II. RiverWare Software Maintenance

**Releases, Patches and Snapshots**

RiverWare 7.0.4 Release

RiverWare Patch 7.0.4 was released on February 14, 2017. Release notes are as follows:

**HDB Output Ensemble Names for MRM**   
When using HDB output ensembles for MRM, a diagnostic message is now issued at the beginning of MRM to notify the user of the names of the ensembles being used.   
  
**Impulse Response Routing for Optimization**   
In Optimization, the Impulse Response method can now be selected for the Routing category on Reach objects. The formulation is the same as for simulation: Outflow(t) = C0 Inflow(t) + C1 Inflow(t-1) + C2 Inflow(t-2) + ... + Total Gain Loss   
Refer to the RiverWare Help, Objects -> Reach -> User Methods -> Routing  -> Impulse Response for details about the slots associated with this method.

**Bugs**

The following issue was addressed:

* 5905: On certain custom Agg Series slots, the Add/Remove Column operations were missing.

RiverWare 7.0.5 Release

RiverWare Patch 7.0.5 was released on February 24, 2017. Release notes are as follows:

**Canal Dispatching**

Within Rulebased Simulation, reservoirs linked to a Canal object are now forced to redispatch the same method within a timestep. This change was made to address a problem where rule and slot priorities led to the reservoirs dispatching the incorrect method.

**Bugs**

The following issues were addressed:

* 5872: A 3D table interpolation/extrapolation could be incorrect.
* 5878: The Time Aggregation Series Slot unit column labels were incorrect after a configuration change.
* 5908: On the SCT, after switching to a different sheet, the scroll position could become out of sync.
* 5911: On SCT series sheets, the 'Go To' function did not always scroll to the correct slot divider.
* 5914: A crash could occur when starting a Multiple Run.

**Software Updates, Bug fixes (not associated with new development)**

Bug Fixes:

Bug 5617: Within the SolveMB\_givenEnergyInflow dispatch method, a diverging solution could occur.

**Regression Tests**

The regression tests continue to be maintained on a daily basis. This involves updating the regression tests to exercise new developments in the code. Also, as new code is added to the development area, the model comparisons performed in the nightly regression tests usually show differences (for example, because a new method category may have been added). When this occurs, the regression tests need to be updated to reflect the current state of the development area so model comparisons do not fail. In addition, every week, the daily history of each regression test is analyzed to determine if the run time or model size has significantly changed because of new development. In February, the regression tests and build machines were fixed when conflicts occurred due to changes to the git ignore file.