Slot Text Annotations in RiverWare 5.2

User Notes

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This document describes the revised support in RiverWare for applying textual annotations ("notes") to individual timesteps on SeriesSlots.
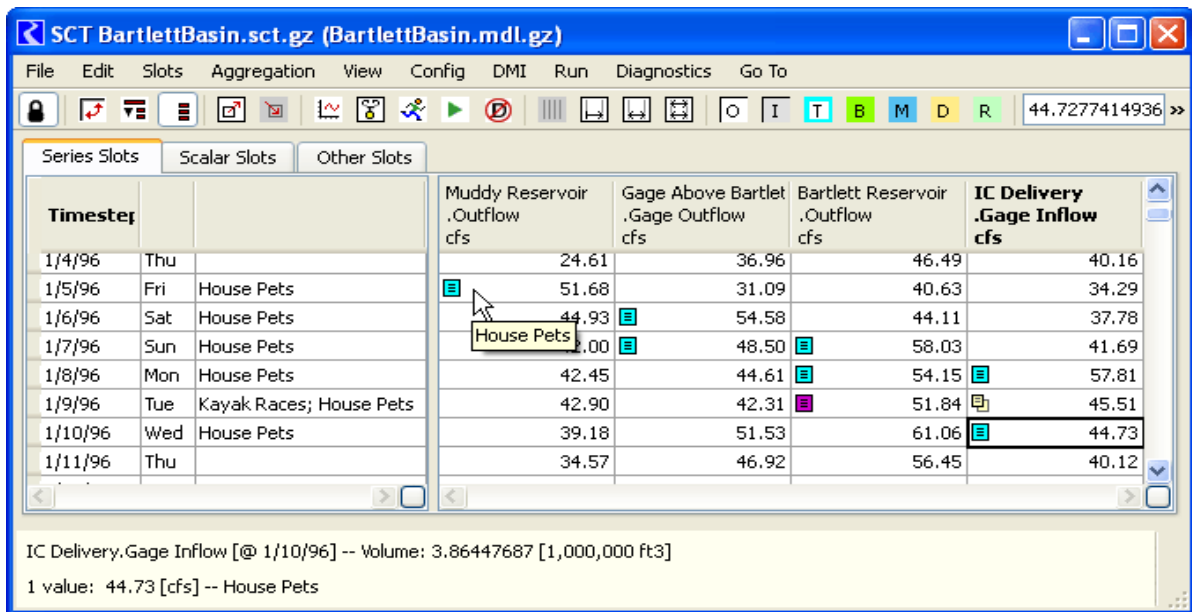
0.1   Document Status

6-22-2009: Ready for review.
7-15-2009: Added description of additional features: (1) Note *Copy and Paste* operations, page 4; (2) SCT: Ability to show or hide the Notes Column in the Non-Aggregated Vertical Timestep view, page 7.

0.2   Overview

Support for Text Notes on SeriesSlot Timesteps ("Annotations" or just "Notes") has been redesigned in RiverWare 5.2. Notes are still organized within Note Groups, but notes are now individually, directly applied to individual SeriesSlot Timesteps rather than by associating their containing Note Groups with whole Series Slots. Additionally, multiple notes can be associated with an individual timestep on an individual SeriesSlot.

0.3 Contents

0.4 Related Documents

- (USBR RiverWare) Green Book Functionality Draft Design (Neil Wilson, 5-13-2009, 18 pages) /projects/riverware/doc/accounting/GreenBook/ GreenBookDraftDesign.fm

- Slot Text Annotations in RiverWare 5.2: Internal Design (Phil Weinstein, 5-24-2009, 8 pages) /projects/riverware/doc/guiGeneral/Annotations/SlotAnnotations2009InternalDesign.fm

