Waqtel

Reference Manual

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AVERTISSEMENT / CAUTION

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1. Detail list of keywords

1.1 AIR SPECIFIC HEAT

Type : Real
Dimension : 0
Mnemo CP_AIR
DEFAULT VALUE : 1005.
French keyword : CHALEUR SPECIFIQUE DE L'AIR
in J/KG^{circ}C

1.2 ALGAL TOXICITY COEFFICIENTS

Type : Real
Dimension : 2
Mnemo CTOXIC
DEFAULT VALUE : 1.;0.
French keyword : COEFFICIENTS DE TOXICITE POUR LES ALGUES
ALPHA1 AND ALPHA2

1.3 ATMOSPHERE-WATER EXCHANGE MODEL

Type : Integer
Dimension : 0
Mnemo ATMOSEXCH
DEFAULT VALUE : 0
French keyword : MODELE D'ECHANGES EAU-ATMOSPHERE
Choice of the atmosphere-water exchange model.

1.4 BENTHIC DEMAND

Type : Real
Dimension : 0
Mnemo DEMBEN
DEFAULT VALUE : 0.1
French keyword : DEMANDE BENTHIQUE
IN gO2/m2/J

1.5 BOUNDARY CONDITIONS FILE

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

1.6 COEFFICIENT OF CLOUDING RATE

Type : Real
Dimension : 1
Mnemo COEF_K
DEFAULT VALUE : 0.2
French keyword : COEFFICIENT REPRESENTATIF DE LA COUVERTURE NUAGEUSE
TODO: WRITE HELP FOR THAT KEYWORD

1.7 COEFFICIENT OF DISTRIBUTION

Type : Real
Dimension : 0
Mnemo CDISTRIB
DEFAULT VALUE : 1775.
French keyword : COEFFICIENT DE DISTRIBUTION
in M3/KG or l/g

1.8 COEFFICIENT TO CALIBRATE THE ATMOSPHERE-WATER EXCHANGE MODEL

Type : Real
Dimension : 0
Mnemo C_ATMOS
DEFAULT VALUE : 0.0025
French keyword : COEFFICIENT DE CALAGE DU MODELE D’ECHANGES EAU-ATMOSPHERE
Value of the calibration coefficient for the wind function of the atmosphere-water exchange models (linearised formula at the free surface or complete balance). A value between 0.0017 and 0.0035 is advised

1.9 COEFFICIENTS A AND B FOR RS FORMULA

Type : Real
Dimension : 2
Mnemo ABRS
DEFAULT VALUE : 1.2;0.7
French keyword : COEFFICIENTS A ET B POUR LA FORMULE DE RS
COEFFICIENTS NEEDED FOR THE CALUCLATION OF RS A IS BETWEEN 0.65(VERY POLLUTED WATER AND 1.8 (VERY CLEAR WATER))

1.10 COEFFICIENTS FOR CALIBRATING ATMOSPHERIC RADIATION

Type : Real
Dimension : 1
Mnemo EMA
DEFAULT VALUE : 0.97
French keyword : COEFFICIENTS DE CALAGE DU RAYONNEMENT ATMOSPHERIQUE
TODO: WRITE HELP FOR THAT KEYWORD

1.11 COEFFICIENTS FOR CALIBRATING SURFACE WATER RADIATION

Type : Real
Dimension : 1
Mnemo EMI_EAU
DEFAULT VALUE : 0.97
French keyword : COEFFICIENTS DE CALAGE DU RAYONNEMENT DU PLAN D'EAU
TODO: WRITE HELP FOR THAT KEYWORD

1.12 COEFFICIENTS OF AERATION FORMULA

Type : Real
Dimension : 2
Mnemo CFAER
DEFAULT VALUE : 0.002;0.0012
French keyword : COEFFICIENTS DE LA FORMULE D'AERATION
TODO: WRITE HELP FOR THAT KEYWORD

1.13 COEFFICIENTS OF ALGAL MORTALITY AT 20C

Type : Real
Dimension : 2
Mnemo CMORALG
DEFAULT VALUE : 0.1;0.003
French keyword : COEFFICIENTS DE MORTALITE ALGALE A 20C
TODO: WRITE HELP FOR THAT KEYWORD

1.14 CONSTANT FOR THE NITRIFICATION KINETIC K520

Type : Real
Dimension : 0
Mnemo K520
DEFAULT VALUE : 0.35
French keyword : CONSTANTE DE LA CINETIQUE DE NITRIFICATION K520
IN J-1

1.15 CONSTANT OF DEGRADATION OF ORGANIC LOAD K1

Type : Real
Dimension : 0
Mnemo K1
DEFAULT VALUE : 0.25
French keyword : CONSTANTE DE DEGRADATION DE LA CHARGE ORGANIQUE K1
in J-1

1.16 CONSTANT OF DEGRADATION OF ORGANIC LOAD K120

Type : Real
Dimension : 0
Mnemo K120
DEFAULT VALUE : 0.35
French keyword : CONSTANTE DE DEGRADATION DE LA CHARGE ORGANIQUE K120
in J-1

1.17 CONSTANT OF DESORPTION KINETIC

Type : Real
Dimension : 0
Mnemo KDESORP
DEFAULT VALUE : 2.5E-7
French keyword : CONSTANTE CINETIQUE DE DESORPTION
in S-1

1.18 CONSTANT OF HALF-SATURATION WITH NITROGEN

Type : Real
Dimension : 0
Mnemo KN
DEFAULT VALUE : 0.03
French keyword : CONSTANTE DE DEMI-SATURATION EN AZOTE
in mgN/l

1.19 CONSTANT OF HALF-SATURATION WITH PHOSPHATE

Type : Real
Dimension : 0
Mnemo KP
DEFAULT VALUE : 0.005
French keyword : CONSTANTE DE DEMI-SATURATION EN PHOSPHATE
IN mgP/l

