David's 12-2-2011 Review of the new SCT Object Grid Tab (RiverWare 6.2), and Phil's responses. See also project documents (http://cadswes2.colorado.edu/~philw/2011/GriddedObjData/project.html)

Edit history:

- 12-05-2011: Phil's initial responses
- 12-09-2011: Added tentative decision for Item #2.

Need easy way to add many objects. I don't have a good recommendation, but one at a time seems cumbersome. Edie and I discussed this a little and neither of us had any good ideas, *so we can probably punt on this*.

We certainly could try to come up with something else. This would need more thought. But I do think that the current capability is ok.

Currently, the user can select a set of cells and systematically assign objects to them with a single invocation of the GUS object selector (using its "Apply" button). In this use of GUS, only single-item selection is enabled, so a succession of *single object* selections can be applied -- which probably makes sense. However, *we could* leave that decision up to the user, and *enable multiple-item selection* in GUS (only if the user had selected more than one cell in the grid, I guess). The user would then have to move the assigned cells into the correct positions, which is reasonable to do.

An additional simple change I'd recommend is dismissing the GUS object selector when the last remaining selected cell is assigned an object. (I believe this is technically possible, but I need to check).

Some related advanced features which could be considered:

- 1. An automated mechanism to populate an empty grid with objects selected in the Workspace. I did initially "wing" a simple (but "lossy") algorithm to bootstrap test data from an actual model. (See result).
- 2. We could use the workspace for dragging SimObj icons into grid cells (and potentially to other places where SimObjs need to be selected). The only current use of dragging SimObj icons is to reposition them on the Workspace. We'd have to work out how the drag mode is determined.
- 3. It might be good to show a list of SimObjs *not yet included* in the grid -- and even pick SimObjs from that list. If we did this, we might choose to use that list *instead of GUS* for picking objects for cells. (If this does replace the use of GUS, maybe there should be an option of the list to show ALL objects -- even those already in the grid -- because users may want to assign a SimObj to *more than one* cell, probably with a different set of slots).

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Configure			
Rows: 20 * Insert Row Remove Rows	Columns: 3 + Insert Column Remove Columns	Cell Objects: Assign Clear	Cell Slot Lists: Add Edit List Clear Copy Paste

David's 12-2-2011 Review of the new SCT Object Grid Tab (RiverWare 6.2) http://cadswes2.colorado.edu/~philw/2011/SCT/ObjectGrid/Review1-20...

Wording changes:			
 a. Cell Objects> Objects b. Cell Slot List> Slots c. Assign> Select d. Add> Select Slots 			
e. Minimum Value Editor Width> Value Editor Width			
"Select" is pretty ambiguous, and, in this case, would describe a part of "how" the user accomplishes the operation, and not the operation itself i.e. <i>Assigning</i> objects to cells, or <i>Adding</i> slots to a cell. About the ambiguity, notice that, in almost every dialog, clicking in a list or cell is also "selecting", which doesn't, by itself actually change anything. Other operations in the SCT are named with the higher-level operation, e.g. "Insert Slot" or "Append Slots" (i.e. rather than "Select Slots").			
All of the action words in the " Cell Objects " and " Cell Slot List " boxes (maybe change the latter to " Cell Slots ") work better if we keep the word "Cell" in those titles because those are actions on <i>cells</i> . I recommend keeping the word "Cell" in those two labels. (See image above).			
"Minimum Value Editor Width" <i>is</i> a minimum (see explanation in #11, below). But we can overlook that detail, and change this to just "Value Editor Width" if that technical inaccuracy won't be confounding to users when not all value editors shrink to the specified character-count value. (But it might be better to keep it as it is to avoid that confusion). Maybe abbreviate to "Min. Value Editor Width"?			
 Update [12-09-2011]: I'll make these changes: 1. Assign> Set 2. Minimum Value Editor Width> Value Editor Width 			
3 Should be able to right click on row/column headers to insert.			
Yeah.			
4 Tool tip on elevator button should say what a normal click does. The Ctrl Click option, although useful, seems un-intuitive. At least the tool tip could be wordier. (e.g. Open Adjacent Cells, Close All Others)			
Shift: Open Adjacent Cells Ctrl: Open Only Adjacent Cells			
Change to: Open Selected Cells or Close Selected Cells (depending on state) Shift: Open Adjacent Cells Ctrl: Open Adjacent Cells, Close Others			
5 Why are the configuration options "sunk". It seems non-standard.			

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	We can make the borders flat.				
6	Why do we need the export/import configuration? Isn't an SCT a mechanism to share configurations. We don't have this capability for series or other slots.				
	This makes it possible to move an Object Grid Tab configuration between different SCTs. And since there is no "undo", it could be used to save off a desirable state before more modifications are made. These are operations at the bottom of the context menu (see image), and I suggest that we keep them.				
7	You can select object/slots when the SCT is locked.				
	I'll hook that up.				
8	Although they have more to do with data, aren't the controls at the bottom (Full Precision, Show Units, Min Value Width) essentially configuration options too. Shall we move them up to the configure area? Perhaps on the same line as the Configure check box?				
	Technically, they are "configuration" options but from the user's point of view, different more like "display settings" . They don't really effect the structure and configured content of the grid. And it's visually less complicated to present those separately, I think. In many cases, we have been putting these sorts of display settings <i>below</i> the list they affect.				
	Full Precision Show Units Minimum Value Editor Width: 12				
9	Need tool tips on Configure, Full Precision, Show Units, Min Value Width, Object icons, Slot icons.				
	We'll add those.				
10	The sense of the Full Precision option seems backward. A check mark should show full precision. What is full precision anyway? 15 decimal places? How about we say "Show Precision" and then have a tool tip that says what it will show, i.e. "Show user defined precision"				
	"Full precision" means showing a sufficient number of fractional digits to precisely represent the number. The effect is immediately apparent. I'd prefer to not make this complicated.				
11	Why does the min width stop at 5. What if I only want to show integers? It isn't really a minimum, is it? See 2e.				
	Five digits is pretty narrow for an entry field. The point is to reduce the overall unnecessary width of cells, and at that point, the slot labels and unit label contribute the significant width. In general, I don't want to provide "technically logical" options which are sort of absurd. But I think it would be OK to reduce the minimum to 3 or 4. (Don't forget that a <i>negative sign</i> character also needs to be accommodated. Also "NaN"). The (Minimum) Value Editor Width <i>is</i> a minimum. There are two ways in which additional extra horizontal space will be given to that field: (1) When other cells in the same grid <i>column</i> have longer slot names, and (2)				
	When the user drags the column wider.				