Phil Weinstein / Accomplishments -- October 2014 -- Edit 11-03-2014

## **General Development Accomplishments**

[I.A] New/Enhanced Software / BOR Truckee
Teacup diagram and Output Visualization / Development

A demonstration level of teacup support within a new "Output Canvas" output device was implemented in September. An additional feature was added in October: Text items in teacups -- shown below the teacup label. These are defined at the Teacup Group level. Any number of text items (rows) can be defined. They share a common font, but each can have a different color. Most text item types present numeric values computed from entities on the particular teacup's simulation object or associated data object, and support optional prefix and suffix text. The five supported text types are:

- 1. Plain Text
- 2. Value [units]
- 3. Value [units] / Value [units]
- 4. Percent (of two values)
- 5. Percent of Maximum

[I.A] New/Enhanced Software / TVA [#10] Preschedule SCT Enhancements SCT: Custom Time-Aggregation Summary Rows

Development for custom time-aggregation summary rows in the SCT (in the vertical-time, aggregated view) was started in September and provisionally completed in October. (A few post-development review revisions are underway in early November). Development in October included:

- 1. Enhancing the SCT's cell selection model to support a single selected cell within the custom time-aggregation summary rows. This selection is active only if none of the conventional SCT series slot data cells are selected.
- 2. A configuration design change. Divider rows are now configured as a special type of custom time-aggregation summary row instead of being optionally provided above individual summary rows.
- 3. Support of custom summary row background color selection via color buttons which show the standard color selector when clicked. These color buttons support a context menu with these operations: (a) Copy Color, (b) Paste Color, and (c) Apply to all custom summary rows.
- 4. Editing of "Slot Reference" type custom summary row cells (for those rows for which editing is enabled in the configuration).
- 5. Display of relevant status/summary information in the two status lines at the bottom of the SCT when a custom summary row cell is selected.

The following feature document was written to describe the developed functionality:

• SCT: Custom Time-Aggregation Summary Rows / RiverWare 6.6 [5 pp]. Word: R:\doc\sct\2014\CustAggSumRows\CustAggSumRows-Oct2014.docx

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[I.A] New/Enhanced Software / TVA [#10] Preschedule SCT Enhancements SCT: Series Slot Sheets (sub-tabs on the Series Slots tab).

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Support for the originally designed approach to providing multiple series slot tabs was substantially developed in October. But some concerns arose around the unanticipated complexity which was being added to the SCT. After software group review of the original functional and internal design, we decided to take a different approach (described below). The technical concerns which were raised, and some materials which were prepared for the group review, are provided in this document:

• SCT: Multiple Series Tabs / Design Review Report (Oct 20, 2014)
Word: R:\doc\sct\2014\SerSlotSubTabs\SctMultiSeriesTabs-DesignReview-Oct2014.docx

The revised approach is to provide multiple "sheets" (sub-tabs) within the SCT's existing "Series Slots" tab. The user defines each series slot sheet's slot content by placing new Series Sheet Dividers within the list of slot and slot-divider items shown on the "Edit Series Slot List" tab. Development of this revised design was provisionally completed in October. (A few post-development review revisions are underway in early November).

The following feature document was written to describe the developed functionality. (Note that this document reflects an early name for this feature, "Series Slot Sub-Tabs". This has since been changed to "Series Slot *Sheets*").

SCT: Multiple Series Slot Sub-Tabs / RiverWare 6.6
 Word: R:\doc\sct\2014\SerSlotSubTabs\SerSlotSubTabs-Oct2014.docx

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[I.A] New/Enhanced Software / USACE-ABQ 4 Run Analysis for Water Quality

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The ability to display the status of water-quality solutions (dispatch methods) has been added to the Model Run Analysis dialog and the associated Dispatch Behavior Details dialog. Prior to this enhancement these dialogs displayed simulation object dispatch information for only the *water mass balance* solution. A "Water Quality" or "WQ" checkbox has been added to these dialogs (respectively) -- shown only when water quality modeling is enabled -- to optionally show dispatch information for the *water quality* solution. These checkboxes represent a single global state shared among the Model Run Analysis dialog and all instances of the Dispatch Behavior Detail dialog; clicking the checkbox in any of these dialogs also changes the checkbox in all open dialogs of either type.

This feature was provisionally completed in October. (A few post-development review revisions are underway in early November). The following brief feature document was written to describe the developed functionality:

•	"Model Run Analysis for Water Quality Modeling / RiverWare 6.6" [3 pp.]
	Word: R:\doc\waterQuality\2014\RunAnalysis\WaterQualityRunAnalysis-Oct2014.docx

[I.A] New/Enhanced Software / USACE-SWD 8 (Enhance Report Tools) Model Report: Table Slots, special for adding PE/Storage column: Make optional

Some TableSlots have a Pool Elevation OR Storage column whose values can usefully be displayed with the equivalent values of the other entity. Reservoir "Elevation Area Table" is an example of such a slot.

Previously (e.g. in RW 6.5), in such a case, for Model Report table slot items, a display column for Pool Elevation or Storage was *unconditionally* added to the generated HTML table. This enhancement adds a setting checkbox to slot items in a model report configuration to make that feature optional. The default value is 'Yes' (true) in order to preserve the prior behavior:

Add PE/Storage Column [Yes/No] (default: Yes).

## Maintenance Accomplishments / September 2014 ---- [II] RiverWare Software Maintenance / Software Updates / Bug Fixes

The following bug was fixed:

• Bug 5545: When object dispatch is disabled, crosshatch is not always shown in the SCT

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