1.20 CONSTANT OF NITRIFICATION KINETIC K4

Type : Real
Dimension : 0
Mnemo K44
DEFAULT VALUE : 0.35
French keyword : CONSTANTE DE CINETIQUE DE NITRIFICATION K4
in J-1

1.21 CONSUMED OXYGEN BY NITRIFICATION

Type : Real
Dimension : 0
Mnemo O2NITRI
DEFAULT VALUE : 5.2
French keyword : OXYGENE CONSOMME PAR NITRIFICATION
IN MgO2/MgNH4

1.22 CRITICAL STRESS OF RESUSPENSION

Type : Real
Dimension : 0
Mnemo TAUR
DEFAULT VALUE : 1000.
French keyword : CONTRAINTE CRITIQUE DE REMISE EN SUSPENSION
in PA

1.23 DEBUGGER

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

1.24 DEFAULT EXECUTABLE

Type : String
Dimension : 1
Mnemo EXEDEF
DEFAULT VALUE : 'builds|PPP|bin|waqtel|MMMVVV.exe'
French keyword : EXECUTABLE PAR DEFAUT
Default executable for WAQ

1.25 DEFAULT PARALLEL EXECUTABLE

Type : String
Dimension : 1
Mnemo EXEDEFPARA
DEFAULT VALUE : 'builds|PPP|bin|waqtel|MMMVVV.exe'
French keyword : EXECUTABLE PARALLELE PAR DEFAUT
Default parallel executable for WAQ

1.26 DESCRIPTION OF LIBRARIES

Type : String
Dimension : 5
Mnemo LINKLIBS
DEFAULT VALUE : 'builds|PPP|lib|biefMMMVVV.LLL;
builds|PPP|lib|damoMMMVVV.LLL;
builds|PPP|lib|hermesMMMVVV.LLL;
builds|PPP|lib|parallelMMMVVV.LLL;
builds|PPP|lib|specialMMMVVV.LLL'
French keyword : DESCRIPTION DES LIBRAIRIES
LIBRARIES description

1.27 DICTIONARY

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

1.28 DISPERSION ACROSS THE FLOW

Type : Real
Dimension : 0
Mnemo TDISP
DEFAULT VALUE : 1.E-2
French keyword : DISPERSION TRANSVERSALE
TODO: WRITE HELP FOR THAT KEYWORD

1.29 DISPERSION ALONG THE FLOW

Type : Real
Dimension : 0
Mnemo LDISP
DEFAULT VALUE : 1.E-2
French keyword : DISPERSION LONGITUDINALE
TODO: WRITE HELP FOR THAT KEYWORD

1.30 EROSION RATE

Type : Real
Dimension : 0
Mnemo ERO
DEFAULT VALUE : 0.
French keyword : TAUX D'EROSION
TODO: WRITE HELP FOR THAT KEYWORD

1.31 EVAPORATION RATE

Type : Real
Dimension : 0
Mnemo EVAPORATION
DEFAULT VALUE : 0.
French keyword : TAUX D'EVAPORATION
rate of evaporation - same unit as rainfall in m3/s/m2

1.32 EXPONENETIAL DESINTEGRATION CONSTANT

Type : Real
Dimension : 0
Mnemo CCSEDIM
DEFAULT VALUE : 1.13E-7
French keyword : CONSTANTE DE DESINTEGRATION EXPONENETIELLE
in S-1, exponential decrease law like the one of radioactivity

1.33 FORMULA FOR COMPUTING CS

Type : Integer
Dimension : 0
Mnemo FORMCS
DEFAULT VALUE : 0
French keyword : FORMULE DE CALCUL DE CS
IN J-1, HERE ARE AVAILABLE OPTIONS 0: CONSTANT 1: ELMORE & HAYES FORMULA 2: MONTGOMERY FORMULA

1.34 FORMULA FOR COMPUTING K2

Type : Integer
Dimension : 0
Mnemo FORMK2
DEFAULT VALUE : 1
French keyword : FORMULE DE CALCUL DE K2
GIVES HOW TO CUMPUTE THE REAERATION COEFFICIENT K2 OPTIONS ARE: 0- K2 CONSTANT, IN THIS CASE K2=0.9 1- FORMULA OF THE TENESSEE VALLEY AUTHORITY 2- FORMULA OF OWENS ET AL. 3- FORMULA OF CHURCHILL ET AL. 4- FORMULA OF O CONNOR & DOBBINS 5- FORMULA OF ??

1.35 FORMULA FOR COMPUTING RS

Type : Integer
Dimension : 0
Mnemo FORMRS
DEFAULT VALUE : 0
French keyword : FORMULE DE CALCUL DE RS
GIVES HOW TO CUMPUTE THE WEIR REAERATION COEFFICIENT RS OPTIONS ARE: 0- RS CONSTANT, IN THIS CASE RS=1.0 1- FORMULA OF GAMESON 1 2- FORMULA OF GAMESON 2 3- FORMULA OF WRL 1 4- FORMULA OF WRL2

1.36 FORMULA OF ATMOSPHERIC RADIATION

Type : Integer
Dimension : 1
Mnemo IRAY_ATM
DEFAULT VALUE : 2
French keyword : FORMULE DU RAYONNEMENT ATMOSPHERIQUE
Formula to be chosen to compute the atmospheric radiation. See GLM.

1.37 FORTRAN FILE

Type : String
Dimension : -1
Mnemo NOMFOR
DEFAULT VALUE : 'DEFAUT'
French keyword : FICHIER FORTRAN
Name of FORTRAN file to be submitted.

