



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

UNIVERSITY OF COLORADO **BOULDER**

DMIs, Scripts, and MRM

2026 RiverWare User Group Meeting

Presenter: David Neumann

Data Management Interface (DMI)

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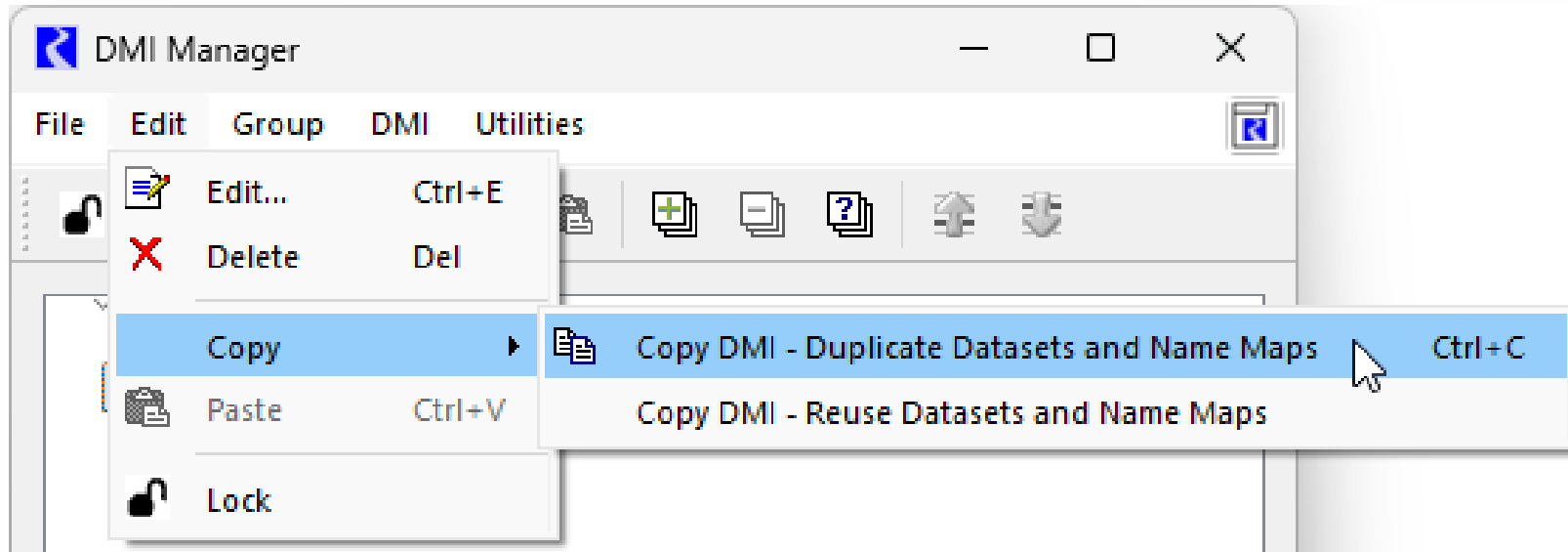
DMI

- Export/Import DMIs (9.5)

- Trace Directory
- Control File-Executable

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Request

- DMI copy/paste now explicitly asks for approach (9.6)



Webservice DMI Updates

- CDA Webservice Data Set (9.6)
 - Requires Office
 - Support for Pseudo-regular time series and Time Zone (DSS too)
- USGS Web Service DMI (9.6)
 - New query strings
 - Return formats
 - Pagination
 - API keys

The image displays two screenshots of the USGS Web Service DMI configuration interface.

Top Screenshot (Web Service Tab):

- Type: Web Service
- Name: CWMS Data API
- Web Service: CWMS Data API
- Test Tool URL: <https://cwms-data.usgs.gov/>
- Base URL: <https://cwms-data.usgs.gov/>
- USACE Office: SWT (dropdown menu open showing options: SWF, SWG, SWL, SWT, SPA)

Bottom Screenshot (General Tab):

- Name Map: CWMS
- Missing Values Are: NaN
- Time Zone: America/Denver (highlighted with a red dashed box)
- Use Dataset Units: (dropdown menu)
- Open button

Upcoming DMI Work

- Parquet + Hive Investigation
- New Web Service DMIs
 - NRCS Forecast Data
 - NM Office of State Engineer discharge data
- DMI Status Window - Modal
 - Status Window – Non-modal
 - Confirmation – Modal for errors and warning
- Database DMI Editor
 - Rearrange Slot Selections
 - Better Enable/Disable datasets

Scripts

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Script Editor layout – Demo – 9.7

Script Editor: Arbor Basin Operations Script

File Edit

Name: Arbor Basin Operations Script Description: This script sets up an operations run. Use it everyday to get the model re ...

