II. RiverWare Software Maintenance

**Releases, Patches and Snapshots**

Release 7.1

The RiverWare 7.1 Release was sent to all users on 7/12/2017. This involved writing release notes, regenerating the help PDFs, updating the builds areas, creating the release executable, updating the website, and sending out the release notification. Release notes can be found on the RiverWare.org website.

RiverWare 7.1.1 Release

RiverWare Patch 7.1.1 was released on July 26, 2017. Release notes are as follows:

Summary of Changes in RiverWare Patch Release 7.1.1

Database DMI on/off States:

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The Database DMI on/off status was improved as follows:

- Turning off a dataset causes its slot selections to be shown as off.

- Turning off all slot selections causes the dataset to be shown as off.

- The dataset is shown as a tristate (on, off, partially on) based on the

state of its slot selections.

In addition, the on/off state is preserved in the model file when saved.

Inline Power - Specify Units Generating: Unit Turbine Release is now

included

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When the Specify Units Generating method was originally implemented for

RiverWare 7.1, it only included Generation Capacity; the Power calculation

was independent of Turbine Release. Now Unit Turbine Capacity has been

added to the Unit Capacity slot, and you can optionally input the Unit

Turbine Capacity. Also a new Unit Turbine Release agg series slot was

added. You can optionally input the Unit Turbine Release. If you do not

input Unit Turbine Release, it is calculated by the method by multiplying

the Unit Turbine Capacity by the Unit Generation Fraction. The method also

now sets the total plant Turbine Release.

As part of this enhancement, the Unit Capacity table slot was converted

from a 1xN slot with one column for each unit's generation capacity to a

Nx2 table with a row for each unit. The first column is now Unit Turbine

Capacity (flow), and the second column is now Unit Generation Capacity

(power). If this method was previously implemented in a model using

RiverWare 7.1, it will be necessary to repopulate the Unit Capacity slot

with data the first time the model is loaded in the new version of

RiverWare.

See the RiverWare help Objects section 14.1.2.3 for more information.

New Reservoir Diversion Power Categories:

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New categories were added to the reservoirs that enable you to model power

produced through the Diversion slot.

Three new categories were added to the Reservoirs. Each has a default

method of None and one new non-default method:

Diversion Power: Diversion Power Efficiency Curve

Diversion Tailwater: Diversion Base Value Plus Lookup

Diversion Power Bypass: Diversion Power Bypass Capacity Table

See the RiverWare help Objects section 15.1.27 for more information.

Bugs

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The following issues were addressed:

- 5973: Showing a tooltip raised inactive window obscuring other dialogs.

- 5986: Distributed MRM was not removing partial RDF files. Now the

intermediate, partial RDF files are removed after they have been

combined.

- 5894: RDF to Excel did not handle slash in environment variable

correctly

**Regression Tests**

The regression tests continue to be maintained on a daily basis. This involves updating the regression tests to exercise new developments in the code. Also, as new code is added to the development area, the model comparisons performed in the nightly regression tests usually show differences (for example, because a new method category may have been added). When this occurs, the regression tests need to be updated to reflect the current state of the development area so model comparisons do not fail. In addition, every week, the daily history of each regression test is analyzed to determine if the run time or model size has significantly changed because of new development. In July the regression tests were watched closely during the 7.1 release period. They were updated with new version numbers and histories were monitored closely.