- *Previous RiverWare Annotations Implementation:*
  Series Slot Text Annotations in RiverWare, Requirements and High-Level Design (Phil Weinstein, 2-17-2007, 8 pages) .. /projects/riverware/doc/accounting/simlib/SeriesSlotAnnotations.fm
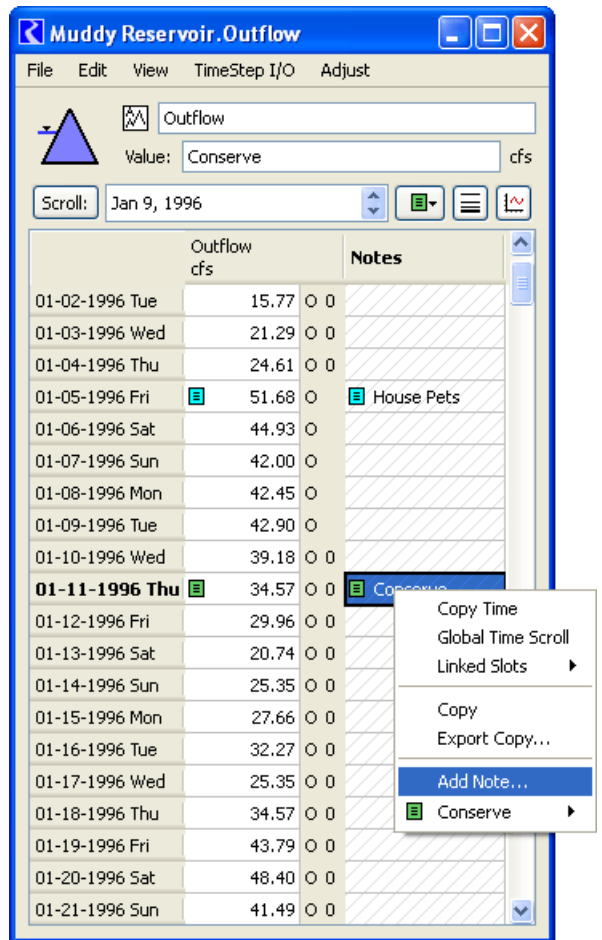
1.0   Open Slot Dialog, and related Edit Account Dialogs

In the Open SeriesSlot dialog and the related Account Series Editor dialogs, the easiest way to add a note to a timestep is via the "context" (right-click) menu. *See image to the right.*

The **"Add Note..."** context menu item brings up the Note Group Manager Dialog for the purpose of adding a note. *That dialog is described in a subsequent section.* The Note Group Manager Dialog will be initialized with the Slot and Timestep selections corresponding to the clicked cell.

The Note Group Manager Dialog can also be shown from the Open SeriesSlot Dialog's View menu, **Note Groups** menu item. Selecting one of the enumerated Note Groups causes that group to be pre-selected. *See the following image:*
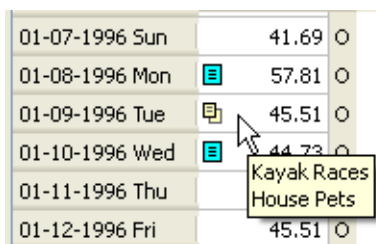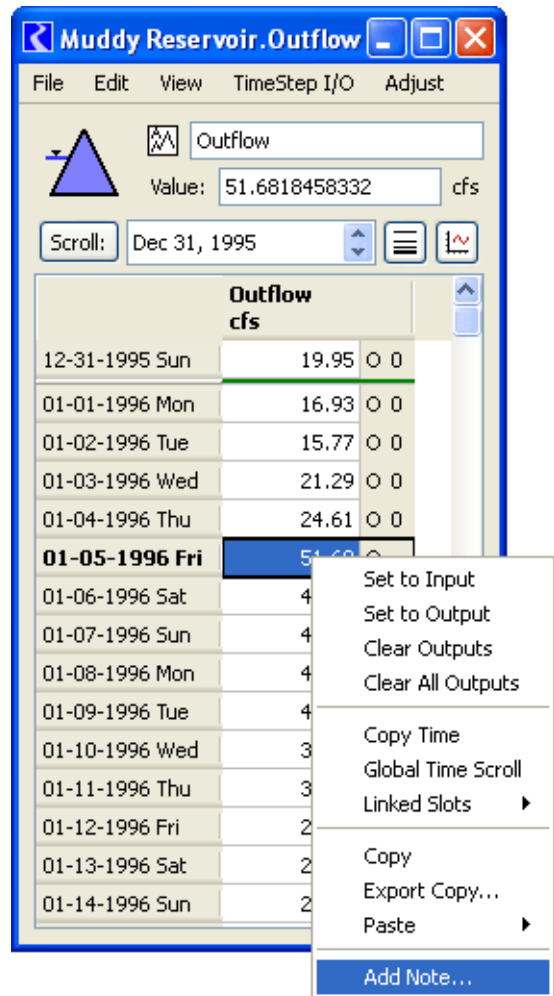
When a note is present on a SeriesSlot timestep, a "note" icon appears in that Slot/Timestep cell. For cells having a single note, the color of the note icon is a property of the Note Group containing the note.

The text of the note can be seen as a "ToolTip" popup by hovering the mouse over a cell having a note icon.

Cells having more than one note have a special icon suggesting one note stacked on the other. *See image to the left.* That icon does not reflect the color of any of the corresponding Note Groups.

