



## Technical Documentation Version 8.2

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# Release Notes

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Center for Advanced Decision Support for  
Water and Environmental Systems (CADSWES)

UNIVERSITY OF COLORADO **BOULDER**

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# Chapter 1

## What's New in Version 8.2

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This document describes new features, enhancements, and changes in RiverWare Version 8.2.

### Topics

- [Special Attention Notes and Known Issues, page 1](#)
- [Accounting, page 3](#)
- [Data Management Interface \(DMI\), page 3](#)
- [Model Comparison Tool, page 5](#)
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## Special Attention Notes and Known Issues

The section describes special attention notes that indicate changes in functionality that require you to update models, cause model results to differ, or display a warning message when you first load a model in RiverWare 8.2. Also listed are important known issues.

If you have any questions, contact RiverWare Support:

[riverware-support@colorado.edu](mailto:riverware-support@colorado.edu)

## DSS Dataset DMI Known Issue With DSS 7

An error condition was identified when an input DMI containing a DSS dataset attempts to import data from a DSS file saved in version 7. For certain types of data, the import fails with a read error. This is filed as issue RW-6549. CADSWES plans to address this issue in the next few months. In the meantime, as a workaround, you can save the version 7 file in the version 6 format in DSSVue.

## Fix to RPL Function for Accounting

The RPL function `ObjAcctSupplyByWaterTypeRelTypeDestType` returned incorrect supplies due to an inadvertent change in RiverWare 8.0. The fix to RW-6546 restored the function to its original behavior.

**Note:** This fix could change accounting model results.

## Fix to RPL Function `HasRuleFiredSuccessfully`

The RPL function `HasRuleFiredSuccessfully` did not issue an error correctly when the name of the rule did not exist. With this fix, a model can now error when previously it did not. For example, if you misspelled a rule name, previously, it would return the result for the current rule. Now it will error if the name can not be found. As before, the special strings “This Rule”, “Current Rule”, and “Current Method” (with or without spaces) allow you to reference the currently executing rule or method.

**Note:** This change could cause a new error. To fix, modify the rule/method name referenced by the function.

## Reservoir Operating Level Storage Slots

The following slots were added to the methods in the [Operating Levels](#) and [Surcharge Release](#) categories:

- Bottom of Conservation Pool Storage
- Top of Conservation Pool Storage
- Top of Flood Pool Storage

These time series slots hold the storage at the appropriate operating level. The slots were added for performance reasons; instead of accessing the periodic operating level table slots each time, these new slots are used for quicker access. In some long-term planning models, the run time improved by three percent. In certain situations, these new slots could lead to new error conditions or different results in the Operating Level slots.

**Tip:** The new slots could be useful for display in output devices, such as on teacups in an output canvas.

For more information on these slots, see “[Operating Levels](#)” in *Objects and Methods*.

## Slope Power Reservoir Weighting Coefficients Method

The following two items were identified requiring special attention when using the Slope Power Reservoir Weighting Coefficients method.

### Weighting Coefficients Method Computation Error Fixed

The fix to RW-6534 resolved a computation error affecting slope power reservoirs that use the Weighting Coefficients method in the Slope Storage Coefficients method category. When a RPL predefined function operating on a reservoir, such as `SolveSlopeStorageGivenInflowOutflow` or `GetMaxOutflowGivenInflow`, passed an *inflow value* as an argument, the computation incorrectly used the *Inflow slot value* when it applied the Profile

Storage Coefficients for the current timestep. When the Inflow slot value was NaN, the computation incorrectly used zero. The computation now correctly uses the inflow value from the function as intended.

**Note:** This fix could change model results.

## Weighting Coefficients Method Potential Error for NaN Values

A potential issue was identified for slope power reservoirs that use the Weighting Coefficients method. If a value is NaN for Inflow, Outflow, or Hydrologic Inflow for any previous timestep corresponding to the number of Partition Profile Coefficients, when the object dispatches, a zero value is used instead of NaN. This is most likely to occur when values are NaN for pre-simulation timesteps, and it can produce incorrect results. See [“Weighting Coefficients” in \*Objects and Methods\*](#) for details on the potential effects.

**Note:** To address this known issue, it is recommended that you check all models with slope power reservoirs to verify that all necessary values are present on pre-simulation timesteps.

## Accounting

The following changes have been made to RiverWare Accounting functionality.

### Abiquiu, Cochiti, and Jemez Account Gain Loss Methods

Within the Reservoir Account Gain Loss category, the Abiquiu, Cochiti and Jemez Gain Loss methods now allow multiple accounts that have the RioGrande water type. Those RioGrande water type accounts not named “RioGrande” are considered “conservation” accounts. In this new approach, the loss is allocated to each conservation account based on the proportion of an estimate of account storage at the current timestep.

For more information on the computations, see [“Abiquiu, Cochiti, and Jemez Gain Loss” in \*Accounting\*](#).

### Open Multiple Object Account Summaries

The Object Account Summary provides a configurable view of data from multiple accounts on a single object. In some contexts, it is useful to have multiple account summaries open for the same object—for example, to compare the inflow and outflow of all the accounts on an object.

Functionality was added to allow more convenient access to multiple account summaries for the same object. Now, you can open multiple summary dialog boxes from various locations. See [“Object Account Summary” in \*Accounting\*](#) for more information.

## Data Management Interface (DMI)

The following changes have been made to RiverWare DMI functionality.

## Known Issue: Error reading DSS 7 format

An error condition in the DSS dataset import of some DSS 7 data was identified as a known issue. See “[DSS Dataset DMI Known Issue With DSS 7](#)” on page 1 for details.

