

RiverWare Script Action Support for certain MRM Configuration Operations

Funding: BOR UC, Discretionary Development (Spring 2015), RiverWare 6.7

Phil, Edit: 5-8-2015, basic outline.

Requirements Statement

Improve RiverWare's Script Manager to allow scripts to edit the MRM configuration as follows:

- a. change output control file
- b. enable/disable NetCDF
- c. enable/disable CSV output
- d. modify run parameters
- e. change ruleset
- f. Input tab:
 - i. change index sequential number of runs, initial offset, interval
 - ii. DMI repeat, and
 - iii. enable/disable Distributed Runs.

MRM configuration editor controls for the relevant configuration settings

These are represented on these four tabs of the MRM Configuration Dialog. Details follow.

	Tab	Config Controls	Proposed New Script Action	
1	Output	(a) change output control file (b) enable/disable NetCDF (c) enable/disable CSV output	1	MRM Set Output
2	Run Parameters	(d) modify run parameters	2	MRM Set Run Range
3	Policy	(e) change ruleset	3	MRM Change Ruleset
4	Input	(f.i) change index sequential number of runs, initial offset, interval	4	MRM Set Index Sequential
		(f.ii) DMI repeat	5	MRM Config Input DMIs
		(f.iii) enable/disable Distributed Runs	6	MRM Enable Distrib. Runs

Script Action Names

Existing	New, Proposed
1. Clear DMI Values 2. Clear Scalar Slot Values 3. Clear Table Slot Values 4. Create Snapshot 5. Enable RPL Item 6. Execute DMI 7. Execute MRM Run* 8. Execute Run 9. Generate Output Device 10. Load Ruleset 11. Load Goal Set 12. Memo 13. Open Global Functions Set 14. Open SCT 15. Open Slots 16. Reorder RPL Set 17. Save Model 18. Set Account Method 19. Set Accounting Period 20. Set Controller 21. Set Init. Rules Exec. Flag 22. Set Method 23. Set Run Range 24. Set Scalar Slot Value 25. Set Series Slot Flags 26. Set Series Slot Values 27. Set Table Slot Value 28. Synchronize Objects 29. Synchronize Slots	1. MRM Set Output 2. MRM Set Run Range 3. MRM Change Ruleset 4. MRM Set Index Sequential 5. MRM Config Input DMIs 6. MRM Enable Distrib. Runs

*Existing MRM-related Script Action (Execute MRM Run) Settings:

Selected Action Settings (Execute MRM Run)	
Setting	Value
Show in Dashboard	Yes
Display Text	
Configuration	

MRM Output Configuration

Per Trace Output DMI:

RDF Options

Control File: (a)

Data File:

Timesteps: ☐ Allow Spaces In File Paths

Excel Options

☐ Generate Excel Workbooks from RDF ☐ Delete RDF Files

Slot Names: Rows / Columns / Worksheets:

☐ Generate CSV Files (c)

☐ Generate NetCDF Files (b)

Script Action: **MRM Set Output**

Settings:

1. Show in Dashboard ... Yes/No
2. Display Text
3. Configuration ... MRM Selector
4. Control File ... file selection (blank: don't change)
5. Generate CSV Files ... Yes/No
6. Generate NetCDF Files ... Yes/No
7. Allow Control File Editing

MRM Run Parameters Configuration

Initial: 06:00 May 8, 2015

Start: 12:00 May 8, 2015

Finish: 06:00 May 9, 2015

Timesteps: 4 6 Hour

} (d)

Similar existing script action: Set Run Range, settings:

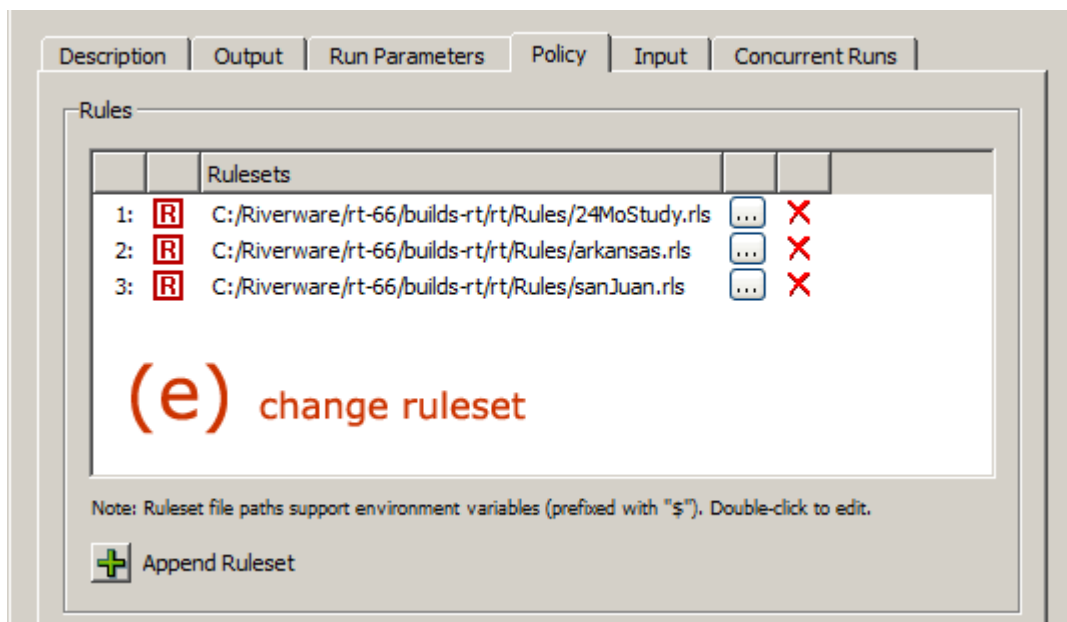
Selected Action Settings (Set Run Range)	
Setting	Value
Show in Dashboard	Yes
Display Text	Run Range
Start Date	06:00 May 8, 2015
End Date	24:00 May 9, 2015
Allow Start Date Editing	Yes
Allow End Date Editing	Yes

Script Action: **MRM Set Run Range**

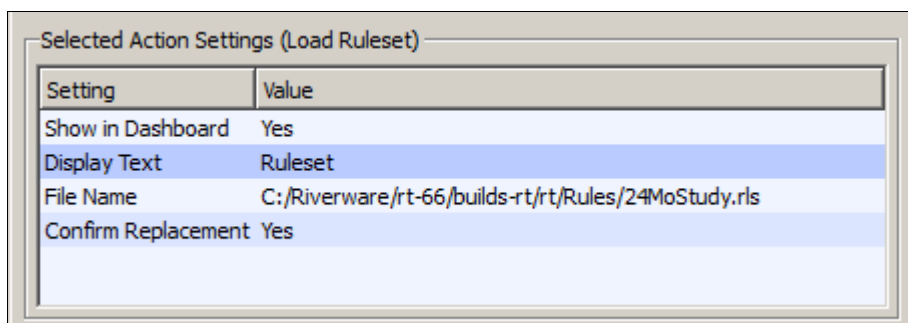
Settings:

1. Show in Dashboard ... Yes/No
2. Display Text
3. Configuration ... MRM Selector
4. Start Date ...
5. End Date
6. Allow Start Date Editing ... Yes/No
7. Allow End Date Editing ... Yes/No

MRM Change Ruleset Configuration



Similar existing script action: Load Ruleset, settings:



Script Action: **MRM Change Ruleset**

Settings:

1. Show in Dashboard ... Yes/No
2. Display Text
3. Configuration ... MRM Selector
4. Ruleset ... Positive Integer (spin box)
5. File Name ... file chooser
6. Confirm Replacement ... Yes/No

MRM Input Configuration

The screenshot shows the 'Input' tab of the MRM configuration window. It includes sections for 'Initialization DMI', 'Input DMIs', 'Index Sequential' parameters, and 'Control File'. Annotations with blue arrows and red text identify specific fields:

- (f,ii) DMI repeat**: Points to the 'Repeat' column in the 'Input DMIs' table.
- (f,i)**: Points to the 'Number of Runs' spin box.
- (f,iii)**: Points to the 'Distributed Runs' checkbox at the bottom right.

Repeat	DMI		
102 x	DB DMI 1		✗
1 x	DB DMI 2		✗

Index Sequential / DMI Mode: ☒ Combinations ☐ Pairs

☐ Distributed Runs

Script Action: **MRM Set Index Sequential**

Settings:

1. Show in Dashboard ... Yes/No
2. Display Text
3. Configuration ... MRM Selector
4. Number of Runs ... integer (spin box)
5. Initial Offset ... integer (spin box)
6. Interval ... integer (spin box)
7. Allow Number of Runs Editing ... Yes/No
8. Allow Initial Offset Editing ... Yes/No
9. Allow Interval Editing ... Yes/No

continued ...

Script Action: **MRM Config Input DMIs**

Settings:

1. Show in Dashboard ... Yes/No
2. Display Text
3. Configuration ... MRM Selector
4. DMI Name ... DMI Selector
5. Repeat Count ... integer (spin box)
6. Allow Repeat Count Editing ... Yes/No

Script Action: **MRM Enable Distrib. Runs**

Settings:

1. Show in Dashboard ... Yes/No
2. Display Text
3. Configuration ... MRM Selector
4. Enable ... Yes/No
5. Allow Enable Editing ... Yes/No

--- (end) ---