In the Open SeriesSlot dialog, a separate Notes column *(see below)* can be shown with the **[x] Show Notes Column** toggle in the View menu *(see image above)*.
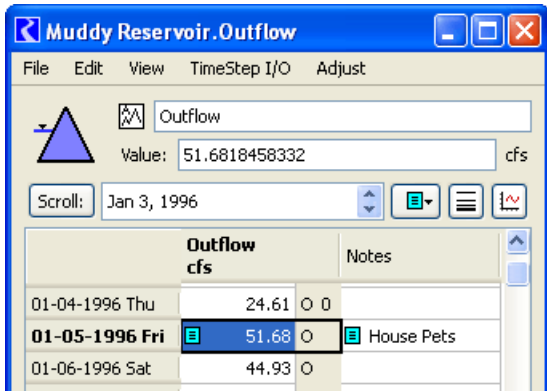

When one or more notes exist on a particular Slot/Timestep, the context menu on the cell includes a submenu for each note. See the image to the right. The title of the submenu shows the Note Group icon and the Note Text. The submenu contains three operations:

- Copy Note
- Edit Note ...
- Remove Note

The **Copy Note** menu item copies a Note reference to the **Note Copy Buffer.** In the example shown to the right, the "House Pets" note would be copied to the buffer. The note in the Note Copy Buffer is available for single-cell and multiple-cell "**Paste Note**" operations. *See bottom image.*

The **Edit Note...** menu item shows the Note Group Manager Dialog, with the indicated Note pre-selected. The user may change the note text, or move the note to a different Note Group (potentially having a different Note Group icon).

The **Remove Note** menu item removes the indicated note from the selected Slot/Timestep (only). This does not effect the appearance of the same note at other timesteps on the same Slot, or on any other Slot.
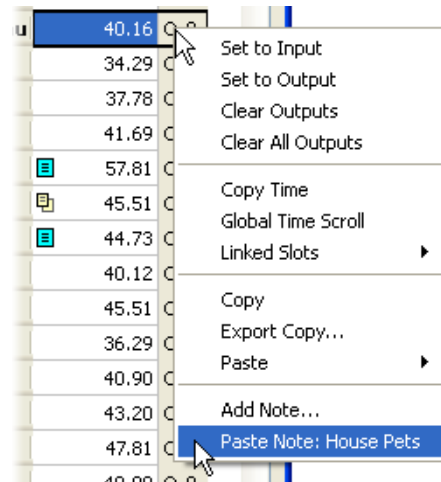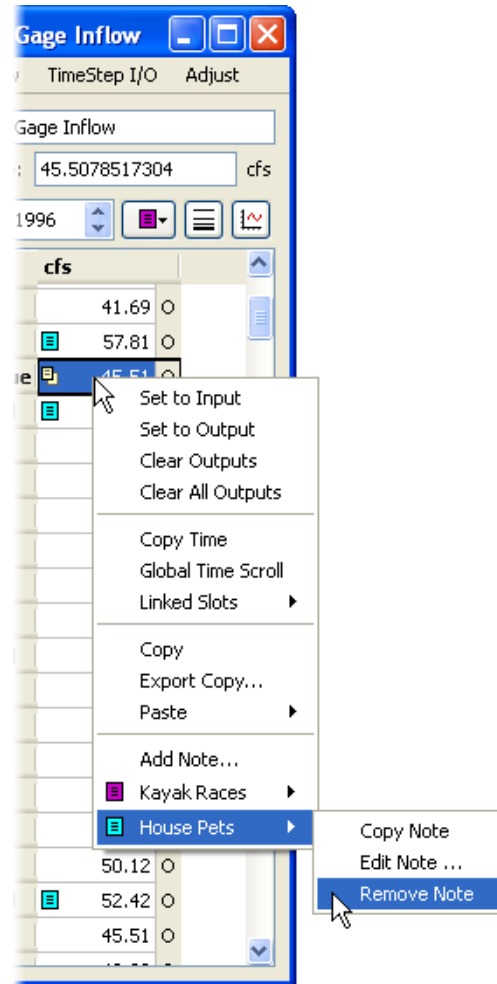
The dialog can be scrolled to the timestep of a note on the Slot via the **Note Navigation menu.** *(See image to the right).*

Items in the Note Navigation menu having a bullet indicate that the timestep of the note matches that of the timestep spinner.

Holding down the **Shift Key** while selecting an item causes a Global Time Scroll (scrolling all open series-related dialogs to the corresponding timestep).
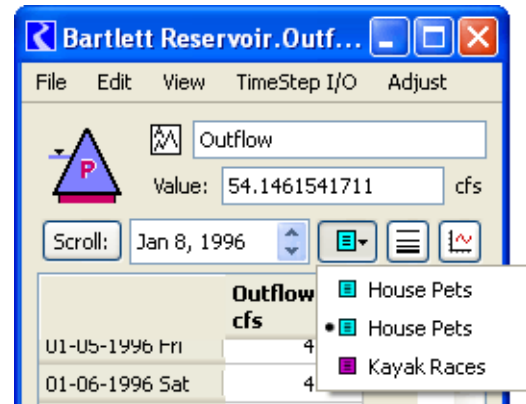
2.0 Open RPL Expression Series Slot Dialog

Support for Annotations in the RPL Expression Series Slot Dialog is similar to that for other Series dialogs.