## Web Service Dataset

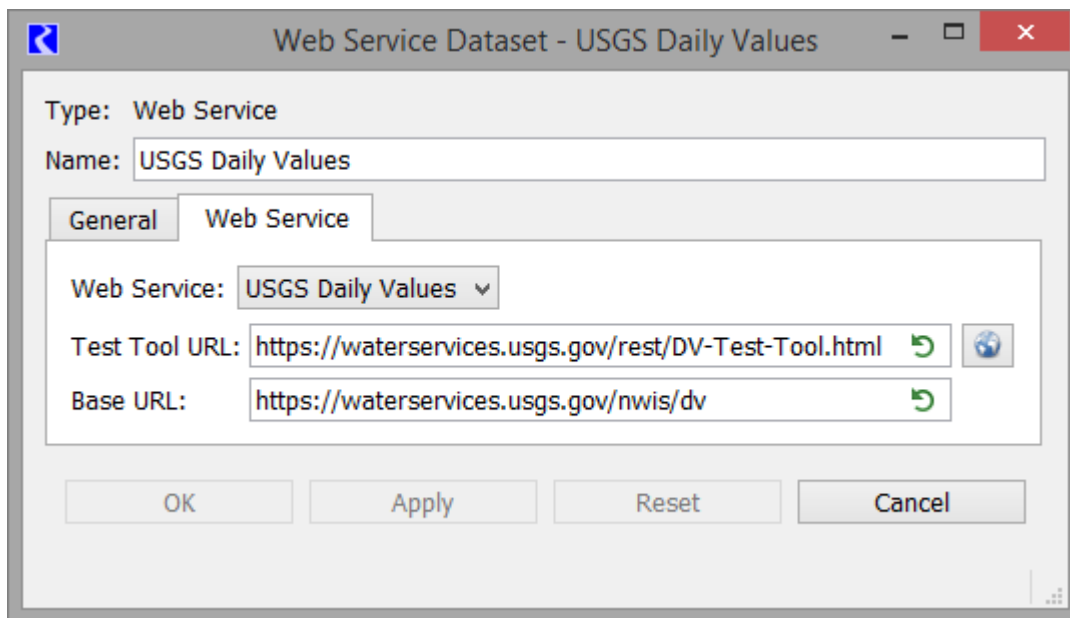
RiverWare 8.2 supports a new DMI dataset: the web service dataset. A web service dataset provides a connection to a website that serves the data in a specific format. The dataset creates the query URL and sends it to the website, which then accesses the data and returns it in the appropriate format. RiverWare then reads the data and imports it into the slots. Web service datasets support Input DMIs only.

The following web services are supported. Select the link for more information:

- “[HDB Web Service](#)” in *Data Management Interface (DMI)*
- “[CWMS RADAR Web Service](#)” in *Data Management Interface (DMI)*
- “[USGS Daily Values](#)” in *Data Management Interface (DMI)*

A sample web service using the USGS Daily Values option is shown in the following screenshot. In addition to this dialog box, the web service dataset uses name maps to map the name of the slot in RiverWare to the identifier and/or query information for the data on the web service. For example, for USGS data, the name map must include the USGS gage number and the parameter code.

See “[Web Service Datasets](#)” in *Data Management Interface (DMI)* for more information on the Web Service dataset.



**Note:** The HDB and USGS Daily Values web service datasets require Open SSL to be installed on your computer. For instructions, see *Open SSL Installation* at: [www.riverware.org/guides/index.html](http://www.riverware.org/guides/index.html)



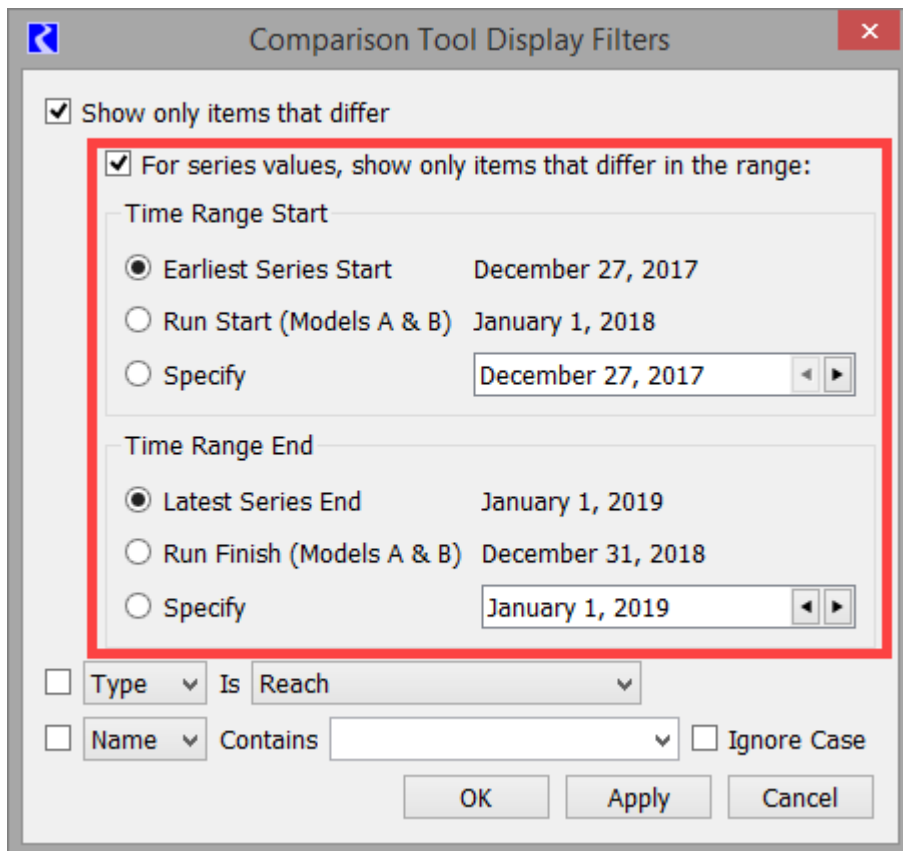
# Model Comparison Tool

The following changes have been made to the RiverWare Model Comparison Tool functionality.

## New Filtering Controls

The Model Comparison Tool was enhanced to hide series slot data that differ outside a specified time range. Within the Display Filters dialog box, you can select the “For series values, show only items that differ in the range” check box and specify the time range.

When the filter criteria are applied to the comparison results, the results tree view only displays series slot value properties that differ between the two models at one or more dates within the time range.



