

Phil Weinstein / Accomplishments -- Nov 2017 -- 12-07-2017 (b)**Sponsored Development Accomplishments**

[I.A] New/Enhanced Software
 USBR UC 1A: Software Enhancements
 Object and Slot Viewer Revisions

Usability enhancements for the Object Viewer (introduced in RiverWare 7.1) and Slot Viewer (new to RiverWare 7.2) were identified. This included a review meeting with David Neumann, Mitch Clement, Edie Zagana and Phil Weinstein on Nov 21. Implementation of these enhancements was started in November and completed in early December.

In November, this Slot Viewer enhancement was completed:

- When series slots are added to the Slot Viewer (as display columns), those columns become selected. This is to provide a visual indication of the added slots. If any slots being added to the Slot Viewer are already present, those columns also become selected.

[I.A] New/Enhanced Software
 USBR Truckee LBAO 1.2: Sum Flow to Volume
 Selection Statistics Enhancements for Slot dialogs and SCT

In RiverWare 7.2, the numeric statistics -- on the set of selected slot / timestep cells -- shown at the bottom of the Open Series Slot Dialog (and the new Slot Viewer) and the SCT now include a time-integrated sum for slots having "rate" units (i.e. units having an explicit "per-time" factor). Supported summations include:

- Summing Flow time series values to Volume
- Summing Power time series values to Energy
- Summing Velocity time series values to Length (distance)

The integrated sum value is shown using the active Unit Scheme's scale and unit for the time-integrated unit type (e.g. Volume, Energy or Length). Selection statistics values are updated dynamically as the user modifies the cell selection, e.g. by clicking in, or dragging along slot / timestep cells, or row or column headers.

See this feature document:

RiverWare 7.2 Selection Statistics Enhancement: Time-Integrated Sum
R:\doc\SlotDialogs\2017\BorLbao1p2-SumFlows-Feature.docx

[I.A] New/Enhanced Software

USBR ABQ 3: Complete RiverWare Scenario Explorer for stakeholder use.

Workspace Viewer Panel Widget Completion

Significant work was done to diagnose and resolve geometry problems with the Workspace Viewer Panel Widget which had previously been developed but was never before used in a production feature. With certain large models, the auto-zooming feature was not resulting in the complete area of model object icons being visible within the panel. This turned out to be an initialization problem caused by the lack of callback notifications being delivered by the client module.

[See also Patrick's Accomplishments report for the broader work on this project].

[I.A] New/Enhanced Software

NREL RiverWare/Plexos integration project

New icon developed for the new PowerPlant Diversion and Generator objects.

A new 40x40 pixel icon was developed (from 200x200 pixel graphics) for the new PowerPlant Diversion and Generator objects. The motif is a black cooling tower with a lightning bolt and a black steam cloud.

[See also development of this new engineering object in David's Accomplishments report].

Maintenance Accomplishments / November 2017

[I.B] New/Enhanced Software / Unfunded Software Development
Icon Development

Various icons used within CADSWES programs were developed. There included:

- New CU/CADSWES logo, used in the RiverWare and RiverSMART "About" dialogs. This work also included maintenance updates for the About dialog.
- New RiverSMART and RiverWISE icons. Many candidates were composed based on various graphics motifs. We ended up using just the RiverWare "swoosh" with the words "SMART" and "WISE" presented vertically along the right side. Various sizes, ranging from 16x16 to 64x64 pixels were created. (The 16x16 versions use just one letter, "S" or "W").
- Revised Unit Converter toolbar icon used in RiverWare. Clearer graphics, and changed the motif from "m--in" to "m--ft".

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

The following bugs were fixed:

1. Bug 5781: RPL set editor 'saved with model' state icon visibility
2. Bug 5817: Save as Baseline gives bogus warning about unloading ruleset
3. Bug 5964: Init Rule grows Integer Indexed Agg Series slot unnecessarily
4. Bug 6026: Link arrows go the wrong direction for multislots
5. Bug 6029: SCT display out of alignment after changing configuration
6. Bug 6031: Diagnostics Window mismanaged after aborted run
7. Bug 6033: Plot step curve symbols shown at begin and end of timesteps
8. Bug 6034: Rule name uniqueness should also apply to inactive rules

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