This dialog supports the prior sortable "Series List" display mode and, now also the "Series Table" display used in the other Open Series Slot dialog. Annotations are supported only in the latter display mode. This display mode is selected under the dialog's View menu. *See the image to the right.*

The RPL Expression Series Slot Dialog's "Series Table" display supports Annotations only via "tooltips" and the the context (right-click) menu described in previous sections.
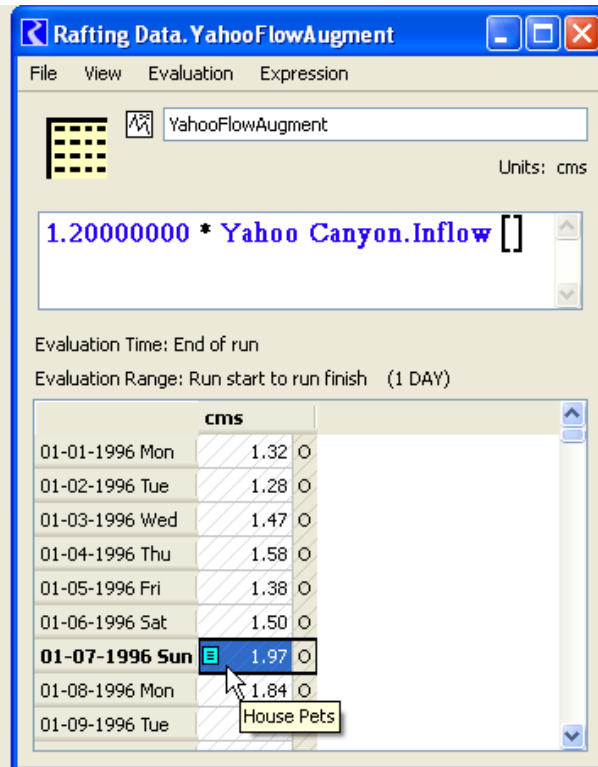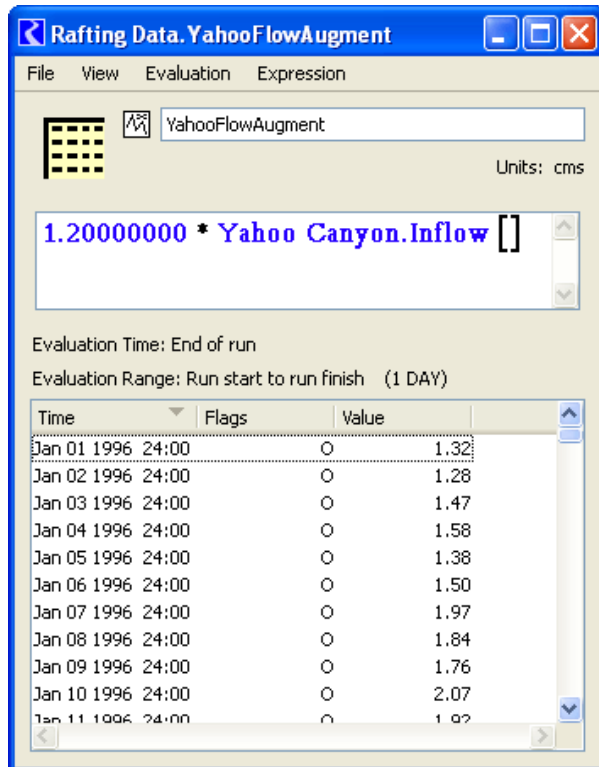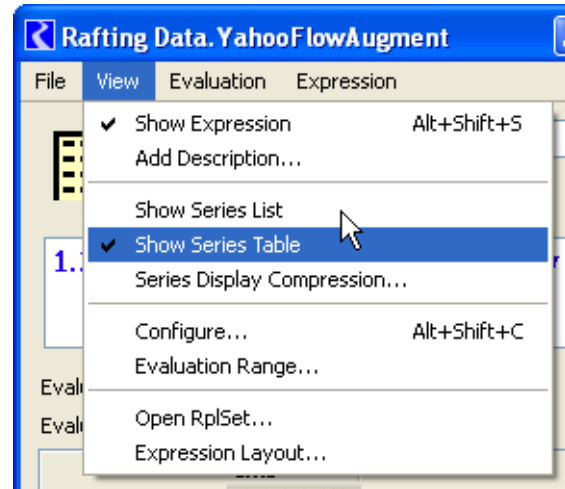
3.0 The SCT Dialog

