.

1.121 FRICTION DATA FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DCOF)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DE DONNEES POUR LE FROTTEMENT
 Friction data file name. See the TELEMAT-2D user manual for its description.

1.122 GAIA STEERING FILE

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

1.123 GEOGRAPHIC SYSTEM

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

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

- 0: defined by the user,
- 1: WGS84 longitude/latitude in real degrees,
- 2: WGS84 Northern UTM,
- 3: WGS84 Southern UTM,
- 4: Lambert,
- 5: Mercator projection.

1.124 GEOMETRY FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DGEO)%NAME
 DEFAULT VALUE : 'MANDATORY'
 French keyword : FICHIER DE GEOMETRIE

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

1.125 GEOMETRY FILE FORMAT

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DGEO)%FMT
 DEFAULT VALUE : 'SERAFIN'
 French keyword : FORMAT DU FICHIER DE GEOMETRIE

Format of the GEOMETRY FILE. Possible values are:

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

1.126 GLOBAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER

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

Global number of the point (between 1 and the number of boundary nodes in the 2D mesh)

with respect to which the tidal constituents have their phase shifted to start the calculation with a high water (for schematic tides only). This point has to be a maritime boundary node. Only harmonic constants databases like TPXO are concerned.

1.127 GLOBAL NUMBERS OF SOURCE NODES

Type : Integer
 Dimension : 2
 Mnemo ISCE
 DEFAULT VALUE : MANDATORY
 French keyword : NUMEROS GLOBAUX DES NOEUDS DES SOURCES
 Global numbers of nodes in the mesh that correspond to source point locations.

1.128 GRAPHIC PRINTOUT PERIOD

Type : Integer
 Dimension : 1
 Mnemo LEOPRD
 DEFAULT VALUE : 1
 French keyword : PERIODE POUR LES SORTIES GRAPHIQUES
 Determines, in number of time steps, the printout period for the VARIABLES FOR GRAPHIC PRINTOUTS in the RESULTS FILE.

1.129 GRAVITY ACCELERATION

Type : Real
 Dimension : 1
 Mnemo GRAV
 DEFAULT VALUE : 9.81
 French keyword : ACCELERATION DE LA PESANTEUR
 Sets the value of the acceleration due to gravity in m/s^2 .

1.130 H CLIPPING

Type : Logical
 Dimension : 1
 Mnemo CLIPH
 DEFAULT VALUE : NO
 French keyword : CLIPPING DE H
 Determines whether limiting the water depth H by a lower value desirable or not (for instance in the case of tidal flats). This keyword may have an influence on mass conservation since the truncation of depth is equivalent to adding mass.

1.131 HARMONIC CONSTANTS FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DHAR)
 DEFAULT VALUE : "
 French keyword : FICHER DES CONSTANTES HARMONIQUES
 File containing the harmonic constants to compute the tidal boundary conditions.

1.132 HERSCHEL-BULKLEY POWER-LAW INDEX

Type : Real
 Dimension : 1
 Mnemo NN_N
 DEFAULT VALUE : 1.
 French keyword : INDICE POUR LE MODELE DE HERSCHEL-BULKLEY
 Herschel-Bulkley power law index n .

1.133 HORTON TIME CONSTANT

Type : Real
 Dimension : 1
 Mnemo KDECAY
 DEFAULT VALUE : 1.0E-3
 French keyword : CONSTANCE DE TEMPS HORTON
 Positive time constant which enables to quantify the decrease of the capacity of infiltration of the soil in Horton model. This keyword is only useful for runoff model 2 (Horton).

1.134 IDENTIFICATION METHOD

Type : Integer
 Dimension : 1
 Mnemo OPTID
 DEFAULT VALUE : 1
 French keyword : METHODE D'IDENTIFICATION
 Possible choices:

- 0: list of tests,
- 1: gradient,
- 2: conjugate gradient,
- 3: Lagrangian interpolation.

1.135 IMPLICITATION COEFFICIENT OF TRACERS

Type : Real
 Dimension : 1
 Mnemo TETAT
 DEFAULT VALUE : 0.6
 French keyword : COEFFICIENT D'IMPLICITATION DES TRACEURS
 Sets the value of the imputation coefficient for the tracer. If an advection scheme for tracers is a distributive scheme (e.g.: 3, 4, 5, 13, 14 or 15), IMPLICITATION COEFFICIENT OF TRACERS is prescribed at 0. (explicit).

1.136 IMPLICITATION FOR DEPTH

Type : Real
 Dimension : 1
 Mnemo TETAC
 DEFAULT VALUE : 0.55
 French keyword : IMPLICITATION POUR LA HAUTEUR

Sets the value of the implicitation coefficient for C (the celerity of waves) in the propagation step (refer to principle note). Values below 0.5 result in an unstable scheme (and are then forbidden).

1.137 IMPLICITATION FOR DIFFUSION OF VELOCITY

Type : Real
 Dimension : 1
 Mnemo TETAD
 DEFAULT VALUE : 1.
 French keyword : IMPLICITATION POUR LA DIFFUSION DES VITESSES

Sets the value of the implicitation coefficient for the diffusion of velocity.

1.138 IMPLICITATION FOR VELOCITY

Type : Real
 Dimension : 1
 Mnemo TETAU
 DEFAULT VALUE : 0.55
 French keyword : IMPLICITATION POUR LA VITESSE

Sets the value of the implicitation coefficient for velocity in the propagation step (refer to principle note). Values below 0.5 result in an unstable condition (and are then forbidden).

1.139 INFORMATION ABOUT K-EPSILON MODEL

Type : Logical
 Dimension : 1
 Mnemo INFOKE
 DEFAULT VALUE : YES
 French keyword : INFORMATIONS SUR LE MODELE K-EPSILON

Gives the number of iterations of the solver in the diffusion and source terms step of the $k - \varepsilon$ model.

1.140 INFORMATION ABOUT SOLVER

Type : Logical
 Dimension : 1
 Mnemo INFOGR
 DEFAULT VALUE : YES
 French keyword : INFORMATIONS SUR LE SOLVEUR

If YES, prints the number of iterations that have been necessary to get the solution of the linear system.

1.141 INFORMATION ABOUT SPALART-ALLMARAS MODEL

Type : Logical
 Dimension : 1
 Mnemo INFONU
 DEFAULT VALUE : YES
 French keyword : INFORMATION SUR LE MODELE SPALART-ALLMARAS

If yes, informations about solver of Spalart-Allmaras model are printed to the listing.

1.142 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) and stored in the BINARY DATABASE 1/2 FOR TIDE,
- SPECIAL or PARTICULAR: The initial conditions with the water depth should be stated in the **USER_CONDIN_H** subroutine.

1.143 INITIAL DEPTH

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

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

1.144 INITIAL DROGUES SAMPLING DENSITY

Type : Real
 Dimension : 2
 Mnemo DRG_DENSITY
 DEFAULT VALUE : 1000;1000
 French keyword : DENSITE INITIALE DE REPARTITION DES FLOTTEURS

Initial density of drogues, or number of drogues per m2, used to spatially place the initial drogues in a simulation.

1.145 INITIAL ELEVATION

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

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

1.146 INITIAL GUESS FOR H

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

French keyword : ORDRE DU TIR INITIAL POUR H

Initial guess for the solver in the propagation step. Makes it possible to modify the initial value of C, 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: $DH = 0$,
- 1: $DH = DH_n$ (ultimate DH value in the next previous time step),
- 2: $DH = 2.DH_n - DH_{n-1}$ (extrapolation).

1.147 INITIAL GUESS FOR U

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

French keyword : ORDRE DU TIR INITIAL POUR U

Initial guess for the solver in the propagation step. Makes it possible to modify the initial value of U, 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 : $U = 0$,
- 1 : $U = U(n)$,
- 2 : $U = 2 U(n) - U(n-1)$ (extrapolation).

1.148 INITIAL TIME

Type : Real
 Dimension : 1
 Mnemo AT0
 DEFAULT VALUE : 0.

French keyword : TEMPS INITIAL

Initial time of the computation (in seconds).

1.149 INITIAL TIME SET TO ZERO

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

French keyword : REMISE A ZERO DU TEMPS

Initial time set to zero in case of restart.

1.150 INITIAL VALUES OF TRACERS

Type : Real
 Dimension : 2
 Mnemo TRAC0
 DEFAULT VALUE : 0.;0.
 French keyword : VALEURS INITIALES DES TRACEURS

Sets the initial value of the tracer(s). Required value(s) separated with a semicolon ; if more than one. The number of supplied values must be equal to the number of declared tracers.

1.151 INITIAL VELOCITIES COMPUTED BY TPXO

Type : Logical
 Dimension : 1
 Mnemo VITINI_TPXO
 DEFAULT VALUE : YES
 French keyword : VITESSES INITIALES CALCULEES PAR TPXO

Initial velocity components computed from a tidal solution from OSU (e.g. TPXO) or HAMTIDE. NO to prevent from an initialisation with too big tidal velocities. For tidal solutions coming from OSU (e.g. TPXO) or HAMTIDE only.

1.152 INITIAL WATER CONTENT

Type : Real
 Dimension : 1
 Mnemo THETAI
 DEFAULT VALUE : 0.
 French keyword : TENEUR EN EAU INITIALE

Water content at the initial state which represents the quantity of water in the soil.

1.153 INITIAL WIDTHS OF BREACHES

Type : Logical
 Dimension : 1
 Mnemo LOGINB
 DEFAULT VALUE : NO
 French keyword : LARGEURS INITIALES DES BRECHES

Logical to state if the initial widths of breaches are known. If yes, values must be given in the BREACHES DATA FILE. Old name in release 8.3: INITIAL LENGTHS OF BREACHES.

1.154 KHIONE STEERING FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(KHIONE)
 DEFAULT VALUE : "
 French keyword : FICHER DES PARAMETRES DE KHIONE

Steering file for physical parameters of ice processes.

1.155 LAMBERT 93 CONVERSION FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DL93)
 DEFAULT VALUE : ”
 French keyword : FICHER DE CONVERSION LAMBERT 93
 Name of file gr3df97a.txt, conversion grid for Lambert 93.

1.156 LANGUAGE

Type : Integer
 Dimension : 1
 Mnemo LNG
 DEFAULT VALUE : 2
 French keyword : LANGUE
 1: FRENCH 2: ENGLISH

1.157 LATITUDE OF ORIGIN POINT

Type : Real
 Dimension : 1
 Mnemo LAMBD0
 DEFAULT VALUE : 48.
 French keyword : LATITUDE DU POINT ORIGINE
 Determines the origin used for computing latitudes when a computation is made in spherical coordinates. This latitude is in particular used to compute the Coriolis force. In cartesian coordinates, Coriolis coefficient is considered constant. Also used for heat exchange with atmosphere, Okada model for tsunamis, frazil.

1.158 LAW OF BOTTOM FRICTION

Type : Integer
 Dimension : 1
 Mnemo KFROT
 DEFAULT VALUE : MANDATORY
 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.

1.159 LAW OF FRICTION ON LATERAL BOUNDARIES

Type : Integer
 Dimension : 1
 Mnemo KFROTL
 DEFAULT VALUE : 0
 French keyword : LOI DE FROTTEMENT SUR LES PAROIS LATERALES

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

- 0: no friction,
- 1 : linear,
- 2 : Chezy,
- 3 : Strickler,
- 4 : Manning,
- 5: Nikuradse's formula,
- 6 : log law,
- 7 : Colebrook-White.

1.160 LIMIT VALUES

Type : Real
 Dimension : 8
 Mnemo BORNES
 DEFAULT VALUE : -1000.;9000.;-1000.;1000.;-1000.;1000.;-1000.;1000.
 French keyword : VALEURS LIMITES

To be used with the key-word CONTROL OF LIMITS. Min and max acceptable values for H , U , V and tracers in the following order: min(H) max(H) min(U) max(U) min(V) max(V) min(T) max(T).

1.161 LINEARIZED PROPAGATION

Type : Logical
 Dimension : 1
 Mnemo PROLIN
 DEFAULT VALUE : NO
 French keyword : PROPAGATION LINEARISEE

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

1.162 LIQUID BOUNDARIES FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DIMP)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DES FRONTIERES LIQUIDES

File containing the variations in time of boundary conditions.

1.163 LIST OF POINTS

Type : Integer
 Dimension : 2
 Mnemo LIST_PTS
 DEFAULT VALUE : MANDATORY
 French keyword : LISTE DE POINTS
 List of remarkable points for printouts.

1.164 LISTING FOR PRINTOUT PERIOD

Type : Integer
 Dimension : 1
 Mnemo LISPRD
 DEFAULT VALUE : 1
 French keyword : PERIODE POUR LES SORTIES LISTING
 Determines, in number of time steps, the printout period of the VARIABLES TO BE PRINTED. The results are systematically printed out on the listing file (file CAS.SORTIE at the workstation), Has priority before LISTING PRINTOUT PERIOD.

1.165 LISTING PRINTOUT

Type : Logical
 Dimension : 1
 Mnemo LISTIN
 DEFAULT VALUE : YES
 French keyword : SORTIE LISTING
 Result printout on hard copy. When NO is selected, the listing only includes the heading and the phrase "NORMAL END OF PROGRAM". In addition, the options MASS-BALANCE and VALIDATION are inhibited. Not recommended for use.

1.166 LISTING PRINTOUT PERIOD

Type : Integer
 Dimension : 1
 Mnemo LISPRD
 DEFAULT VALUE : 1
 French keyword : PERIODE DE SORTIE 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 (file CAS.SORTIE at the workstation).

1.167 LOCAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER

Type : Integer
 Dimension : 1
 Mnemo ICALHWP
 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).

1.168 LONGITUDE OF ORIGIN POINT

Type : Real
 Dimension : 1
 Mnemo PHI0
 DEFAULT VALUE : 0.

French keyword : LONGITUDE DU POINT ORIGINE

Give the value of the longitude of the origin point of the model, when taking into account of the tide generator force. For the Mercator projection, see the keyword GEOGRAPHIC SYSTEM. Also used for tide generating force, heat exchange with atmosphere, Okada model for tsunamis.

1.169 MANNING DEFAULT VALUE FOR COLEBROOK-WHITE LAW

Type : Real
 Dimension : 1
 Mnemo NDEF
 DEFAULT VALUE : 0.02

French keyword : VALEUR PAR DEFAULT DU MANNING POUR LA LOI DE COLEBROOK-WHITE

Manning default value for the friction law of Colebrook-White (law number 7).

1.170 MASS-BALANCE

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

Determines whether a check of the mass-balance over the domain is made 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.

1.171 MASS-LUMPING FOR WEAK CHARACTERISTICS

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

French keyword : MASS-LUMPING POUR LES CARACTERISTIQUES FAIBLES

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

1.172 MASS-LUMPING ON H

Type : Real
 Dimension : 1
 Mnemo AGGLOC
 DEFAULT VALUE : 0.
 French keyword : MASS-LUMPING SUR H

TELEMAC-2D provides an opportunity to carry out mass-lumping either on H or on the velocity. This is equivalent to bringing the matrices AM1 (h) or AM2 (U) and AM3 (V) wholly or partly, back onto their diagonal. Thanks to that technique, the code can be speeded up to a quite significant extent and it can also be made much more stable. The resulting solutions, however, become artificially smoothed. This parameter sets the extent of mass-lumping that is performed on h .

1.173 MASS-LUMPING ON TRACERS

Type : Real
 Dimension : 1
 Mnemo AGGLOT
 DEFAULT VALUE : 0.
 French keyword : MASS-LUMPING SUR LES TRACEURS

Sets the amount of mass-lumping that is performed on the tracer. Read but replaced by the value of MASS-LUMPING ON H to ensure tracer mass conservation.

1.174 MASS-LUMPING ON VELOCITY

Type : Real
 Dimension : 1
 Mnemo AGGLOU
 DEFAULT VALUE : 0.
 French keyword : MASS-LUMPING SUR LA VITESSE

Sets the amount of mass-lumping that is performed on the velocity. The keyword TREATMENT OF THE LINEAR SYSTEM changes the used value to 1.

1.175 MATRIX STORAGE

Type : Integer
 Dimension : 1
 Mnemo OPTASS
 DEFAULT VALUE : 3
 French keyword : STOCKAGE DES MATRICES

Defines the method to store matrices. The possible choices are:

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

Option 3 is mandatory with a distributive scheme for advection (= 3, 4, 5, 13, 14 or 15).

1.176 MATRIX-VECTOR PRODUCT

Type : Integer
 Dimension : 1
 Mnemo PRODUC
 DEFAULT VALUE : 1
 French keyword : PRODUIT MATRICE-VECTEUR

Possible choices are:

- 1: classic,
- 2: frontal. Beware, with option 2, a special numbering of points is required.

1.177 MAXIMUM NUMBER OF BOUNDARIES

Type : Integer
Dimension : 1
Mnemo MAXFRO
DEFAULT VALUE : 30
French keyword : NOMBRE MAXIMUM DE FRONTIERES

Maximal number of boundaries in the mesh. Used for dimensioning arrays. Can be increased if needed.

1.178 MAXIMUM NUMBER OF DROGUES

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

Maximum number of drogues in the computation.

1.179 MAXIMUM NUMBER OF FRICTION DOMAINS

Type : Integer
Dimension : 1
Mnemo NZONMX
DEFAULT VALUE : 10
French keyword : NOMBRE MAXIMUM DE DOMAINES DE FROTTEMENT

Maximal number of zones defined for the friction. Could be increased if needed.

1.180 MAXIMUM NUMBER OF ITERATIONS FOR ADVECTION SCHEMES

Type : Integer
Dimension : 1
Mnemo MAXADV
DEFAULT VALUE : 50
French keyword : MAXIMUM D'ITERATIONS POUR LES SCHEMAS DE CONVECTION

Limits the number of solver iterations for the advection schemes, only for schemes 13, 14 and 15. Old default value = 10 until release 8.1.

1.181 MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF TRACERS

Type : Integer
Dimension : 1
Mnemo SLVTRA(ITRAC)%NITMAX
DEFAULT VALUE : 60
French keyword : MAXIMUM D'ITERATIONS POUR LA DIFFUSION DES TRACEURS

Limits the number of solver iterations at each time step for the diffusion of tracer(s).

1.182 MAXIMUM NUMBER OF ITERATIONS FOR IDENTIFICATION

Type : Integer
 Dimension : 1
 Mnemo MAXEST
 DEFAULT VALUE : 20
 French keyword : MAXIMUM D'ITERATIONS POUR L' IDENTIFICATION
 Every iteration implies at least a direct and an adjoint computation.

1.183 MAXIMUM NUMBER OF ITERATIONS FOR K AND EPSILON

Type : Integer
 Dimension : 1
 Mnemo SLVK%NITMAX
 DEFAULT VALUE : 50
 French keyword : MAXIMUM D'ITERATIONS POUR K ET EPSILON
 Sets the maximum number of iterations that are acceptable when solving the diffusion source-terms step of k , ε (for $k - \varepsilon$ model) or $\tilde{\nu}$ (for Spalart-Allmaras model).

1.184 MAXIMUM NUMBER OF ITERATIONS FOR SOLVER

Type : Integer
 Dimension : 1
 Mnemo SLVPRO%NITMAX
 DEFAULT VALUE : 100
 French keyword : MAXIMUM D'ITERATIONS POUR LE SOLVEUR
 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.

1.185 MAXIMUM NUMBER OF POINTS FOR SOURCES REGIONS

Type : Integer
 Dimension : 1
 Mnemo MAXPTSCE
 DEFAULT VALUE : 10
 French keyword : NOMBRE MAXIMUM DE POINTS POUR DEFINIR DES SOURCES
 Maximal number of points to define regions containing sources. Used for dimensioning arrays. It can be increased if needed.

1.186 MAXIMUM NUMBER OF SOURCES

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

1.187 MAXIMUM NUMBER OF TRACERS

Type : Integer
 Dimension : 1
 Mnemo MAXTRA
 DEFAULT VALUE : 20
 French keyword : NOMBRE MAXIMUM DE TRACEURS

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

1.188 MEAN DEPTH FOR LINEARIZATION

Type : Real
 Dimension : 1
 Mnemo HAULIN
 DEFAULT VALUE : 0.
 French keyword : PROFONDEUR MOYENNE POUR LA LINEARISATION

Sets the water depth around which the linearization is done when the `LINEARIZED PROPAGATION` option is selected.

