Phil Weinstein / Accomplishments -- November 2015 -- Edit 12-07-2015

General Development Accomplishments

[I.A] New/Enhanced Software USACE-SWD Task 4: Trapezoidal Teacups

The initial implementation of the Output Canvas, in RiverWare 6.6, supported "teacup" graphics strictly as vertical rectangular bars. In November, options were added to support the display of teacups as trapezoids. (Refinements of this trapezoid support is continuing in December). Two trapezoid geometry options are provided, uniformly applied to all teacups within a teacup group. (Note that an output canvas can have more than one teacup group). Teacup groups now support selection between these three geometry options:

- 1. Rectangular (as provided in RiverWare 6.6)
- 2. Trapezoidal, Congruent
- 3. Trapezoidal, Constant Top and Bottom Widths

This document more fully describes support for the trapezoidal teacup graphics, as implemented in November:

• Trapezoidal Teacups in RiverWare Output Canvases -- Proposal / Nov 2015 R:\doc\Output\OutputCanvas\2015\TrapezoidalTeacupsProposal-Nov2015.docx

Maintenance Accomplishments / November 2015

[II] RiverWare Software Maintenance / Software Updates / Bug Fixes

The following bug was fixed:

• Bug 5689: Output Canvas: Multiple Teacup Groups not honoring Maximum Bar Height.

[II] RiverWare Software Maintenance / Software Updates / RiverWare Qt4 to Qt5 Port

RiverWare 6.7 and recent prior RiverWare versions use Qt 4.8.5. In October we devised changes to the RiverWare code base to compile RiverWare source code with a version of Qt5 provisionally built last spring. That work did not result in a RiverWare executable. In November, the most current version of Qt5 (Qt 5.5.1) was obtained and built from source code, dependent ancillary libraries used by RiverWare were built with that new version -- see below -- and RiverWare itself was built, resulting in a basically working RiverWare executable. This was accomplished in the 64-bit environment, both debug and release builds. Some work was

done for the 32-bit builds, but was not complete. More testing of this RiverWare build will be needed. The RiverWare Qt5 port will *not* be part of the upcoming RiverWare 6.8 release.

The ancillary libraries built with Qt 5.5.1 include the following. Our "win-config.pl" perl script tool for installing the required libraries onto a CADSWES Windows development machine was enhanced to support these library builds:

- 1. Qwt 6.1.2
- 2. RdfToExcel
- 3. Quazip 0.7.1
- 4. QsLog 2.0b3

The following document describes in detail this RiverWare porting and building work:

 CADSWES Qt5 Port Status / November 2015 R:\doc\Qt\2015\RiverWareQt5PortStatus-Nov2015.pdf R:\doc\Qt\2015\RiverWareQt5PortStatus-Nov2015.html

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