The SCT supports timestep annotations on the series data table (on the Series Slots tab). Operations on annotations are performed via the context menu -- with the same operations as those available in the Open SeriesSlot dialog.
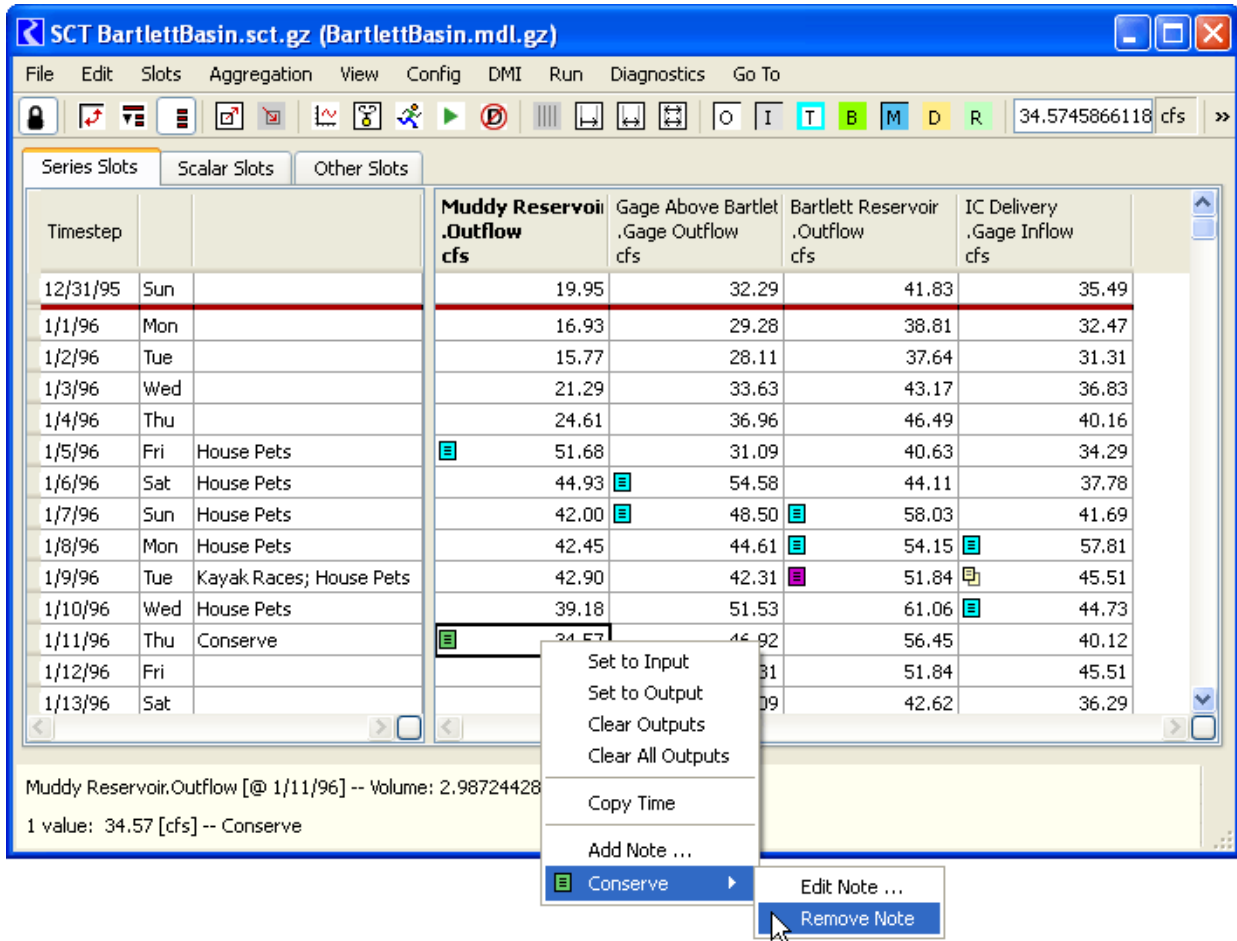
When the SCT is in the Non-Aggregated Vertical Timestep view (shown above), the text for all of the notes in each timestep row can be shown in a row header column, depending on a new setting on the "Vert Time" tab of the SCT configuration. *See image to the right.*

If a single cell is selected, the note text associated with that cell are displayed in the SCT's selection status bar, at the bottom of the SCT.