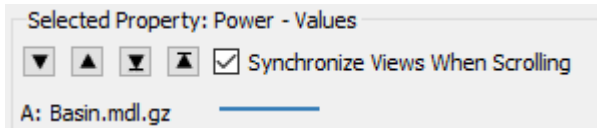
## Navigation Among Property Differences

The Model and RPL Set Comparison Tools were improved as follows to allow better navigation among property differences.

- The two panels that display the property values for the compared models or RPL sets now scroll together.

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- New controls also allow you to move easily from one difference to the next as shown in the screenshot.



See “[Tour of the Model Comparison Tool](#)” in *User Interface* for details on the controls.

# Objects

The following changes have been made to RiverWare simulation objects.

## Reservoirs

### Operating Level Storage Slots

To improve performance, three new slots were added to the methods in the [Operating Levels](#) and [Surcharge Release](#) categories. See “[Reservoir Operating Level Storage Slots](#)” on page 2 for details.

## Power Reservoirs

### LCR Input Efficiency Slot

In the LCR Power method, the LCR Input Efficiency slot was changed from a standard Series Slot to a Series Slot with Periodic Input. This change allows the slot to be set as a periodic table or a series. Existing models will update automatically; no model changes are necessary. See “[LCR Power](#)” in *Objects and Methods* for more information.

## Slope Power Reservoirs

The fix to issue RW-6534 resolved a computation error affecting slope power reservoirs that use the Weighting Coefficients method in the Slope Storage Coefficients method category. See “[Weighting Coefficients Method Computation Error Fixed](#)” on page 2 for details.

In addition, a potential issue was identified for slope power reservoirs that use the Weighting Coefficients method. See “[Weighting Coefficients Method Potential Error for NaN Values](#)” on page 3 for details.

# Optimization

The following changes have been made to RiverWare optimization.

## Optimization Units

When RiverWare formulates the internal representation of the optimization problem, values are represented in *optimization units*. The optimization units are similar to RiverWare *standard units* but with scaling factors specific to optimization applied. Proper scaling of the optimization problem is important for numeric stability. Improper scaling can result in improper freezing and, subsequently, infeasible solutions.

Previously, the optimization unit scaling factors were hard-coded in RiverWare. Now, you can modify the scaling factors in the Optimization Run Parameters. Modifying the optimization unit scaling can be important for maintaining proper scaling in models with a 5 Minute or 15 Minute timestep. See [“Optimization Units and Scaling” in \*Optimization\*](#) for more information.

## Objective Function Coefficient Warning

When coefficients on variables in the internal representation of a Minimize or Maximize objective function are too small, improper freezing and, subsequently, infeasible solutions can result. RiverWare now issues a warning message if any coefficients in a Minimize or Maximize objective function are below a specified threshold value. The default threshold is 0.0001, and you can modify this in the Optimization Run Parameters. The warning message also indicates the minimal multiplier that must be applied in the RPL objective function expression so all coefficients will be larger than the threshold.

## CPLEX LP Method

The default setting in RiverWare for the Optimization LPMETHOD parameter is “Automatic: let CPLEX choose.” With this setting, CPLEX can potentially select a solution method that utilizes multi-threading. CADSWES discovered an issue that can occur related to the multi-threading that can cause the optimization to stop executing. This issue has been filed as RW-6435. CADSWES is in communication with CPLEX regarding a long-term solution to this issue. As a temporary solution for RiverWare 8.2, if the LPMETHOD parameter setting is “Automatic: let CPLEX choose” or “Concurrent,” both of which potentially use multi-threading, RiverWare will automatically switch the setting to “Primal simplex,” which is always single-threaded. A warning will be issued to the diagnostic output at the beginning of the optimization run to alert you of this change. This change will not cause differences in objective values. In some test cases, CADSWES observed a small increase in solution time. In other test cases, the solution time decreased. This change will not affect models that use a setting other than “Automatic: let CPLEX choose” or “Concurrent.”

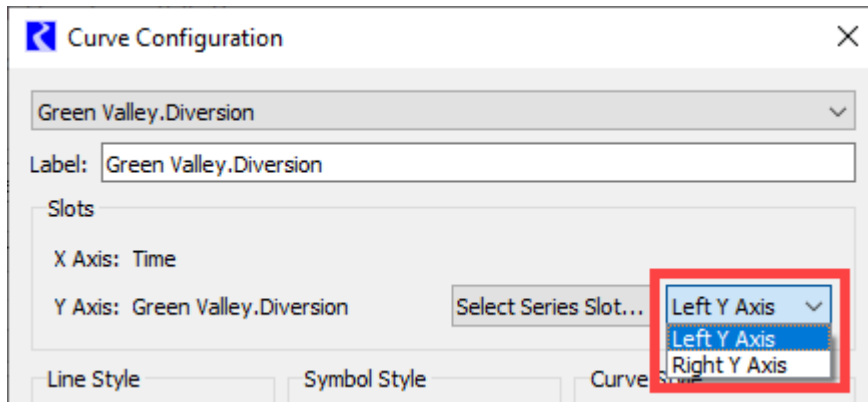
## Output

The following changes have been made to Output functionality.

## Plotting

### Allow the Same Unit Type on Multiple Plot Axes

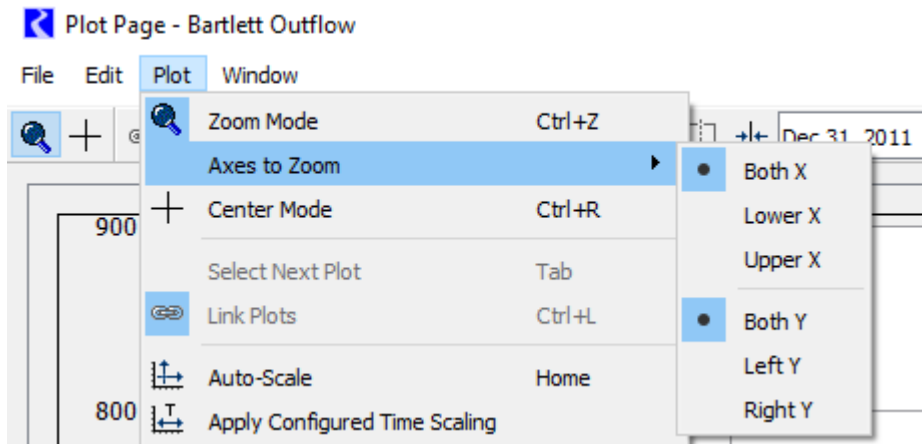
The Curve Configuration dialog box now allows you to control whether a curve is plotted on the left or right Y axis. The plot still attempts to assign a new slot to an axis that matches the slot unit type, but you can override this behavior in the Curve Configuration dialog box. See [“Curve Configuration” in \*Output Utilities and Data Visualization\*](#) for details.