1.189 MEAN TEMPERATURE

Type : Real
 Dimension : 1
 Mnemo TMOY
 DEFAULT VALUE : 20.
 French keyword : TEMPERATURE MOYENNE

Reference temperature for density effects. To be used with the keyword `DENSITY EFFECTS`.

1.190 MINIMUM DEPTH TO COMPUTE TIDAL VELOCITIES BOUNDARY CONDITIONS

Type : Real
 Dimension : 1
 Mnemo HMIN_VIT_BC
 DEFAULT VALUE : 0.1

French keyword : HAUTEUR MINIMALE POUR LES CONDITIONS AUX LIMITES DE COURANTS
 Minimum value of water depth used to compute tidal boundary conditions for velocities if the water depths are too small. For tidal solutions coming from OSU only (e.g. TPXO).

1.191 MINIMUM DEPTH TO COMPUTE TIDAL VELOCITIES INITIAL CONDITIONS

Type : Real
 Dimension : 1
 Mnemo HMIN_VIT_IC
 DEFAULT VALUE : 0.1

French keyword : HAUTEUR MINIMALE POUR LES CONDITIONS INITIALES DE COURANTS
 Minimum value of water depth above which initial conditions for tidal velocities are computed. Otherwise, the velocity components are equal to 0. For tidal solutions coming from OSU only (e.g. TPXO).

1.192 MINIMUM VALUE OF DEPTH

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

French keyword : VALEUR MINIMUM DE H

Sets the minimum water depth H value when option H CLIPPING is implemented. Not fully implemented.

1.193 MINOR CONSTITUENTS INFERENCE

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

French keyword : INTERPOLATION DE COMPOSANTES MINEURES

For TPXO tidal data base only. Inference of minor constituents from the one read in input files linked to keywords BINARY DATABASE 1 FOR TIDE and BINARY DATABASE 2 FOR TIDE.

1.194 MIXING LENGTH MODEL COEFFICIENTS

Type : Real
 Dimension : 2
 Mnemo CALMIXLENGTH
 DEFAULT VALUE : 0.1066667;0.0666667

French keyword : COEFFICIENTS DU MODELE DE LONGUEUR DE MELANGE

Calibration coefficients C_l and α_l in mixing length formula. Only used with TURBULENCE MODEL = 5.

1.195 NAMES OF CLANDESTINE VARIABLES

Type : String
 Dimension : 2
 Mnemo VARCLA
 DEFAULT VALUE : 'MANDATORY'

French keyword : NOMS DES VARIABLES CLANDESTINES

Names of variables that are not used by TELEMAT-2D, but should be preserved when it is being run. This keyword may be used, for instance when TELEMAT-2D is coupled with another code. Thus, the clandestine variables belong to the other code and are given back in the results file.

1.196 NAMES OF POINTS

Type : String
 Dimension : 2
 Mnemo NAME_PTS
 DEFAULT VALUE : 'MANDATORY'

French keyword : NOMS DES POINTS

Names of remarkable points for printouts.

1.197 NAMES OF PRIVATE VARIABLES

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

Name of private variables in 32 characters, 16 for the name, 16 for the unit. They are stored in the block **PRIVE** and can be read in the GEOMETRY FILE if they are here with their name.

1.198 NAMES OF TRACERS

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

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

1.199 NESTOR

Type : Logical
 Dimension : 1
 Mnemo NESTOR
 DEFAULT VALUE : NO
 French keyword : NESTOR

Activates the use of the NESTOR module to change the bottom.

1.200 NESTOR ACTION FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2NACT)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DES PARAMETRES DE NESTOR

Name of the NESTOR steering file.

1.201 NESTOR POLYGON FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2NPOL)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DE POLYGONES DE NESTOR

Name of the NESTOR polygon file which indicates the location.

1.202 NESTOR RESTART FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2NRST)%NAME
 DEFAULT VALUE : "
 French keyword : FICHIER DE REPRISE DE NESTOR

Name of the NESTOR restart file.

1.203 NESTOR SURFACE REFERENCE FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2NREF)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DE SURFACE REFERENCE DE NESTOR
 Name of the NESTOR file which contains the reference water surface.

1.204 NEWMARK TIME INTEGRATION COEFFICIENT

Type : Real
 Dimension : 1
 Mnemo GAMMA
 DEFAULT VALUE : 0.5
 French keyword : COEFFICIENT D'INTEGRATION EN TEMPS DE NEWMARK
 Possible choices are:

- 1.: Euler explicit,
- 0.5: order 2 in time.

Only for Finite Volumes.

1.205 NODES DISTANCES DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DDL7)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DELWAQ DES DISTANCES ENTRE NOEUDS
 Results file for chaining with DELWAQ.

1.206 NON-DIMENSIONAL DISPERSION COEFFICIENTS

Type : Real
 Dimension : 2
 Mnemo ELDER
 DEFAULT VALUE : 6.;0.6
 French keyword : COEFFICIENTS ADIMENSIONNELS DE DISPERSION
 Longitudinal and transversal coefficients in Elder s formula. Used only with TURBULENCE MODEL = 2.

1.207 NON-NEWTONIAN FLUID DENSITY

Type : Real
 Dimension : 1
 Mnemo NN_RHO
 DEFAULT VALUE : 1000.
 French keyword : DENSITE DU FLUIDE NON-NEWTONIEN
 Non-newtonian fluid density, correspond to the sediment density if the pseudo-biphasic model is activated [kg/m³].

1.208 NON-NEWTONIAN LAMINAR RESISTANCE PARAMETER K

Type : Real
 Dimension : 1
 Mnemo NN_K
 DEFAULT VALUE : 24.
 French keyword : RESISTANCE LAMINAIRE DU FLUIDE NON-NEWTONIEN
 Non-newtonian laminar resistance parameter k .

1.209 NON-NEWTONIAN MODEL

Type : Integer
 Dimension : 1
 Mnemo NONNEWTMODEL
 DEFAULT VALUE : 0
 French keyword : MODELE NON-NEWTONIEN
 Choice of the non-newtonian model:

- 0: Newtonian,
- 1: Bingham,
- 2: Herschel-Bulkley.

1.210 NON-NEWTONIAN PSEUDO-BIPHASIC MODEL

Type : Logical
 Dimension : 1
 Mnemo NN_BIPHASIC
 DEFAULT VALUE : NO
 French keyword : MODELE NON-NEWTONIEN PSEUDO DIPHASIQUE
 Non-newtonian pseudo biphasic model with variable density.

1.211 NON-NEWTONIAN VISCOSITY

Type : Real
 Dimension : 1
 Mnemo NN_VISC
 DEFAULT VALUE : 0.
 French keyword : VISCOSITE DU FLUIDE NON-NEWTONIEN
 Non-newtonian dynamic viscosity [Pa.s].

1.212 NON-NEWTONIAN YIELD STRESS

Type : Real
 Dimension : 1
 Mnemo NN_YIELD
 DEFAULT VALUE : 0.
 French keyword : CONTRAINTE D'ELASTICITE DU FLUIDE NON-NEWTONIEN
 Non-newtonian yield stress [Pa].

1.213 NORTH

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

Angle of the North with the y axis, counted counter-clockwise, in degrees. 10.5 means 10 degrees and 30 minutes. Read but not used.

1.214 NUMBER OF ALGAE CLASSES

Type : Integer
 Dimension : 1
 Mnemo NALG_CLSS
 DEFAULT VALUE : 0
 French keyword : NOMBRE DE CLASSES D'ALGUES

Number of algae classes. Each class will be associated with a particular property.

1.215 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 with advection scheme of type 3, 4, 5, LIPS or not, and ERIA). Number of iterations for every time step (or sub-time step) to converge to the solution. It is useful for unsteady cases. For quasi-steady flows, this keyword does not have a large impact on the solution, so it can be set to 0. On the other hand, for unsteady flows, it is suggested to set this keyword to 2 (at least), which is a good compromise between accuracy and computational time. Indeed, increasing the number of corrections the scheme is more accurate but the CPU time rapidly increases.

1.216 NUMBER OF CULVERTS

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

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

1.217 NUMBER OF FIRST TIME STEP FOR GRAPHIC PRINTOUTS

Type : Integer
 Dimension : 1
 Mnemo PTINIG
 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 RESULTS FILE.

1.218 NUMBER OF FIRST TIME STEP FOR LISTING PRINTOUTS

Type : Integer
Dimension : 1
Mnemo PTINIL
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.

1.219 NUMBER OF GAUSS POINTS FOR WEAK CHARACTERISTICS

Type : Integer
Dimension : 1
Mnemo NGAUSS
DEFAULT VALUE : 3

French keyword : NOMBRE DE POINTS DE GAUSS POUR LES CARACTERISTIQUES FAIBLES
See release notes 6.3. Number of Gauss points used to compute the weak characteristics. Possible choices are:

- 1 point,
- 3 points,
- 4 points,
- 6 points,
- 7 points,
- 12 points.

The bigger the number is, the more conservative the scheme is, but the higher the computational costs are.

1.220 NUMBER OF LAGRANGIAN DRIFTS

Type : Integer
Dimension : 1
Mnemo NLAG
DEFAULT VALUE : 0
French keyword : NOMBRE DE DERIVES LAGRANGIENNES

Provided for performing several computations of Lagrangian drifts starting at different times. Add A and G in the VARIABLES FOR GRAPHIC PRINTOUTS keyword.

1.221 NUMBER OF PRIVATE ARRAYS

Type : Integer
Dimension : 1
Mnemo NPRIV
DEFAULT VALUE : 0
French keyword : NOMBRE DE TABLEAUX PRIVES

Number of arrays for own user programming.

1.222 NUMBER OF SUB-ITERATIONS FOR NON-LINEARITIES

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

French keyword : NOMBRE DE SOUS-ITERATIONS POUR LES NON-LINEARITES

Used for updating, within one time step, the advection and propagation field. 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.

1.223 NUMBER OF SUB-STEPS OF DISTRIBUTIVE SCHEMES

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

French keyword : NOMBRE DE SOUS-PAS DES SCHEMAS DISTRIBUTIFS

Only for implicit scheme with predictor-corrector (3, 4 or 5). This keyword allows to subdivide the time step given by the user in the STEERING FILE, into several sub-steps. Again, it produces an effect on the precision of the scheme and it is convenient to set this keyword in order to have Courant numbers not too large (around 1).

1.224 NUMBER OF TIME STEPS

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

French keyword : NOMBRE DE PAS DE TEMPS

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

1.225 NUMBER OF TRACERS

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

French keyword : NOMBRE DE TRACEURS

Defines the number of tracers

1.226 NUMBER OF WEIRS

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

French keyword : NOMBRE DE SEUILS

Number of weirs that will be treated by boundary conditions. They must be described as boundaries of the domain and their features are given in the WEIRS DATA FILE (see written documentation)

1.227 OIL SPILL MODEL

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

1.228 OIL SPILL STEERING FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DMIG)
 DEFAULT VALUE : "
 French keyword : FICHER DE COMMANDES HYDROCARBURES
 Contains data for the OIL SPILL MODEL.

1.229 OPTION FOR CHARACTERISTICS

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

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

If one component of array TYPE OF ADVECTION = 1 or SCHEME FOR ADVECTION OF... = 1, and also the corresponding keyword SCHEME OPTION FOR ADVECTION OF... = 2, OPTION FOR CHARACTERISTICS is automatically set to 2.

1.230 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 TELEMAT-2D based on Bodhaine (1968) and Carlier (1976) formulae. Read the TELEMAT-3D theory guide for more informations.

1.231 OPTION FOR DIRICHLET CONDITION IN FV DIFFUSION

Type : Integer
 Dimension : 1
 Mnemo BNDTYP
 DEFAULT VALUE : 1
 French keyword : OPTION DE LA CONDITION DE DIRICHLET POUR LA DIFFUSION VF
 Choice of the dirichlet boundary condition type:

- 1: weak,
- 2: strong.

1.232 OPTION FOR INITIAL ABSTRACTION RATIO

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

French keyword : OPTION POUR RATIO DES PERTES INITIALES

Gives the ratio for Initial Abstraction to Maximal Potential Retention S for the SCS CN runoff model. Available options are:

- 1: $IA/S = 0.2$ (standard method),
- 2: $IA/S = 0.05$ (revised method, see Woodward, Hawkins et al. 2003).

With this option the CN values given in input are automatically converted see user manual). This keyword is only useful for runoff model 1 (SCS CN model).

1.233 OPTION FOR LIQUID BOUNDARIES

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

French keyword : OPTION POUR LES FRONTIERES LIQUIDES

One integer per liquid boundary is given. Possible choices are:

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

1.234 OPTION FOR SOFT BOUNDARIES

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

French keyword : OPTION POUR LES FRONTIERES DOUCES

One integer per liquid boundary is given. Possible choices are:

- 0: Not a soft boundary ,
- 1: Method 1. Proportional to the speed,
- 2: Method 2. Proportional to the square of speed.

1.235 OPTION FOR THE DIFFUSION OF TRACERS

Type : Integer
 Dimension : 1
 Mnemo OPDTRA
 DEFAULT VALUE : 1
 French keyword : OPTION POUR LA DIFFUSION DES TRACEURS
 Possible choices:

- 1: Diffusion in the form $\text{div}(\nu \text{grad}(T))$,
- 2: Diffusion in the form $1/h \text{div}(h \nu \text{grad}(T))$.

1.236 OPTION FOR THE DIFFUSION OF VELOCITIES

Type : Integer
 Dimension : 1
 Mnemo OPDVIT
 DEFAULT VALUE : 1
 French keyword : OPTION POUR LA DIFFUSION DES VITESSES
 Possible choices are:

- 1: Diffusion in the form $\text{div}(\nu \text{grad}(U))$,
- 2: Diffusion in the form $1/h \text{div}(h \nu \text{grad}(U))$.

1.237 OPTION FOR THE RTPF SCHEME RECONSTRUCTIONS

Type : Integer
 Dimension : 1
 Mnemo OPTRTPF
 DEFAULT VALUE : 1
 French keyword : OPTION POUR LA RECONSTRUCTION DU SCHEMA RTPF
 Choice of the reconstruction method for the RTPF scheme:

- 1: reconstructions with subcell gradients,
- 2: option 2.

1.238 OPTION FOR THE SOLVER FOR K-EPSILON MODEL

Type : Integer
 Dimension : 1
 Mnemo SLVK%KRYLOV
 DEFAULT VALUE : 2
 French keyword : OPTION DU SOLVEUR POUR LE MODELE K-EPSILON
 When GMRES (7) is chosen for solver, dimension of the Krylov space. Try values between 2 and 15. Common keyword for variables k , ε (for $k - \varepsilon$ model) and $\tilde{\nu}$ (for Spalart-Allmaras model).

1.239 OPTION FOR THE TREATMENT OF TIDAL FLATS

Type : Integer
 Dimension : 1
 Mnemo OPTBAN
 DEFAULT VALUE : 1
 French keyword : OPTION DE TRAITEMENT DES BANCS DECOUVRANTS

Used if TIDAL FLATS is YES. Possible choices are:

- 1: equations solved everywhere with correction on tidal flats (corrected free surface gradient),
- 2: dry elements are frozen (tidal flats area are masked). Warning: mass-conservation may be altered,
- 3: like 1 but with porosity (defina method).

1.240 OPTION FOR TIDAL BOUNDARY CONDITIONS

Type : Integer
 Dimension : 2
 Mnemo BND_TIDE
 DEFAULT VALUE : MANDATORY
 French keyword : OPTION POUR LES CONDITIONS AUX LIMITES DE MAREE

Option for tidal boundary conditions. For real tides, option 1 is recommended. This keyword has been an array with a value given per liquid boundary, separated by semicolons, since release 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 release 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.

1.241 OPTION FOR TSUNAMI GENERATION

Type : Integer
 Dimension : 1
 Mnemo OPTTSUNAMI
 DEFAULT VALUE : 0
 French keyword : OPTION POUR LA GENERATION DE TSUNAMI

Possible choices:

- 0: no tsunami,
- 1: tsunami generated on the basis of the Okada model (1992).

1.242 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 keyword `SPEED AND DIRECTION OF WIND`,
- 2: variable in time and constant in space, given by `ASCII ATMOSPHERIC DATA FILE`,
- 3: variable in time and space, given by formatted file or by a binary `SERAFIN` file.

1.243 OPTION OF THE HYDROSTATIC RECONSTRUCTION

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

French keyword : `OPTION DE LA RECONSTRUCTION HYDROSTATIQUE`

Gives the option for hydrostatic reconstruction (only used for Finite Volumes with kinetic, HLLC and WAF schemes):

- 1: Audusse et al. option ;
- 2: Chen and Noelle option.

1.244 ORDINATES OF SOURCES

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

Ordinates of sources of flowrate and/or tracer. The source will be located at the nearest node in the mesh.

1.245 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 with drogues, heat exchange with atmosphere, frazil, chaining with `DELWAQ`.

1.246 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 with drogues, heat exchange with atmosphere, frazil, chaining with `DELWAQ`.

1.247 PARALLEL PROCESSORS

Type : Integer
 Dimension : 1
 Mnemo NCSIZE
 DEFAULT VALUE : 0
 French keyword : PROCESSEURS PARALLELES
 Number of processors for domain partition.

- 0: 1 machine, compiling without parallel library,
- 1: 1 machine, compiling with a parallel library,
- 2: 2 processors or machines in parallel etc...

1.248 PARAMETER ESTIMATION

Type : String
 Dimension : 1
 Mnemo ESTIME
 DEFAULT VALUE : "
 French keyword : ESTIMATION DE PARAMETRE
 List of parameter to be estimated, choices:

- FRICTION,
- FRICTION, STEADY.

1.249 PARTITIONING TOOL

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

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

1.250 PHYSICAL CHARACTERISTICS OF THE TSUNAMI

Type : Real
 Dimension : 10
 Mnemo COETSUNAMI
 DEFAULT VALUE : 100.;210000.;75000.;13.6;81.;41.;110.;0.;0.;3.
 French keyword : PARAMETRES PHYSIQUES DU TSUNAMI
 Physical characteristics of the tsunami. There are 10 of them:

- *HH* focal depth (in m),

- L fault length (in m),
- W fault width (in m),
- D dislocation (in m),
- TH strike direction (in decimal degrees),
- DL dip angle (in decimal degrees),
- RD slip angle (in decimal degrees),
- $Y0$ epicentre latitude (in decimal degrees),
- $X0$ epicentre longitude (in decimal degrees),
- $C0$ size of the ellipse of influence ($L \times W$).

1.251 PRECONDITIONING

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

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

- 0: no preconditioning,
- 2: diagonal preconditioning,
- 3: block-diagonal preconditioning (systemes a 4 ou 9 matrices),
- 5: diagonal preconditioning with absolute value,
- 7: Crout's preconditioning per element or segment (does not work in parallel),
- 11: Gauss-Seidel's preconditioning per element or segment,
- 13: preconditioning supplied by the user.

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 made.

1.252 PRECONDITIONING FOR DIFFUSION OF TRACERS

Type : Integer
 Dimension : 1
 Mnemo SLVTRA(ITRAC)%PRECON
 DEFAULT VALUE : 2
 French keyword : PRECONDITIONNEMENT POUR LA DIFFUSION DES TRACEURS

Choice of the preconditioning of the linear system of the tracer diffusion so that the convergence is speeded up when it is being solved.

- 0: no preconditioning,
- 2: diagonal preconditioning,
- 7: Crout's preconditioning per element or segment (does not work in parallel).

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 made.

1.253 PRECONDITIONING FOR K-EPSILON MODEL

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

French keyword : PRECONDITIONNEMENT POUR LE MODELE K-EPSILON

Choice of the preconditioning of the linear system in the diffusion step of k, ε (for $k - \varepsilon$ model) or $\tilde{\nu}$ (for Spalart-Allmaras model) so that the convergence is speeded up when it is being solved.

- 0: no preconditioning,
- 2: diagonal preconditioning,
- 7: Crout's preconditioning per element or segment (does not work in parallel).

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 made.

1.254 PRESCRIBED ELEVATIONS

Type : Real
 Dimension : 2
 Mnemo COTE
 DEFAULT VALUE : MANDATORY
 French keyword : COTES IMPOSEES

Values of the elevations prescribed at open boundaries. The section about boundary conditions is to be read in the manual.

1.255 PRESCRIBED FLOWRATES

Type : Real
 Dimension : 2
 Mnemo DEBIT
 DEFAULT VALUE : MANDATORY
 French keyword : DEBITS IMPOSES

Values of the flowrates prescribed at open boundaries. The section about boundary conditions is to be read in the manual.

