SCT Edit Series Slot List Mode in RiverWare 6.1

Initial Version Phil Weinstein, CADSWES, 8-22-2011, Ready for Review.

Overview

RiverWare 6.1 supports a new way of defining an SCT's list of series slots and table series slot columns shown in the series slot data table. The SCT's new "Edit Series Slot List" mode is initiated by selected that operation from the SCT's "Slots" menu. This mode supports operations on:

- 1. slot items and dividers as individual items,
- 2. *groups* of slot items.



The convention used for the SCT's "Go To" menu of defining *groups of slots* as slot items separated by *dividers* has been extended to operations for editing the series slot list.

(Groups defined with dividers which don't have text use the text of the following slot item).

The new Edit Series Slot List mode shows a two-level "**tree view**" with dividers as top-level items and subsequent slot items as children of the divider.

Operations on the series slot list are accessible as:

- Context menu operations,
- Buttons below the slot list,
- SCT "Slots" menu items (shown only when the SCT is in Edit Series Slot List mode),
- In-cell editing of slot and divider item text.

Operations on groups include:

- "Open Group" and "Close Group" (trees) ... either just the selected groups or all groups.
- Move selected groups up or down, relative to the other groups.
- "Create Similar Groups" ... For a selected group made up of slots from *one simulation object* or *one account* -- multiple other groups can be created with the same set of slots from *other* simulation objects or accounts.

Operations on single selected items include:

- Insert Slots. This brings up the slot selector dialog to pick new slots to add to the SCT. When operated on a selected *divider*, picked slots are added below the divider (to be part of the divider's group). When operated on a selected *slot*, picked slots are inserted *above* that slot.
- Insert Divider.
- Reassign a slot item with a different slot.
- In-cell editing of slot and divider item text.

Operations on both single and multiple selected items include:

- Remove selected items,
- Move selected items up or down (without regard to item groups),

Other generally available operations include:

• Append Slots (picked with the slot selector) to the end of the series slot list.

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- Append Divider to the end of the series slot list.
- Show or hide a "Slot Name" column. This is provided because the slot item labels don't necessarily have to be the actual slot names -- slot item labels can be edited by the user.

When operating the slot selector, within a single "slot selector *session*", the user can iteratively pick individual or multiple slots and "Apply" them to the SCT. Also -- from the slot selector -- an intervening divider can be inserted by clicking the "Divider" button.

The SCT series slot table still supports these two context menu operations:

- Insert Divider
- Remove Slot / Divider

All other series slot list editing operations have been removed from the series slot table. (In particular, in the initial version of this new capability, the "copy / cut / paste" Slot menu operations have been removed). [8-22-2011].

"Edit Series Slot List" Panel

When selecting the "Edit Series Slot List..." operation from the SCT's "Slots" menu, the "Series Slots" tab is selected, and the series slot data table is temporarily replaced with the Edit Series Slot list. (The SCT must be "unlocked" for this operation to be enabled).

The Edit Series Slot List panel ensures that the slot list has an initial divider item. So, there is always at least one group, and all slots are within one group (i.e.the group defined with the preceding divider).

Two different "move" modes are supported. The user can switch between these two modes by toggling the "Move Groups" checkbox. Selected items or groups are moved up or down one logical position (defined by the mode) by clicking on the up or down arrow buttons.

- "Move Groups" ON: The up and down arrow buttons are enabled only when at least one divider is selected (and only when the divider selection doesn't include an item already at the top or bottom, for the two respective move directions). In this mode, the order of the slots within each group is preserved.
- "Move Groups" OFF: Selected slot and divider items are moved up or down without respect to the "grouping" otherwise defined by the dividers. This is useful for placing



dividers at a different position, and for moving slot items within a group, or between different groups.

The context menu within the Edit Series Slot List supports these operations:

- Insert Slots... -- (enabled only when one item is selected) ... brings up the slot selector dialog.
- Insert Divider -- (enabled only when one item is selected).