1.38 GEOMETRY FILE

Type : String
Dimension : 0
Mnemo WAQ_FILES(WAQGEO)
DEFAULT VALUE : ”
French keyword : FICHIER DE GEOMETRIE
geometry file same as the telemac2d one

1.39 GEOMETRY FILE FORMAT

Type : String
Dimension : -1
Mnemo WAQ_FILES(WAQGEO)
DEFAULT VALUE : ’SERAFIN’
French keyword : FORMAT DU FICHIER DE GEOMETRIE
geometry file format. Possible values are: - SERAFIN : classical single precision format in Telemac; - SERAFIND: classical double precision format in Telemac; - MED : MED format based on HDF5

1.40 HYDRODYNAMIC FILE

Type : String
Dimension : 0
Mnemo WAQ_FILES(WAQHYD)
DEFAULT VALUE : ”
French keyword : FICHIER HYDRODYNAMIQUE
hydrodynamic data file coming from telemac2d

1.41 HYDRODYNAMIC FILE FORMAT

Type : String
Dimension : -1
Mnemo WAQ_FILES(WAQHYD)
DEFAULT VALUE : ’SERAFIN’
French keyword : FORMAT DU FICHIER HYDRODYNAMIQUE
hydrodynamic file format. Possible values are: - SERAFIN : classical single precision format in Telemac; - SERAFIND: classical double precision format in Telemac; - MED : MED format based on HDF5

1.42 K2 REAERATION COEFFICIENT

Type : Real
Dimension : 0
Mnemo K22
DEFAULT VALUE : 0.9
French keyword : COEFFICIENT DE REAERATION K2
IN J-1

1.43 KINEMATIC WATER VISCOSITY

Type : Real
Dimension : -1
Mnemo VCE
DEFAULT VALUE : 1.E-6
French keyword : VISCOSITE CINEMATIQUE EAU
Specifies the water kinematic viscosity. M/S2

1.44 LIGHTNESS OF THE SKY

Type : Integer
Dimension : 1
Mnemo ISKYTYPE
DEFAULT VALUE : 2
French keyword : CLARTE DU CIEL
how the sky is bright (pure).

1.45 LIST OF FILES

Type : String
Dimension : 7
Mnemo
DEFAULT VALUE : 'STEERING FILE;
RESULTS FILE;
GEOMETRY FILE;
BOUNDARY CONDITIONS FILE;
FICHIER HYDRODYNAMIQUE;
REFERENCE FILE;
DICTIONARY'
French keyword : LISTE DES FICHIERS
File names of the used files

1.46 MASS-BALANCE

Type : Logical
Dimension : -1
Mnemo WQBILMAS
DEFAULT VALUE : NO
French keyword : BILAN DE MASSE
Determines whether a check of the mass-balance over the domain is made or not

1.47 MAXIMUM ALGAL GROWTH RATE AT 20C

Type : Real
Dimension : 1
Mnemo CMAX
DEFAULT VALUE : 2.
French keyword : TAUX DE CROISSANCE ALGALE MAXIMUM A 20C
MAXIMUM ALGAL GROWTH RATE AT 20C

1.48 METHOD OF COMPUTATION OF RAY EXCTINCTION COEFFICIENT

Type : Integer
Dimension : -1
Mnemo MEXTINC
DEFAULT VALUE : 1
French keyword : METHODE DE CALCUL DU COEFFICIENT D'EXTINCTION DU RAY
choice of the method of calculation of the extinction of sun ray - the choices are : 1- Atkins formula 2- Moss formula

1.49 O2 SATURATION DENSITY OF WATER (CS)

Type : Real
Dimension : 0
Mnemo O2SATU
DEFAULT VALUE : 11.
French keyword : CONCENTRATION DE SATURATION EN O2 DE L'EAU (CS)
IN Mg/l

1.50 OXYGENE PRODUCED BY PHOTOSYNTHESIS

Type : Real
Dimension : 0
Mnemo O2PHOTO
DEFAULT VALUE : 0.15
French keyword : OXYGENE PRODUIT PAR PHOTOSYNTHESE
IN MgO2/MicroGChLA

1.51 PARAMETER OF CALIBRATION OF SMITH FORMULA

Type : Real
Dimension : 0
Mnemo IK
DEFAULT VALUE : 120.
French keyword : PARAMETRE DE CALAGE DE LA FORMULE DE SMITH
IN W/m2

1.52 PERCENTAGE OF NITROGEN ASSIMILABLE IN DEAD PHYTO

Type : Real
Dimension : 0
Mnemo PERNITS
DEFAULT VALUE : 0.5
French keyword : PERCENTAGE D'AZOTE ASSIMILABLE DANS LE PHYTO MORT
IN PERCENTAGE

1.53 PERCENTAGE OF PHYSPHORUS ASSIMILABLE IN DEAD PHYTO

Type : Real
Dimension : 0
Mnemo DTP
DEFAULT VALUE : 0.5
French keyword : POURCENTAGE DE PHOSPHORE ASSIMILABLE DANS LE PHYTO MORT

IN PERCENTAGE

1.54 PHOTOSYNTHESIS P

Type : Real
Dimension : 0
Mnemo PHOTO
DEFAULT VALUE : 1.
French keyword : PHOTOSYNTHESE P
in mgO2/J:l

1.55 PROPORTION OF NITROGEN WITHIN PHYTO CELLS

Type : Real
Dimension : 0
Mnemo PRONITC
DEFAULT VALUE : 0.0035
French keyword : PROPORTION D'AZOTE DANS LES CELLULES DU PHYTO
IN Mgp/microgchla

1.56 PROPORTION OF PHOSPHORUS WITHIN PHYTO CELLS

Type : Real
Dimension : 0
Mnemo PROPHOC
DEFAULT VALUE : 0.0025
French keyword : PROPORTION DE PHOSPHORE DANS LES CELLULES DU PHYTO
IN Mgp/microgchla

1.57 RATE OF TRANSFORMATION OF NOR TO NO3

Type : Real
Dimension : 0
Mnemo K360
DEFAULT VALUE : 0.
French keyword : TAUX DE TRANSFORMATION DU NOR EN NO3
RATE OF TRANSFOMATION OF NOR TO NO3 BY BACTERIA MINERALIZATION IN J-1