1.256 PRESCRIBED TRACERS VALUES

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

Tracer values prescribed at the inflow boundaries. Read the user manual section dealing with the boundary conditions.

1.257 PRESCRIBED VELOCITIES

Type : Real
 Dimension : 2
 Mnemo VITES
 DEFAULT VALUE : MANDATORY
 French keyword : VITESSES IMPOSEES

Values of the magnitudes of velocity prescribed at open boundaries. Refer to the section dealing with the boundary conditions.

1.258 PREVIOUS COMPUTATION FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DPRE)%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.

1.259 PREVIOUS COMPUTATION FILE FORMAT

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DPRE)%FMT
 DEFAULT VALUE : 'SERAFIN'
 French keyword : FORMAT DU FICHER DU CALCUL PRECEDENT

Format of the PREVIOUS COMPUTATION FILE. Possible values are:

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

1.260 PREVIOUS DROGUES FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DPLO)%NAME
 DEFAULT VALUE : ""
 French keyword : FICHER DES FLOTTEURS PRECEDENT

Name of a file containing the results of an earlier computation with drogues.

1.261 PREVIOUS DROGUES FILE FORMAT

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DPLO)%FMT
 DEFAULT VALUE : 'BKBINPCL'
 French keyword : FORMAT DU FICHIER DES FLOTTEURS PRECEDENT
 Format of the PREVIOUS DROGUES FILE. Possible choices are:

- BKBINPCL: format binary PCL native of BlueKenue,
- BKASCPCL: format SCII PCL native of BlueKenue.

1.262 PRINTING CUMULATED FLOWRATES

Type : Logical
 Dimension : 1
 Mnemo CUMFLO
 DEFAULT VALUE : NO
 French keyword : IMPRESSION DU CUMUL DES FLUX
 Printing the cumulated flowrates through control sections.

1.263 PRINTOUT PERIOD FOR DROGUES

Type : Integer
 Dimension : 1
 Mnemo FLOPRD
 DEFAULT VALUE : 1
 French keyword : PERIODE POUR LES SORTIES DE FLOTTEURS
 Number of time steps between 2 outputs of drogues positions in the output file.

1.264 PRODUCTION COEFFICIENT FOR SECONDARY CURRENTS

Type : Real
 Dimension : 1
 Mnemo SEC_AS
 DEFAULT VALUE : 7.071
 French keyword : COEFFICIENT DE PRODUCTION POUR COURANTS SECONDAIRES
 A constant in the production terms of Ω .

1.265 PROPAGATION

Type : Logical
 Dimension : 1
 Mnemo PROPA
 DEFAULT VALUE : YES
 French keyword : PROPAGATION
 Determines whether the propagation step is taken into account or not. The diffusion being included in that step will be deleted as well.

1.266 RAIN OR EVAPORATION

Type : Logical
 Dimension : 1
 Mnemo RAIN
 DEFAULT VALUE : NO
 French keyword : PLUIE OU EVAPORATION

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

1.267 RAIN OR EVAPORATION IN MM PER DAY

Type : Real
 Dimension : 1
 Mnemo CST_RAINFALL
 DEFAULT VALUE : 0.0
 French keyword : PLUIE OU EVAPORATION EN MM PAR JOUR

To add or remove water at the free surface.

1.268 RAINFALL-RUNOFF MODEL

Type : Integer
 Dimension : 1
 Mnemo RUNOFFOPT
 DEFAULT VALUE : 0
 French keyword : MODELE PLUIE-DEBIT

Option for the rainfall-runoff model. Available options are:

- 0: No infiltration (basic function),
- 1: CN runoff model (Curve Number method of the SCS),
- 2: Horton model,
- 3: Green-Ampt model.

1.269 RATE OF DEGRADATION FOR ALGAE

Type : Real
 Dimension : 2
 Mnemo A_ALGAE
 DEFAULT VALUE : 0.;0.
 French keyword : TAUX DE DEGRADATION POUR LES ALGUES

Rate of degradation for algae.

1.270 RECORD NUMBER FOR RESTART

Type : Integer
 Dimension : 1
 Mnemo START_RECORD
 DEFAULT VALUE : -1
 French keyword : ENREGISTREMENT POUR SUITE DE CALCUL

In case of COMPUTATION CONTINUED = YES, record number to start from in the PREVIOUS COMPUTATION FILE. -1 means the last record is taken.

1.271 RECORD NUMBER IN RESTART FILE

Type : Integer
 Dimension : 1
 Mnemo RESTART_RECORD
 DEFAULT VALUE : -1
 French keyword : NUMERO DE L'ENREGISTREMENT DANS LE FICHIER POUR SUITE
 Determines the number of time step when printing the variables to be saved for a perfect restart in the RESTART FILE. Default = -1 means the RESTART FILE is only written at the last time step and/or periodically at the period RESTART FILE PRINTOUT PERIOD.

1.272 RECORD NUMBER IN WAVE FILE

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

1.273 REFERENCE FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DREF)%NAME
 DEFAULT VALUE : ""
 French keyword : FICHIER DE REFERENCE
 Binary-coded result file for validation.

1.274 REFERENCE FILE FORMAT

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DREF)%FMT
 DEFAULT VALUE : 'SERAFIN'
 French keyword : FORMAT DU FICHIER DE REFERENCE
 Format of the REFERENCE FILE. Possible values are:

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

1.275 REFINEMENT LEVELS

Type : Integer
 Dimension : 1
 Mnemo RLEVELS
 DEFAULT VALUE : 0
 French keyword : NIVEAUX DE RAFFINEMENT
 Gives the number of refinement levels that the user wants to use in the convergence study (when activating CONVERGENCE STUDY = YES). Each level multiplies the number of elements by 4.

1.276 RESTART FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DRST)%NAME
 DEFAULT VALUE : ”

French keyword : FICHIER POUR SUITE

Name of the file into which the 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”.

1.277 RESTART FILE FORMAT

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DRST)%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.

1.278 RESTART FILE PRINTOUT PERIOD

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

French keyword : PERIODE POUR LES SORTIES DU FICHIER POUR SUITE

Determines, in number of time steps, the printout period for the variables to be saved for a perfect restart in the RESTART FILE. Default = 0 means the RESTART FILE is only written at the last time step or at the RECORD NUMBER IN RESTART FILE.

1.279 RESTART MODE

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

French keyword : MODE SUITE

Triggers the filling of the RESTART FILE, which ensures a perfect restart of a computation, unlike using the RESULTS FILE.

1.280 RESULT FILE IN LONGITUDE-LATITUDE

Type : Logical
 Dimension : 1
 Mnemo KEEP_LONLAT
 DEFAULT VALUE : YES
 French keyword : FICHER RESULTAT EN LONGITUDE-LATITUDE

Gives the coordinates of the result file in longitude-latitude if the geometry file is also given in longitude-latitude.

1.281 RESULTS FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DRES)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DES RESULTATS

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

1.282 RESULTS FILE FORMAT

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DRES)%FMT
 DEFAULT VALUE : 'SERAFIN'
 French keyword : FORMAT DU FICHER DES RESULTATS

Format of the RESULTS 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.

1.283 ROUGHNESS COEFFICIENT OF BOUNDARIES

Type : Real
 Dimension : 1
 Mnemo SB
 DEFAULT VALUE : 100.
 French keyword : COEFFICIENT DE RUGOSITE DES BORDS

Sets the value of the friction coefficient of the solid boundary with the bed roughness option. Same meaning than friction coefficient:

- 1: not implemented,
- 2: Chezy coefficient,
- 3: Strickler coefficient,
- 4: Manning coefficient,
- 5: Nikuradse grain size.

1.284 SALINITY DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DDL4)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DELWAQ DE LA SALINITE
 Results file for chaining with DELWAQ.

1.285 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.

1.286 SATURATED WATER CONTENT

Type : Real
 Dimension : 1
 Mnemo THETAS
 DEFAULT VALUE : 0.5
 French keyword : TENEUR EN EAU A SATURATION
 Water content at saturation state which represents the quantity of water in the soil.

1.287 SCHEME FOR ADVECTION OF K-EPSILON

Type : Integer
 Dimension : 1
 Mnemo ICONVF(4)
 DEFAULT VALUE : 1
 French keyword : SCHEMA POUR LA CONVECTION DU K-EPSILON
 Choice of the advection scheme for k and ε (for $k - \varepsilon$ model) or $\tilde{\nu}$ (for Spalart-Allmaras model), replaces TYPE OF ADVECTION.

1.288 SCHEME FOR ADVECTION OF TRACERS

Type : Integer
 Dimension : 1
 Mnemo ICONVFT
 DEFAULT VALUE : 1
 French keyword : SCHEMA POUR LA CONVECTION DES TRACEURS
 Choice of the advection scheme for the tracers, replaces TYPE OF ADVECTION.

1.289 SCHEME FOR ADVECTION OF VELOCITIES

Type : Integer
 Dimension : 1
 Mnemo ICONVF(1)
 DEFAULT VALUE : 1
 French keyword : SCHEMA POUR LA CONVECTION DES VITESSES

Choice of the advection scheme for the velocities, replaces TYPE OF ADVECTION.

1.290 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 SUPG OPTION. If characteristics:

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

If N or PSI scheme:

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

Common keyword for variables k , ε (for $k - \varepsilon$ model) and $\tilde{\nu}$ (for Spalart-Allmaras model).

1.291 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 SUPG OPTION. If characteristics:

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

If N or PSI scheme:

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

1.292 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 SUPG OPTION. If characteristics:

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

If N or PSI scheme:

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

1.293 SECONDARY CURRENTS

Type : Logical
 Dimension : 1
 Mnemo SECCURRENTS
 DEFAULT VALUE : NO
 French keyword : COURANTS SECONDAIRES

Using the parametrisation for secondary currents.

1.294 SECTIONS INPUT FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES%ADR(T2DSEC)
 DEFAULT VALUE : "
 French keyword : FICHIER DES SECTIONS DE CONTROLE
 Sections input file, partitioned.

1.295 SECTIONS OUTPUT FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES%ADR(T2DSEO)
 DEFAULT VALUE : "
 French keyword : FICHIER DE SORTIE DES SECTIONS DE CONTROLE
 Sections output file, written by the master.

1.296 SECURITY COEFFICIENT FOR SCARACT

Type : Real
 Dimension : 1
 Mnemo SECU_DROGUES
 DEFAULT VALUE : 1.
 French keyword : COEFFICIENT DE SECURITE POUR SCARACT
 Security coefficient for memory allocation for **SCARACT**.

1.297 SOLAR RADIATION

Type : Real
 Dimension : 1
 Mnemo CST_RAY3
 DEFAULT VALUE : 160.
 French keyword : RAYONNEMENT SOLAIRE

Gives the value of solar radiation when it is constant in time and space. In W/m².

1.298 SOLVER

Type : Integer
 Dimension : 1
 Mnemo SLVPRO%SLV
 DEFAULT VALUE : 3
 French keyword : SOLVEUR

Makes it possible to select the solver used for solving the propagation step. Possible choices are:

- 1: conjugate gradient,
- 2: conjugate residual,
- 3: conjugate gradient on a normal equation,
- 4: minimum error,
- 5: squared conjugate gradient (not implemented),
- 6: conjugate gradient squared stabilised (cgstab),
- 7: GMRES (see SOLVER OPTION),
- 8: direct.

1.299 SOLVER ACCURACY

Type : Real
 Dimension : 1
 Mnemo SLVPRO%EPS
 DEFAULT VALUE : 1.E-4
 French keyword : PRECISION DU SOLVEUR

Required accuracy for solving the propagation step (refer to Principle note).

1.300 SOLVER FOR DIFFUSION OF TRACERS

Type : Integer
 Dimension : 2
 Mnemo SLVTRA(ITRAC)%SLV
 DEFAULT VALUE : 1;1

French keyword : SOLVEUR POUR LA DIFFUSION DES TRACEURS

Makes it possible to select the solver used for solving the system of tracer(s) diffusion. Possible choices are:

- 1: conjugate gradient,
- 2: conjugate residual,
- 3: conjugate gradient on a normal equation,
- 4: minimum error,
- 5: squared conjugate gradient (not implemented),
- 6: cgstab,
- 7: GMRES (see SOLVER OPTION FOR TRACERS DIFFUSION,
- 8: direct.

1.301 SOLVER FOR K-EPSILON MODEL

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

French keyword : SOLVEUR POUR LE MODELE K-EPSILON

Makes it possible to select the solver used for solving the system of the diffusion of k , ε (for $k - \varepsilon$ model) or $\tilde{\nu}$ (for Spalart-Allmaras model). Possible choices are:

- 1: conjugate gradient,
- 2: conjugate residual,
- 3: conjugate gradient on a normal equation,
- 4: minimum error,
- 5: squared conjugate gradient (not implemented),
- 6: conjugate gradient squared stabilised (cgstab),
- 7: GMRES (see OPTION FOR THE SOLVER FOR K-EPSILON MODEL),
- 8: direct.

1.302 SOLVER OPTION

Type : Integer
 Dimension : 1
 Mnemo SLVPRO%KRYLOV
 DEFAULT VALUE : 2
 French keyword : OPTION DU SOLVEUR

When GMRES (7) is chosen for solver, dimension of the Krylov space. Try values between 2 and 15.

1.303 SOLVER OPTION FOR TRACERS DIFFUSION

Type : Integer
 Dimension : 1
 Mnemo SLVTRA(ITRAC)%KRYLOV
 DEFAULT VALUE : 2
 French keyword : OPTION DU SOLVEUR POUR LA DIFFUSION DES TRACEURS

When GMRES (7) is chosen for solver, dimension of the Krylov space. Try values between 2 and 15.

1.304 SOURCE REGIONS DATA FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DSDN)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DES REGIONS DES SOURCES

ASCII data file containing sources informations: coordinates of the polygons containing sources.

1.305 SOURCES FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DVEF)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DES SOURCES

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

1.306 SPATIAL PROJECTION TYPE

Type : Integer
 Dimension : 1
 Mnemo PROTYP
 DEFAULT VALUE : 1
 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 TELEMAT-2D using Mercator projection.

1.307 SPEED AND DIRECTION OF WIND

Type : Real
 Dimension : 2
 Mnemo CST_WINDS;CST_WINDD
 DEFAULT VALUE : 0.;0.

French keyword : VITESSE ET DIRECTION DU VENT

Gives the speed and direction (in degrees (from 0 to 360), 0 given $y = 0$ and $x = +\infty$) when they are constant in time and space (keyword OPTION FOR WIND = 1).

1.308 SPHERICAL COORDINATES

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

French keyword : COORDONNEES SPHERIQUES

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

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

1.309 STAGE-DISCHARGE CURVES

Type : Integer
 Dimension : 2
 Mnemo STA_DIS_CURVES
 DEFAULT VALUE : MANDATORY
 French keyword : COURBES DE TARAGE

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

- 0: no,
- 1: $Z(Q)$,
- 2: $Q(Z)$.

1.310 STAGE-DISCHARGE CURVES FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DMAB)%NAME
 DEFAULT VALUE : "

French keyword : FICHER DES COURBES DE TARAGE

Name of the file containing stage-discharge curves.

1.311 STAGE-DISCHARGE CURVES RELAXATION COEFFICIENT

Type : Real
 Dimension : 1
 Mnemo RELAX_STA_DIS
 DEFAULT VALUE : 0.02

French keyword : COEFFICIENT DE RELAXATION DES COURBES DE TARAGE

Relaxation coefficient used to interpolate free surface elevation with respect to flowrate from the stage-discharge curve (for STAGE-DISCHARGE CURVES = 1). If set to 1., the elevation is instantaneously prescribed corresponding to the stage-discharge curve, but this may lead to instabilities. Setting a value between 0. and 1., a delay is introduced to prescribe this stage-discharge curve, that is a compromise between the goal of the stage-discharge curve and possible instabilities. Read the TELEMAC-2D user manual for more details.

1.312 STEERING FILE

Type : String
 Dimension : 1
 Mnemo NOMCAS
 DEFAULT VALUE : "
 French keyword : FICHIER DES PARAMETRES

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

1.313 STOCHASTIC DIFFUSION MODEL

Type : Integer
 Dimension : 1
 Mnemo STOCHA
 DEFAULT VALUE : 0
 French keyword : MODELE DE DIFFUSION STOCHASTIQUE

Meant for particles: drogues, oil spills. If no turbulence is activated, this stochastic diffusion is not considered during the particle transport.

1.314 STOP CRITERIA

Type : Real
 Dimension : 3
 Mnemo CRIPER
 DEFAULT VALUE : 1.E-4;1.E-4;1.E-4
 French keyword : CRITERES D'ARRET

Stop criteria for a steady state. These coefficients are applied respectively to:

- U and V ,
- H ,
- Tracers.

To be used with the keyword STOP IF A STEADY STATE IS REACHED.

1.315 STOP IF A STEADY STATE IS REACHED

Type : Logical
 Dimension : 1
 Mnemo STOPER
 DEFAULT VALUE : NO
 French keyword : ARRET SI UN ETAT PERMANENT EST ATTEINT
 To be used with the keyword: STOP CRITERIA.

1.316 SUCTION

Type : Real
 Dimension : 1
 Mnemo HF
 DEFAULT VALUE : 0.2
 French keyword : SUCCION

It represents the capillarity action with the liquid that is flowing in a narrow space without the assistance of gravity. It should be given in m.

1.317 SUPG OPTION

Type : Integer
 Dimension : 4
 Mnemo OPTSUP
 DEFAULT VALUE : 2;2;2;2
 French keyword : OPTION DE SUPG

Possible choices are:

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

These coefficients are applied respectively to:

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

If using a distributive scheme (3, 4, 5, 13, 14, 15), the coefficient applied to H is automatically set to 0. Moreover, if using TREATMENT OF NEGATIVE DEPTHS = 2 or 3 with OPTION FOR THE TREATMENT OF TIDAL FLATS = 1, it is mandatory to choose 0 for the 2nd component of SUPG OPTION (water depth).

1.318 TEMPERATURE DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DDL8)%NAME
 DEFAULT VALUE : ""
 French keyword : FICHER DELWAQ DE LA TEMPERATURE
 Results file for chaining with DELWAQ.

1.319 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.

1.320 THICKNESS OF ALGAE

Type : Real
 Dimension : 2
 Mnemo EALGAE
 DEFAULT VALUE : 0.01;0.01
 French keyword : EPAISSEUR DES ALGUES
 Thickness of algae in m.

1.321 THRESHOLD DEPTH FOR RECEDING PROCEDURE

Type : Real
 Dimension : 1
 Mnemo HREC
 DEFAULT VALUE : 0.
 French keyword : PROFONDEUR LIMITE POUR PROCEDURE DE RESSUYAGE
 If > 0., will trigger the receding procedure that avoids overwhelming of dykes which are too loosely discretised.

1.322 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.

1.323 THRESHOLD FOR NEGATIVE DEPTHS

Type : Real
 Dimension : 1
 Mnemo HNEG
 DEFAULT VALUE : 0.
 French keyword : SEUIL POUR LES PROFONDEURS NEGATIVES
 Below the threshold the negative depths are smoothed. Only used with TREATMENT OF NEGATIVE DEPTHS = 1.

1.324 TIDAL DATA BASE

Type : Integer
 Dimension : 1
 Mnemo TIDALDB
 DEFAULT VALUE : -1
 French keyword : BASE DE DONNEES DE MAREE

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.

1.325 TIDAL FLATS

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

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

1.326 TIDAL MODEL FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DTID)
 DEFAULT VALUE : ''
 French keyword : FICHER DU MODELE DE MAREE

Geometry file of the model from which harmonic constituents are extracted.

1.327 TIDAL MODEL FILE FORMAT

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DTID)%FMT
 DEFAULT VALUE : 'SERAFIN'
 French keyword : FORMAT DU FICHER DU MODELE DE MAREE

Format of the TIDAL MODEL 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.

1.328 TIDE GENERATING FORCE

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

The tide generating force is taken into account. The keyword SPHERICAL COORDINATES has to be activated, it is impossible to account tide generating force in cartesian coordinates.

1.329 TIME RANGE FOR FOURIER ANALYSIS

Type : Real
 Dimension : 2
 Mnemo TAFBGN,TAFEND
 DEFAULT VALUE : 0.;0.
 French keyword : BORNES EN TEMPS POUR L'ANALYSE DE FOURIER
 For computing tidal range and phase of tide.

