

Nater Quality Research Group CE-QUAL-W2 Hydrodynamic and

The Version 4 release of the model includes the following:

The model files are found in 1 zipped file: v4.zip. There are the following subdirectories and files:

- 1. Examples Model application examples include DeGray Reservoir, Spokane River, Spokane River (input files in csv format), Columbia Slough example.
- Executables The executables for the preprocessor and the model in this directory were compiled using Intel Fortran XE 13.1 compiler and h
- W2ControlGUI The W2Control GUI was compiled using Visual Basic 6. The GUI directory also has an installation routine for W2Control. installs the Visual Basic W2 V3.7 Model Preprocessor called W2CONTROL which is also compatible with the V4 model. Once installed, the model user in setting up the Control File and in evaluating and changing the bathymetry of the system. This preprocessor does not automate system, nor does it provide post-processing support. A lot of effort is required to properly set-up the model bathymetry prior to using the Ba A user manual in pdf format is included in this directory. Also, a separate executable, W2Control, is provided in case an earlier version has al GUI is a part of the install routine for W2Tools now.
- W2Tools This is the new W2 post-processor by Dynamic Solutions-International, LLC (www.ds-international.biz). They have provided an ins the post-processor and the W2ControlGUI. When the user selects W2L output (the old VPL output), the resulting post-processing file is use tasks that include contour plots, animations, profile plots and time series plots. A brief user manual is included showing many of the feature directory that shows how to take field data and plot field data and model results in the post-processor. There is a zip file with an example include model predictions versus field data for reservoir profiles.
- Source This directory contains the source code for the preprocessor and model written in Fortran. The compiler settings and files ne compiler are also included using the Intel Fortran compiler. Generally, we use the following compiler settings: /O2 [maximum speed in Intel] i Also, for the following subroutines we had to use /O1 optimization: init-cond.f90 and init-u-elws.f90. For the preprocessor, the window QuickWin application rather than a console application. We use the debug version for the released executable. The generic preprocesso console application.
- Waterbalance This is the windows waterbalance utility that is described in the user manual. The purpose of this code is to approximate lake by computing flows (positive and negative) that will allow the model predicted water level to agree to water level data for a reservoir.
- Excel macro utility for writing files in W2 format from Excel This directory contains an Excel macro that aids in writing our CE-QUAL-W2 There is a short user manual describing how to use the macro. This macro was developed by Jeffrey Gregory, Civil Engineer, USACE, Nashville
- W2V3 manual4 rev7.pdf User Manual in searchable pdf format.
- W2 Version 4 Release Notes.pdf Release notes in pdf with sections on how to run the model for the first time, lists of bug fixes a between model versions format.
- 10. USGS Documentation for the Auto Port Selection Algorithm Technical report for the new USGS algorithm for auto port selection.
- 11. <u>USGS Model examples for the Auto Port Selection</u> 4 example problems using the USGS algorithm for auto port selection
- 12. Sediment diagenesis documentation reports and documents explaining the sediment diagenesis model in Version 4.

#	File	Comments
1	Version 3.72 Download	Registration Page and Download (Model, Preprocessor, Example files, User's Manual, Release Notes, Graphic Water Balance Utility, W2tools post-processor), USGS Auto Port Documentation and Examples
2	Version 3.71 Download	Registration Page and Download (Model, Preprocessor, Example files, User's Manual, Release Notes, Graphica Water Balance Utility, W2tools post-processor)
3	Version 4.0 download	Registration page and download of source code, model release notes, executable, User Manual, documentation problems and reports. Note this is a stable and well-tested release.
4	Version 3.6 Download	Registration Page and Download (Model, Preprocessor, Example files, User's Manual, Release Notes, Graphica Water Balance Utility)
5	Release notes for Version 3.6	PDF file
6	Legacy Model Version 3.5	No Longer Supported
7	Legacy Model (Version 3.1 and 3.2)	No Longer Supported
8	Model Information	Information on the W2 Model
9	Version 2.0 Manual	No Longer Supported

1/1 http://www.ce.pdx.edu/w2/