- **Remove** (...) -- removes the selected items. The menu item label indicates the number of "dividers" or "slots" or "items" (if both dividers and slots are selected) ... *see the sample image*.
- Open Selected Groups -- shown only if at least one of the selected groups is closed.
- Open All Groups -- shown only if at least one of the groups is closed.
- Close Selected Groups -- shown only if at least one of the selected groups is open.
- Close All Groups -- shown only if at least one of the groups is open.

Note: When all groups are closed, the "Move Groups" checkbox is forced on, and is disabled.

The Edit Series Slot List ensures that the list always starts with a divider item. So, there is implicitly always at least one "group".

Since the text label for a slot item does not have to be the name of the slot, the user has the option of showing a "Slot Names" column. This is done by turning on the **"Show both Slot Labels and Slot Names"** checkbox. (See the image to the right, and compare with the prior image).

The Edit Series Slot List panel provides the following **push button** operations:

- Append Slots... -- brings up the slot selector to add new slots (and dividers) at the end of the list.
- Create Similar Groups... -special operation for groups containing slots on a single simulation object or account -*see below*.
- Done -- restores the Series Slot tab to the normal series slot data table. The list of series slots (and table series slot columns) created in the Edit Series Slot List is

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assigned to the series slot data table rows or columns (depending on the current axis orientation).

"Create Similar Groups..." Operation

The "Create Similar Groups..." button is enabled when the Edit Series Slot List item selection is limited to items within one simulation object or account. Clicking on that button brings up either the Simulation Object selector or Account selector to allow the user to select any number of objects or accounts.

Append Slots	Done	
Create new Reservoir	groups from the selected Abiquiu R	eservoir group.

In the case of simulation objects, the object selector is limited to the type of the object of the originally selected group -- with the exception that all reservoir types can be picked for any reservoir.

After picking one or more simulation objects or accounts, **a new group is created** for each of those objects (immediately below the originally selected group in the Edit Series Slot List) with the slots in the original group -- to the extent that those exist in the picked objects. The *order of the slots* in the original group is used for the new groups.

K Select Reservoirs for new	w SCT slot group	s. 🛛 🛛 🔀
Object Types: 4 (of 4) All Invert Obi Type Reservoir PowerReservoir LevelPowerReservoir StorageReservoir	Objects: 2 (of 3)	All Invert Object Abiquiu Reservoir El Vado Reservoir HeronReservoir
	Ok	Cancel

In the illustrated example, the original group has slots from one particular *power* reservoir (Abiquiu

Reservoir). This includes slots not present in the two *storage* reservoirs subsequently picked with the simulation object selector. The slots from the original group which are not present in the picked reservoirs are not included in the new groups.



If the original group's divider's text label contains the name of the group's simulation object or account, that name will also be substituted in the divider labels for the new groups.

The "Create Similar Groups" operation is available only when all the slots within the selected group are from one simulation object or one account. Additionally, all the slot items in the group must correspond to existing slots in the model. (In the Edit Series Slot List, slot items for a slots which don't current exist are shown with a "question mark" slot type icon).

SCT "Slots" Menu

When the SCT is in "Edit Series Slot List" mode, the following operations appear in the "Slots" menu.

- Insert Slots ...
- Append Slots ...
- Reassign Slots ...
- Insert Slot Divider
- Append Slot Divider

The "Insert" and "Reassign" operations are enabled only when exactly one item is selected in the Edit Series Slot List.



In the initial version of the Edit Series Slot List mode, the "copy / cut / paste" slot operations no longer exist.

Other SCT controls which operate on the Edit Series Slot List

Column Resize Toolbar Buttons

The three Column Resize toolbar buttons in the SCT -- which have different functions in the SCT's series slot data table -- all perform an automatic column width adjustment within the Edit Series Slot List.

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Special Behavior when Creating a New SCT

When creating a new SCT, the following popup dialog is shown. If the user clicks the "Add Slots" button, the "Edit Series Slot List" mode is initiated and the slot selector is shown.

Add Slots to new SCT			
į	To add slots to this SCT, select the "Edit Series Slot List" operation from the Slots menu, OR click the "Append Slots" button on the "Scalar Slots" OR "Other Slots" tab, or click "Add Slots" now:		
	Add Slots Cancel		

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