1.330 TIME SERIES COORDINATES FILE 1

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DCO1)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DE COORDONNEES DES SERIES TEMPORELLES 1
 Name of the file containing points coordinates and periods of time where time series are extracted in the TIME SERIES FILE 1.

1.331 TIME SERIES COORDINATES FILE 2

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DCO2)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DE COORDONNEES DES SERIES TEMPORELLES 2
 Name of the file containing points coordinates and periods of time where time series are extracted in the TIME SERIES FILE 2.

1.332 TIME SERIES FILE 1

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DHI1)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DES SERIES TEMPORELLES 1
 Name of the file into which 2D time series are written at the points defined in the TIME SERIES COORDINATES FILE 1.

1.333 TIME SERIES FILE 1 FORMAT

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DHI1)%FMT
 DEFAULT VALUE : 'SERAFIN'
 French keyword : FORMAT DU FICHER DES SERIES TEMPORELLES 1
 Format of the TIME SERIES FILE 1. 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.

1.334 TIME SERIES FILE 2

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DHI2)%NAME
 DEFAULT VALUE : ”

French keyword : FICHIER DES SERIES TEMPORELLES 2

Name of the file into which 2D time series are written at the points defined in the TIME SERIES COORDINATES FILE 2.

1.335 TIME SERIES FILE 2 FORMAT

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DHI2)%FMT
 DEFAULT VALUE : 'SERAFIN'

French keyword : FORMAT DU FICHIER DES SERIES TEMPORELLES 2

Format of the TIME SERIES FILE 2. 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.

1.336 TIME STEP

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

French keyword : PAS DE TEMPS

Specifies the time step in seconds.

1.337 TITLE

Type : String
 Dimension : 1
 Mnemo TITCAS
 DEFAULT VALUE : ”

French keyword : TITRE

Title of the case being considered.

1.338 TOLERANCES FOR IDENTIFICATION

Type : Real
 Dimension : 4
 Mnemo TOLEST
 DEFAULT VALUE : 1.E-3;1.E-3;1.E-3;1.E-4

French keyword : PRECISIONS POUR L'IDENTIFICATION

4 numbers: absolute precision on H , U , V , and relative precision on the cost function.

1.339 TOMAWAC STEERING FILE

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

1.340 TREATMENT OF FLUXES AT THE BOUNDARIES

Type : Integer
 Dimension : 1
 Mnemo DIRFLU
 DEFAULT VALUE : 1
 French keyword : TRAITEMENT DES FLUX AUX FRONTIERES
 Used so far only with the SUPG, PSI and N schemes. With option 2, Dirichlet prescribed values are not obeyed, but the fluxes are correct. One single and same value for every liquid boundary.

1.341 TREATMENT OF NEGATIVE DEPTHS

Type : Integer
 Dimension : 1
 Mnemo OPT_HNEG
 DEFAULT VALUE : 1
 French keyword : TRAITEMENT DES HAUTEURS NEGATIVES
 Only with OPTION FOR THE TREATMENT OF TIDAL FLATS = 1. Possible choices are:

- 0: no treatment,
- 1: smoothing,
- 2: flux control, by segment,
- 3: flux control, by element.

If using options 2 or 3 with tidal flats, it is mandatory to set MASS-LUMPING ON H = 1. + CONTINUITY CORRECTION = YES + SUPG OPTION for water depth = 0 (no SUPG upwinding on depth).

1.342 TREATMENT OF THE LINEAR SYSTEM

Type : Integer
 Dimension : 1
 Mnemo SOLSYS
 DEFAULT VALUE : 2
 French keyword : TRAITEMENT DU SYSTEME LINEAIRE
 Possible choices:

- 1: Coupled,
- 2: Wave equation.

Old default value = 1 (coupled) until release V8P1.

1.343 TURBULENCE MODEL

Type : Integer
 Dimension : 1
 Mnemo ITURB
 DEFAULT VALUE : 1
 French keyword : MODELE DE TURBULENCE

The current alternatives are as follows:

- 1: constant viscosity,
- 2: elder's model,
- 3: k - ε model,
- 4: Smagorinski model,
- 5: mixing length model,
- 6: Spalart-Allmaras model.

NOTE: when option 1 is chosen, it should be kept in mind that the value of the keyword VELOCITY DIFFUSIVITY has to be adjusted. When option 2 is chosen, the two values of keyword NON-DIMENSIONAL DISPERSION COEFFICIENTS are used. When option 3 is chosen, this parameter should recover its true physical value, since it is used as such in the turbulence model.

1.344 TURBULENCE REGIME FOR SOLID BOUNDARIES

Type : Integer
 Dimension : 1
 Mnemo LISRUG
 DEFAULT VALUE : 2
 French keyword : REGIME DE TURBULENCE POUR LES PAROIS

Provided for selecting the type of friction on the walls. Possible choices are:

- 1: smooth,
- 2: rough.

1.345 TYPE OF ADVECTION

Type : Integer
 Dimension : 4
 Mnemo ICONVF
 DEFAULT VALUE : 1;5;1;1
 French keyword : FORME DE LA CONVECTION

Choice of advection schemes for every variable. These coefficients are applied respectively to

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

Possible choices are:

- 1: characteristics,
- 2: SUPG,
- 3: Conservative N-scheme,
- 4: Conservative N-scheme,
- 5: Conservative PSI-scheme,
- 13: Edge-based N-scheme,
- 14: Edge-based N-scheme,
- 15: ERIA scheme.

The second integer must be 5.

1.346 TYPE OF BOUNDARY CONDITION FOR KINETIC SCHEME

Type : Integer
 Dimension : 1
 Mnemo BNDCIN
 DEFAULT VALUE : 1
 French keyword : TYPE DE CONDITION A LA LIMITE POUR LE SCHEMA CINETIQUE

Possible choices:

- 1: Weak imposition,
- 2: Strong imposition.

1.347 TYPE OF SOURCES

Type : Integer
 Dimension : 1
 Mnemo OPTSOU
 DEFAULT VALUE : 1
 French keyword : TYPE DES SOURCES

Defines how the sources are computed:

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

1.348 TYPE OF WEIRS

Type : Integer
 Dimension : 1
 Mnemo TYPSEUIL
 DEFAULT VALUE : 1
 French keyword : TYPE DES SEUILS

Method for treatment of weirs. Two options:

- horizontal with same number of nodes upstream/downstream (Historical solution with the **BORD** subroutine),
- general (new solution with sources points).

1.349 USE MAXIMUM VALUES FROM PREVIOUS COMPUTATION FILE

Type : Logical
 Dimension : 1
 Mnemo MAX_PREV
 DEFAULT VALUE : YES
 French keyword : UTILISE LES VALEURS MAXIMUM DU FICHIER DU CALCUL PRECEDENT
 If YES, computes maximum values for variables MAXZ, TMXZ, MAXV, TMXV from PREVIOUS COMPUTATION FILE and current computation. If NO, the variables are only computed from current computation.

1.350 VALIDATION

Type : Logical
 Dimension : 1
 Mnemo VALID
 DEFAULT VALUE : NO
 French keyword : VALIDATION
 This option is primarily used for the validation documents. The REFERENCE FILE is then considered as a reference which the computation is going to be compared with. The comparison is done by the subroutine **BIEF_VALIDA**, which can be modified so as to include, for example, a comparison with an exact solution.

1.351 VALUE OF ATMOSPHERIC PRESSURE

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

1.352 VALUES OF THE TRACERS AT THE SOURCES

Type : Real
 Dimension : 2
 Mnemo TSCE
 DEFAULT VALUE : MANDATORY
 French keyword : VALEURS DES TRACEURS DES SOURCES
 Values of the tracers at the sources. All tracers for the first source, then all tracers for the second source, 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

1.353 VALUES OF TRACERS IN THE RAIN

Type : Real
 Dimension : 2
 Mnemo TRAIN
 DEFAULT VALUE : MANDATORY
 French keyword : VALEURS DES TRACEURS DANS LA PLUIE

Most often, this tracer is temperature, in this case this value should be modified, otherwise, default value of 0 seems reasonable.

1.354 VAPOROUS PRESSURE

Type : Real
 Dimension : 1
 Mnemo CST_PVAP
 DEFAULT VALUE : 1000.
 French keyword : PRESSION DE VAPEUR SATURANTE

Gives the value of vaporous pressure when it is constant in time and space. In Pa.

1.355 VARIABLE TIME-STEP

Type : Logical
 Dimension : 1
 Mnemo DTVARI
 DEFAULT VALUE : NO
 French keyword : PAS DE TEMPS VARIABLE

Variable time-step to get a given Courant number.

1.356 VARIABLES FOR GRAPHIC PRINTOUTS

Type : String
 Dimension : 1
 Mnemo VARDES
 DEFAULT VALUE : 'U;V;H;B'
 French keyword : VARIABLES POUR LES SORTIES GRAPHIQUES

Names of variables which will be written in the results file. Each variable is represented by a letter (free separators). The possible choices are:

- U: velocity along x axis (m/s),
- V: velocity along y axis (m/s),
- C: wave celerity (m/s),
- H: water depth (m),
- S: free surface elevation (m),
- B: bottom elevation (m),
- F: Froude number,
- Q: scalar flowrate of fluid (m^2/s),
- Tn: tracer, with n the tracer number,

- K: turbulent kinetic energy in $k - \epsilon$ model (J/kg),
- E: dissipation of turbulent energy (W/kg),
- D: turbulent viscosity (m^2/s),
- I: flowrate along x axis (m^2/s),
- J: flowrate along y axis (m^2/s),
- M: scalar velocity (m/s),
- X: wind along x axis (m/s),
- Y: wind along y axis (m/s),
- P: air pressure (Pa),
- W: friction coefficient,
- A: drift along x (m),
- G: drift along y (m),
- L: Courant number,
- MAXZ: maximum elevation (m),
- TMXZ: time of maximum elevation (s),
- MAXV: maximum velocity (m/s),
- TMXV: time of maximum velocity (s),
- US: friction velocity (m/s),
- Gn: differentiated gradient, with n the gradient reference number,
- TAU_S: streamwise stress (N/m^2),
- 1/R: reverse of local radius of curvature (1/m),
- OMEGA: vorticity (1/s),
- WDIST: distance to the closest wall (m),
- ZRL: reference level for Nestor (m),
- CSO2: oxygen saturation concentration (mgO_2/l),
- O2SAT: percentage of oxygen saturation (%).

4 other variables are also available to the user to write created variables results. These user variables should be computed in **PRERES_TELEMAC2D** subroutine and their name should be written in **NOMVAR_TELEMAC2D** subroutine. These seven variables are as follows: N, O, R, Z which correspond to arrays **PRIVE(1,1)** up to **PRIVE(1,4)**. Unlike the previous variables, they are kept throughout the program, so that they can be used again. In the latter case, do not forget to provide the array PRIVE with sufficiently large dimensions in the FORTRAN FILE. The size of the RESULTS FILE can be limited with this keyword. However, if a computation must be continued, the RESULTS FILE should contain the appropriate information for running the code, i.e.:

- velocities U and V ,
- water depth H ,
- bottom elevation B .

TELEMAC-2D can compute some of these variables from others.

1.357 VARIABLES TO BE PRINTED

Type : String
 Dimension : 1
 Mnemo VARIMP
 DEFAULT VALUE : "
 French keyword : VARIABLES A IMPRIMER

Name of the variables that the user wants printed on screen. Same values available as graphical outputs.

1.358 VECTOR LENGTH

Type : Integer
 Dimension : 1
 Mnemo LVMAC
 DEFAULT VALUE : 1
 French keyword : LONGUEUR DU VECTEUR

Vector length on vector machines.

1.359 VEGETATION FRICTION

Type : Logical
 Dimension : 1
 Mnemo VEGETATION
 DEFAULT VALUE : NO
 French keyword : FROTTEMENT POUR LA VEGETATION

Friction calculation of the non-submerged vegetation.

1.360 VELOCITIES IN BINARY DATABASE 2 FOR TIDE

Type : Logical
 Dimension : 1
 Mnemo VIT_IN_T2DBB2
 DEFAULT VALUE : NO
 French keyword : VITESSES DANS BASE BINAIRE 2 DE DONNEES DE MAREE

Indicates if BINARY DATABASE 2 FOR TIDE contains velocities or circulations (h times velocities). For OSU solutions, let default value NO (circulation). For HAMTIDE, choose YES.

1.361 VELOCITIES OF THE SOURCES ALONG X

Type : Real
 Dimension : 2
 Mnemo USCE
 DEFAULT VALUE : MANDATORY
 French keyword : VITESSES DES SOURCES SELON X

Velocities along x at the sources. If they are not given, the velocity of the flow at this location is taken.

1.362 VELOCITIES OF THE SOURCES ALONG Y

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

Velocities along y at the sources. If they are not given, the velocity of the flow at this location is taken.

1.363 VELOCITY DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DDL9)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DELWAQ DE LA VITESSE

Results file for chaining with DELWAQ.

1.364 VELOCITY DIFFUSIVITY

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

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

1.365 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.

1.366 VELOCITY PROFILES

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

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

- 1: constant normal profile,

- 2: u and v given in the BOUNDARY CONDITION FILE,
- 3: normal velocity given in **UBOR** in the BOUNDARY CONDITION FILE,
- 4: \sqrt{h} profile,
- 5: like 4 but virtual depth based on the lowest elevation of the boundary.

1.367 VERTICAL FLUXES DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DDL3)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DELWAQ DES FLUX VERTICAUX
 Results file for chaining with DELWAQ.

1.368 VERTICAL STRUCTURES

Type : Logical
 Dimension : 1
 Mnemo VERTIC
 DEFAULT VALUE : NO
 French keyword : STRUCTURES VERTICALES
 Drag forces from vertical structures are taken into account. (subroutine **USER_DRAGFO** must then be implemented).

1.369 VOLUMES DELWAQ FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DSOU)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DELWAQ DES VOLUMES
 Results file for chaining with DELWAQ.

1.370 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-2D-WAQTEL not those of DELWAQ).

1.371 WATER DENSITY

Type : Real
 Dimension : 1
 Mnemo ROEAU
 DEFAULT VALUE : 1000.
 French keyword : MASSE VOLUMIQUE DE L'EAU
 Sets the value of water density.

1.372 WATER DISCHARGE OF SOURCES

Type : Real
 Dimension : 2
 Mnemo DSCE
 DEFAULT VALUE : MANDATORY
 French keyword : DEBITS DES SOURCES

Specifies the discharge for every source. A positive discharge means that fluid is added.

1.373 WATER QUALITY PROCESS

Type : Integer
 Dimension : 1
 Mnemo WAQPROCESS
 DEFAULT VALUE : 1
 French keyword : PROCESSUS QUALITE D'EAU

Gives the water quality process number, defined as a multiplicative combination of prime numbers (2,3,5,7,11, 17 and 19) with 0 and 1 having a special role:

- 0: all,
- 1: none,
- 2: O2,
- 3: BIOMASS,
- 5: EUTRO,
- 7: MICROPOL,
- 11: THERMIC,
- 17: Degradation law,
- 19: Ghost process for ice modelling.

Example: $110 = 2 \times 5 \times 11$ activate O2, EUTRO and THERMIC together. It is noted that AED2 is not available in 2D, for the time being.

1.374 WAVE DRIVEN CURRENTS

Type : Logical
 Dimension : 1
 Mnemo COUROU
 DEFAULT VALUE : NO
 French keyword : COURANTS DE HOULE

Wave driven currents are taken into account.

1.375 WAVE ENHANCED FRICTION FACTOR

Type : Logical
 Dimension : 1
 Mnemo FRICOU
 DEFAULT VALUE : NO
 French keyword : AUGMENTATION DU FROTTEMENT PAR LA HOULE
 Wave friction enhancement for the calculation of the wave generated longshore current (cf OConnor and Yoo, 1988, Coast Eng.12.).

1.376 WAVE ORBITAL VELOCITY THRESHOLD FOR ALGAE 1

Type : Real
 Dimension : 2
 Mnemo TW1_ALGAE
 DEFAULT VALUE : 2.;2.
 French keyword : SEUIL DE LA VITESSE ORBITALE DE VAGUE POUR LES ALGUES 1
 Wave orbital velocity 1 for algae dislodgement in m/s.

1.377 WAVE ORBITAL VELOCITY THRESHOLD FOR ALGAE 2

Type : Real
 Dimension : 2
 Mnemo TW2_ALGAE
 DEFAULT VALUE : 0.;0.
 French keyword : SEUIL DE LA VITESSE ORBITALE DE VAGUE POUR LES ALGUES 2
 Wave orbital velocity 2 for algae dislodgement in m/s.

1.378 WEIRS DATA FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DSEU)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DE DONNEES DES SEUILS
 Description of weirs existing in the model.

1.379 WEIRS DISCHARGE OUTPUT FILE

Type : String
 Dimension : 1
 Mnemo T2D_FILES(T2DWOP)%NAME
 DEFAULT VALUE : "
 French keyword : FICHER DE SORTIE DES DEBITS DES SEUILS
 Output file of discharge of weirs existing in the model.

1.380 WIND

Type : Logical
 Dimension : 1
 Mnemo VENT
 DEFAULT VALUE : NO
 French keyword : VENT

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

1.381 WIND VELOCITY ALONG X

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

1.382 WIND VELOCITY ALONG Y

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

1.383 ZERO

Type : Real
Dimension : 1
Mnemo SLVPRO%ZERO
DEFAULT VALUE : 1.E-10
French keyword : ZERO
Not yet implemented

1.384 ZONE NUMBER IN GEOGRAPHIC SYSTEM

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

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

1.385 ZONES FILE

Type : String
Dimension : 1
Mnemo T2D_FILES(T2DZFI)%NAME
DEFAULT VALUE : "
French keyword : FICHIER DES ZONES
Zones file, with on every line:
point number zone number.

