

**CADSWES Maintenance Accomplishment Report Compilation -- April 2017**

Phil Weinstein, edit 5-22-2017.

**April 2017 Maintenance Highlights:**

1. RiverWare 7.1 Development Snapshot (4-05-2017)
2. Nineteen (19) completed bug fixes.
3. Progress on Visual Studio upgrade research (from VS 2010 to VS 2013).
4. Ongoing: Monitoring and maintaining daily RiverWare regression tests.
5. Ongoing: Installation Process and Licensing development and administration.

**Report contributors:**

- Substantial content from: Jessica, Robynn, David.
- Bug fix items from: Willard (8), Patrick (4), Phil (4), David (2), Jessica (1).
- Indicated that they had no *maintenance* accomplishments to report this month: Bill, Mitch, Tim, Neil.

**(II) RiverWare Software Maintenance**

- A. Releases, Patches and Snapshots
- B. Software Updates, Bug fixes (not associated with new development)
- C. Development tool improvements; issue tracking software; modelcomp
- D. Enhancements or changes to regression tests (not part of development tasks)
- E. Download, Install and Release Processes
- F. Updates to license software/procedures
- G. Updates to download/install/configure user documentation
- H. Modification to Web pages for downloads and installs

**(II.A) Releases, Patches and Snapshots**

The following releases were generated this month:

- RiverWare 7.0.x Patch Releases -- NONE.
- RiverWare 7.1 Development Snapshot (4-05-2017)

**(II.B) Software Updates, Bug fixes (not associated with new development)****The following bugs were fixed:**

1. Bug 5541: File association after install of 6.5 and 6.5.1.
2. Bug 5864 (Revisited): Plotting: Patterned legend / plot lines appear different with thickness greater than one.
3. Bug 5874: Value for Script Slider for Scalar slot does not display minimum value.
4. Bug 5896: Dialog spans two monitors and cannot be made narrower.
5. Bug 5901: Marker Label does not display unless a Line Style is selected.

6. Bug 5925: Charts are too large, resizing makes them disappear.
7. Bug 5930: Optimization fails for some policies that look reasonable.
8. Bug 5934: DMI check mark color.
9. Bug 5938: Delete script then run from dashboard, RiverWare crashes.
10. Bug 5939: Script editor retains changes even after Cancel button is clicked.
11. Bug 5943: Run-script controls in dialog get stuck as being disabled.
12. Bug 5945: RPL Comment bad wrapping behavior with multi-paragraph comments.
13. Bug 5946: Slope Power Reservoir RPL function has side effects. This bug was fixed by adding in code to not set slots when the slope storage computations are called by RPL functions.
14. Bug 5948: In Edit RPL Comment dialog, if click Cancel, edits are applied anyway.
15. Bug 5950: Crash when copying and pasting RPL statements after showing statements in the set editor
16. Bug 5951: Crash when deleting a RPL statement after showing statements in the set editor
17. Bug 5953: Plotting: Patterned lines sometimes look solid, esp. with thickness greater than one.
18. Bug 5957: Crash on RiverWare exit after certain RPL editing operations.
19. Bug 5959: An abort interpolation error happened on Nickajack Reservoir on the Unit Power table. The error message posted was insufficient to debug or understand the issue. This message was fixed in the code. The abort was actually fixed by decreasing convergence of a particular slot.

**Analysis was done on the following bug:**

- Bug 5893: Uninstall leaves folder "servers" behind.

**The following bugs were closed without additional source code changes:**

- Gnats 5954 (Same as 5953 and 5864): Line types and styles appear different in legend than in plot.

**(II.C) Development tool improvements; issue tracking software; modelcomp**

**Visual Studio Upgrade (from VS 2010 to VS 2013):**

1. Resolved release build "strictstrings" compile errors by opting-out of the "strictstrings" compiler flag provided by qmake.
2. Finalized contents of the 64-bit c:/riverware/tools directory
3. Compiled, linked, and ran RiverWare debug-64, and release-64 from Visual Studio 2013.
4. Upgraded TK and Perl modules in the 64-bit environment.
5. Updated the Visual Studio 2013 build with the latest code enhancements.
6. Ran 64-bit debug regression tests. Looking into 3 issues.
7. Set-up of 32-bit Visual Studio environment in-process.

**(II.D) Enhancements or changes to regression tests (not part of development tasks)**

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 April, the 32 bit build machines had to be updated regularly due to conflicts in the merge. This prevented the regression tests from running each night.

### **(II.E) Download, Install and Release Processes**

- Fixed Bug 5541: File association after install of 6.5 and 6.5.1.  
When double click on a file with the extension of .mdl, the latest installed RiverWare will be started and the model file will be loaded. When right click on the model file, "Open with RiverWare" is displayed at the top of the drop down list. When right click on the model file and select "Open with...", the drop down list will display:
  - RiverWare Executable, if the latest installed RiverWare version is an official release.
  - RiverWare Development Executable, if the latest installed RiverWare version is a snapshot release.

The fix will only be consistent when all versions of RiverWare installed contain the fix in them. Therefore, the test results sometimes show differences on various machines.

- Worked on Bug 5893: Uninstall leaves folder "servers" behind. No progress this month.

### **(II.F) Updates to license software/procedures**

- Maintaining RiverWare licenses for internal development systems. This is an ongoing task.
- Implemented a document "RiverWare Floating License Troubleshooting Checklist" for floating license users. This will be used as an initial reply to the floating license users when they first reporting problem with license server.

### **(II.G) Updates to download/install/configure user documentation**

None reported for April 2017.

### **(II.H) Modification to Web pages for downloads and installs**

None reported for April 2017.

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