1.58 RATE OF TRANSFORMATION OF POR TO PO4

Type : Real
Dimension : 0
Mnemo K320
DEFAULT VALUE : 0.03
French keyword : TAUX DE TRANSFORMATION DU POR EN PO4
IN J-1

1.59 REFERENCE FILE

Type :	String
Dimension :	0
Mnemo	WAQ_FILES(WAQREF)
DEFAULT VALUE :	”
French keyword :	FICHIER DE REFERENCE

Name of the file used to validate the computation. If VALIDATION = YES, the results of the computation will be compared with the values of this file. The comparison is made by the subroutine BIEF_VALIDA. (not implemented yet)

1.60 REFERENCE FILE FORMAT

Type :	String
Dimension :	-1
Mnemo	WAQ_FILES(WAQREF)
DEFAULT VALUE :	’SERAFIN’
French keyword :	FORMAT DU FICHIER DE REFERENCE

hydrodynamic file format. Possible values are: - SERAFIN : classical single precision format in Telemac; - SERAFIND: classical double precision format in Telemac; - MED : MED format based on HDF5

1.61 RELEASE

Type :	String
Dimension :	-1
Mnemo	
DEFAULT VALUE :	’V7P2’
French keyword :	NUMERO DE VERSION

Release of the libraries used by WAQTEL.

1.62 RESPIRATION RATE OF ALGAL BIOMASS

Type :	Real
Dimension :	0
Mnemo	TRESPIR
DEFAULT VALUE :	0.05
French keyword :	TAUX DE RESPIRATION DE LA BIOMASSE ALGALE

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1.63 RESULTS FILE

Type :	String
Dimension :	0
Mnemo	WAQ_FILES(WAQRES)
DEFAULT VALUE :	”
French keyword :	FICHIER DES RESULTATS

Name of the file into wich the computation results shall be written, the periodicity being given by the keyword WAQ PRINTOUT PERIOD.

1.64 RESULTS FILE FORMAT

Type : String
Dimension : -1
Mnemo WAQ_FILES(WAQRES)
DEFAULT VALUE : 'SERAFIN'
French keyword : FORMAT DU FICHIER DES RESULTATS
results file format. Possible values are: - SERAFIN : classical single precision format in Telemac; - SERAFIND: classical double precision format in Telemac; - MED : MED format based on HDF5

1.65 SECCHI DEPTH

Type : Real
Dimension : 1
Mnemo ZSD
DEFAULT VALUE : 0.
French keyword : PROFONDEUR DE SECCHI
IN M

1.66 SEDIMENT SETTLING VELOCITY

Type : Real
Dimension : 0
Mnemo VITCHU
DEFAULT VALUE : 6.E-6
French keyword : VITESSE DE CHUTE DES MES
in M/S

1.67 SEDIMENTATION CRITICAL STRESS

Type : Real
Dimension : 0
Mnemo TAUS
DEFAULT VALUE : 5.
French keyword : CONTRAINTE CRITIQUE DE SEDIMENTATION
in PA

1.68 SEDIMENTATION VELOCITY OF NON ALGAL NITROGEN

Type : Real
Dimension : 0
Mnemo WNOR
DEFAULT VALUE : 0.
French keyword : VITESSE DE SEDIMENTATION DE L'AZOTE NON ALGALE
IN M/S

1.69 SEDIMENTATION VELOCITY OF ORGANIC LOAD

Type : Real
Dimension : 0
Mnemo WLOR
DEFAULT VALUE : 0.
French keyword : VITESSE DE SEDIMENTATION DE LA CHARGE ORGANIQUE
IN M/S

1.70 SEDIMENTATION VELOCITY OF ORGANIC PHOSPHORUS

Type : Real
Dimension : 0
Mnemo WPOR
DEFAULT VALUE : 0.
French keyword : VITESSE DE SEDIMENTATION DU PHOSPHORE ORGANIQUE
IN M/S

1.71 STEERING FILE

Type : String
Dimension : -1
Mnemo
DEFAULT VALUE : ”
French keyword : FICHIER DES PARAMETRES
Name of the file containing parameters of the WAQ computation Written by the user.

1.72 SUNSHINE FLUX DENSITY ON WATER SURFACE

Type : Real
Dimension : 1
Mnemo I0
DEFAULT VALUE : 0.
French keyword : DENSITE DE FLUX DU RAYONNEMENT SOLAIRE A LA SURFACE
DENSITY OF SUNSHINE FLUX ON THE WATER SURFACE IN W/m2

1.73 VALIDATION

Type : Logical
Dimension : -1
Mnemo WQVALID
DEFAULT VALUE : NO
French keyword : VALIDATION
This option is primarily used for the validation documents. If this keyword is equal to YES, the REFERENCE FILE is then considered as a reference which the computation is going to be compared with.

1.74 VARIABLES FOR WAQ PRINTOUTS

Type : String
Dimension : -1
Mnemo
DEFAULT VALUE : ”
French keyword : VARIABLES POUR LES SORTIES QE
Names of variables the user wants to write into the graphic results file.

1.75 VEGERAL RESPIRATION R

Type : Real
Dimension : 0
Mnemo RESP
DEFAULT VALUE : 0.06
French keyword : RESPIRATION VEGETALE R
in mgO2/J/l

1.76 VEGETAL TURBIDITY COEFFICIENT WITHOUT PHYTO

Type : Real
Dimension : 0
Mnemo KPE
DEFAULT VALUE : 0.
French keyword : COEFFICIENT DE TURBIDITE VEGETALE SANS PHYTO
COEFFICIENT OF VEGATAL TURBIDITY WITHOUT PHYTOPLANKTON - in m-1

1.77 WAQ CASE TITLE

Type : String
Dimension : -1
Mnemo TITWAQCAS
DEFAULT VALUE : ”
French keyword : TITRE DU CAS QE
Title of the case being considered. This title shall be marked on the printouts.