2. List of keywords classified according to type

2.1 COMPUTATION ENVIRONMENT

2.1.1 INITIALIZATION

BINARY DATA FILE 1
BINARY DATA FILE 1 FORMAT
BINARY DATA FILE 2
BINARY DATA FILE 2 FORMAT
FORMATTED DATA FILE 1
FORMATTED DATA FILE 2
INITIAL CONDITIONS
INITIAL DEPTH
INITIAL ELEVATION
TITLE

GLOBAL

CHECKING THE MESH
MAXIMUM NUMBER OF BOUNDARIES
MAXIMUM NUMBER OF SOURCES
MAXIMUM NUMBER OF TRACERS
PARALLEL PROCESSORS
SECURITY COEFFICIENT FOR SCARACT
VECTOR LENGTH

INPUT FILES

BOTTOM SMOOTHINGS
BOTTOM SMOOTHINGS AFTER USER MODIFICATIONS
BOTTOM TOPOGRAPHY FILE
BOUNDARY CONDITIONS FILE
FORTRAN FILE
GEOMETRY FILE
GEOMETRY FILE FORMAT
REFERENCE FILE
REFERENCE FILE FORMAT

TIME SERIES COORDINATES FILE 1
TIME SERIES COORDINATES FILE 2
VALIDATION

2.1.2 OUTPUT FILES

CONTROL SECTION

COMPATIBLE COMPUTATION OF FLUXES
CONTROL SECTIONS
FLUXLINE
FLUXLINE INPUT FILE
PRINTING CUMULATED FLOWRATES
SECTIONS INPUT FILE
SECTIONS OUTPUT FILE

FOURIER

FOURIER ANALYSIS PERIODS
TIME RANGE FOR FOURIER ANALYSIS

LISTING

INFORMATION ABOUT SOLVER
LIST OF POINTS
LISTING FOR PRINTOUT PERIOD
LISTING PRINTOUT
LISTING PRINTOUT PERIOD
MASS-BALANCE
NAMES OF POINTS
NUMBER OF FIRST TIME STEP FOR LISTING PRINTOUTS
VARIABLES TO BE PRINTED

RESULTS FILES

BINARY RESULTS FILE
BINARY RESULTS FILE FORMAT
FORMATTED RESULTS FILE
FORMATTED RESULTS FILE 1
FORMATTED RESULTS FILE 2
FORMATTED RESULTS FILE 3
FORMATTED RESULTS FILE 4
FORMATTED RESULTS FILE 5
FORMATTED RESULTS FILE 6
GRAPHIC PRINTOUT PERIOD
NAMES OF PRIVATE VARIABLES
NUMBER OF FIRST TIME STEP FOR GRAPHIC PRINTOUTS
NUMBER OF PRIVATE ARRAYS
RESULT FILE IN LONGITUDE-LATITUDE
RESULTS FILE
RESULTS FILE FORMAT

TIME SERIES FILE 1
TIME SERIES FILE 1 FORMAT
TIME SERIES FILE 2
TIME SERIES FILE 2 FORMAT
VARIABLES FOR GRAPHIC PRINTOUTS

2.1.3 RESTART

COMPUTATION CONTINUED
INITIAL TIME SET TO ZERO
PREVIOUS COMPUTATION FILE
PREVIOUS COMPUTATION FILE FORMAT
RECORD NUMBER FOR RESTART
RECORD NUMBER IN RESTART FILE
RESTART FILE
RESTART FILE FORMAT
RESTART FILE PRINTOUT PERIOD
RESTART MODE
USE MAXIMUM VALUES FROM PREVIOUS COMPUTATION FILE

2.2 COUPLING

COUPLING WITH
NAMES OF CLANDESTINE VARIABLES

2.2.1 DELWAQ

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

2.2.2 GAIA

GAIA STEERING FILE

2.2.3 KHIONE

KHIONE STEERING FILE

2.2.4 NESTOR INFO

NESTOR
NESTOR ACTION FILE
NESTOR POLYGON FILE
NESTOR RESTART FILE
NESTOR SURFACE REFERENCE FILE

2.2.5 TOMAWAC

COUPLING PERIOD FOR TOMAWAC
TOMAWAC STEERING FILE

2.2.6 WAQTEL

WAQTEL STEERING FILE

2.3 GENERAL PARAMETERS

DEBUGGER

2.3.1 LOCATION

LATITUDE OF ORIGIN POINT
LONGITUDE OF ORIGIN POINT
NORTH
SPATIAL PROJECTION TYPE
SPHERICAL COORDINATES

2.3.2 TIME

CONTROL OF LIMITS
DESIRED COURANT NUMBER
DESIRED FOURIER NUMBER
DURATION
INITIAL TIME
LIMIT VALUES
NUMBER OF TIME STEPS
ORIGINAL DATE OF TIME
ORIGINAL HOUR OF TIME
STOP CRITERIA
STOP IF A STEADY STATE IS REACHED
TIME STEP
VARIABLE TIME-STEP

2.4 HYDRAULIC STRUCTURES

2.4.1 BREACHES

BREACH
BREACHES DATA FILE
INITIAL WIDTHS OF BREACHES

2.4.2 CULVERTS

CULVERTS DATA FILE
NUMBER OF CULVERTS
OPTION FOR CULVERTS

2.4.3 WEIRS

NUMBER OF WEIRS
TYPE OF WEIRS
WEIRS DATA FILE
WEIRS DISCHARGE OUTPUT FILE

2.5 HYDRO

2.5.1 BOUNDARY CONDITIONS

PRESCRIBED ELEVATIONS
PRESCRIBED FLOWRATES
PRESCRIBED VELOCITIES

2.5.2 BOUNDARY CONDITIONS OTHERS

COEFFICIENT FOR SOFT BOUNDARIES
ELEMENTS MASKED BY USER
LIQUID BOUNDARIES FILE
OPTION FOR LIQUID BOUNDARIES
OPTION FOR SOFT BOUNDARIES
STAGE-DISCHARGE CURVES
STAGE-DISCHARGE CURVES FILE
STAGE-DISCHARGE CURVES RELAXATION COEFFICIENT
VELOCITY PROFILES

2.5.3 FLUID

CORIOLIS EFFECT
CORIOLIS
CORIOLIS COEFFICIENT

SECONDARY CURRENTS INFO

DISSIPATION COEFFICIENT FOR SECONDARY CURRENTS
PRODUCTION COEFFICIENT FOR SECONDARY CURRENTS
SECONDARY CURRENTS

TSUNAMI

OPTION FOR TSUNAMI GENERATION
PHYSICAL CHARACTERISTICS OF THE TSUNAMI

2.5.4 NUMERICAL PARAMETERS HYDRO

EQUATIONS
FINITE VOLUME SCHEME
TREATMENT OF THE LINEAR SYSTEM

2.5.5 PHYSICAL PARAMETERS HYDRO**ADVANCED-PHY**

GRAVITY ACCELERATION
VERTICAL STRUCTURES
WATER DENSITY

ESTIMATION

COST FUNCTION
IDENTIFICATION METHOD
MAXIMUM NUMBER OF ITERATIONS FOR IDENTIFICATION
PARAMETER ESTIMATION
TOLERANCES FOR IDENTIFICATION

FRICTION

DEFINITION OF ZONES
DEPTH IN FRICTION TERMS
FRICTION COEFFICIENT
FRICTION DATA
FRICTION DATA FILE
LAW OF BOTTOM FRICTION
LAW OF FRICTION ON LATERAL BOUNDARIES
MANNING DEFAULT VALUE FOR COLEBROOK-WHITE LAW
MAXIMUM NUMBER OF FRICTION DOMAINS
ROUGHNESS COEFFICIENT OF BOUNDARIES
VEGETATION FRICTION
ZONES FILE

METEOROLOGY

AIR PRESSURE
AIR TEMPERATURE

ANTECEDENT MOISTURE CONDITIONS
ASCII ATMOSPHERIC DATA FILE
BINARY ATMOSPHERIC DATA FILE
BINARY ATMOSPHERIC DATA FILE FORMAT
CLOUD COVER
COEFFICIENT OF WIND INFLUENCE
COEFFICIENT OF WIND INFLUENCE VARYING WITH WIND SPEED
DURATION OF RAIN OR EVAPORATION IN HOURS
FREE FORMAT FOR ATMOSPHERIC DATA FILE
HORTON TIME CONSTANT
INITIAL WATER CONTENT
OPTION FOR INITIAL ABSTRACTION RATIO
OPTION FOR WIND
RAIN OR EVAPORATION
RAIN OR EVAPORATION IN MM PER DAY
RAINFALL-RUNOFF MODEL
SATURATED WATER CONTENT
SOLAR RADIATION
SPEED AND DIRECTION OF WIND
SUCTION
THRESHOLD DEPTH FOR WIND
VALUE OF ATMOSPHERIC PRESSURE
VAPOROUS PRESSURE
WIND
WIND VELOCITY ALONG X
WIND VELOCITY ALONG Y

NON-NEWTONIAN

BINGHAM OPTION
HERSCHEL-BULKLEY POWER-LAW INDEX
NON-NEWTONIAN FLUID DENSITY
NON-NEWTONIAN LAMINAR RESISTANCE PARAMETER K
NON-NEWTONIAN MODEL
NON-NEWTONIAN PSEUDO-BIPHASIC MODEL
NON-NEWTONIAN VISCOSITY
NON-NEWTONIAN YIELD STRESS

SOURCES

ABSCISSAE OF SOURCES
GLOBAL NUMBERS OF SOURCE NODES
MAXIMUM NUMBER OF POINTS FOR SOURCES REGIONS
ORDINATES OF SOURCES
SOURCE REGIONS DATA FILE
SOURCES FILE
TYPE OF SOURCES
VELOCITIES OF THE SOURCES ALONG X
VELOCITIES OF THE SOURCES ALONG Y
WATER DISCHARGE OF SOURCES

WATER QUALITY INFO

WATER QUALITY PROCESS

WAVE

RECORD NUMBER IN WAVE FILE

WAVE DRIVEN CURRENTS

WAVE ENHANCED FRICTION FACTOR

2.6 INTERNAL

CONCATENATE PARTEL OUTPUT

DICTIONARY

LANGUAGE

PARTITIONING TOOL

STEERING FILE

2.7 NUMERICAL PARAMETERS**2.7.1 ADVANCED**

CONVERGENCE STUDY

FINITE VOLUME SCHEME SPACE ORDER

FINITE VOLUME SCHEME TIME ORDER

FLUX LIMITOR FOR H PLUS Z

FLUX LIMITOR FOR TRACERS

FLUX LIMITOR FOR U AND V

MATRIX STORAGE

MATRIX-VECTOR PRODUCT

NEWMARK TIME INTEGRATION COEFFICIENT

OPTION OF THE HYDROSTATIC RECONSTRUCTION

REFINEMENT LEVELS

TYPE OF BOUNDARY CONDITION FOR KINETIC SCHEME

ZERO

2.7.2 ADVECTION INFO

ADVECTION

ADVECTION OF H

ADVECTION OF U AND V

FREE SURFACE GRADIENT COMPATIBILITY

MASS-LUMPING FOR WEAK CHARACTERISTICS

MASS-LUMPING ON H

MASS-LUMPING ON VELOCITY

MAXIMUM NUMBER OF ITERATIONS FOR ADVECTION SCHEMES

NUMBER OF CORRECTIONS OF DISTRIBUTIVE SCHEMES

NUMBER OF GAUSS POINTS FOR WEAK CHARACTERISTICS

NUMBER OF SUB-ITERATIONS FOR NON-LINEARITIES
NUMBER OF SUB-STEPS OF DISTRIBUTIVE SCHEMES
OPTION FOR CHARACTERISTICS
SCHEME FOR ADVECTION OF VELOCITIES
SCHEME OPTION FOR ADVECTION OF VELOCITIES
SUPG OPTION
TREATMENT OF FLUXES AT THE BOUNDARIES
TYPE OF ADVECTION

2.7.3 AUTOMATIC DIFFERENTIATION

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

2.7.4 DIFFUSION

DIFFUSION OF VELOCITY
FINITE VOLUME SCHEME FOR TRACER DIFFUSION
FINITE VOLUME SCHEME FOR VELOCITY DIFFUSION
IMPLICITATION FOR DIFFUSION OF VELOCITY
OPTION FOR DIRICHLET CONDITION IN FV DIFFUSION
OPTION FOR THE DIFFUSION OF VELOCITIES
OPTION FOR THE RTPF SCHEME RECONSTRUCTIONS

2.7.5 DISCRETISATIONS IMPLICITATION

DISCRETIZATIONS IN SPACE
IMPLICITATION FOR DEPTH
IMPLICITATION FOR VELOCITY

2.7.6 PROPAGATION INFO

INITIAL GUESS FOR H
INITIAL GUESS FOR U
LINEARIZED PROPAGATION
MEAN DEPTH FOR LINEARIZATION
PROPAGATION

2.7.7 SOLVER INFO

C-U PRECONDITIONING
CONTINUITY CORRECTION
FINITE ELEMENT ASSEMBLY
MAXIMUM NUMBER OF ITERATIONS FOR SOLVER
PRECONDITIONING

SOLVER
SOLVER ACCURACY
SOLVER OPTION

2.8 PARTICLE TRANSPORT

2.8.1 ALGAE

ALGAE RELEASE TYPE
ALGAE TRANSPORT MODEL
ALGAE TYPE
DENSITY OF ALGAE
DIAMETER OF ALGAE
DURATION BEFORE ALGAE RELEASE
NUMBER OF ALGAE CLASSES
RATE OF DEGRADATION FOR ALGAE
THICKNESS OF ALGAE
WAVE ORBITAL VELOCITY THRESHOLD FOR ALGAE 1
WAVE ORBITAL VELOCITY THRESHOLD FOR ALGAE 2

2.8.2 BROWNIAN MOTION

STOCHASTIC DIFFUSION MODEL

2.8.3 DROGUES

ASCII DROGUES FILE
BINARY DROGUES FILE
DROGUES FILE FORMAT
DROGUES INITIAL POSITIONING DATA FILE
FORMAT OF THE DROGUES POSITIONING DATA FILE
INITIAL DROGUES SAMPLING DENSITY
MAXIMUM NUMBER OF DROGUES
PREVIOUS DROGUES FILE
PREVIOUS DROGUES FILE FORMAT
PRINTOUT PERIOD FOR DROGUES

2.8.4 LAGRANGIAN DRIFTS

NUMBER OF LAGRANGIAN DRIFTS

2.8.5 OIL SPILL

OIL SPILL MODEL
OIL SPILL STEERING FILE

2.9 TIDAL FLATS INFO

H CLIPPING
MINIMUM VALUE OF DEPTH
OPTION FOR THE TREATMENT OF TIDAL FLATS
THRESHOLD DEPTH FOR RECEDING PROCEDURE
THRESHOLD FOR NEGATIVE DEPTHS
TIDAL FLATS
TREATMENT OF NEGATIVE DEPTHS

2.10 TIDES

ATMOSPHERIC PRESSURE AT TIDAL BOUNDARIES
BINARY DATABASE 1 FOR TIDE
BINARY DATABASE 2 FOR TIDE
COEFFICIENT TO CALIBRATE SEA LEVEL
GEOGRAPHIC SYSTEM
GLOBAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER
INITIAL VELOCITIES COMPUTED BY TPXO
LAMBERT 93 CONVERSION FILE
MINIMUM DEPTH TO COMPUTE TIDAL VELOCITIES INITIAL CONDITIONS
MINOR CONSTITUENTS INFERENCE
VELOCITIES IN BINARY DATABASE 2 FOR TIDE
ZONE NUMBER IN GEOGRAPHIC SYSTEM

2.10.1 BOUNDARY CONDITIONS

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

2.10.2 PHYSICAL PARAMETERS

TIDE GENERATING FORCE

2.11 TRACERS

2.11.1 ACCURACY TRA

ACCURACY FOR DIFFUSION OF TRACERS
MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF TRACERS

2.11.2 BOUNDARY CONDITIONS FOR TRACERS

PRESCRIBED TRACERS VALUES

2.11.3 METEOROLOGY TRA

VALUES OF TRACERS IN THE RAIN

2.11.4 NUMERICAL

ADVECTION OF TRACERS

COEFFICIENT FOR DIFFUSION OF TRACERS

DIFFUSION OF TRACERS

IMPLICITATION COEFFICIENT OF TRACERS

MASS-LUMPING ON TRACERS

OPTION FOR THE DIFFUSION OF TRACERS

SCHEME FOR ADVECTION OF TRACERS

SCHEME OPTION FOR ADVECTION OF TRACERS

2.11.5 SETTING

DENSITY EFFECTS

INITIAL VALUES OF TRACERS

MEAN TEMPERATURE

NAMES OF TRACERS

NUMBER OF TRACERS

2.11.6 SOLVER TRA

PRECONDITIONING FOR DIFFUSION OF TRACERS

SOLVER FOR DIFFUSION OF TRACERS

SOLVER OPTION FOR TRACERS DIFFUSION

2.11.7 SOURCES TRA

VALUES OF THE TRACERS AT THE SOURCES

2.12 TURBULENCE

ACCURACY OF SPALART-ALLMARAS

INFORMATION ABOUT SPALART-ALLMARAS MODEL

TURBULENCE MODEL

VELOCITY DIFFUSIVITY

2.12.1 ACCURACY

ACCURACY OF EPSILON

ACCURACY OF K

MAXIMUM NUMBER OF ITERATIONS FOR K AND EPSILON

2.12.2 ADVANCED

ADVECTION OF K AND EPSILON
INFORMATION ABOUT K-EPSILON MODEL
MIXING LENGTH MODEL COEFFICIENTS
NON-DIMENSIONAL DISPERSION COEFFICIENTS
SCHEME FOR ADVECTION OF K-EPSILON
SCHEME OPTION FOR ADVECTION OF K-EPSILON
TURBULENCE REGIME FOR SOLID BOUNDARIES

2.12.3 SOLVER INFO

OPTION FOR THE SOLVER FOR K-EPSILON MODEL
PRECONDITIONING FOR K-EPSILON MODEL
SOLVER FOR K-EPSILON MODEL

3. Glossary

3.1 English/French glossary

ABSCISSAE OF SOURCES	ABSCISSES DES SOURCES
ACCURACY FOR DIFFUSION OF TRACERS	PRECISION POUR LA DIFFUSION DES TRACEURS
ACCURACY OF EPSILON	PRECISION SUR EPSILON
ACCURACY OF K	PRECISION SUR K
ACCURACY OF SPALART-ALLMARAS	PRECISION SUR SPALART-ALLMARAS
AD LINEAR SOLVER DERIVATIVE CONVERGENCE	AD CONVERGENCE DES DERIVEES POUR LE SOLVEUR LINEAIRE
AD LINEAR SOLVER RESET DERIVATIVES	AD REMISE A ZERO DES DERIVEES DU SOLVEUR LINEAIRE
AD NAMES OF DERIVATIVES	AD NOMS DES DERIVEES
AD NUMBER OF DERIVATIVES	AD NOMBRE DE DERIVEES
AD SYMBOLIC LINEAR SOLVER	AD SOLVEUR LINEAIRE SYMBOLIQUE
ADVECTION	CONVECTION
ADVECTION OF H	CONVECTION DE H
ADVECTION OF K AND EPSILON	CONVECTION DE K ET EPSILON
ADVECTION OF TRACERS	CONVECTION DES TRACEURS
ADVECTION OF U AND V	CONVECTION DE U ET V
AIR PRESSURE	PRESSION ATMOSPHERIQUE
AIR TEMPERATURE	TEMPERATURE DE L'AIR
ALGAE RELEASE TYPE	TYPE DE RELACHE DES ALGUES
ALGAE TRANSPORT MODEL	MODELE DE TRANSPORT DES ALGUES
ALGAE TYPE	TYPE DES ALGUES
ANTECEDENT MOISTURE CONDITIONS	CONDITIONS D'HUMIDITE PRECEDENTE
ASCII ATMOSPHERIC DATA FILE	FICHIER ASCII DE DONNEES ATMOSPHERIQUES
ASCII DATABASE FOR TIDE	BASE ASCII DE DONNEES DE MAREE
ASCII DROGUES FILE	FICHIER ASCII DES FLOTTEURS
ATMOSPHERIC PRESSURE AT TIDAL BOUNDARIES	PRESSION ATMOSPHERIQUE AUX FRONTIERES A MAREE

BINARY ATMOSPHERIC DATA FILE	FICHIER BINAIRE DE DONNEES ATMOSPHERIQUES
BINARY ATMOSPHERIC DATA FILE FORMAT	FORMAT DU FICHIER BINAIRE DE DONNEES ATMOSPHERIQUES
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 DATA FILE 2 FORMAT	FORMAT DU 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 DROGUES FILE	FICHIER BINAIRE DES FLOTTEURS
BINARY RESULTS FILE	FICHIER DE RESULTATS BINAIRE
BINARY RESULTS FILE FORMAT	FORMAT DU FICHIER DE RESULTATS BINAIRE
BINGHAM OPTION	OPTION DU MODELE DE BINGHAM
BOTTOM SMOOTHINGS	LISSAGES DU FOND
BOTTOM SMOOTHINGS AFTER USER MODIFICATIONS	LISSAGES DU FOND APRES MODIFICATIONS UTILISATEUR
BOTTOM SURFACES DELWAQ FILE	FICHIER DELWAQ DES SURFACES DU FOND
BOTTOM TOPOGRAPHY FILE	FICHIER DES FONDS
BOUNDARY CONDITIONS FILE	FICHIER DES CONDITIONS AUX LIMITES
BREACH	BRECHE
BREACHES DATA FILE	FICHIER DE DONNEES DES BRECHES
C-U PRECONDITIONING	PRECONDITIONNEMENT C-U
CHECKING THE MESH	VERIFICATION DU MAILLAGE
CLOUD COVER	NEBULOSITE
COEFFICIENT FOR DIFFUSION OF TRACERS	COEFFICIENT DE DIFFUSION DES TRACEURS
COEFFICIENT FOR SOFT BOUNDARIES	COEFFICIENT POUR LES FRONTIERES DOUCES
COEFFICIENT OF WIND INFLUENCE	COEFFICIENT D'INFLUENCE DU VENT
COEFFICIENT OF WIND INFLUENCE VARYING WITH WIND SPEED	COEFFICIENT D'INFLUENCE DU VENT DEPENDANT DE LA VITESSE DU VENT
COEFFICIENT 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
COMPATIBLE COMPUTATION OF FLUXES	CALCUL COMPATIBLE DES FLUX
COMPUTATION CONTINUED	SUITE DE CALCUL
CONCATENATE PARTEL OUTPUT	CONCATENATION SORTIE PARTEL
CONTINUITY CORRECTION	CORRECTION DE CONTINUITE
CONTROL OF LIMITS	CONTROLE DES LIMITES
CONTROL SECTIONS	SECTIONS DE CONTROLE
CONVERGENCE STUDY	ETUDE DE CONVERGENCE