### Improved Zoom by Axes

Two new settings improve control of zooming on a plot page. The options, which apply only when you draw a rectangle on the plot area, allow you to select the axes to adjust within the rectangle. The new options, shown in the screenshot, are provided when you select **Plot**, then **Axes to Zoom**.

See [“Plot Page Editor Menus” in \*Output Utilities and Data Visualization\*](#) for details.



### Output Canvas — Link Flow Line Thresholds to Slots

Output canvas flow lines include configurable thresholds. The configuration editor was enhanced to allow more flexibility in flow line threshold specifications.

The number of thresholds on a flow line is the same for each flow line in a flow line group. Previously, threshold values were constants and you had to specify them separately for each flow line. Now, you can specify the values as a constant or by lookup on a Series, Periodic, or Scalar slot. Additionally, when you specify the threshold values by slot, if all flow lines use the same slot names, you can provide the threshold slot names at the group level and they will be used for all flow lines.

See “[Specifying Thresholds](#)” in *Output Utilities and Data Visualization* for more information.

Flow Line Group:

Setting	Value
Name	Flow Line Group
Show	Yes
Unit Type	Flow
Minimum Value	500 cfs
Minimum Thickness	2
Maximum Value	35,000 cfs
Maximum Thickness	20
Interval Definitions	3
Threshold Specification	Group Level By Slot Name
Threshold 1 Slot Name	Outflow Threshold 1
Threshold 2 Slot Name	Outflow Threshold 2

In addition, output canvas validation was enhanced to make it easier to identify problems with the configuration.

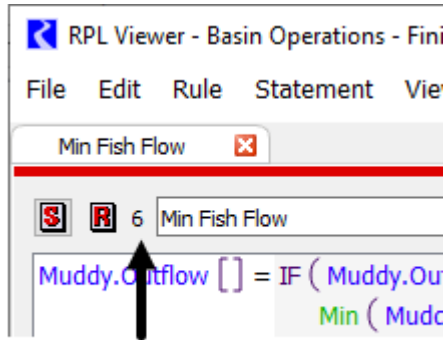
## RiverWare Policy Language (RPL)

The following changes have been made to RiverWare RPL functionality.

### Display of Priority/Index in the RPL Viewer and Editor

The RPL Viewer and RPL block editors (rule, method, goal, and so on) now display the priority (or index) of a rule to the left of its name for ease of reference when editing the rule. Additionally, the Rule Editor dialog box title also

displays the priority of the rule in parentheses next to its name. These changes apply to all rule and goal types with associated priorities or indices.



Priority or Index

## HasRuleFiredSuccessfully Changes

An error in the RPL function HasRuleFiredSuccessfully was fixed. See [“Fix to RPL Function HasRuleFiredSuccessfully”](#) on page 2 for details.

## New Predefined Function AccountNamesFromPriorityDate

A new RPL predefined function called AccountNamesFromPriorityDate was added. This function returns a list of all account names with the given priority date. This function is similar to the existing function AccountNameFromPriorityDate, which returns a single account as a string. For more information on these two functions, see the following:

- [“AccountNamesFromPriorityDate”](#) in *RiverWare Policy Language (RPL)*—returns a LIST of all accounts matching the Priority Date.
- [“AccountNameFromPriorityDate”](#) in *RiverWare Policy Language (RPL)*—returns a STRING of the unique account matching the Priority Date. It is an error if there is not exactly one account with the specified priority date.

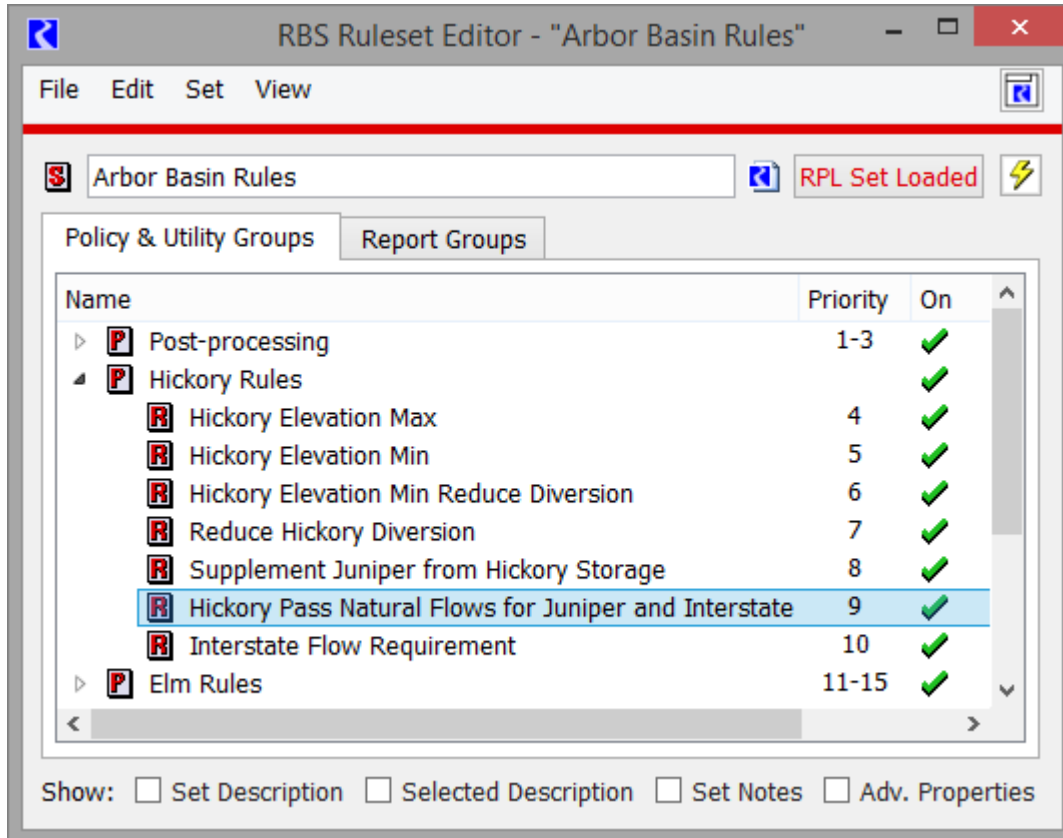
## ObjAcctSupplyByWaterTypeRelTypeDestType Change

An error in the RPL function ObjAcctSupplyByWaterTypeRelTypeDestType was fixed. See [“Fix to RPL Function for Accounting”](#) on page 2 for details.

