

Release Notes for IWFEM Version 3.02.110

(Emin Can Dogrul; DWR)

This version of IWFEM includes the following modifications and corrections:

1. **(12/03/2012)** An array dimensioning error when agricultural demand was being read from file Unit 19 (instead of being computed internally) is corrected.
2. **(04/15/2013)** With the latest version of the Intel Fortran compiler, pre-processed data was not being written to or read from the Pre-processor binary file correctly. The code is modified to make sure that this binary file is created and read in properly.
3. **(05/02/2013)** Source code is modified so that if neither groundwater budget nor the Z-Budget binary files are generated in Simulation, then element face flow calculations are skipped. This modification is done to decrease run-times particularly for applications with large number of cells.
4. **(07/31/2013)** When a budget binary file that was generated with a different Simulation run with different simulation beginning date and time was accidentally used in Budget, an error was generated. This situation is corrected by including code that checks that data begin date and time are the same for all binary files used in Budget.
5. **(08/29/2013)** Surface flow from small watersheds that percolate into groundwater at boundary nodes were not properly accounted for in Z-Budget computations. This error is corrected.
6. **(09/23/2013)** Simulation executable was accidentally compiled to target a specific processor. This created an error on some older processors. This problem is corrected by compiling Simulation for a generic processor.

7. **(10/09/2013)** The calculations for the damping factor used in Newton-Raphson iteration are modified to create a more robust solution methodology. This allows the Newton-Raphson method to converge even when the equations being solved have steep gradients around their roots.