7. RiverWare Usability Features

Budget Summary:

Task	Contract	FY10 Funding	Prev Yr funds Carried forward to FY10	FY10 Expenditures	Carry Forward to FY11	Projected FY11 Budget
SCT Import Paste; show flags and priorities	UC FY2010 New	25,000		3,300	21,700	
Georeference Objects (part 2: implement coordinates)	COE-ABQ		20,000	20,000		
Global plot config to put Elev on Y axis	COE-SWD		4,000	4,000		
Use case for automatic plotting config	COE-SWD		4,000	4,000		
Copy Series Expression Slots	COE - ABQ		12,000	12,000		
Adjust flexible date ranges of many slots	COE-ABQ	5,000			5,000	
GIS recognize common map formats	COE-ABQ	12,500			12,500	
Plot templates	COE-SWD	42,000			42,000	
Display comma separators	COE-SWD	5,000			5,000	
Prototype report generator	COE-SWD	18,000			18,000	
TOTAL		107,500	40,000	43,300	104,200	

FY 2010 Accomplishments Highlights:

SCT Enhancements:

"Import Paste" Feature: An "Import Paste" feature was added to the SCT—similar to the "Import Paste" feature already implemented for the Open Slot Dialogs. The user can import tabular data (e.g., from Microsoft Excel) into SCT cells. The tabular data in the system clipboard is previewed in the "Import from Clipboard" dialog before the paste operation is performed, and there is an option to limit the effect to the selected SCT cells. Also, with this work, context menu operations for "Export Copy ..." and "Import Paste ..." were added.

Show Flags and Priorities: Previously on the SCT, series slot flag states were indicated only by background cell colors. Now, the user has the option of showing a flag letter and priority numbers in addition to background color. This option is controlled through the View -> Cell Text menu on the SCT. See the RiverWare help SCT.pdf section 2.1.5 for more information.

Integration of GIS technology with RiverWare

The first phase of integrating geographic information system (GIS) technology with RiverWare was completed. A new view was added to the workspace, the Geospatial View which provides a spatially coherent display of the modeled basin. A map projection and its Cartesian coordinate system are associated with the view, and users locate objects and a background map image in this coordinate system, allowing RiverWare to display a schematic view of the modeled basin overlaid in registry with the map. That is, RiverWare objects are placed so that they are displayed at their location on the map. By providing an intuitive and information-rich view of a basin, the Geospatial view complements the Simulation and Accounting views of the workspace.

The key features of the Geospatial View are:

- The Geospatial canvas has an associated map projection and location (rectangular extent) within the projection's coordinate system.
- A map image with a known location in the coordinate system can be displayed in the background layer of the view.
- The background image (map) can be changed to another with the same projection without requiring any change to the spatial locations (geospatial view coordinates) of the objects.
- Objects are georeferenced (given spatial coordinates) and displayed at that location.
- A distinction is made between an object's display and actual spatial coordinates.
- Object coordinates can be shared between models and external GIS applications.
- Additional control over the schematic view is provided including sizing and labelling of the icons.
- The coordinates of the mouse in the map projection are continuously presented in the status bar.

Global Plot Confiuration to put Elevation on the Y axis

Use Case for Automatic Plotting configuration

Copy Series Expression Slots

FY 2011 Goals:
- Plot page templates
- Adjust flexible date ranges of many slots
- GIS recognized common map formats
- Display comma separators
- Report generator prototype