1.78 WAQ VARIABLES TO BE PRINTED

Type : String
Dimension : -1
Mnemo
DEFAULT VALUE : ”
French keyword : VARIABLES QE A IMPRIMER
Names of variables the user wants to write on the listing. Each variable is represented by a letter in the same manner as it is done in the graphic results file.

1.79 WATER DENSITY

Type : Real
Dimension : -1
Mnemo RO0
DEFAULT VALUE : 999.972
French keyword : MASSE VOLUMIQUE DE L’EAU

sets the value of water density.

1.80 WATER QUALITY PRINTOUT PERIOD

Type : Integer
Dimension : -1
Mnemo LEOPRD
DEFAULT VALUE : 1
French keyword : PERIODE POUR LES SORTIES QUALITE D'EAU
graphic outputs period for waq

1.81 WATER SPECIFIC HEAT

Type : Real
Dimension : 0
Mnemo CP_EAU
DEFAULT VALUE : 4180.
French keyword : CHALEUR SPECIFIQUE DE L'EAU
in J/KG^{circ}C

1.82 WATER TEMPERATURE

Type : Real
Dimension : 0
Mnemo WATTEMP
DEFAULT VALUE : 7.
French keyword : TEMPERATURE DE L'EAU
in ^{circ}C, MEAN TEMPERATURE NECESARY FOR COMPUTING DIFFERENT VALUES OF CS

1.83 WEIR REAERATION COEFFICIENT RS

Type : Real
Dimension : 0
Mnemo RSW
DEFAULT VALUE : 1.0
French keyword : COEFFICIENT DE REAERATION DU SEUIL RS
IN J-1

2. List of keywords classified according to type

2.1 BIOMASS

RATE OF TRANSFORMATION OF NOR TO NO3
SUNSHINE FLUX DENSITY ON WATER SURFACE

2.2 BIOMASS,WQ

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COEFFICIENTS FOR CALIBRATING ATMOSPHERIC RADIATION
COEFFICIENTS FOR CALIBRATING SURFACE WATER RADIATION
COEFFICIENTS OF AERATION FORMULA
COEFFICIENTS OF ALGAL MORTALITY AT 20C
CONSTANT FOR THE NITRIFICATION KINETIC K520
CONSTANT OF DEGRADATION OF ORGANIC LOAD K1
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2.7 FILES

LIST OF FILES

2.8 IN-OUT,WQ

WATER QUALITY PRINTOUT PERIOD

2.9 INPUT-OUTPUT, FILES

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BENTHIC DEMAND
COEFFICIENT OF CLOUDING RATE
COEFFICIENT OF DISTRIBUTION
COEFFICIENTS FOR CALIBRATING ATMOSPHERIC RADIATION
COEFFICIENTS FOR CALIBRATING SURFACE WATER RADIATION
COEFFICIENTS OF AERATION FORMULA
COEFFICIENTS OF ALGAL MORTALITY AT 20C
CONSTANT FOR THE NITRIFICATION KINETIC K520
CONSTANT OF DEGRADATION OF ORGANIC LOAD K1
CONSTANT OF DEGRADATION OF ORGANIC LOAD K120
CONSTANT OF DESORPTION KINETIC
CONSTANT OF HALF-SATURATION WITH NITROGEN
CONSTANT OF HALF-SATURATION WITH PHOSPHATE
CONSTANT OF NITRIFICATION KINETIC K4
CONSUMED OXYGEN BY NITRIFICATION
CRITICAL STRESS OF RESUSPENSION
EROSION RATE
EXPONENETIAL DESINTEGRATION CONSTANT
FORMULA FOR COMPUTING CS
FORMULA FOR COMPUTING K2
FORMULA FOR COMPUTING RS
K2 REAERATION COEFFICIENT
MAXIMUM ALGAL GROWTH RATE AT 20C
O2 SATURATION DENSITY OF WATER (CS)
OXYGENE PRODUCED BY PHOTOSYNTHESIS
PARAMETER OF CALIBRATION OF SMITH FORMULA
PERCENTAGE OF NITROGEN ASSIMILABLE IN DEAD PHYTO
PERCENTAGE OF PHYSPHORUS ASSIMILABLE IN DEAD PHYTO

PHOTOSYNTHESIS P
PROPORTION OF NITROGEN WITHIN PHYTO CELLS
PROPORTION OF PHOSPHORUS WITHIN PHYTO CELLS
RATE OF TRANSFORMATION OF NOR TO NO3
RATE OF TRANSFORMATION OF POR TO PO4
RESPIRATION RATE OF ALGAL BIOMASS
SECCHI DEPTH
SEDIMENT SETTLING VELOCITY
SEDIMENTATION CRITICAL STRESS
SEDIMENTATION VELOCITY OF NON ALGAL NITROGEN
SEDIMENTATION VELOCITY OF ORGANIC LOAD
SEDIMENTATION VELOCITY OF ORGANIC PHOSPHORUS
SUNSHINE FLUX DENSITY ON WATER SURFACE
VEGERAL RESPIRATION R
VEGETAL TURBIDITY COEFFICIENT WITHOUT PHYTO
WATER SPECIFIC HEAT
WATER TEMPERATURE

