



Scripts and Model Reports

Presenters: David Neumann

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Scripts

- Organize and run sequences of actions.
- Automate many of the tasks involved in operating a model.
- Addresses the following requirements:
 - Complexity
 - Repetition
 - Opacity
 - Repeatability

Dialogs

Editor



Dashboard



Script Editor: Experimental Run

File Edit

Script Settings

Setting	Value
Name	Experimental Run
Description	Use the sliders below to adjust the inputs to Green River and Farmers Execute the s...

Actions

Add Action: Clear DMI Values [+] [?]

Move Selected Action: [↑] [↓]

Text	Type
Set Factors.Diversion Factor's value to 1.0	Set Scalar Slot Value
Set Factors.Outflow Value's value to 0.0 cfs	Set Scalar Slot Value
Set Factors.Inflow Factor's value to 1.0	Set Scalar Slot Value
Execute run	Execute Run
Generate output device: Baseline Comparison	Generate Output Device

Selected Action Settings (Set Scalar Slot Value)

Setting	Value
Show in Dashboard	Yes
Display Text	
Slots	Factors.Diversion Factor
Value	1.0
Allow Editing	Yes: Radio Buttons

Execution

[Play] [Stop] [Progress Bar]

Status: Ready Current Action: this script is not executing

OK Cancel Apply

Script Dashboard: Experimental Run

File Edit

Experimental Run

Use the sliders below to adjust the inputs to Green River and Farmers Execute the script to conduct a simulation and generate a plot comparing to the baseline run.

Set Factors.Diversion Factor's value to 1.0

Dry (0.5)

Average (1)

Wet (1.5)

Set Factors.Outflow Value's value to 0.0 cfs

Use: cfs

Set Factors.Inflow Factor's value to 1.0

Use: 1.0

Execution

[Play] [Stop] [Progress Bar]

Status: Ready Current Action: this script is not executi...

Enhancements

- Implemented for 6.9
 - Set Dataset File Action

Enhancements for 7.0

- New Actions:
 - Evaluate Expression Slots
 - Open Object
- Set Slot actions:
 - Set NaN
 - Symbolically specified Datetimes
- Enabled/Disabled state is preserved
- Show Ruleset when opened

Upcoming Enhancements

- Improve usability to help novice users:
 - Open Script Manager when model opens
 - Show Script Descriptions
 - Group Scripts together
- Create Action Groups
- Import/Export Multiple Scripts
- Action to Change the run timestep

Model Reports

Create a customized HTML file describing various aspects of a model including the configuration, RPL policy, slots, outputs and plots.

“The RiverWare utility is ideal” – Shane Coors 2016

File Output Edit Layout

Report Settings

Format Setting	Value
Include Content Display Controls	Yes
Body Font	font-family: sans-serif;
Title Font	font: bold 130% sans-serif;
Level 1 Font	font: bold 120% sans-serif;
Level 2 Font	font: 120% sans-serif;

Report Layout

Add Item: Table of Contents + ? ↑

Add Items Similar to Selected Item ... Move Selected Item: ← ↓ →

Table of Contents
Section: Overview
Run Control
Section: Computation Subbasins
Section: Reservoirs
Object Section: Broken Bow
Object Section: McGee Creek
Object Section: Caddo
Object Section: Cooper
Object Section: Dequeen
Object Section: Dierks
Object Section: Gillham

Selected Item Settings (Object Section: Broken Bow)

Format Setting	Value
Object Name	Broken Bow
Include Object Type	No

Apply Selected Setting Globally...

Report Preview (HTML)

Preview Only Selected Item ← →

1 Overview

Run Control Information

Controller: Rulebased Simulation
 Start: 24:00 July 1, 1956
 End: 24:00 June 30, 1957
 Timestep: Daily
 Number of Timesteps: 365

2 Computation Subbasins

2.1 ArthurCity_Shreveport Comp In

Subbasin Members

Arthur City
Dekalb
Red_Kiamichi
Arthur City_DeKalb
Dekalb_Divert_Reach
Index
Fulton
Shreveport
DeKalb_Index
Index_Fulton
Red_Little River

Enhancements for 6.9

- Scalar Slot Grid
- Periodic Slot Table
- Expression Slot RPL display
- Link Table
- Individual RPL Rule/Goal items

- Demo

Upcoming Enhancements

- Show top level RPL statements
- Enhanced Rich Text Editing
(sub/super script and tabs)