As with the series data shown in an SCT, the notes are associated with the SeriesSlots shown in the SCT, and not with the SCT itself.
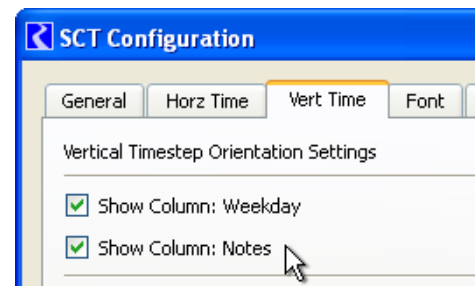
4.0   Note Group Manager Dialog

The Note Group Manager Dialog, and supporting subdialogs are used to maintain the set of annotations on SeriesSlots.

This dialog is arranged vertically in three hierarchically defined panels:

1.   Note Group Selection
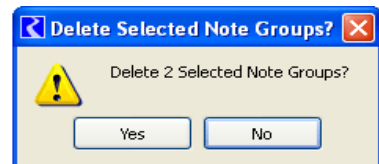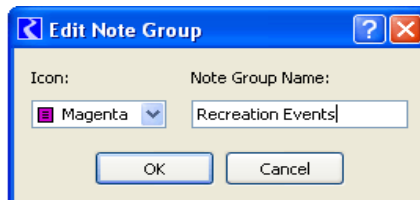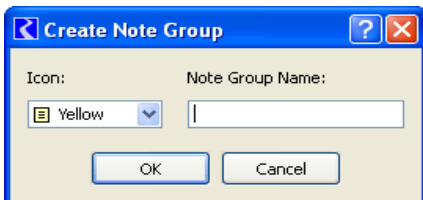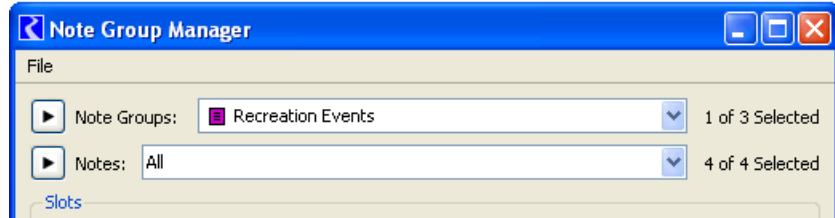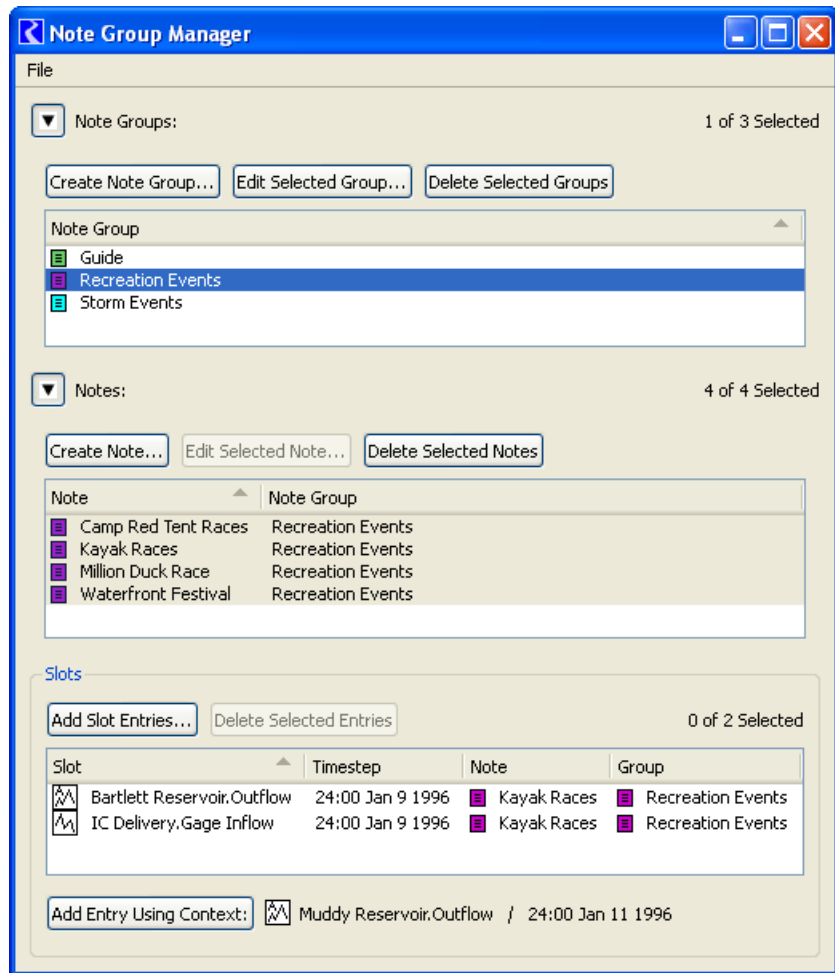2.   Note Selection
3.   Slot Note Associations

The item selection in the first and second panels filters the items in subordinate panels.