2.19 WAQ PARAMETERS,SOURCES

COEFFICIENTS A AND B FOR RS FORMULA
WEIR REAERATION COEFFICIENT RS

3. Glossary

3.1 English/French glossary

AIR SPECIFIC HEAT	CHALEUR SPECIFIQUE DE L'AIR
ALGAL TOXICITY COEFFICIENTS	COEFFICIENTS DE TOXICITE POUR LES ALGUES
ATMOSPHERE-WATER EXCHANGE MODEL	MODELE D'ECHANGES EAU-ATMOSPHERE
BENTHIC DEMAND	DEMANDE BENTHIQUE
BOUNDARY CONDITIONS FILE	FICHIER DES CONDITIONS AUX LIMITES
COEFFICIENT OF CLOUDING RATE	COEFFICIENT REPRESENTATIF DE LA COUVERTURE NUAGEUSE
COEFFICIENT OF DISTRIBUTION	COEFFICIENT DE DISTRIBUTION
COEFFICIENT TO CALIBRATE THE ATMOSPHERE-WATER EXCHANGE MODEL	COEFFICIENT DE CALAGE DU MODELE D'ECHANGES EAU-ATMOSPHERE
COEFFICIENTS A AND B FOR RS FORMULA	COEFFICIENTS A ET B POUR LA FORMULE DE RS
COEFFICIENTS FOR CALIBRATING ATMOSPHERIC RADIATION	COEFFICIENTS DE CALAGE DU RAYONNEMENT ATMOSPHERIQUE
COEFFICIENTS FOR CALIBRATING SURFACE WATER RADIATION	COEFFICIENTS DE CALAGE DU RAYONNEMENT DU PLAN D'EAU
COEFFICIENTS OF AERATION FORMULA	COEFFICIENTS DE LA FORMULE D'AERATION
COEFFICIENTS OF ALGAL MORTALITY AT 20C	COEFFICIENTS DE MORTALITE ALGALE A 20C
CONSTANT FOR THE NITRIFICATION KINETIC K520	CONSTANTE DE LA CINETIQUE DE NITRIFICATION K520
CONSTANT OF DEGRADATION OF ORGANIC LOAD K1	CONSTANTE DE DEGRADATION DE LA CHARGE ORGANIQUE K1
CONSTANT OF DEGRADATION OF ORGANIC LOAD K120	CONSTANTE DE DEGRADATION DE LA CHARGE ORGANIQUE K120
CONSTANT OF DESORPTION KINETIC	CONSTANTE CINETIQUE DE DESORPTION

CONSTANT OF HALF-SATURATION WITH NITROGEN	CONSTANTE DE DEMI-SATURATION EN AZOTE
CONSTANT OF HALF-SATURATION WITH PHOSPHATE	CONSTANTE DE DEMI-SATURATION EN PHOSPHATE
CONSTANT OF NITRIFICATION KINETIC K4	CONSTANTE DE CINETIQUE DE NITRIFICATION K4
CONSUMED OXYGEN BY NITRIFICATION	OXYGENE CONSOMME PAR NITRIFICATION
CRITICAL STRESS OF RESUSPENSION	CONTRAINTE CRITIQUE DE REMISE EN SUSPENSION
DEBUGGER	DEBUGGER
DEFAULT EXECUTABLE	EXECUTABLE PAR DEFAUT
DEFAULT PARALLEL EXECUTABLE	EXECUTABLE PARALLELE PAR DEFAUT
DESCRIPTION OF LIBRARIES	DESCRIPTION DES LIBRAIRIES
DICTIONARY	DICTIONNAIRE
DISPERSION ACROSS THE FLOW	DISPERSION TRANSVERSALE
DISPERSION ALONG THE FLOW	DISPERSION LONGITUDINALE
EROSION RATE	TAUX D'EROSION
EVAPORATION RATE	TAUX D'EVAPORATION
EXPONENETIAL DESINTEGRATION CONSTANT	CONSTANTE DE DESINTEGRATION EXPONENETIELLE
FORMULA FOR COMPUTING CS	FORMULE DE CALCUL DE CS
FORMULA FOR COMPUTING K2	FORMULE DE CALCUL DE K2
FORMULA FOR COMPUTING RS	FORMULE DE CALCUL DE RS
FORMULA OF ATMOSPHERIC RADIATION	FORMULE DU RAYONNEMENT ATMOSPHERIQUE
FORTRAN FILE	FICHIER FORTRAN
GEOMETRY FILE	FICHIER DE GEOMETRIE
GEOMETRY FILE FORMAT	FORMAT DU FICHIER DE GEOMETRIE
HYDRODYNAMIC FILE	FICHIER HYDRODYNAMIQUE
HYDRODYNAMIC FILE FORMAT	FORMAT DU FICHIER HYDRODYNAMIQUE
K2 REAERATION COEFFICIENT	COEFFICIENT DE REAERATION K2
KINEMATIC WATER VISCOSITY	VISCOSITE CINEMATIQUE EAU
LIGHTNESS OF THE SKY	CLARTE DU CIEL
LIST OF FILES	LISTE DES FICHIERS
MASS-BALANCE	BILAN DE MASSE
MAXIMUM ALGAL GROWTH RATE AT 20C	TAUX DE CROISSANCE ALGALE MAXIMUM A 20C
METHOD OF COMPUTATION OF RAY EXCTINCTION COEFFICIENT	METHODE DE CALCUL DU COEFFICIENT D'EXTINCTION DU RAY
O2 SATURATION DENSITY OF WATER (CS)	CONCENTRATION DE SATURATION EN O2 DE L'EAU (CS)
OXYGENE PRODUCED BY PHOTOSYNTHESIS	OXYGENE PRODUIT PAR PHOTOSYNTHESE