CORIOLIS	CORIOLIS
CORIOLIS COEFFICIENT	COEFFICIENT DE CORIOLIS
COST FUNCTION	FONCTION COUT
COUPLING PERIOD FOR TOMAWAC	PERIODE DE COUPLAGE POUR TOMAWAC
COUPLING WITH	COUPLAGE AVEC
CULVERTS DATA FILE	FICHIER DE DONNEES DES BUSES
DEBUGGER	DEBUGGER
DEFINITION OF ZONES	DEFINITION DE ZONES
DELWAQ PRINTOUT PERIOD	PERIODE DE SORTIE POUR DELWAQ
DELWAQ STEERING FILE	FICHIER DE COMMANDE DELWAQ
DENSITY EFFECTS	EFFETS DE DENSITE
DENSITY OF ALGAE	MASSE VOLUMIQUE DES ALGUES
DEPTH IN FRICTION TERMS	HAUTEUR DANS LES TERMES DE FROTTEMENT
DESIRED COURANT NUMBER	NOMBRE DE COURANT SOUHAITE
DESIRED FOURIER NUMBER	NOMBRE DE FOURIER SOUHAITE
DIAMETER OF ALGAE	DIAMETRE DES ALGUES
DICTIONARY	DICTIONNAIRE
DIFFUSION OF TRACERS	DIFFUSION DES TRACEURS
DIFFUSION OF VELOCITY	DIFFUSION DES VITESSES
DIFFUSIVITY DELWAQ FILE	FICHIER DELWAQ DE LA DIFFUSION
DIFFUSIVITY FOR DELWAQ	DIFFUSION POUR DELWAQ
DISCRETIZATIONS IN SPACE	DISCRETISATIONS EN ESPACE
DISSIPATION COEFFICIENT FOR SECONDARY CURRENTS	COEFFICIENT DE DISSIPATION POUR COURANTS SECONDAIRES
DROGUES FILE FORMAT	FORMAT DU FICHIER DES FLOTTEURS
DROGUES INITIAL POSITIONING DATA FILE	FICHIER POSITIONNANT LES DROGUES INITIALES
DURATION	DUREE DU CALCUL
DURATION BEFORE ALGAE RELEASE	DUREE AVANT RELACHE DES ALGUES
DURATION OF RAIN OR EVAPORATION IN HOURS	DUREE DE LA PLUIE OU EVAPORATION EN HEURES
ELEMENTS MASKED BY USER	ELEMENTS MASQUES PAR L'UTILISATEUR
EQUATIONS	EQUATIONS
EXCHANGE AREAS DELWAQ FILE	FICHIER DELWAQ DES SURFACES DE FLUX
EXCHANGES BETWEEN NODES DELWAQ FILE	FICHIER DELWAQ DES ECHANGES ENTRE NOEUDS
FINITE ELEMENT ASSEMBLY	ASSEMBLAGE EN ELEMENTS FINIS
FINITE VOLUME SCHEME	SCHEMA EN VOLUMES FINIS
FINITE VOLUME SCHEME FOR TRACER DIFFUSION	SCHEMA VOLUMES FINIS POUR LA DIFFUSION DES TRACEURS
FINITE VOLUME SCHEME FOR VELOCITY DIFFUSION	SCHEMA VOLUMES FINIS POUR LA DIFFUSION DES VITESSES
FINITE VOLUME SCHEME SPACE ORDER	ORDRE EN ESPACE DU SCHEMA VOLUME FINIS
FINITE VOLUME SCHEME TIME ORDER	ORDRE EN TEMPS DU SCHEMA VOLUME FINIS

FLUX LIMITOR FOR H PLUS Z	LIMITEUR DE FLUX POUR H PLUS Z
FLUX LIMITOR FOR TRACERS	LIMITEUR DE FLUX POUR LES TRACEURS
FLUX LIMITOR FOR U AND V	LIMITEUR DE FLUX POUR U ET V
FLUXLINE	FLUXLINE
FLUXLINE INPUT FILE	FICHER DE FLUXLINE
FORMAT OF THE DROGUES POSITIONING DATA FILE	FORMAT DU FICHER POSITIONNANT LES DROGUES
FORMATTED DATA FILE 1	FICHER DE DONNEES FORMATE 1
FORMATTED DATA FILE 2	FICHER DE DONNEES FORMATE 2
FORMATTED RESULTS FILE	FICHER DE RESULTATS FORMATE
FORMATTED RESULTS FILE 1	FICHER DE RESULTATS FORMATE 1
FORMATTED RESULTS FILE 2	FICHER DE RESULTATS FORMATE 2
FORMATTED RESULTS FILE 3	FICHER DE RESULTATS FORMATE 3
FORMATTED RESULTS FILE 4	FICHER DE RESULTATS FORMATE 4
FORMATTED RESULTS FILE 5	FICHER DE RESULTATS FORMATE 5
FORMATTED RESULTS FILE 6	FICHER DE RESULTATS FORMATE 6
FORTRAN FILE	FICHER FORTRAN
FOURIER ANALYSIS PERIODS	PERIODES D'ANALYSE DE FOURIER
FREE FORMAT FOR ATMOSPHERIC DATA FILE	FORMAT LIBRE POUR FICHER DE DONNEES ATMOSPHERIQUES
FREE SURFACE GRADIENT COMPATIBILITY	COMPATIBILITE DU GRADIENT DE SURFACE LIBRE
FRICTION COEFFICIENT	COEFFICIENT DE FROTTEMENT
FRICTION DATA	DONNEES POUR LE FROTTEMENT
FRICTION DATA FILE	FICHER DE DONNEES POUR LE FROTTEMENT
GAIA STEERING FILE	FICHER DES PARAMETRES DE GAIA
GEOGRAPHIC SYSTEM	SYSTEME GEOGRAPHIQUE
GEOMETRY FILE	FICHER DE GEOMETRIE
GEOMETRY FILE FORMAT	FORMAT DU FICHER DE GEOMETRIE
GLOBAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER	NUMERO GLOBAL DU POINT POUR CALER LA PLEINE MER
GLOBAL NUMBERS OF SOURCE NODES	NUMEROS GLOBAUX DES NOEUDS DES SOURCES
GRAPHIC PRINTOUT PERIOD	PERIODE POUR LES SORTIES GRAPHIQUES
GRAVITY ACCELERATION	ACCELERATION DE LA PESANTEUR
H CLIPPING	CLIPPING DE H
HARMONIC CONSTANTS FILE	FICHER DES CONSTANTES HARMONIQUES
HERSCHEL-BULKLEY POWER-LAW INDEX	INDICE POUR LE MODELE DE HERSCHEL-BULKLEY
HORTON TIME CONSTANT	CONSTANTE DE TEMPS HORTON
IDENTIFICATION METHOD	METHODE D'IDENTIFICATION
IMPLICITATION COEFFICIENT OF TRACERS	COEFFICIENT D'IMPLICITATION DES TRACEURS
IMPLICITATION FOR DEPTH	IMPLICITATION POUR LA HAUTEUR
IMPLICITATION FOR DIFFUSION OF VELOCITY	IMPLICITATION POUR LA DIFFUSION DES VITESSES

IMPLICITATION FOR VELOCITY	IMPLICITATION POUR LA VITESSE
INFORMATION ABOUT K-EPSILON MODEL	INFORMATIONS SUR LE MODELE K-EPSILON
INFORMATION ABOUT SOLVER	INFORMATIONS SUR LE SOLVEUR
INFORMATION ABOUT SPALART-ALLMARAS MODEL	INFORMATION SUR LE MODELE SPALART-ALLMARAS
INITIAL CONDITIONS	CONDITIONS INITIALES
INITIAL DEPTH	HAUTEUR INITIALE
INITIAL DROGUES SAMPLING DENSITY	DENSITE INITIALE DE REPARTITION DES FLOTTEURS
INITIAL ELEVATION	COTE INITIALE
INITIAL GUESS FOR H	ORDRE DU TIR INITIAL POUR H
INITIAL GUESS FOR U	ORDRE DU TIR INITIAL POUR U
INITIAL TIME	TEMPS INITIAL
INITIAL TIME SET TO ZERO	REMISE A ZERO DU TEMPS
INITIAL VALUES OF TRACERS	VALEURS INITIALES DES TRACEURS
INITIAL VELOCITIES COMPUTED BY TPXO	VITESSES INITIALES CALCULEES PAR TPXO
INITIAL WATER CONTENT	TENEUR EN EAU INITIALE
INITIAL WIDTHS OF BREACHES	LARGEURS INITIALES DES BRECHES
KHIONE STEERING FILE	FICHER DES PARAMETRES DE KHIONE
LAMBERT 93 CONVERSION FILE	FICHER DE CONVERSION LAMBERT 93
LANGUAGE	LANGUE
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
LIMIT VALUES	VALEURS LIMITEES
LINEARIZED PROPAGATION	PROPAGATION LINEARISEE
LIQUID BOUNDARIES FILE	FICHER DES FRONTIERES LIQUIDES
LIST OF POINTS	LISTE DE POINTS
LISTING FOR PRINTOUT PERIOD	PERIODE POUR LES SORTIES LISTING
LISTING PRINTOUT	SORTIE LISTING
LISTING PRINTOUT PERIOD	PERIODE DE SORTIE 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
MANNING DEFAULT VALUE FOR COLEBROOK-WHITE LAW	VALEUR PAR DEFAUT DU MANNING POUR LA LOI DE COLEBROOK-WHITE
MASS-BALANCE	BILAN DE MASSE
MASS-LUMPING FOR WEAK CHARACTERISTICS	MASS-LUMPING POUR LES CARACTERISTIQUES FAIBLES
MASS-LUMPING ON H	MASS-LUMPING SUR H
MASS-LUMPING ON TRACERS	MASS-LUMPING SUR LES TRACEURS
MASS-LUMPING ON VELOCITY	MASS-LUMPING SUR LA VITESSE
MATRIX STORAGE	STOCKAGE DES MATRICES
MATRIX-VECTOR PRODUCT	PRODUIT MATRICE-VECTEUR
MAXIMUM NUMBER OF BOUNDARIES	NOMBRE MAXIMUM DE FRONTIERES

MAXIMUM NUMBER OF DROGUES	NOMBRE MAXIMAL DE FLOTTEURS
MAXIMUM NUMBER OF FRICTION DOMAINS	NOMBRE MAXIMUM DE DOMAINES DE FROTTEMENT
MAXIMUM NUMBER OF ITERATIONS FOR ADVECTION SCHEMES	MAXIMUM D'ITERATIONS POUR LES SCHEMAS DE CONVECTION
MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF TRACERS	MAXIMUM D'ITERATIONS POUR LA DIFFUSION DES TRACEURS
MAXIMUM NUMBER OF ITERATIONS FOR IDENTIFICATION	MAXIMUM D'ITERATIONS POUR L'IDENTIFICATION
MAXIMUM NUMBER OF ITERATIONS FOR K AND EPSILON	MAXIMUM D'ITERATIONS POUR K ET EPSILON
MAXIMUM NUMBER OF ITERATIONS FOR SOLVER	MAXIMUM D'ITERATIONS POUR LE SOLVEUR
MAXIMUM NUMBER OF POINTS FOR SOURCES REGIONS	NOMBRE MAXIMUM DE POINTS POUR DEFINIR DES SOURCES
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 TEMPERATURE	TEMPERATURE MOYENNE
MINIMUM DEPTH TO COMPUTE TIDAL VELOCITIES BOUNDARY CONDITIONS	HAUTEUR MINIMALE POUR LES CONDITIONS AUX LIMITES DE COURANTS
MINIMUM DEPTH TO COMPUTE TIDAL VELOCITIES INITIAL CONDITIONS	HAUTEUR MINIMALE POUR LES CONDITIONS INITIALES DE COURANTS
MINIMUM VALUE OF DEPTH	VALEUR MINIMUM DE H
MINOR CONSTITUENTS INFERENCE	INTERPOLATION DE COMPOSANTES MINEURES
MIXING LENGTH MODEL COEFFICIENTS	COEFFICIENTS DU MODELE DE LONGUEUR DE MELANGE
NAMES OF CLANDESTINE VARIABLES	NOMS DES VARIABLES CLANDESTINES
NAMES OF POINTS	NOMS DES POINTS
NAMES OF PRIVATE VARIABLES	NOMS DES VARIABLES PRIVEES
NAMES OF TRACERS	NOMS DES TRACEURS
NESTOR	NESTOR
NESTOR ACTION FILE	FICHIER DES PARAMETRES DE NESTOR
NESTOR POLYGON FILE	FICHIER DE POLYGONES DE NESTOR
NESTOR RESTART FILE	FICHIER DE REPRISE DE NESTOR
NESTOR SURFACE REFERENCE FILE	FICHIER DE SURFACE REFERENCE DE NESTOR
NEWMARK TIME INTEGRATION COEFFICIENT	COEFFICIENT D'INTEGRATION EN TEMPS DE NEWMARK
NODES DISTANCES DELWAQ FILE	FICHIER DELWAQ DES DISTANCES ENTRE NOEUDS
NON-DIMENSIONAL DISPERSION COEFFICIENTS	COEFFICIENTS ADIMENSIONNELS DE DISPERSION
NON-NEWTONIAN FLUID DENSITY	DENSITE DU FLUIDE NON-NEWTONIEN

NON-NEWTONIAN LAMINAR RESISTANCE PARAMETER K	RESISTANCE LAMINAIRE DU FLUIDE NON-NEWTONIEN
NON-NEWTONIAN MODEL	MODELE NON-NEWTONIEN
NON-NEWTONIAN PSEUDO-BIPHASIC MODEL	MODELE NON-NEWTONIEN PSEUDO DIPHASIQUE
NON-NEWTONIAN VISCOSITY	VISCOSITE DU FLUIDE NON-NEWTONIEN
NON-NEWTONIAN YIELD STRESS	CONTRAINTE D'ELASTICITE DU FLUIDE NON-NEWTONIEN
NORTH	NORD
NUMBER OF ALGAE CLASSES	NOMBRE DE CLASSES D'ALGUES
NUMBER OF CORRECTIONS OF DISTRIBUTIVE SCHEMES	NOMBRE DE CORRECTIONS DES SCHEMAS DISTRIBUTIFS
NUMBER OF CULVERTS	NOMBRE DE BUSES
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 LAGRANGIAN DRIFTS	NOMBRE DE DERIVES LAGRANGIENNES
NUMBER OF PRIVATE ARRAYS	NOMBRE DE TABLEAUX PRIVES
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
NUMBER OF WEIRS	NOMBRE DE SEUILS
OIL SPILL MODEL	MODELE DE NAPPES D'HYDROCARBURES
OIL SPILL STEERING FILE	FICHIER DE COMMANDES HYDROCARBURES
OPTION FOR CHARACTERISTICS	OPTION POUR LES CARACTERISTIQUES
OPTION FOR CULVERTS	OPTION POUR LES BUSES
OPTION FOR DIRICHLET CONDITION IN FV DIFFUSION	OPTION DE LA CONDITION DE DIRICHLET POUR LA DIFFUSION VF
OPTION FOR INITIAL ABSTRACTION RATIO	OPTION POUR RATIO DES PERTES INITIALES
OPTION FOR LIQUID BOUNDARIES	OPTION POUR LES FRONTIERES LIQUIDES
OPTION FOR SOFT BOUNDARIES	OPTION POUR LES FRONTIERES DOUCES
OPTION FOR THE DIFFUSION OF TRACERS	OPTION POUR LA DIFFUSION DES TRACEURS
OPTION FOR THE DIFFUSION OF VELOCITIES	OPTION POUR LA DIFFUSION DES VITESSES
OPTION FOR THE RTPF SCHEME RECONSTRUCTIONS	OPTION POUR LA RECONSTRUCTION DU SCHEMA RTPF
OPTION FOR THE SOLVER FOR K-EPSILON MODEL	OPTION DU SOLVEUR POUR LE MODELE K-EPSILON

OPTION FOR THE TREATMENT OF TIDAL FLATS	OPTION DE TRAITEMENT DES BANCs DECOUVRANTS
OPTION FOR TIDAL BOUNDARY CONDITIONS	OPTION POUR LES CONDITIONS AUX LIMITES DE MAREE
OPTION FOR TSUNAMI GENERATION	OPTION POUR LA GENERATION DE TSUNAMI
OPTION FOR WIND	OPTION DU VENT
OPTION OF THE HYDROSTATIC RECONSTRUCTION	OPTION DE LA RECONSTRUCTION HYDROSTATIQUE
ORDINATES OF SOURCES	ORDONNEES DES SOURCES
ORIGINAL DATE OF TIME	DATE DE L'ORIGINE DES TEMPS
ORIGINAL HOUR OF TIME	HEURE DE L'ORIGINE DES TEMPS
PARALLEL PROCESSORS	PROCESSEURS PARALLELES
PARAMETER ESTIMATION	ESTIMATION DE PARAMETRE
PARTITIONING TOOL	PARTITIONNEUR
PHYSICAL CHARACTERISTICS OF THE TSUNAMI	PARAMETRES PHYSIQUES DU TSUNAMI
PRECONDITIONING	PRECONDITIONNEMENT
PRECONDITIONING FOR DIFFUSION OF TRACERS	PRECONDITIONNEMENT POUR LA DIFFUSION DES TRACEURS
PRECONDITIONING FOR K-EPSILON MODEL	PRECONDITIONNEMENT POUR LE MODELE K-EPSILON
PRESCRIBED ELEVATIONS	COTES IMPOSEES
PRESCRIBED FLOWRATES	DEBITS IMPOSES
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 DROGUES FILE	FICHIER DES FLOTTEURS PRECEDENT
PREVIOUS DROGUES FILE FORMAT	FORMAT DU FICHIER DES FLOTTEURS PRECEDENT
PRINTING CUMULATED FLOWRATES	IMPRESSION DU CUMUL DES FLUX
PRINTOUT PERIOD FOR DROGUES	PERIODE POUR LES SORTIES DE FLOTTEURS
PRODUCTION COEFFICIENT FOR SECONDARY CURRENTS	COEFFICIENT DE PRODUCTION POUR COURANTS SECONDAIRES
PROPAGATION	PROPAGATION
RAIN OR EVAPORATION	PLUIE OU EVAPORATION
RAIN OR EVAPORATION IN MM PER DAY	PLUIE OU EVAPORATION EN MM PAR JOUR
RAINFALL-RUNOFF MODEL	MODELE PLUIE-DEBIT
RATE OF DEGRADATION FOR ALGAE	TAUX DE DEGRADATION POUR LES ALGUES
RECORD NUMBER FOR RESTART	ENREGISTREMENT POUR SUITE DE CALCUL
RECORD NUMBER IN RESTART FILE	NUMERO DE L'ENREGISTREMENT DANS LE FICHIER POUR SUITE
RECORD NUMBER IN WAVE FILE	NUMERO DE L'ENREGISTREMENT DANS LE FICHIER DE HOULE
REFERENCE FILE	FICHIER DE REFERENCE

REFERENCE FILE FORMAT	FORMAT DU FICHIER DE REFERENCE
REFINEMENT LEVELS	NIVEAUX DE RAFFINEMENT
RESTART FILE	FICHIER POUR SUITE
RESTART FILE FORMAT	FORMAT DU FICHIER POUR SUITE
RESTART FILE PRINTOUT PERIOD	PERIODE POUR LES SORTIES DU FICHIER POUR SUITE
RESTART MODE	MODE SUITE
RESULT FILE IN LONGITUDE-LATITUDE	FICHIER RESULTAT EN LONGITUDE-LATITUDE
RESULTS FILE	FICHIER DES RESULTATS
RESULTS FILE FORMAT	FORMAT DU FICHIER DES RESULTATS
ROUGHNESS COEFFICIENT OF BOUNDARIES	COEFFICIENT DE RUGOSITE DES BORDS
SALINITY DELWAQ FILE	FICHIER DELWAQ DE LA SALINITE
SALINITY FOR DELWAQ	SALINITE POUR DELWAQ
SATURATED WATER CONTENT	TENEUR EN EAU A SATURATION
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 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
SECONDARY CURRENTS	COURANTS SECONDAIRES
SECTIONS INPUT FILE	FICHIER DES SECTIONS DE CONTROLE
SECTIONS OUTPUT FILE	FICHIER DE SORTIE DES SECTIONS DE CONTROLE
SECURITY COEFFICIENT FOR SCARACT	COEFFICIENT DE SECURITE POUR SCARACT
SOLAR RADIATION	RAYONNEMENT SOLAIRE
SOLVER	SOLVEUR
SOLVER ACCURACY	PRECISION DU SOLVEUR
SOLVER FOR DIFFUSION OF TRACERS	SOLVEUR POUR LA DIFFUSION DES TRACEURS
SOLVER FOR K-EPSILON MODEL	SOLVEUR POUR LE MODELE K-EPSILON
SOLVER OPTION	OPTION DU SOLVEUR
SOLVER OPTION FOR TRACERS DIFFUSION	OPTION DU SOLVEUR POUR LA DIFFUSION DES TRACEURS
SOURCE REGIONS DATA FILE	FICHIER DES REGIONS DES SOURCES
SOURCES FILE	FICHIER DES SOURCES
SPATIAL PROJECTION TYPE	TYPE DE PROJECTION SPATIALE
SPEED AND DIRECTION OF WIND	VITESSE ET DIRECTION DU VENT
SPHERICAL COORDINATES	COORDONNEES SPHERIQUES
STAGE-DISCHARGE CURVES	COURBES DE TARAGE

