II. RiverWare Software Maintenance

**Releases, Patches and Snapshots**

RiverWare 7.0.8 Release

RiverWare Patch 7.0.8 was released on June 2, 2017. Release notes are as follows:

Summary of Changes in RiverWare Patch Release 7.0.8

Bug Fixes

The following issues were addressed:

* 5942: In the RPL Set Comparison tool, certain differences were not highlighting correctly. Note, in this release, only the first difference is highlighted. In the upcoming release, 7.1, multiple differences will be highlighted.
* 5962: On the expression slot, the "Evaluate" shortcut key was changed to F9 due to the previous shortcut (Alt-E) conflicting with other operations.
* Certain exceptions could be incorrectly reported as errors to the Windows event log

Prerelease 7.1

The RiverWare 7.1 Prerelease was sent to all users on 6/20/2017. This involved writing release notes, regenerating the help PDFs, updating the builds areas, creating the release executable, updating the website, and sending out the release notification. Release notes can be found on the RiverWare.org website.

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

Visual Studio upgrade

Visual 2013 was deployed to all developer and release machines for use with RiverWare 7.1. This involved installing the new version of Visual Studio and associated tools, updating the machine environment and building the executables. In addition, for the release machines, the overnight build processes were updated and implemented.

Bug Fixes:

* Bug 5974: An incorrect solution could be obtained from a few RPL Predefined functions due to a lack of virtual method on the Slope Power Reservoir. (Neumann)

**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 June, the tvaOptRPL test exhibited an apparent slow down due to the new CPLEX version. CADSWES investigated and found that it was likely due to the number of processors used, but there is nothing to do to address it in the short term. In addition, in June, the regression tests were updated from version 7.0.8 to 7.1 in the prerelease and from 7.1 to 7.2 in the development area. This required a lot of attention to get the overnight builds and test operating correctly on the correct development area.