Actions

+ Add Action Move Selected Action: ↑ ↓

Text	Type
☒ Set Run Period	Set Run Range
☒ Synchronize Objects to: Start Timestep - 1 -- E...	Synchronize Obje...
☒ Open SCT: Arbor Basin SCT	Open SCT
☒ Execute the ArborInputDMI DMI	Execute DMI
☒ Open Cedar.Diversions Min Elevation's Window	Open Slots
☒ Check with ISWC for Diversion Min Elevation	Memo
☒ Execute Run	Execute Run

☒ Search

Set ▼ ▲ ☒ Text ☒ Type ☒ Value

Execution

▶ ■

Status: script not executing Current Script: this script is not executi... Current Action: this script is not executi...

Open Dashboard

OK Cancel Apply

Action Settings (Set Run Range)

Setting	Value
Display Text	Set Run Period
Description	
Show in Dashboard	Yes
Dependency Type	None
Background Color	

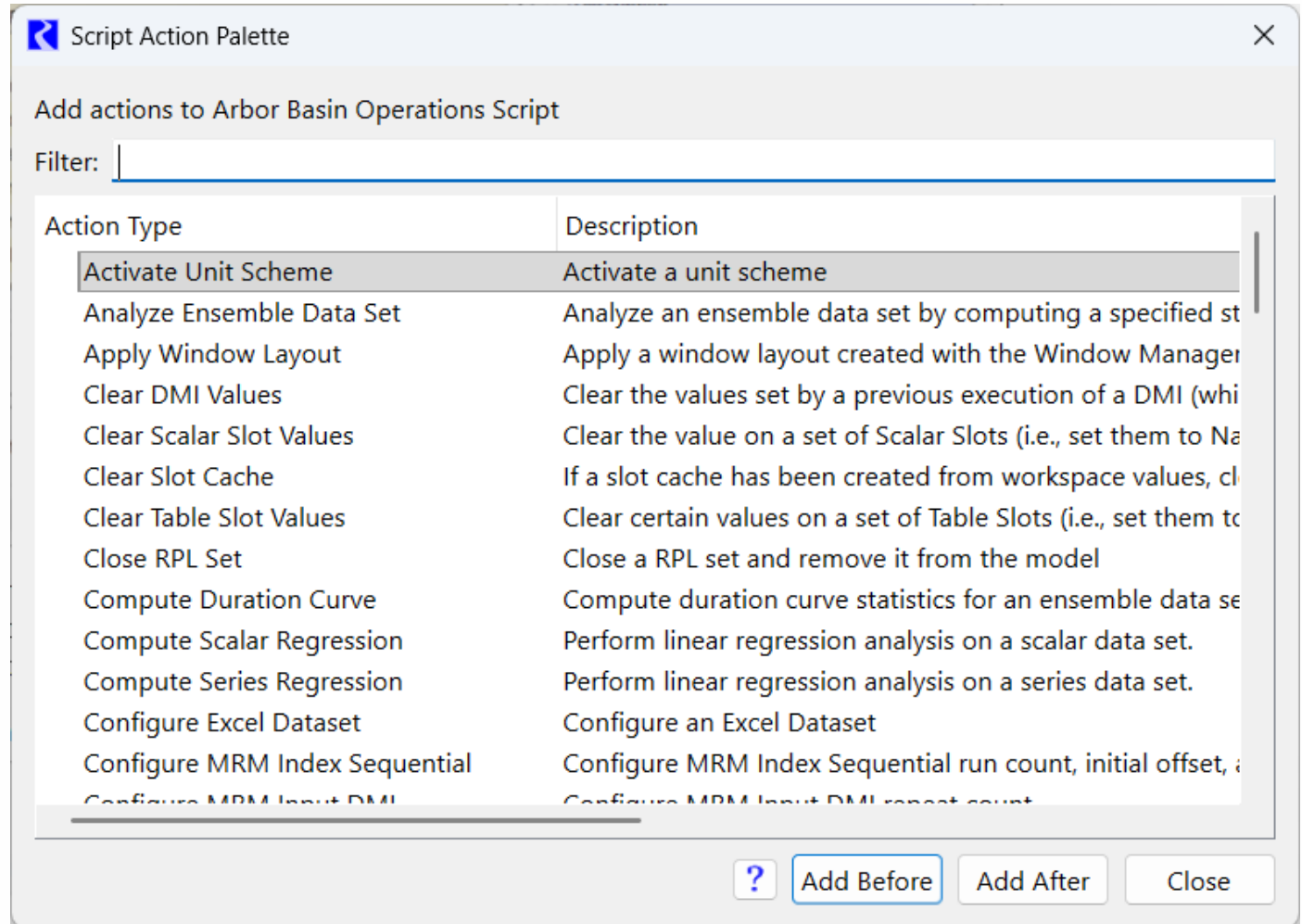
Setting	Value
Start Date	January 1, 2028
End Date	December 31, 2028
Allow Start Date Editing	Yes
Allow End Date Editing	Yes