STAGE-DISCHARGE CURVES FILE	FICHIER DES COURBES DE TARAGE
STAGE-DISCHARGE CURVES RELAXATION COEFFICIENT	COEFFICIENT DE RELAXATION DES COURBES DE TARAGE
STEERING FILE	FICHIER DES PARAMETRES
STOCHASTIC DIFFUSION MODEL	MODELE DE DIFFUSION STOCHASTIQUE
STOP CRITERIA	CRITERES D'ARRET
STOP IF A STEADY STATE IS REACHED	ARRET SI UN ETAT PERMANENT EST ATTEINT
SUCTION	SUCCION
SUPG OPTION	OPTION DE SUPG
TEMPERATURE DELWAQ FILE	FICHIER DELWAQ DE LA TEMPERATURE
TEMPERATURE FOR DELWAQ	TEMPERATURE POUR DELWAQ
THICKNESS OF ALGAE	EPAISSEUR DES ALGUES
THRESHOLD DEPTH FOR RECEDING PROCEDURE	PROFONDEUR LIMITE POUR PROCEDURE DE RESSUYAGE
THRESHOLD DEPTH FOR WIND	PROFONDEUR LIMITE POUR LE VENT
THRESHOLD FOR NEGATIVE DEPTHS	SEUIL POUR LES PROFONDEURS NEGATIVES
TIDAL DATA BASE	BASE DE DONNEES DE MAREE
TIDAL FLATS	BANCS DECOUVRANTS
TIDAL MODEL FILE	FICHIER DU MODELE DE MAREE
TIDAL MODEL FILE FORMAT	FORMAT DU FICHIER DU MODELE DE MAREE
TIDE GENERATING FORCE	FORCE GENERATRICE DE LA MAREE
TIME RANGE FOR FOURIER ANALYSIS	BORNES EN TEMPS POUR L'ANALYSE DE FOURIER
TIME SERIES COORDINATES FILE 1	FICHIER DE COORDONNEES DES SERIES TEMPORELLES 1
TIME SERIES COORDINATES FILE 2	FICHIER DE COORDONNEES DES SERIES TEMPORELLES 2
TIME SERIES FILE 1	FICHIER DES SERIES TEMPORELLES 1
TIME SERIES FILE 1 FORMAT	FORMAT DU FICHIER DES SERIES TEMPORELLES 1
TIME SERIES FILE 2	FICHIER DES SERIES TEMPORELLES 2
TIME SERIES FILE 2 FORMAT	FORMAT DU FICHIER DES SERIES TEMPORELLES 2
TIME STEP	PAS DE TEMPS
TITLE	TITRE
TOLERANCES FOR IDENTIFICATION	PRECISIONS POUR L'IDENTIFICATION
TOMAWAC STEERING FILE	FICHIER DES PARAMETRES DE TOMAWAC
TREATMENT OF FLUXES AT THE BOUNDARIES	TRAITEMENT DES FLUX AUX FRONTIERES
TREATMENT OF NEGATIVE DEPTHS	TRAITEMENT DES HAUTEURS NEGATIVES
TREATMENT OF THE LINEAR SYSTEM	TRAITEMENT DU SYSTEME LINEAIRE
TURBULENCE MODEL	MODELE DE TURBULENCE
TURBULENCE REGIME FOR SOLID BOUNDARIES	REGIME DE TURBULENCE POUR LES PAROIS
TYPE OF ADVECTION	FORME DE LA CONVECTION

TYPE OF BOUNDARY CONDITION FOR KINETIC SCHEME	TYPE DE CONDITION A LA LIMITE POUR LE SCHEMA CINETIQUE
TYPE OF SOURCES	TYPE DES SOURCES
TYPE OF WEIRS	TYPE DES SEUILS
USE MAXIMUM VALUES FROM PREVIOUS COMPUTATION FILE	UTILISE LES VALEURS MAXIMUM DU FICHIER DU CALCUL PRECEDENT
VALIDATION	VALIDATION
VALUE OF ATMOSPHERIC PRESSURE	VALEUR DE LA PRESSION ATMOSPHERIQUE
VALUES OF THE TRACERS AT THE SOURCES	VALEURS DES TRACEURS DES SOURCES
VALUES OF TRACERS IN THE RAIN	VALEURS DES TRACEURS DANS LA PLUIE
VAPOROUS PRESSURE	PRESSION DE VAPEUR SATURANTE
VARIABLE TIME-STEP	PAS DE TEMPS VARIABLE
VARIABLES FOR GRAPHIC PRINTOUTS	VARIABLES POUR LES SORTIES GRAPHIQUES
VARIABLES TO BE PRINTED	VARIABLES A IMPRIMER
VECTOR LENGTH	LONGUEUR DU VECTEUR
VEGETATION FRICTION	FROTTEMENT POUR LA VEGETATION
VELOCITIES IN BINARY DATABASE 2 FOR TIDE	VITESSES DANS BASE BINAIRE 2 DE DONNEES DE MAREE
VELOCITIES OF THE SOURCES ALONG X	VITESSES DES SOURCES SELON X
VELOCITIES OF THE SOURCES ALONG Y	VITESSES DES SOURCES SELON Y
VELOCITY DELWAQ FILE	FICHIER DELWAQ DE LA VITESSE
VELOCITY DIFFUSIVITY	COEFFICIENT DE DIFFUSION DES VITESSES
VELOCITY FOR DELWAQ	VITESSE POUR DELWAQ
VELOCITY PROFILES	PROFILS DE VITESSE
VERTICAL FLUXES DELWAQ FILE	FICHIER DELWAQ DES FLUX VERTICAUX
VERTICAL STRUCTURES	STRUCTURES VERTICALES
VOLUMES DELWAQ FILE	FICHIER DELWAQ DES VOLUMES
WAQTEL STEERING FILE	FICHIER DES PARAMETRES DE WAQTEL
WATER DENSITY	MASSE VOLUMIQUE DE L'EAU
WATER DISCHARGE OF SOURCES	DEBITS DES SOURCES
WATER QUALITY PROCESS	PROCESSUS QUALITE D'EAU
WAVE DRIVEN CURRENTS	COURANTS DE HOULE
WAVE ENHANCED FRICTION FACTOR	AUGMENTATION DU FROTTEMENT PAR LA HOULE
WAVE ORBITAL VELOCITY THRESHOLD FOR ALGAE 1	SEUIL DE LA VITESSE ORBITALE DE VAGUE POUR LES ALGUES 1
WAVE ORBITAL VELOCITY THRESHOLD FOR ALGAE 2	SEUIL DE LA VITESSE ORBITALE DE VAGUE POUR LES ALGUES 2
WEIRS DATA FILE	FICHIER DE DONNEES DES SEUILS
WEIRS DISCHARGE OUTPUT FILE	FICHIER DE SORTIE DES DEBITS DES SEUILS
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
ZONES FILE	FICHER DES ZONES

3.2 French/English glossary

ABSCISSES DES SOURCES	ABSCISSAE OF SOURCES
ACCELERATION DE LA PESANTEUR	GRAVITY ACCELERATION
AD CONVERGENCE DES DERIVEES POUR LE SOLVEUR LINEAIRE	AD LINEAR SOLVER DERIVATIVE CONVERGENCE
AD NOMBRE DE DERIVEES	AD NUMBER OF DERIVATIVES
AD NOMS DES DERIVEES	AD NAMES OF DERIVATIVES
AD REMISE A ZERO DES DERIVEES DU SOLVEUR LINEAIRE	AD LINEAR SOLVER RESET DERIVATIVES
AD SOLVEUR LINEAIRE SYMBOLIQUE	AD SYMBOLIC LINEAR SOLVER
ARRET SI UN ETAT PERMANENT EST ATTEINT	STOP IF A STEADY STATE IS REACHED
ASSEMBLAGE EN ELEMENTS FINIS	FINITE ELEMENT ASSEMBLY
AUGMENTATION DU FROTTEMENT PAR LA HOULE	WAVE ENHANCED FRICTION FACTOR
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
BORNES EN TEMPS POUR L'ANALYSE DE FOURIER	TIME RANGE FOR FOURIER ANALYSIS
BRECHE	BREACH
CALCUL COMPATIBLE DES FLUX	COMPATIBLE COMPUTATION OF FLUXES
CLIPPING DE H	H CLIPPING
COEFFICIENT D'IMPLICITATION DES TRACEURS	IMPLICITATION COEFFICIENT OF TRACERS
COEFFICIENT D'INFLUENCE DU VENT	COEFFICIENT OF WIND INFLUENCE
COEFFICIENT D'INFLUENCE DU VENT DEPENDANT DE LA VITESSE DU VENT	COEFFICIENT OF WIND INFLUENCE VARYING WITH WIND SPEED
COEFFICIENT D'INTEGRATION EN TEMPS DE NEWMARK	NEWMARK TIME INTEGRATION COEFFICIENT
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 DES TRACEURS	COEFFICIENT FOR DIFFUSION OF TRACERS
COEFFICIENT DE DIFFUSION DES VITESSES	VELOCITY DIFFUSIVITY

COEFFICIENT DE DISSIPATION POUR COURANTS SECONDAIRES	DISSIPATION COEFFICIENT FOR SECONDARY CURRENTS
COEFFICIENT DE FROTTEMENT	FRICTION COEFFICIENT
COEFFICIENT DE PRODUCTION POUR COURANTS SECONDAIRES	PRODUCTION COEFFICIENT FOR SECONDARY CURRENTS
COEFFICIENT DE RELAXATION DES COURBES DE TARAGE	STAGE-DISCHARGE CURVES RELAXATION COEFFICIENT
COEFFICIENT DE RUGOSITE DES BORDS	ROUGHNESS COEFFICIENT OF BOUNDARIES
COEFFICIENT DE SECURITE POUR SCARACT	SECURITY COEFFICIENT FOR SCARACT
COEFFICIENT POUR LES FRONTIERES DOUCES	COEFFICIENT FOR SOFT BOUNDARIES
COEFFICIENTS ADIMENSIONNELS DE DISPERSION	NON-DIMENSIONAL DISPERSION COEFFICIENTS
COEFFICIENTS DU MODELE DE LONGUEUR DE MELANGE	MIXING LENGTH MODEL COEFFICIENTS
COMPATIBILITE DU GRADIENT DE SURFACE LIBRE	FREE SURFACE GRADIENT COMPATIBILITY
CONCATENATION SORTIE PARTEL	CONCATENATE PARTEL OUTPUT
CONDITIONS D'HUMIDITE PRECEDENTE	ANTECEDENT MOISTURE CONDITIONS
CONDITIONS INITIALES	INITIAL CONDITIONS
CONSTANTE DE TEMPS HORTON	HORTON TIME CONSTANT
CONTRAINTES D'ELASTICITE DU FLUIDE NON-NEWTONIEN	NON-NEWTONIAN YIELD STRESS
CONTROLE DES LIMITES	CONTROL OF LIMITS
CONVECTION	ADVECTION
CONVECTION DE H	ADVECTION OF H
CONVECTION DE K ET EPSILON	ADVECTION OF K AND EPSILON
CONVECTION DE U ET V	ADVECTION OF U AND V
CONVECTION DES TRACEURS	ADVECTION OF TRACERS
COORDONNEES SPHERIQUES	SPHERICAL COORDINATES
CORIOLIS	CORIOLIS
CORRECTION DE CONTINUITE	CONTINUITY CORRECTION
COTE INITIALE	INITIAL ELEVATION
COTES IMPOSEES	PRESCRIBED ELEVATIONS
COUPLAGE AVEC	COUPLING WITH
COURANTS DE HOULE	WAVE DRIVEN CURRENTS
COURANTS SECONDAIRES	SECONDARY CURRENTS
COURBES DE TARAGE	STAGE-DISCHARGE CURVES
CRITERES D'ARRET	STOP CRITERIA
DATE DE L'ORIGINE DES TEMPS	ORIGINAL DATE OF TIME
DEBITS DES SOURCES	WATER DISCHARGE OF SOURCES
DEBITS IMPOSES	PRESCRIBED FLOWRATES
DEBUGGER	DEBUGGER
DEFINITION DE ZONES	DEFINITION OF ZONES
DENSITE DU FLUIDE NON-NEWTONIEN	NON-NEWTONIAN FLUID DENSITY
DENSITE INITIALE DE REPARTITION DES FLOTTEURS	INITIAL DROGUES SAMPLING DENSITY

DIAMETRE DES ALGUES	DIAMETER OF ALGAE
DICTIONNAIRE	DICTIONARY
DIFFUSION DES TRACEURS	DIFFUSION OF TRACERS
DIFFUSION DES VITESSES	DIFFUSION OF VELOCITY
DIFFUSION POUR DELWAQ	DIFFUSIVITY FOR DELWAQ
DISCRETISATIONS EN ESPACE	DISCRETIZATIONS IN SPACE
DONNEES POUR LE FROTTEMENT	FRICTION DATA
DUREE AVANT RELACHE DES ALGUES	DURATION BEFORE ALGAE RELEASE
DUREE DE LA PLUIE OU EVAPORATION EN HEURES	DURATION OF RAIN OR EVAPORATION IN HOURS
DUREE DU CALCUL	DURATION
EFFETS DE DENSITE	DENSITY EFFECTS
ELEMENTS MASQUES PAR L'UTILISATEUR	ELEMENTS MASKED BY USER
ENREGISTREMENT POUR SUITE DE CALCUL	RECORD NUMBER FOR RESTART
EPAISSEUR DES ALGUES	THICKNESS OF ALGAE
EQUATIONS	EQUATIONS
ESTIMATION DE PARAMETRE	PARAMETER ESTIMATION
ETUDE DE CONVERGENCE	CONVERGENCE STUDY
FICHIER ASCII DE DONNEES ATMOSPHERIQUES	ASCII ATMOSPHERIC DATA FILE
FICHIER ASCII DES FLOTTEURS	ASCII DROGUES FILE
FICHIER BINAIRE DE DONNEES ATMOSPHERIQUES	BINARY ATMOSPHERIC DATA FILE
FICHIER BINAIRE DES FLOTTEURS	BINARY DROGUES FILE
FICHIER DE COMMANDE DELWAQ	DELWAQ STEERING FILE
FICHIER DE COMMANDES HYDROCARBURES	OIL SPILL STEERING FILE
FICHIER DE CONVERSION LAMBERT 93	LAMBERT 93 CONVERSION FILE
FICHIER DE COORDONNEES DES SERIES TEMPORELLES 1	TIME SERIES COORDINATES FILE 1
FICHIER DE COORDONNEES DES SERIES TEMPORELLES 2	TIME SERIES COORDINATES FILE 2
FICHIER DE DONNEES BINAIRE 1	BINARY DATA FILE 1
FICHIER DE DONNEES BINAIRE 2	BINARY DATA FILE 2
FICHIER DE DONNEES DES BRECHES	BREACHES DATA FILE
FICHIER DE DONNEES DES BUSES	CULVERTS DATA FILE
FICHIER DE DONNEES DES SEUILS	WEIRS DATA FILE
FICHIER DE DONNEES FORMATE 1	FORMATTED DATA FILE 1
FICHIER DE DONNEES FORMATE 2	FORMATTED DATA FILE 2
FICHIER DE DONNEES POUR LE FROTTEMENT	FRICTION DATA FILE
FICHIER DE FLUXLINE	FLUXLINE INPUT FILE
FICHIER DE GEOMETRIE	GEOMETRY FILE
FICHIER DE POLYGONES DE NESTOR	NESTOR POLYGON FILE
FICHIER DE REFERENCE	REFERENCE FILE
FICHIER DE REPRISE DE NESTOR	NESTOR RESTART FILE
FICHIER DE RESULTATS BINAIRE	BINARY RESULTS FILE
FICHIER DE RESULTATS FORMATE	FORMATTED RESULTS FILE

FICHER DE RESULTATS FORMATE 1	FORMATTED RESULTS FILE 1
FICHER DE RESULTATS FORMATE 2	FORMATTED RESULTS FILE 2
FICHER DE RESULTATS FORMATE 3	FORMATTED RESULTS FILE 3
FICHER DE RESULTATS FORMATE 4	FORMATTED RESULTS FILE 4
FICHER DE RESULTATS FORMATE 5	FORMATTED RESULTS FILE 5
FICHER DE RESULTATS FORMATE 6	FORMATTED RESULTS FILE 6
FICHER DE SORTIE DES DEBITS DES SEUILS	WEIRS DISCHARGE OUTPUT FILE
FICHER DE SORTIE DES SECTIONS DE CONTROLE	SECTIONS OUTPUT FILE
FICHER DE SURFACE REFERENCE DE NESTOR	NESTOR SURFACE REFERENCE 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 PRECEDENT	PREVIOUS DROGUES FILE
FICHER DES FONDS	BOTTOM TOPOGRAPHY FILE
FICHER DES FRONTIERES LIQUIDES	LIQUID BOUNDARIES FILE
FICHER DES PARAMETRES	STEERING FILE
FICHER DES PARAMETRES DE GAIA	GAIA STEERING FILE
FICHER DES PARAMETRES DE KHIONE	KHIONE STEERING FILE
FICHER DES PARAMETRES DE NESTOR	NESTOR ACTION FILE
FICHER DES PARAMETRES DE TOMAWAC	TOMAWAC STEERING FILE
FICHER DES PARAMETRES DE WAQTEL	WAQTEL STEERING FILE
FICHER DES REGIONS DES SOURCES	SOURCE REGIONS DATA FILE
FICHER DES RESULTATS	RESULTS FILE
FICHER DES SECTIONS DE CONTROLE	SECTIONS INPUT FILE
FICHER DES SERIES TEMPORELLES 1	TIME SERIES FILE 1
FICHER DES SERIES TEMPORELLES 2	TIME SERIES FILE 2
FICHER DES SOURCES	SOURCES FILE
FICHER DES ZONES	ZONES FILE
FICHER DU CALCUL PRECEDENT	PREVIOUS COMPUTATION FILE
FICHER DU MODELE DE MAREE	TIDAL MODEL FILE
FICHER FORTRAN	FORTRAN FILE