## RPL Set Dialog Box Column Widths

The initial sizing of the column widths of RPL Set editors and RPL Group editors was improved. Each editor now displays as much of the names as possible while also displaying the key columns to the right of the Name column.

For example, for a ruleset, the Name column is made as wide as possible while still narrow enough to show the Priority and On columns but not the Type column. A sample is shown in the following screenshot.



## Slope Power Reservoirs and RPL Functions

The fix to RW-6534 resolved a computation error affecting RPL predefined functions operating on a reservoir. See [“Weighting Coefficients Method Computation Error Fixed”](#) on page 2 for details.

## Scripts

The following changes have been made to RiverWare scripts.

## New Actions

### Import and Export Database DMI

New actions were added to export and import Database DMIs to and from a file.

- Export Database DMI—see [“Export Database DMI”](#) in *Automation Tools*.

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- Import Database DMI—see [“Import Database DMI” in Automation Tools](#).

### Import and Export Objects

New actions were added to export and import Objects to and from a file.

- Export Objects—see [“Export Objects” in Automation Tools](#).
- Import Objects—see [“Import Objects” in Automation Tools](#).

### Link and Unlink Slots

New actions were added to link two slots or delete an existing link.

- Link Slots—see [“Link Slots” in Automation Tools](#).
- Delete Link—see [“Delete Link” in Automation Tools](#).

### Set Periodic Slot Value

A new action was added to Set Periodic Slot Values. Although this functionality was possible before with the Set Table Slot Values, for clarity, now periodic slot have their own action. See [“Set Periodic Slot Value” in Automation Tools](#) for more information.

### Set Series Slot With Periodic Inputs

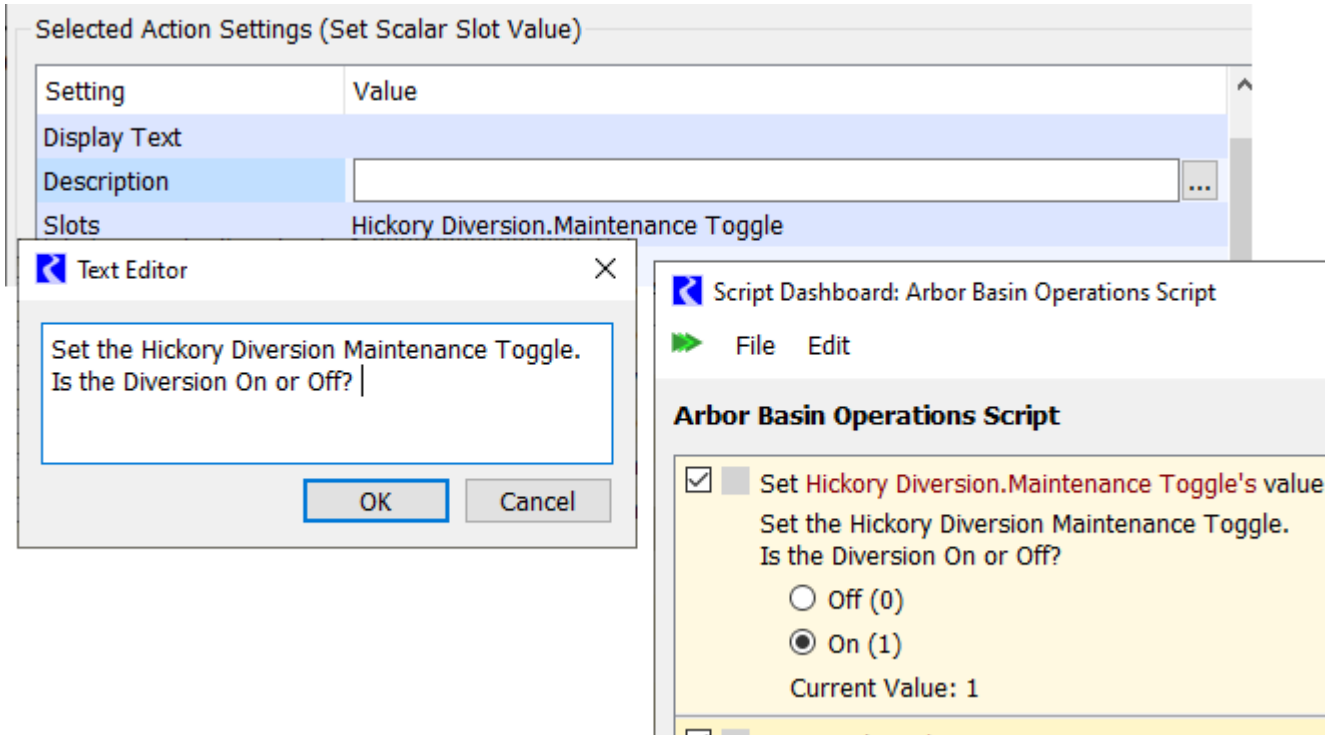
The previous action, Set Series Slot Periodic Values was renamed Set Series Slot With Periodic Input. See [“Set Series Slot With Periodic Inputs” in Automation Tools](#) for more information. No model changes are necessary.