These first two panels can show either a list or a combobox, controlled by the triangle arrow button in each panel. The Comboboxes allow for the selection of a single item (Note Group or Note), or "All" items.

The **Note Groups panel** supports three operations:

- Create Note Group...
- Edit Selected Group...
- Delete Selected Groups

These operations bring up popup dialogs for creating or editing (changing the name and icon color), or confirming deletion of Note Groups, *illustrated below:*
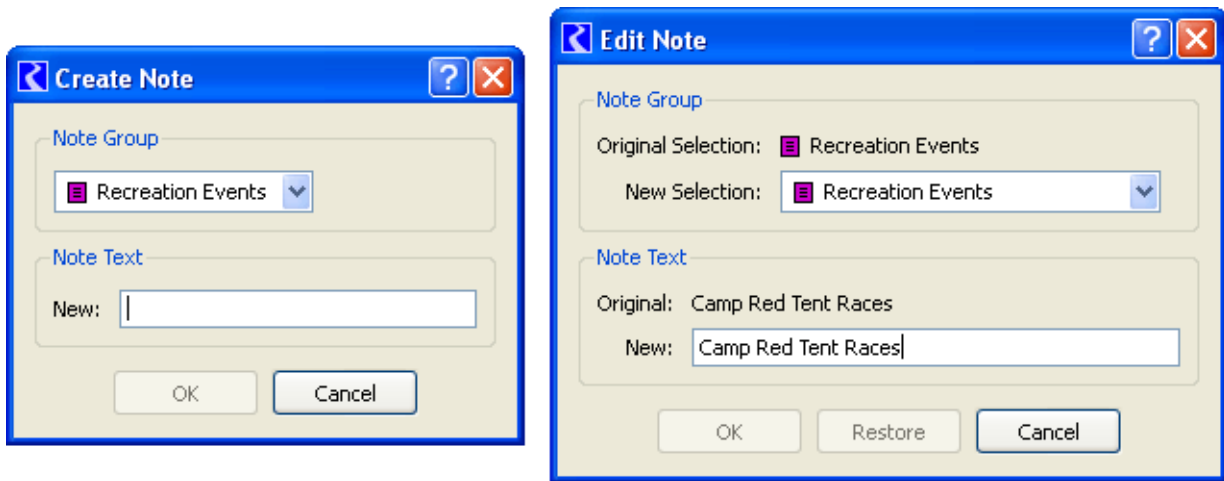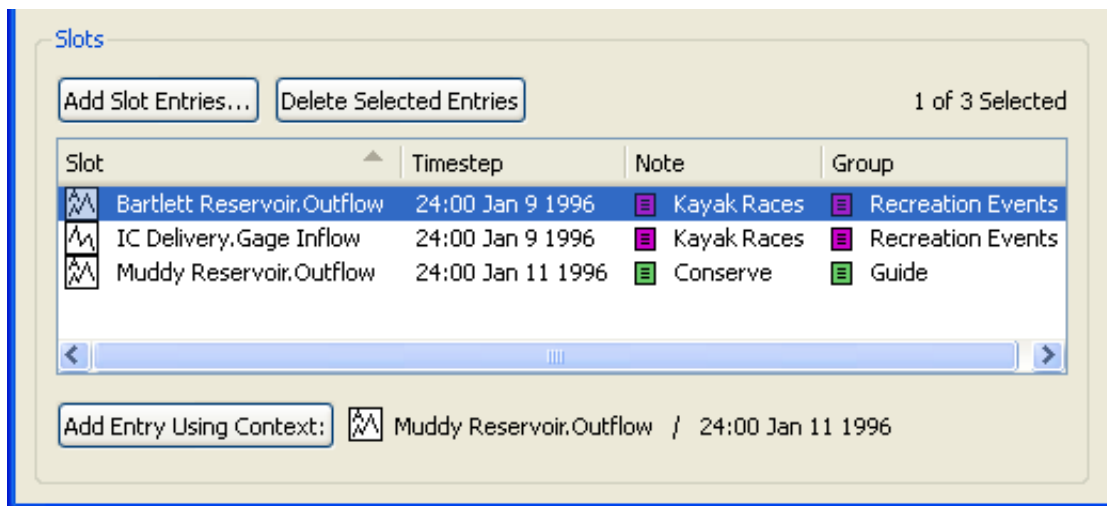
The **Notes panel** in the Note Group Manager Dialog supports three operations:

- Create Note...
- Edit Selected Note...
- Delete Selected Notes...

