Phil Weinstein / Accomplishments -- Oct 2017 -- 11-07-2017

Sponsored Development Accomplishments

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[I.A] New/Enhanced Software
   Truckee/BOR LBAO 1.2: Sum Flow to Volume
   Selection Statistics Enhancement: Time-Integrated Sum
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Analysis and initial development was done for an enhancement to slot/timestep cell selection statistics in series slot dialogs and the SCT. When the selected cells contain series values for a single "rate" unit (e.g. flow or power), the total time-integrated sum for the selected cells will be presented using units for the integrated unit type (e.g. volume or energy) provided by the active unit scheme. In October, a development analysis document was drafted, and some initial development work was done. (This feature was completed in early November).

See this document:

- Analysis: BOR Truckee LBAO 1.2: Sum Flows to Volume
  R:\doc\SlotDialogs\2017\BorLbao1p2-SumFlows-Analysis.docx

Maintenance Accomplishments / October 2017

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[I.B] New/Enhanced Software / Unfunded Software Development
Remove Slot Dialog Creation and Management from Open Object Dialogs / Bug 6006
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In RiverWare 7.2, life-cycle of Slot Dialogs is no longer tied to the Open Object Dialogs for the parent slot's parent simulation object. Slot Dialogs will no longer be closed when the Object Viewer or the Slot's containing Open Object Dialog are closed. There was a lot to this change, as the life-cycle of Slot Dialogs has been very fundamentally based on a legacy parent/child dialog mechanism involving a lot of interaction between the dialogs and dialog managers.

In order to more directly address Bug 6006, we had initially experimented with deleting and recreating Slot Dialogs as their slot's containing simulation objects were moved between the new Object Viewer and single-object Open Object dialogs. That was somewhat successful, but some user interface state information was lost when Slot Dialogs were recreated (e.g. the vertical, time, scroll position). Separating out the management of Slot Dialogs was a broader way addressing the problems described in Bug 6006.

[I.B] New/Enhanced Software / Unfunded Software Development
Maintain Mass Balance Summary slot references through name changes / Bug 6024

In RiverWare 7.1 and prior versions, changes to the names of any slots referenced from a Mass Balance Summary Slot (including changes to the names of containing SimObjs and Accounts) did not result in updating those slot references. Those broken slot references resulted in errors being reported when the Mass Balance Summary Slot was evaluated. (See Bug 6024). In most other places in RiverWare, slot references are represented with "live" C++ pointers to Slot data structures. In that context, the only thing that needs to be done when a slot (or its containing object) is renamed is updating the user interface with the new name. But slot references from Mass Balance Summary Slots were maintained as just character strings (having the full name of the referenced slot). In this context, the Mass Balance Summary Slot's slot references needed to be explicitly updated, regardless of whether or not the Mass Balance Summary Slot is being shown in the user interface, in addition to updating any user interface.

[II] RiverWare Software Maintenance / FY 2017 Report

A report draft summarizing all CADSWES maintenance work for FY 2017 (Oct. 2016 through Sept. 2017) was prepared. This document is available here:

- R:\doc\Accomplishments Reports\FY17\SoftwareMaintenanceSummaryFY17-Phil-2017-10-19.docx

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[II] RiverWare Software Maintenance / Software Updates / Bug Fixes
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The following bugs were fixed:

1. Bug 5735: Typing value into Edit Account dialog reports errors.
2. Bug 5988: Deleting link to multislot with slot open fails assertion.
3. Bug 6006: Object Viewer and Open Slot Issues (see above).
4. Bug 6020: Crash opening Plot dialog when slots in plots have been deleted.
5. Bug 6021: Crash when scaling a Plot that includes slots from a deleted object.
6. Bug 6024: Issues with Water Balance (see above).
7. Bug 6025: Add Text and Add Image dialogs open on the upper left corner.

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