Display Settings

Action Type-Specific Settings

Script Action Palette – Demo – 9.7

- Replaces long menu of actions
- Includes Filter
- Shows Description
- Buttons to
 - Add Before
 - Add After
-  button to open the Script Action Type Settings help



Scripts

- New Script Actions (9.6):
 - Activate Unit Scheme
 - Move Slots to Object
- Script action updates - consistent wildcarding (9.5)

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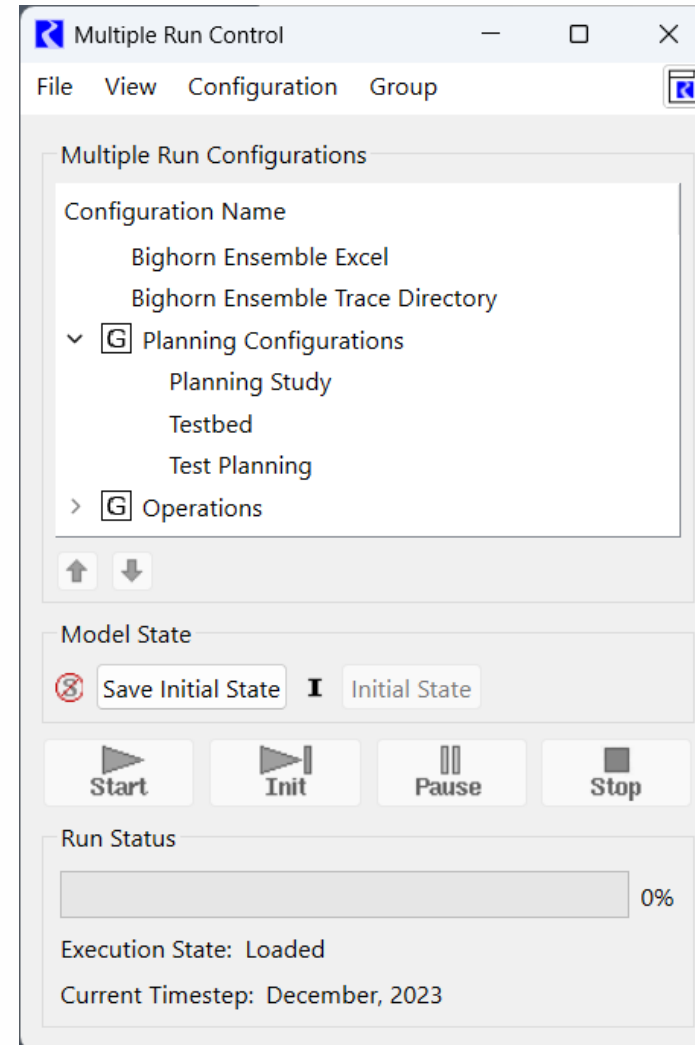
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Multiple Run Management (MRM)

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MRM Configuration – 9.7

- Create Groups to organize configurations
- Use the Up/Down arrows to reorder



MRM Configuration – 9.7

Input Tab

The screenshot shows the 'Input' tab of the 'MRM Configuration - Bighorn Ensemble Excel' window. The 'Configuration' section at the top has 'Name: Bighorn Ensemble Excel' and 'Mode: Concurrent'. Below this are tabs for 'Description', 'Run Parameters', 'Policy', 'Input', 'Output', and 'Concurrent Runs'. The 'Input' tab is active, showing 'Initialization DMI' (unchecked) and 'Input Options'. The 'Input Options' section is highlighted with a red dashed box and contains five radio buttons: 'Individual DMIs', 'Traces' (selected), 'Index Sequential', 'Select Years', and 'HDB Ensembles'. Below these is a checked checkbox for 'Input DMIs'. At the bottom, a table lists input data:

Repeat	DMI
20 x	Inflow Trace Inputs Excel

Policy Tab

The screenshot shows the 'Policy' tab of the 'MRM Configuration - Bighorn Ensemble Excel' window. The 'Configuration' section at the top has 'Name: Bighorn Ensemble Excel' and 'Mode: Concurrent'. Below this are tabs for 'Description', 'Run Parameters', 'Policy', 'Input', 'Output', and 'Concurrent Runs'. The 'Policy' tab is active, showing 'Type' and 'Rulesets' sections. The 'Type' section is highlighted with a red dashed box and contains three radio buttons: 'None', 'Rules' (selected), and 'Optimization'. Below this is the 'Rulesets' section, which has a checked radio button for 'Use Loaded Ruleset' and an unchecked one for 'Load Rulesets From File'.

