

**Phil Weinstein / Accomplishments (Sponsor Tasks) – June 2017**-----  
[I.A] New/Enhanced Software

Truckee/BOR LBAO 1.3: Datetime Unit Type Enhancements

Unit Converter Dialog: Special Support for DateTime/Numeric Value Conversion  
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The RiverWare Unit Converter dialog, used for converting a single numeric value into different units of the value's unit type (e.g. "Flow") now has special support for the DateTime unit-type. Instead of converting a DateTime value to a different DateTime unit (which isn't meaningful in the way it is for typical numeric values), this dialog now supports conversions between the natural (text) representation of a DateTime value and its internal numeric value (encoded as a double-precision floating point number).

This feature is described more fully in this document:

- Unit Converter Dialog: Special support for DateTime/Numeric values in RiverWare 7.1 (6-08-2017).

R:\doc\units2017\UnitConverter-DateTimeNumerics.docx

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[I.A] New/Enhanced SoftwareTVA (#39) Improve the width of the SCT columns when using multiple sheets.  
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The introduction of "SCT Sheets" in RiverWare 7.0 had some undesirable behaviors with respect to Slot and DateTime column width stability and persistence, e.g. when switching from one SCT sheet to another. Note that the various sheets in an SCT differ in only the set of series slots presented in the SCT "Series" tab, but all have the same timestep configuration (time range and timestep size). In the horizontal time axis orientation, columns are timesteps; in the vertical time axis orientation, columns are series slots.

This work included the following enhancements:

(1) Time column widths applied to horizontal-time SCT views are now preserved ON A PER SHEET BASIS within the RiverWare session. These widths, however, are not preserved in the SCT configuration file. The first time a horizontal-time SCT view is presented, the time columns are adjusted to the column content (and this applies on a per-sheet bases -- see the next item).

(2) The following column width adjustment operations (accessible as both menu items and toolbar buttons), now operate on *only* the slot columns in the current SCT Sheet. This is relevant for both axis orientations, i.e. on both series slot columns and DateTime columns.

- (a) Resize Columns: Set All to Selected Column Width
- (b) Grow Columns: Fit Data
- (c) Resize Columns: Fit Data
- (d) Resize Columns: Fit All (header and cell data width).

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[I.A] New/Enhanced Software

TVA (#48) Undock a sheet from the SCT to create a new SCT.

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We decided that such an operation shouldn't actually *modify* the original SCT. A new feature developed for RiverWare 7.1 just shows the series slots from the SCT Sheet (on which this operation is performed) in a new SCT. This is implemented as a context menu (right-click) operation on Sheet Tabs:

- "Show Sheet in New SCT..."

This creates a new SCT having the same general configuration, but with only the series slot items of the selected sheet. However, performing that operation on the final "All Slots" tab does copy all Series Slot items to the new SCT. The new SCT is unnamed, and unsaved. With one exception, the visible properties from the original sheet are replicated in the new SCT. We were unable to precisely scroll the new SCT to the horizontal position within the original sheet. (That horizontal scrolling is approximate; not precise).

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[I.A] New/Enhanced Software

TVA: Better SCT Sheet support for the SCT's "Go To" menu

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As before -- though now in a somewhat different way, for RiverWare 7.1 -- the SCT's "Go To" menu presents items for each SCT sheet divider and slot divider. Selecting an item switches to the appropriate sheet and scrolls the SCT to either the beginning of that sheet or to the indicated Slot divider within a sheet.

Previously, if there were fewer than 22 such dividers, those Sheet and Slot divider items were presented as top level items in the "Go To" menu. If there were more than 22 such dividers, integer-numbered submenus were presented ("1", "2", "3") with approximately equal numbers of divider items, up to 22 each.

With this change, *if* the SCT contains sheets, "Go To" top-level submenus are presented for each sheet. For sheets that contain slot dividers, a submenu is presented with an initial "Start of Sheet" item, and items for each contained slot divider. If the SCT doesn't contain sheets, then slot dividers are presented as top-level items in the "Go To" menu.

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[I.A] New/Enhanced Software

TVA: SCT Edit Cell Navigation: Don't navigate to next slot when reaching last timestep.

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In the course of entering values in a sequence of cells, in an SCT vertical time view, after entering a value in the last timestep, the SCT's "active cell" *no longer* scrolls up to the first timestep of the next series slot. Instead, the last timestep in the current series slot remains the active cell. That policy had, actually, already been implemented for the horizontal time SCT views (where slots are SCT rows), but it is now also being applied to vertical time SCT views.

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