## Action Descriptions

All script actions have a Display Text property, which is a single line of text describing the action. This text is used in the Script Editor and Script Dashboard to identify the action. The Display Text for an action can be user-specified or automatically generated. For many script actions, you may prefer to use the automatically generated Display Text. Now, a new action property, Description, was added so you can use the default Display Text and also



enter your own text description. See “[Common Settings for Action Types](#)” in *Automation Tools* for more information.



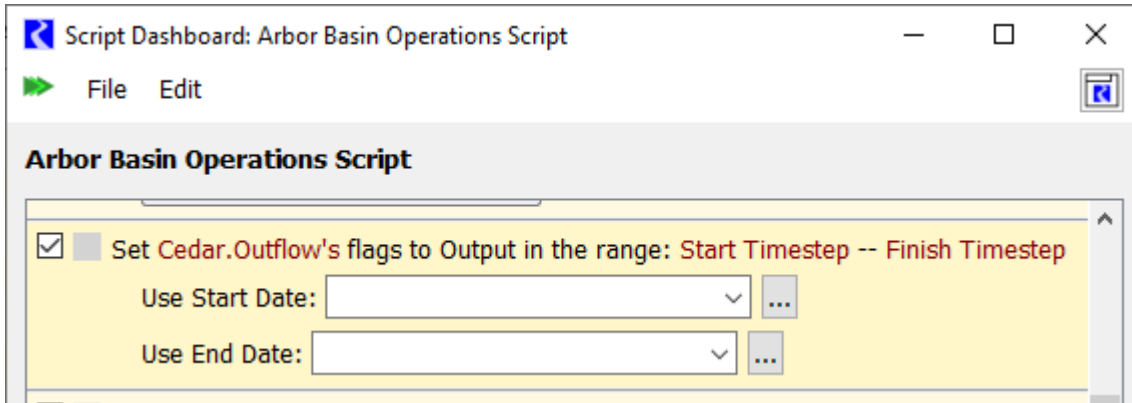
## Edit Start and End Dates When Setting Series Slot Values

The Script Dashboard allows you to edit the date/time range settings for the Set Run Range and Set MRM Run Range action types. This allows you to optionally override each date/time setting associated with an action. Now, this functionality has been extended to the following action types.

- Set Series Slot Flags
- Set Series Slot Values
- Synchronize Objects

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- Synchronize Slots

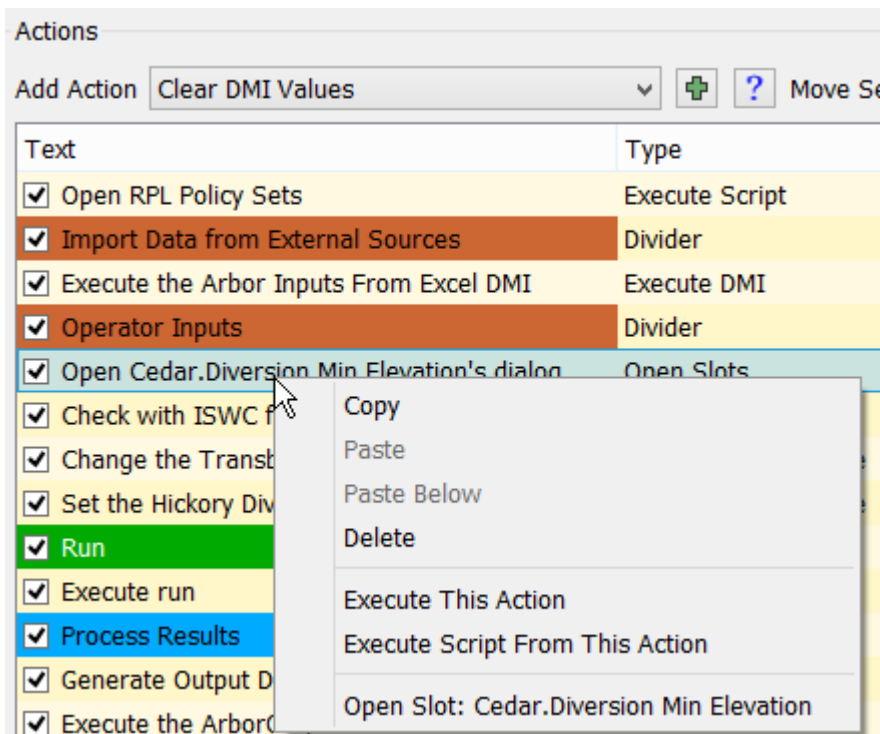


## Copy and Paste of Actions

The following new operations were added to the Script Editor.

- Copy—copy the selected action.
- Paste—paste the copied action to the current position, replacing the selected action.
- Paste Below—paste the copied action below the selected action.

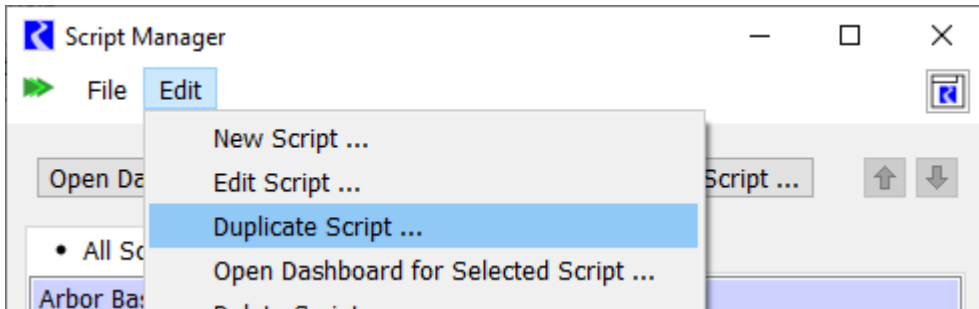
These operations make it easier to edit and combine scripts. See “Copy and Paste of Actions” in *Automation Tools* for details.



## Duplicate Scripts

The Duplicate Script option was added to the Script Manager Edit menu, allowing you to copy all the actions in a script with a single click.

See “Tour of the Script Manager” in *Automation Tools* for details.