MRM

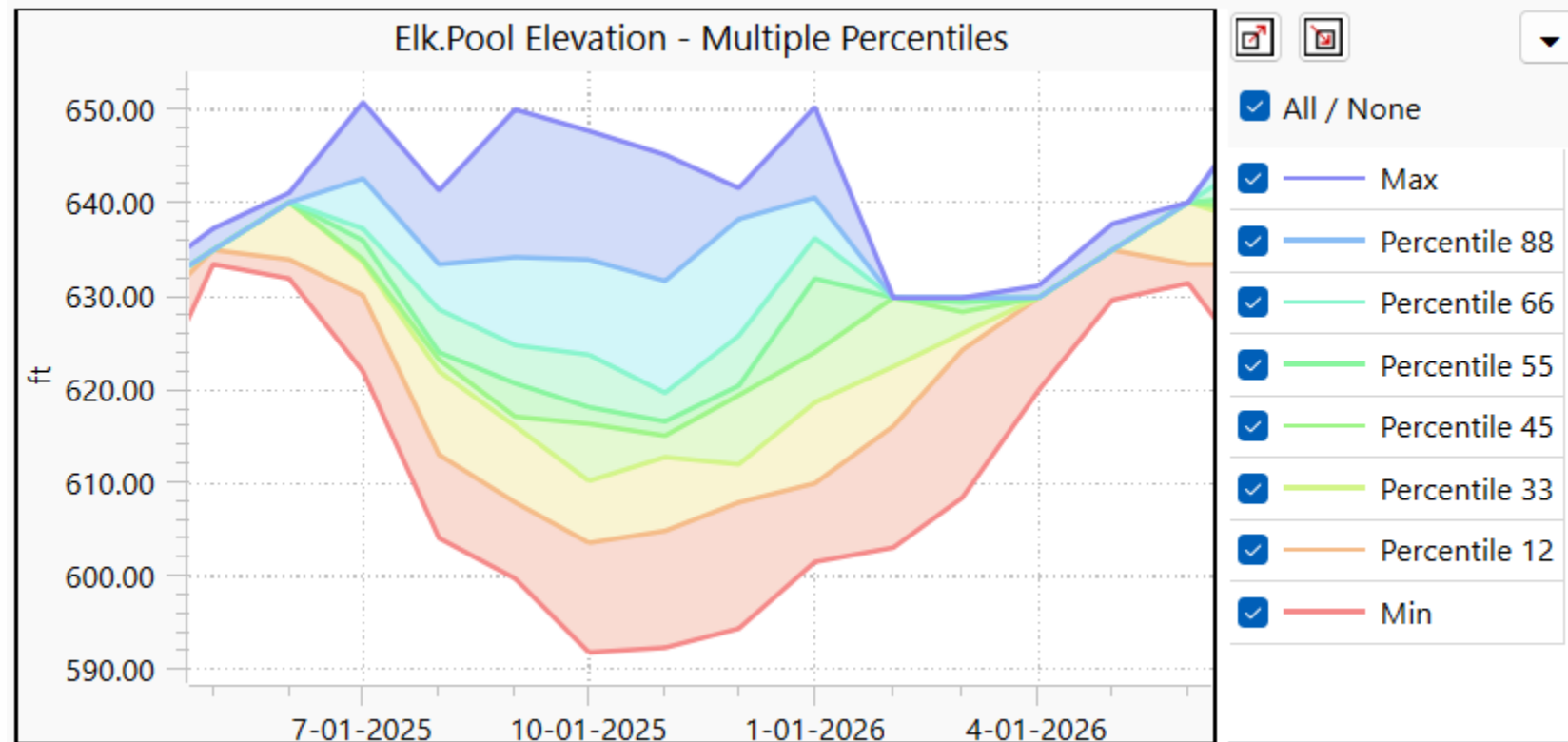
- Improved diagnostics for failed distributed MRM – 9.7
- Export/Import configurations – 9.5
- Export object attributes as part of a run – 9.5

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Upcoming Data Analysis Tool Work (9.8)

- Ensemble analysis Multiple Percentiles and Exceedance
 - Specify number of percentages
 - Specify percentage values



Questions?

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