PARAMETER OF CALIBRATION OF SMITH FORMULA	PARAMETRE DE CALAGE DE LA FORMULE DE SMITH
PERCENTAGE OF NITROGEN ASSIMILABLE IN DEAD PHYTO	PERCENTAGE D'AZOTE ASSIMILABLE DANS LE PHYTO MORT
PERCENTAGE OF PHYSPHORUS ASSIMILABLE IN DEAD PHYTO	POURCENTAGE DE PHOSPHORE ASSIMILABLE DANS LE PHYTO MORT
PHOTOSYNTHESIS P	PHOTOSYNTHESE P
PROPORTION OF NITROGEN WITHIN PHYTO CELLS	PROPORTION D'AZOTE DANS LES CELLULES DU PHYTO
PROPORTION OF PHOSPHORUS WITHIN PHYTO CELLS	PROPORTION DE PHOSPHORE DANS LES CELLULES DU PHYTO
RATE OF TRANSFORMATION OF NOR TO NO3	TAUX DE TRANSFORMATION DU NOR EN NO3
RATE OF TRANSFORMATION OF POR TO PO4	TAUX DE TRANSFORMATION DU POR EN PO4
REFERENCE FILE	FICHIER DE REFERENCE
REFERENCE FILE FORMAT	FORMAT DU FICHIER DE REFERENCE
RELEASE	NUMERO DE VERSION
RESPIRATION RATE OF ALGAL BIOMASS	TAUX DE RESPIRATION DE LA BIOMASSE ALGALE
RESULTS FILE	FICHIER DES RESULTATS
RESULTS FILE FORMAT	FORMAT DU FICHIER DES RESULTATS
SECCHI DEPTH	PROFONDEUR DE SECCHI
SEDIMENT SETTLING VELOCITY	VITESSE DE CHUTE DES MES
SEDIMENTATION CRITICAL STRESS	CONTRAINTE CRITIQUE DE SEDIMENTATION
SEDIMENTATION VELOCITY OF NON ALGAL NITROGEN	VITESSE DE SEDIMENTATION DE L'AZOTE NON ALGALE
SEDIMENTATION VELOCITY OF ORGANIC LOAD	VITESSE DE SEDIMENTATION DE LA CHARGE ORGANIQUE
SEDIMENTATION VELOCITY OF ORGANIC PHOSPHORUS	VITESSE DE SEDIMENTATION DU PHOSPHORE ORGANIQUE
STEERING FILE	FICHIER DES PARAMETRES
SUNSHINE FLUX DENSITY ON WATER SURFACE	DENSITE DE FLUX DU RAYONNEMENT SOLAIRE A LA SURFACE
VALIDATION	VALIDATION
VARIABLES FOR WAQ PRINTOUTS	VARIABLES POUR LES SORTIES QE
VEGERAL RESPIRATION R	RESPIRATION VEGETALE R
VEGETAL TURBIDITY COEFFICIENT WITHOUT PHYTO	COEFFICIENT DE TURBIDITE VEGETALE SANS PHYTO
WAQ CASE TITLE	TITRE DU CAS QE
WAQ VARIABLES TO BE PRINTED	VARIABLES QE A IMPRIMER
WATER DENSITY	MASSE VOLUMIQUE DE L'EAU
WATER QUALITY PRINTOUT PERIOD	PERIODE POUR LES SORTIES QUALITE D'EAU
WATER SPECIFIC HEAT	CHALEUR SPECIFIQUE DE L'EAU
WATER TEMPERATURE	TEMPERATURE DE L'EAU

WEIR REAERATION COEFFICIENT RS	COEFFICIENT DE REAERATION DU SEUIL RS

3.2 French/English glossary

BILAN DE MASSE	MASS-BALANCE
CHALEUR SPECIFIQUE DE L'AIR	AIR SPECIFIC HEAT
CHALEUR SPECIFIQUE DE L'EAU	WATER SPECIFIC HEAT
CLARTE DU CIEL	LIGHTNESS OF THE SKY
COEFFICIENT DE CALAGE DU MODELE D'ECHANGES EAU-ATMOSPHERE	COEFFICIENT TO CALIBRATE THE ATMOSPHERE-WATER EXCHANGE MODEL
COEFFICIENT DE DISTRIBUTION	COEFFICIENT OF DISTRIBUTION
COEFFICIENT DE REAERATION DU SEUIL RS	WEIR REAERATION COEFFICIENT RS
COEFFICIENT DE REAERATION K2	K2 REAERATION COEFFICIENT
COEFFICIENT DE TURBIDITE VEGETALE SANS PHYTO	VEGETAL TURBIDITY COEFFICIENT WITHOUT PHYTO
COEFFICIENT REPRESENTATIF DE LA COUVERTURE NUAGEUSE	COEFFICIENT OF CLOUDING RATE
COEFFICIENTS A ET B POUR LA FORMULE DE RS	COEFFICIENTS A AND B FOR RS FORMULA
COEFFICIENTS DE CALAGE DU RAYONNEMENT ATMOSPHERIQUE	COEFFICIENTS FOR CALIBRATING ATMOSPHERIC RADIATION
COEFFICIENTS DE CALAGE DU RAYONNEMENT DU PLAN D'EAU	COEFFICIENTS FOR CALIBRATING SURFACE WATER RADIATION
COEFFICIENTS DE LA FORMULE D'AERATION	COEFFICIENTS OF AERATION FORMULA
COEFFICIENTS DE MORTALITE ALGALE A 20C	COEFFICIENTS OF ALGAL MORTALITY AT 20C
COEFFICIENTS DE TOXICITE POUR LES ALGUES	ALGAL TOXICITY COEFFICIENTS
CONCENTRATION DE SATURATION EN O2 DE L'EAU (CS)	O2 SATURATION DENSITY OF WATER (CS)
CONSTANTE CINETIQUE DE DESORPTION	CONSTANT OF DESORPTION KINETIC
CONSTANTE DE CINETIQUE DE NITRIFICATION K4	CONSTANT OF NITRIFICATION KINETIC K4
CONSTANTE DE DEGRADATION DE LA CHARGE ORGANIQUE K1	CONSTANT OF DEGRADATION OF ORGANIC LOAD K1
CONSTANTE DE DEGRADATION DE LA CHARGE ORGANIQUE K120	CONSTANT OF DEGRADATION OF ORGANIC LOAD K120
CONSTANTE DE DEMI-SATURATION EN AZOTE	CONSTANT OF HALF-SATURATION WITH NITROGEN
CONSTANTE DE DEMI-SATURATION EN PHOSPHATE	CONSTANT OF HALF-SATURATION WITH PHOSPHATE
CONSTANTE DE DESINTEGRATION EXPONENETIELLE	EXPONENETIAL DESINTEGRATION CONSTANT