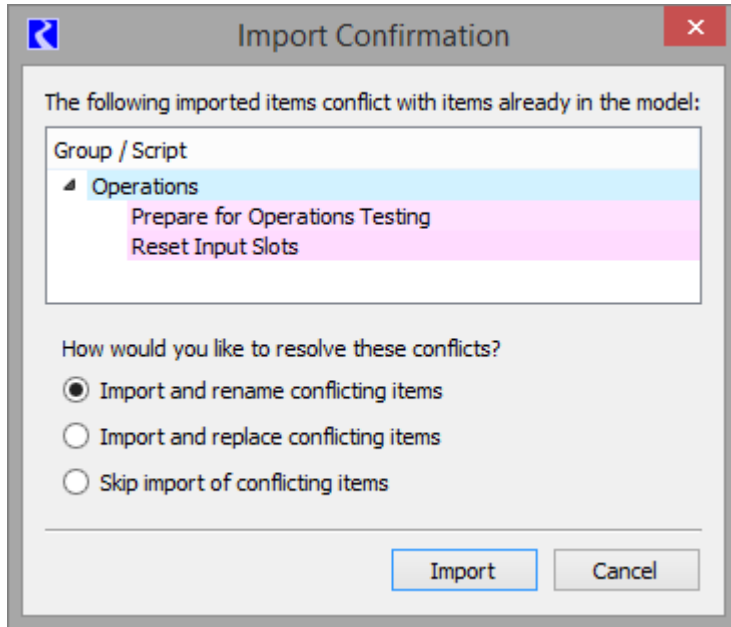
## Improved Import of Scripts

The script import operation was enhanced to provide user control over naming conflicts. Previously, naming conflicts were resolved automatically by assigning a unique name to imported items. Now, when you import a script, you can choose one of the following options to resolve naming conflicts.

- Import and rename conflicting items—imported items are assigned a unique name.
- Import and replace conflicting items—imported items overwrite items in the model.
- Skip import of conflicting items—items that conflict with items in the model are not imported.
- Cancel—cancels the entire import.

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After the import, a status dialog box is displayed. See [“Importing Scripts”](#) in *Automation Tools* for more information.

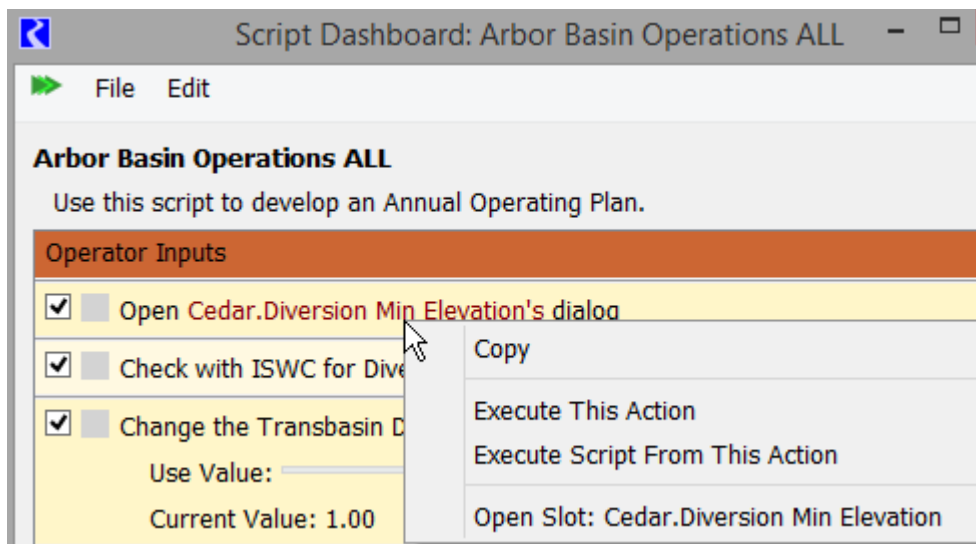


## Run Single Action and Start Script at Specified Action

Previously, the only way to run a script action was to run the entire script. Now, the following operations are available on the Script Editor and Script Dashboard.

- Execute This Action—run the selected action only.
- Execute Script From This Action—run the remainder of a script, starting with the selected action.

See [“Executing Actions From the Script Editor”](#) in *Automation Tools* for more information.



# Slots

The following changes have been made to RiverWare slots.

## Expression Slot Warnings

In prior versions, a warning occurred when an invalid value was encountered during manual evaluation of an expression slot. This warning was removed to match the behavior for invalid values in other parts of RiverWare.

## Format Values as Years

The “Values are integers” check box on the Slot Configuration dialog box has been replaced by a menu that allows you to select whether the slot values should be displayed as rational numbers, integers, or years.

- Rational—default option; matches the default behavior prior to RiverWare 8.2.
- Integer—behaves as the “Values are integers” check box did prior to RiverWare 8.2.
- Year—causes values to be displayed without any fractional portion (similar to the Integer option) and without thousands separators (commas).

See “[Configure Slot Dialog](#)” in *User Interface* for more information.

# System Control Table (SCT)

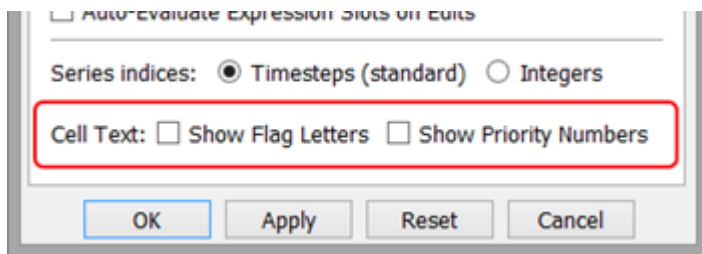
The following changes have been made to RiverWare SCT functionality.

## Improved Settings to Show Priorities and Flags

The SCT Cell Text setting (select **View**, then **Cell Text**) has been moved to the General tab on the SCT Configuration dialog box. You can select one or both of the following options.

- Show Flag Letters
- Show Priority Numbers

These settings are now saved with the SCT so you do not have to select them every time you open an SCT. See “[Display flag letters and priority numbers](#)” in *System Control Table (SCT)* for more information.