FICHIER POSITIONNANT LES DROGUES INITIALES	DROGUES INITIAL POSITIONING DATA FILE
FICHIER POUR SUITE	RESTART FILE
FICHIER RESULTAT EN LONGITUDE-LATITUDE	RESULT FILE IN LONGITUDE-LATITUDE
FLUXLINE	FLUXLINE
FONCTION COUT	COST FUNCTION
FORCE GENERATRICE DE LA MAREE	TIDE GENERATING FORCE
FORMAT DU FICHIER BINAIRE DE DONNEES ATMOSPHERIQUES	BINARY ATMOSPHERIC DATA FILE FORMAT
FORMAT DU FICHIER DE DONNEES BINAIRE 1	BINARY DATA FILE 1 FORMAT
FORMAT DU FICHIER DE DONNEES BINAIRE 2	BINARY DATA FILE 2 FORMAT
FORMAT DU FICHIER DE GEOMETRIE	GEOMETRY FILE FORMAT
FORMAT DU FICHIER DE REFERENCE	REFERENCE FILE FORMAT
FORMAT DU FICHIER DE RESULTATS BINAIRE	BINARY RESULTS FILE FORMAT
FORMAT DU FICHIER DES FLOTTEURS	DROGUES FILE FORMAT
FORMAT DU FICHIER DES FLOTTEURS PRECEDENT	PREVIOUS DROGUES FILE FORMAT
FORMAT DU FICHIER DES RESULTATS	RESULTS FILE FORMAT
FORMAT DU FICHIER DES SERIES TEMPORELLES 1	TIME SERIES FILE 1 FORMAT
FORMAT DU FICHIER DES SERIES TEMPORELLES 2	TIME SERIES FILE 2 FORMAT
FORMAT DU FICHIER DU CALCUL PRECEDENT	PREVIOUS COMPUTATION FILE FORMAT
FORMAT DU FICHIER DU MODELE DE MAREE	TIDAL MODEL FILE FORMAT
FORMAT DU FICHIER POSITIONNANT LES DROGUES	FORMAT OF THE DROGUES POSITIONING DATA FILE
FORMAT DU FICHIER POUR SUITE	RESTART FILE FORMAT
FORMAT LIBRE POUR FICHIER DE DONNEES ATMOSPHERIQUES	FREE FORMAT FOR ATMOSPHERIC DATA FILE
FORME DE LA CONVECTION	TYPE OF ADVECTION
FROTTEMENT POUR LA VEGETATION	VEGETATION FRICTION
HAUTEUR DANS LES TERMES DE FROTTEMENT	DEPTH IN FRICTION TERMS
HAUTEUR INITIALE	INITIAL DEPTH
HAUTEUR MINIMALE POUR LES CONDITIONS AUX LIMITES DE COURANTS	MINIMUM DEPTH TO COMPUTE TIDAL VELOCITIES BOUNDARY CONDITIONS
HAUTEUR MINIMALE POUR LES CONDITIONS INITIALES DE COURANTS	MINIMUM DEPTH TO COMPUTE TIDAL VELOCITIES INITIAL CONDITIONS
HEURE DE L'ORIGINE DES TEMPS	ORIGINAL HOUR OF TIME
IMPLICITATION POUR LA DIFFUSION DES VITESSES	IMPLICITATION FOR DIFFUSION OF VELOCITY
IMPLICITATION POUR LA HAUTEUR	IMPLICITATION FOR DEPTH

IMPLICITATION POUR LA VITESSE	IMPLICITATION FOR VELOCITY
IMPRESSION DU CUMUL DES FLUX	PRINTING CUMULATED FLOWRATES
INDICE POUR LE MODELE DE HERSCHEL-BULKLEY	HERSCHEL-BULKLEY POWER-LAW INDEX
INFORMATION SUR LE MODELE SPALART-ALLMARAS	INFORMATION ABOUT SPALART-ALLMARAS MODEL
INFORMATIONS SUR LE MODELE K-EPSILON	INFORMATION ABOUT K-EPSILON MODEL
INFORMATIONS SUR LE SOLVEUR	INFORMATION ABOUT SOLVER
INTERPOLATION DE COMPOSANTES MINEURES	MINOR CONSTITUENTS INFERENCE
LANGUE	LANGUAGE
LARGEURS INITIALES DES BRECHES	INITIAL WIDTHS OF BREACHES
LATITUDE DU POINT ORIGINE	LATITUDE OF ORIGIN POINT
LIMITEUR DE FLUX POUR H PLUS Z	FLUX LIMITOR FOR H PLUS Z
LIMITEUR DE FLUX POUR LES TRACEURS	FLUX LIMITOR FOR TRACERS
LIMITEUR DE FLUX POUR U ET V	FLUX LIMITOR FOR U AND V
LISSAGES DU FOND	BOTTOM SMOOTHINGS
LISSAGES DU FOND APRES MODIFICATIONS UTILISATEUR	BOTTOM SMOOTHINGS AFTER USER MODIFICATIONS
LISTE DE POINTS	LIST OF POINTS
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 LES CARACTERISTIQUES FAIBLES	MASS-LUMPING FOR WEAK CHARACTERISTICS
MASS-LUMPING SUR H	MASS-LUMPING ON H
MASS-LUMPING SUR LA VITESSE	MASS-LUMPING ON VELOCITY
MASS-LUMPING SUR LES TRACEURS	MASS-LUMPING ON TRACERS
MASSE VOLUMIQUE DE L'EAU	WATER DENSITY
MASSE VOLUMIQUE DES ALGUES	DENSITY OF ALGAE
MAXIMUM D'ITERATIONS POUR K ET EPSILON	MAXIMUM NUMBER OF ITERATIONS FOR K AND EPSILON
MAXIMUM D'ITERATIONS POUR L'IDENTIFICATION	MAXIMUM NUMBER OF ITERATIONS FOR IDENTIFICATION
MAXIMUM D'ITERATIONS POUR LA DIFFUSION DES TRACEURS	MAXIMUM NUMBER OF ITERATIONS FOR DIFFUSION OF TRACERS
MAXIMUM D'ITERATIONS POUR LE SOLVEUR	MAXIMUM NUMBER OF ITERATIONS FOR SOLVER
MAXIMUM D'ITERATIONS POUR LES SCHEMAS DE CONVECTION	MAXIMUM NUMBER OF ITERATIONS FOR ADVECTION SCHEMES
METHODE D'IDENTIFICATION	IDENTIFICATION METHOD
MODE SUITE	RESTART MODE
MODELE DE DIFFUSION STOCHASTIQUE	STOCHASTIC DIFFUSION MODEL
MODELE DE NAPPE D'HYDROCARBURES	OIL SPILL MODEL
MODELE DE TRANSPORT DES ALGUES	ALGAE TRANSPORT MODEL

MODELE DE TURBULENCE	TURBULENCE MODEL
MODELE NON-NEWTONIEN	NON-NEWTONIAN MODEL
MODELE NON-NEWTONIEN PSEUDO DIPHASIQUE	NON-NEWTONIAN PSEUDO-BIPHASIC MODEL
MODELE PLUIE-DEBIT	RAINFALL-RUNOFF MODEL
NEBULOSITE	CLOUD COVER
NESTOR	NESTOR
NIVEAUX DE RAFFINEMENT	REFINEMENT LEVELS
NOMBRE DE BUSES	NUMBER OF CULVERTS
NOMBRE DE CLASSES D'ALGUES	NUMBER OF ALGAE CLASSES
NOMBRE DE CORRECTIONS DES SCHEMAS DISTRIBUTIFS	NUMBER OF CORRECTIONS OF DISTRIBUTIVE SCHEMES
NOMBRE DE COURANT SOUHAITE	DESIRED COURANT NUMBER
NOMBRE DE DERIVES LAGRANGIENNES	NUMBER OF LAGRANGIAN DRIFTS
NOMBRE DE FOURIER SOUHAITE	DESIRED FOURIER NUMBER
NOMBRE DE PAS DE TEMPS	NUMBER OF TIME STEPS
NOMBRE DE POINTS DE GAUSS POUR LES CARACTERISTIQUES FAIBLES	NUMBER OF GAUSS POINTS FOR WEAK CHARACTERISTICS
NOMBRE DE SEUILS	NUMBER OF WEIRS
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 TRACEURS	NUMBER OF TRACERS
NOMBRE MAXIMAL DE FLOTTEURS	MAXIMUM NUMBER OF DROGUES
NOMBRE MAXIMUM DE DOMAINES DE FROTTEMENT	MAXIMUM NUMBER OF FRICTION DOMAINS
NOMBRE MAXIMUM DE FRONTIERES	MAXIMUM NUMBER OF BOUNDARIES
NOMBRE MAXIMUM DE POINTS POUR DEFINIR DES SOURCES	MAXIMUM NUMBER OF POINTS FOR SOURCES REGIONS
NOMBRE MAXIMUM DE SOURCES	MAXIMUM NUMBER OF SOURCES
NOMBRE MAXIMUM DE TRACEURS	MAXIMUM NUMBER OF TRACERS
NOMS DES POINTS	NAMES OF POINTS
NOMS DES TRACEURS	NAMES OF TRACERS
NOMS DES VARIABLES CLANDESTINES	NAMES OF CLANDESTINE VARIABLES
NOMS DES VARIABLES PRIVEES	NAMES OF 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 L'ENREGISTREMENT DANS LE FICHIER POUR SUITE	RECORD NUMBER IN RESTART FILE
NUMERO DU PREMIER PAS DE TEMPS POUR LES SORTIES GRAPHIQUES	NUMBER OF FIRST TIME STEP FOR GRAPHIC PRINTOUTS

NUMERO DU PREMIER PAS DE TEMPS POUR LES SORTIES LISTING	NUMBER OF FIRST TIME STEP FOR LISTING PRINTOUTS
NUMERO GLOBAL DU POINT POUR CALER LA PLEINE MER	GLOBAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER
NUMERO LOCAL DU POINT POUR CALER LA PLEINE MER	LOCAL NUMBER OF THE POINT TO CALIBRATE HIGH WATER
NUMEROS GLOBAUX DES NOEUDS DES SOURCES	GLOBAL NUMBERS OF SOURCE NODES
OPTION DE LA CONDITION DE DIRICHLET POUR LA DIFFUSION VF	OPTION FOR DIRICHLET CONDITION IN FV DIFFUSION
OPTION DE LA RECONSTRUCTION HYDROSTATIQUE	OPTION OF THE HYDROSTATIC RECONSTRUCTION
OPTION DE SUPG	SUPG OPTION
OPTION DE TRAITEMENT DES BANCS DECOUVRANTS	OPTION FOR THE TREATMENT OF TIDAL FLATS
OPTION DU MODELE DE BINGHAM	BINGHAM OPTION
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	SOLVER OPTION
OPTION DU SOLVEUR POUR LA DIFFUSION DES TRACEURS	SOLVER OPTION FOR TRACERS DIFFUSION
OPTION DU SOLVEUR POUR LE MODELE K-EPSILON	OPTION FOR THE SOLVER FOR K-EPSILON MODEL
OPTION DU VENT	OPTION FOR WIND
OPTION POUR LA DIFFUSION DES TRACEURS	OPTION FOR THE DIFFUSION OF TRACERS
OPTION POUR LA DIFFUSION DES VITESSES	OPTION FOR THE DIFFUSION OF VELOCITIES
OPTION POUR LA GENERATION DE TSUNAMI	OPTION FOR TSUNAMI GENERATION
OPTION POUR LA RECONSTRUCTION DU SCHEMA RTPF	OPTION FOR THE RTPF SCHEME RECONSTRUCTIONS
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 FRONTIERES DOUCES	OPTION FOR SOFT BOUNDARIES
OPTION POUR LES FRONTIERES LIQUIDES	OPTION FOR LIQUID BOUNDARIES
OPTION POUR RATIO DES PERTES INITIALES	OPTION FOR INITIAL ABSTRACTION RATIO
ORDONNEES DES SOURCES	ORDINATES OF SOURCES
ORDRE DU TIR INITIAL POUR H	INITIAL GUESS FOR H
ORDRE DU TIR INITIAL POUR U	INITIAL GUESS FOR U

ORDRE EN ESPACE DU SCHEMA VOLUME FINIS	FINITE VOLUME SCHEME SPACE ORDER
ORDRE EN TEMPS DU SCHEMA VOLUME FINIS	FINITE VOLUME SCHEME TIME ORDER
PARAMETRES PHYSIQUES DU TSUNAMI	PHYSICAL CHARACTERISTICS OF THE TSUNAMI
PARTITIONNEUR	PARTITIONING TOOL
PAS DE TEMPS	TIME STEP
PAS DE TEMPS VARIABLE	VARIABLE TIME-STEP
PERIODE DE COUPLAGE POUR TOMAWAC	COUPLING PERIOD FOR TOMAWAC
PERIODE DE SORTIE LISTING	LISTING PRINTOUT PERIOD
PERIODE DE SORTIE POUR DELWAQ	DELWAQ PRINTOUT PERIOD
PERIODE POUR LES SORTIES DE FLOTTEURS	PRINTOUT PERIOD FOR DROGUES
PERIODE POUR LES SORTIES DU FICHIER POUR SUITE	RESTART FILE PRINTOUT PERIOD
PERIODE POUR LES SORTIES GRAPHIQUES	GRAPHIC PRINTOUT PERIOD
PERIODE POUR LES SORTIES LISTING	LISTING FOR PRINTOUT PERIOD
PERIODES D'ANALYSE DE FOURIER	FOURIER ANALYSIS PERIODS
PLUIE OU EVAPORATION	RAIN OR EVAPORATION
PLUIE OU EVAPORATION EN MM PAR JOUR	RAIN OR EVAPORATION IN MM PER DAY
PRECISION DU SOLVEUR	SOLVER ACCURACY
PRECISION POUR LA DIFFUSION DES TRACEURS	ACCURACY FOR DIFFUSION OF TRACERS
PRECISION SUR EPSILON	ACCURACY OF EPSILON
PRECISION SUR K	ACCURACY OF K
PRECISION SUR SPALART-ALLMARAS	ACCURACY OF SPALART-ALLMARAS
PRECISIONS POUR L'IDENTIFICATION	TOLERANCES FOR IDENTIFICATION
PRECONDITIONNEMENT	PRECONDITIONING
PRECONDITIONNEMENT C-U	C-U PRECONDITIONING
PRECONDITIONNEMENT POUR LA DIFFUSION DES TRACEURS	PRECONDITIONING FOR DIFFUSION OF TRACERS
PRECONDITIONNEMENT POUR LE MODELE K-EPSILON	PRECONDITIONING FOR K-EPSILON MODEL
PRESSION ATMOSPHERIQUE	AIR PRESSURE
PRESSION ATMOSPHERIQUE AUX FRONTIERES A MAREE	ATMOSPHERIC PRESSURE AT TIDAL BOUNDARIES
PRESSION DE VAPEUR SATURANTE	VAPOROUS PRESSURE
PROCESSEURS PARALLELES	PARALLEL PROCESSORS
PROCESSUS QUALITE D'EAU	WATER QUALITY PROCESS
PRODUIT MATRICE-VECTEUR	MATRIX-VECTOR PRODUCT
PROFILS DE VITESSE	VELOCITY PROFILES
PROFONDEUR LIMITE POUR LE VENT	THRESHOLD DEPTH FOR WIND
PROFONDEUR LIMITE POUR PROCEDURE DE RESSUYAGE	THRESHOLD DEPTH FOR RECEDING PROCEDURE
PROFONDEUR MOYENNE POUR LA LINEARISATION	MEAN DEPTH FOR LINEARIZATION

PROPAGATION	PROPAGATION
PROPAGATION LINEARISEE	LINEARIZED PROPAGATION
RAYONNEMENT SOLAIRE	SOLAR RADIATION
REGIME DE TURBULENCE POUR LES PAROIS	TURBULENCE REGIME FOR SOLID BOUNDARIES
REMISE A ZERO DU TEMPS	INITIAL TIME SET TO ZERO
RESISTANCE LAMINAIRE DU FLUIDE NON-NEWTONIEN	NON-NEWTONIAN LAMINAR RESISTANCE PARAMETER K
SALINITE POUR DELWAQ	SALINITY FOR DELWAQ
SCHEMA EN VOLUMES FINIS	FINITE VOLUME SCHEME
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 VOLUMES FINIS POUR LA DIFFUSION DES TRACEURS	FINITE VOLUME SCHEME FOR TRACER DIFFUSION
SCHEMA VOLUMES FINIS POUR LA DIFFUSION DES VITESSES	FINITE VOLUME SCHEME FOR VELOCITY DIFFUSION
SECTIONS DE CONTROLE	CONTROL SECTIONS
SEUIL DE LA VITESSE ORBITALE DE VAGUE POUR LES ALGUES 1	WAVE ORBITAL VELOCITY THRESHOLD FOR ALGAE 1
SEUIL DE LA VITESSE ORBITALE DE VAGUE POUR LES ALGUES 2	WAVE ORBITAL VELOCITY THRESHOLD FOR ALGAE 2
SEUIL POUR LES PROFONDEURS NEGATIVES	THRESHOLD FOR NEGATIVE DEPTHS
SOLVEUR	SOLVER
SOLVEUR POUR LA DIFFUSION DES TRACEURS	SOLVER FOR DIFFUSION OF TRACERS
SOLVEUR POUR LE MODELE K-EPSILON	SOLVER FOR K-EPSILON MODEL
SORTIE LISTING	LISTING PRINTOUT
STOCKAGE DES MATRICES	MATRIX STORAGE
STRUCTURES VERTICALES	VERTICAL STRUCTURES
SUCCION	SUCTION
SUITE DE CALCUL	COMPUTATION CONTINUED
SYSTEME GEOGRAPHIQUE	GEOGRAPHIC SYSTEM
TAUX DE DEGRADATION POUR LES ALGUES	RATE OF DEGRADATION FOR ALGAE
TEMPERATURE DE L'AIR	AIR TEMPERATURE
TEMPERATURE MOYENNE	MEAN TEMPERATURE
TEMPERATURE POUR DELWAQ	TEMPERATURE FOR DELWAQ
TEMPS INITIAL	INITIAL TIME
TENEUR EN EAU A SATURATION	SATURATED WATER CONTENT
TENEUR EN EAU INITIALE	INITIAL WATER CONTENT
TITRE	TITLE
TRAITEMENT DES FLUX AUX FRONTIERES	TREATMENT OF FLUXES AT THE BOUNDARIES
TRAITEMENT DES HAUTEURS NEGATIVES	TREATMENT OF NEGATIVE DEPTHS

TRAITEMENT DU SYSTEME LINEAIRE	TREATMENT OF THE LINEAR SYSTEM
TYPE DE CONDITION A LA LIMITE POUR LE SCHEMA CINETIQUE	TYPE OF BOUNDARY CONDITION FOR KINETIC SCHEME
TYPE DE PROJECTION SPATIALE	SPATIAL PROJECTION TYPE
TYPE DE RELACHE DES ALGUES	ALGAE RELEASE TYPE
TYPE DES ALGUES	ALGAE TYPE
TYPE DES SEUILS	TYPE OF WEIRS
TYPE DES SOURCES	TYPE OF SOURCES
UTILISE LES VALEURS MAXIMUM DU FICHIER DU CALCUL PRECEDENT	USE MAXIMUM VALUES FROM PREVIOUS COMPUTATION FILE
VALEUR DE LA PRESSION ATMOSPHERIQUE	VALUE OF ATMOSPHERIC PRESSURE
VALEUR MINIMUM DE H	MINIMUM VALUE OF DEPTH
VALEUR PAR DEFAUT DU MANNING POUR LA LOI DE COLEBROOK-WHITE	MANNING DEFAULT VALUE FOR COLEBROOK-WHITE LAW
VALEURS DES TRACEURS DANS LA PLUIE	VALUES OF TRACERS IN THE RAIN
VALEURS DES TRACEURS DES SOURCES	VALUES OF THE TRACERS AT THE SOURCES
VALEURS IMPOSEES DES TRACEURS	PRESCRIBED TRACERS VALUES
VALEURS INITIALES DES TRACEURS	INITIAL VALUES OF TRACERS
VALEURS LIMITES	LIMIT VALUES
VALIDATION	VALIDATION
VARIABLES A IMPRIMER	VARIABLES TO BE PRINTED
VARIABLES POUR LES SORTIES GRAPHIQUES	VARIABLES FOR GRAPHIC PRINTOUTS
VENT	WIND
VERIFICATION DU MAILLAGE	CHECKING THE MESH
VISCOSITE DU FLUIDE NON-NEWTONIEN	NON-NEWTONIAN VISCOSITY
VITESSE DU VENT SUIVANT X	WIND VELOCITY ALONG X
VITESSE DU VENT SUIVANT Y	WIND VELOCITY ALONG Y
VITESSE ET DIRECTION DU VENT	SPEED AND DIRECTION OF WIND
VITESSE POUR DELWAQ	VELOCITY FOR DELWAQ
VITESSES DANS BASE BINAIRE 2 DE DONNEES DE MAREE	VELOCITIES IN BINARY DATABASE 2 FOR TIDE
VITESSES DES SOURCES SELON X	VELOCITIES OF THE SOURCES ALONG X
VITESSES DES SOURCES SELON Y	VELOCITIES OF THE SOURCES ALONG Y
VITESSES IMPOSEES	PRESCRIBED VELOCITIES
VITESSES INITIALES CALCULEES PAR TPX0	INITIAL VELOCITIES COMPUTED BY TPX0
ZERO	ZERO

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- [1] J-M. HERVOUET. *Hydrodynamics of free surface flows. Modelling with the finite element method*. John Wiley & Sons, Ltd, Paris, 2007.