Neil Wilson Maintenance Accomplishments – November 2015

II RiverWare Software Maintenance

Bug fixes (not associated with new development)

5688 – RiverWare shuts down when trying to import resize a file

5687 – Model saved in 32 bit RiverWare does not open in 64 bit RiverWare

Software Updates

TCL

TCL is a third-party software utilized in loading and interpreting RiverWare model files. In investigating bug 5687 where a crash was occurring on model load, it was found that the problem was occurring within TCL after a call to interpret a particular model file line. Trying to debug within TCL was not successful, so the version of the software was updated from 8.5.1 to 8.5.18 (the current 8.5 release). This update fixed the crash and allowed the model to load successfully.

Updating the TCL version required building the new source code with Visual Studio 2010 on both 32 and 64 bit platforms. Include paths and library paths in RiverWare were updated to point to the new version, and a new compilation symbol had to be introduced to allow RiverWare source code to compile successfully with TCL 8.5.18. Packages for 32 and 64 bit were created and incorporated into the win-config process so that development machines could be updated with the new TCL libraries and dlls.

With the new version of TCL, a slowdown was noticed in some of the regression tests that are run nightly for RiverWare. This slowdown is being investigated.

Reprise

Reprise is the licensing software that is used by RiverWare. To avoid using the Reprise dynamically linked library file, which is susceptible to hacking to bypass the licensing, RiverWare was configured to link with static Reprise libraries. This means that the licensing code is compiled directly into the RiverWare binary executable file and does not rely on the separate Reprise dll file. This statically linked executable is being tested. If all aspects of license functionality work successfully, the static linking will be incorporated into the RiverWare build process.

DevPartner

A trial copy of DevPartner was installed on a development machine to see if it would be useful in testing for memory problems during a crash on model load (Bug 5687). This was run with several configurations, but either did not detect any problem or else crashed before the problem line involved in this bug was reached. The one-week trial period was allowed to expire without purchasing a permanent copy of the software.