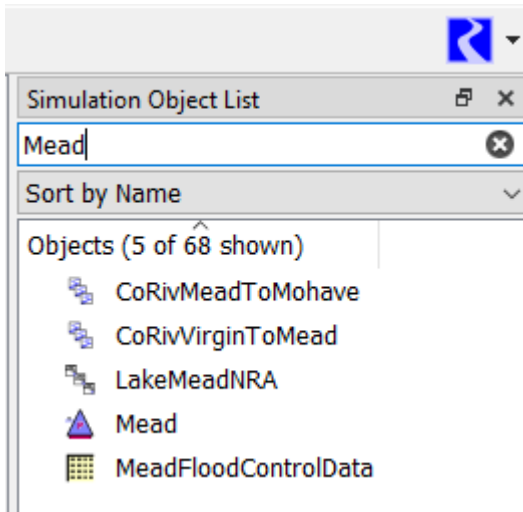


# Workspace

The following changes have been made to the RiverWare workspace.

## Filtering in the Object List

To assist in locating objects in complex models, a filter tool has been added to the workspace Simulation Object List. The list displays objects with names that include the specified text (case-insensitive). See [“Simulation Object List”](#) in *User Interface* for more information.



# Chapter 2

## Closed Issue Reports

Table 2.1 summarizes the issues that have been addressed or fixed since the last major release (Version 8.1). Issues are listed in bug number order. For more information on any bug, go to the RiverWare website:

[www.riverware.org](http://www.riverware.org)

**Table 2.1** Issues addressed since Version 8.1

Number	Summary
6376	Can't Select AggSeriesSlot "Column 0" in Slot Sets
6381	Clearing workspace doesn't clear canvas colors
6382	Daylight Savings bug with FEWS Adapter
6394	Plotting: When multiple Y-axes are in use, deleting the curves associated with the left axis leads to issues
6410	Right click option for an Opt error message opens a rule with the same name instead of the goal
6411	Periodic Slot Plot Error
6412	Series slot plots appear with no x-axis
6418	A script can be executed to start a run while paused in a run
6434	Seed does not postpone opt solution correctly for Summation with Reward derived objectives
6435	Optimization runs sometimes hangs
6444	Distributed MRM Working Directory cannot be specified
6446	Crash using Model Comparison Tool after changing tolerance and unit scheme
6450	Mismatch in Return Type for "AccountNameFromPriorityDate" predefined function
6451	RPL Won't Locate Newly Added Accounts Until Save/Reopen
6455	Slot Selector has bad sorting behavior for child objects
6457	"Unexpected Error..." within SCT when "Alt Units - Volume" used
6468	Bad geometry management in RPL Set Comparison "RPL Sets to Compare" dialog
6474	Showing minimized workspace changes mode from Compact to Full
6475	Newly created accounts are not valid in auto passthrough creation
6482	Expression slot evaluation outside of run gives error box, inside run doesn't
6483	RPL Debugger panels collapse without visual indication something is collapsed
6490	RPL can be edited while Debugger still active, can cause full crash
6494	RPL function diagnostic settings availability is inconsistent when run is paused

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**Table 2.1** Issues addressed since Version 8.1

Number	Summary
6498	Diagnostic Message uses __dot__ notation for a Supply
6500	RPL expression can have multiple comments, might be related to a crash
6503	Output Canvas is not showing datetime or text slot values correctly
6504	RPL TableLookup function not working correctly for full date time value
6505	In Iterative MRM Rules, the Add Execute Script statement is in the wrong menu
6506	RW 8.1 Prerelease model comparison tool not comparing accurately
6507	Removing a dataset from a DMI and then canceling crashes
6508	Importing a conflicting database DMI at first doesn't behave correctly
6509	Importing Excel datasets with conflict doesn't work correctly
6510	Table editing in script with slider uses improper units for valid bounds
6511	Crossed out accounting sections when opening up with 8.1 (and pre-release)
6514	Importing a group with a script doesn't work
6518	Potential crash when reverting dataset edits
6519	RiverWare terminates when Excel DMI Trace Directory DMI run manually
6521	Crash when running an excel input DMI
6522	"Disable Dispatching" on Computational Subbasin Triggers Error
6524	Model Crashes when Opening a Report Group from Search
6527	Diagnostic category names use the string SimObj
6529	CAVI: Exiting the CAVI shouldn't open "close RPL sets" confirmation dialog
6531	In RiverWISE, expression output slots for don't maintain scenarios
6532	Ruleset very wide name column
6533	HasRuleFiredSuccessfully returns TRUE for a rule not in the ruleset
6534	SolveSlopeStorageGivenInflowOutflow differs from dispatch solution
6535	Distributed MRM with a Global Functions Set fails unless the model is reloaded after saving
6536	Crash when accessing the Default Axis Configuration
6538	Run control dialog shows inapplicable label
6539	Crash on close or when reloading a model
6540	Multislot omitting values for some linked slots for some timesteps in statistics
6541	In scripts, the Create Snapshot action can give a bad object name
6543	Enable RPL Script Action fails when ruleset and rule group are named the same
6544	Null point in FEWS adapter
6546	ObjAcctSupplyByWaterTypeRelTypeDestType behavior changed in RiverWare 8.0 - no longer looking two objects upstream for water type
6547	In Script editor trying to "Set Series Slot Periodic Value", not able to select a Periodic Table



**Table 2.1** Issues addressed since Version 8.1

<b>Number</b>	<b>Summary</b>
6548	Script Set SeriesSlot Flags "Allow Start Date Editing" serialized incorrectly
6550	Dynamic Slot Sets not Evaluating Properly
6551	Power slot in one model opens very wide
6553	In plots, some slots incorrectly shifted to right Y axis
6556	Mass balance issue when convergence percentage is small
6557	Crash when editing and then running a web service dataset dmi
6558	Crash at start of Post-optimization RBS
6559	Crashes in RiverWISE when loading wise file and closing
6560	RiverWISE crash on load
6562	Testing Jira upgrade from customer portal
6563	Another test from the customer portal
6564	Crash when selecting Edit Custom Order for workspace object list
6565	Table slot import doesn't do anything
6567	Crash when using Print option on RPL function embedded help
6568	Pump Storage Reservoir has incorrect check for invalid Pump Power method selection
6570	Pumped Storage Reservoir issues error messages with incorrect function names

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