CONSTANTE DE LA CINETIQUE DE NITRIFICATION K520	CONSTANT FOR THE NITRIFICATION KINETIC K520
CONTRAINTE CRITIQUE DE REMISE EN SUSPENSION	CRITICAL STRESS OF RESUSPENSION
CONTRAINTE CRITIQUE DE SEDIMENTATION	SEDIMENTATION CRITICAL STRESS
DEBUGGER	DEBUGGER
DEMANDE BENTHIQUE	BENTHIC DEMAND
DENSITE DE FLUX DU RAYONNEMENT SOLAIRE A LA SURFACE	SUNSHINE FLUX DENSITY ON WATER SURFACE
DESCRIPTION DES LIBRAIRIES	DESCRIPTION OF LIBRARIES
DICTIONNAIRE	DICTIONARY
DISPERSION LONGITUDINALE	DISPERSION ALONG THE FLOW
DISPERSION TRANSVERSALE	DISPERSION ACROSS THE FLOW
EXECUTABLE PAR DEFAUT	DEFAULT EXECUTABLE
EXECUTABLE PARALLELE PAR DEFAUT	DEFAULT PARALLEL EXECUTABLE
FICHIER DE GEOMETRIE	GEOMETRY FILE
FICHIER DE REFERENCE	REFERENCE FILE
FICHIER DES CONDITIONS AUX LIMITES	BOUNDARY CONDITIONS FILE
FICHIER DES PARAMETRES	STEERING FILE
FICHIER DES RESULTATS	RESULTS FILE
FICHIER FORTRAN	FORTRAN FILE
FICHIER HYDRODYNAMIQUE	HYDRODYNAMIC FILE
FORMAT DU FICHIER DE GEOMETRIE	GEOMETRY FILE FORMAT
FORMAT DU FICHIER DE REFERENCE	REFERENCE FILE FORMAT
FORMAT DU FICHIER DES RESULTATS	RESULTS FILE FORMAT
FORMAT DU FICHIER HYDRODYNAMIQUE	HYDRODYNAMIC FILE FORMAT
FORMULE DE CALCUL DE CS	FORMULA FOR COMPUTING CS
FORMULE DE CALCUL DE K2	FORMULA FOR COMPUTING K2
FORMULE DE CALCUL DE RS	FORMULA FOR COMPUTING RS
FORMULE DU RAYONNEMENT ATMOSPHERIQUE	FORMULA OF ATMOSPHERIC RADIATION
LISTE DES FICHIERS	LIST OF FILES
MASSE VOLUMIQUE DE L'EAU	WATER DENSITY
METHODE DE CALCUL DU COEFFICIENT D'EXTINCTION DU RAY	METHOD OF COMPUTATION OF RAY EXCTINCTION COEFFICIENT
MODELE D'ECHANGES EAU-ATMOSPHERE	ATMOSPHERE-WATER EXCHANGE MODEL
NUMERO DE VERSION	RELEASE
OXYGENE CONSOMME PAR NITRIFICATION	CONSUMED OXYGEN BY NITRIFICATION
OXYGENE PRODUIT PAR PHOTOSYNTHESE	OXYGENE PRODUCED BY PHOTOSYNTHESIS

PARAMETRE DE CALAGE DE LA FORMULE DE SMITH	PARAMETER OF CALIBRATION OF SMITH FORMULA
PERCENTAGE D'AZOTE ASSIMILABLE DANS LE PHYTO MORT	PERCENTAGE OF NITROGEN ASSIMILABLE IN DEAD PHYTO
PERIODE POUR LES SORTIES QUALITE D'EAU	WATER QUALITY PRINTOUT PERIOD
PHOTOSYNTHESE P	PHOTOSYNTHESIS P
POURCENTAGE DE PHOSPHORE ASSIMILABLE DANS LE PHYTO MORT	PERCENTAGE OF PHYSPHORUS ASSIMILABLE IN DEAD PHYTO
PROFONDEUR DE SECCHI	SECCHI DEPTH
PROPORTION D'AZOTE DANS LES CELLULES DU PHYTO	PROPORTION OF NITROGEN WITHIN PHYTO CELLS
PROPORTION DE PHOSPHORE DANS LES CELLULES DU PHYTO	PROPORTION OF PHOSPHORUS WITHIN PHYTO CELLS
RESPIRATION VEGETALE R	VEGERAL RESPIRATION R
TAUX D'EROSION	EROSION RATE
TAUX D'EVAPORATION	EVAPORATION RATE
TAUX DE CROISSANCE ALGALE MAXIMUM A 20C	MAXIMUM ALGAL GROWTH RATE AT 20C
TAUX DE RESPIRATION DE LA BIOMASSE ALGALE	RESPIRATION RATE OF ALGAL BIOMASS
TAUX DE TRANSFORMATION DU NOR EN NO3	RATE OF TRANSFORMATION OF NOR TO NO3
TAUX DE TRANSFORMATION DU POR EN PO4	RATE OF TRANSFORMATION OF POR TO PO4
TEMPERATURE DE L'EAU	WATER TEMPERATURE
TITRE DU CAS QE	WAQ CASE TITLE
VALIDATION	VALIDATION
VARIABLES POUR LES SORTIES QE	VARIABLES FOR WAQ PRINTOUTS
VARIABLES QE A IMPRIMER	WAQ VARIABLES TO BE PRINTED
VISCOSITE CINEMATIQUE EAU	KINEMATIC WATER VISCOSITY
VITESSE DE CHUTE DES MES	SEDIMENT SETTLING VELOCITY
VITESSE DE SEDIMENTATION DE L'AZOTE NON ALGALE	SEDIMENTATION VELOCITY OF NON ALGAL NITROGEN
VITESSE DE SEDIMENTATION DE LA CHARGE ORGANIQUE	SEDIMENTATION VELOCITY OF ORGANIC LOAD
VITESSE DE SEDIMENTATION DU PHOSPHORE ORGANIQUE	SEDIMENTATION VELOCITY OF ORGANIC PHOSPHORUS

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