The **Slots panel** shows the associations of single notes to particular SeriesSlot timesteps:

Both the "Add Slot Entries..." and "Add Entry Using Context:" buttons bring up the "Apply Notes to Slots" dialog described in the next section. These differ only in the initial selections used in that dialog. The "... Using Context" button and information is available when the manager dialog is shown from the context of a particular Slot and Timestep.

5.0   Apply Note to Slots Dialog

The Apply Note to Slots Dialog allows the user to associate a particular note with one or more Slots at one or more contiguous timesteps.

The list of slots and the timestep selections are sometimes pre-selected, depending on how the Apply Note to Slots Dialog is shown. These selections can be modified before creating the new Note/Slot/Timestep associations.

The Group and Note comboboxes can be modified to select a different note. Only one note can be selected at any one time.

Additional Slots can be added to the Slot List by clicking the **"Add Slots..."** button. This brings up the RiverWare Slot Selector.

Slots can be removed from the Slot List by selecting items in the list and clicking the **"Remove Selected Slots"** button. Doing so has no effect on any existing Note/Slot/Timestep associations.
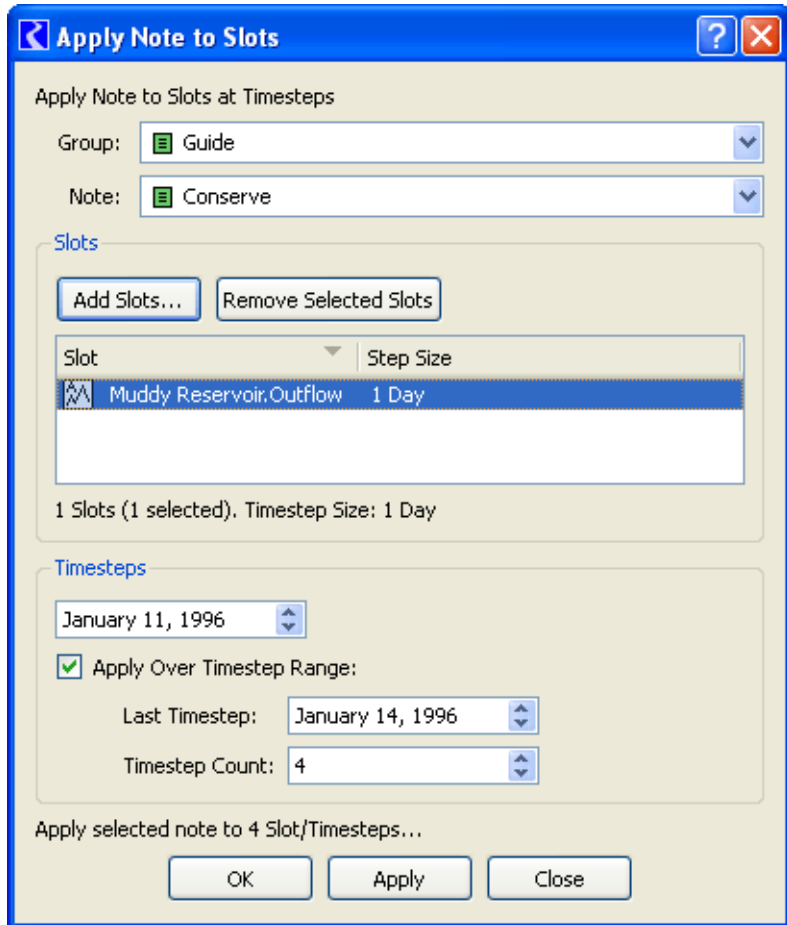
The "association creation" operation (performed by clicking the **OK** or **Apply** buttons) is enabled only if the inputs specify a valid state representing Note/Slot/Timestep associations not yet existing. For one thing, all of the Slots in the Slot list must have the same timestep size. If enabled, the **OK** and **Apply** buttons create a Note/Slot/Timestep association for all of the Slots in the list (i.e. not just the selected Slot items). The **OK** button also closes the dialog.

Status lines under the Slot List and above the bottom buttons indicate the state of the inputs. Examples of the various messages shown in the bottom status line are as follows. (The OK and Apply buttons are enabled only in the 4th example):

- No defined Note is selected.
- The Slot list is empty.
- The Slot list includes Slots having different timestep sizes.
- Apply selected note to 6 Slot/Timesteps ... [enabled state]
- The selected note has been applied to 6 Slot/Timesteps.

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