



Center for Advanced Decision Support for Water and Environmental Systems (CADSWES) UNIVERSITY OF COLORADO **BOULDER**

New Features: Model Comparison Tool Workspace Enhancements Online Help Delivery

2019 RiverWare User Group Meeting Mitch Clement



Model Comparison Tool

Displays differences for two versions of a model

R		Model Comparison Tool	- 🗆 🗙
Models			
A: MightyBuffaloSampleBasin.v2.mdl B: MightyBuffaloSampleBasin.v6.mdl	Source: Open Model	Path: D:\RiverWareModelFiles\MightyBuffaloSampl Path: D:\RiverWareModelFiles\MightyBuffaloSampl	eBasin.v2.mdl C Select Models
Comparison Results Search and Filter Results	✓ □ Ignore C	Case Filter 🕱 Filter applied: displaying onl	y the 68 items that differ between the two models
Name	Status Type	A: Might/BuffaloCamplePacin v2 mdl	P: Mighty/PuffaloCamplePacin v6 mdl
 Name Description Value Fractional Return Flow Hi Name Description Values Linked Slots Green Valley Reach Outflow Linked Slots New City Name Mighty Buffalo Basin Rules Mighty Buffalo Flood Control Statements Channel Capacity Statements Mighty Res Rules Priorities Set Green Valley Fractio 	B Property B Property B Property B Property B Property B Property B Property B Property A \neq B Reach A \neq B Reach A \neq B Property \leftarrow B ControlPoint A \neq B Property A \neq B RBS Ruleset A \neq B Rule A \neq B Property A \neq B Rule	Located 1 difference Buffalo.Outflow [] = IF (BuffaloFloodSeason () AND Buffalo.Pool Elevation [] > Buffalo Data.Flood Control Elevation [] Min (SolveOutflow (Buffalo , Buffalo , Buffalo , Buffalo , ElevationToStorage (Buffalo , Buffalo ,	Located 1 difference
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Development History

- 7.0: RPL Set Comparison Tool initial release
- 7.4: Model Comparison Tool initial release
- 7.5: Model Comparison Tool enhancements

Configuring the Comparison

R	Models to	Compare	×	
Model A Currently Open Model Path: MightyBuffaloSampleBas	• in.v2.mdl •	Model B Read Model From File Path IreModelFiles/MightyBuffaloSampleBas	• in.v6.mdl •	Select a model to compare
Series Value Comparison ○ Compare Value Only, Ignore ○ Compare Value and Flag Tor ◎ Compare Value and Flag Tor ◎ Input (I) □ DMI Input (Z) □ Rules (R) □ Output (O) ☑ Numeric Comparison Tolerand	e Flag gether, For All Flags gether, For the Following Flags			Options for how to compare data
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			OK Cancel	

Displace Selected Difference



Search and Filter Controls

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Mighty Buffalo Basin Rules	$A \neq B$ RBS Ruleset			
Buffalo Rules	$A \neq B$ Policy Group			
Buffalo Flood Control	$A \neq B$ Rule			
* Statements	A ≠ B Property			
Channel Capacity	$A \neq B$ Rule			
Statements	A ≠ B Property			
Mighty Res Rules	A ≠ B Policy Group			
Priorities	A ≠ B Property			
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Data Differences: Graphical and Tabular View

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Compares Embedded RPL Sets

R		Model Comparison Tool	X
Models A: MightyBuffaloSampleBasin.v2.mdl B: MightyBuffaloSampleBasin.v6.mdl	Source: Open Model Source: Model File	Path: D:\RiverWareModelFiles\MightyBuffaloSampleBasin.v2.n Path: D:\RiverWareModelFiles\MightyBuffaloSampleBasin.v6.n	ndl C Select Models
Comparison Results Search and Filter Results Image: Contains	✓ □ Ignore	Case Filter 🗱 Filter applied: displaying only the 68 ite	ms that differ between the two models
Name	Status Type '	Selected Property: Buffalo Flood Control - Statements	
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Possible Model Comparison Tool Future Enhancements

- Extend comparison content
 - MRM configurations
 - Model parameters
 - Scripts
- Synchronized scrolling of property difference panels
- Additional usability features

Windowing Challenges for Multi-window Applications

- Window overlap: workspace obscures other windows
- Window identification: which model is this Object Viewer for?

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Enhancements

- Moved Workspace Windows menu
- Send Workspace to Back
- Workspace Display Mode
- Icon Color toolbar menu button
- Save Model toolbar menu button
- Per-Process taskbar button grouping

Top-Level Windows Menu



Icon Color Toolbar Menu Button



Save Model Toolbar Menu Button



Workspace Compact Display Mode



Per-Process Taskbar Icon Grouping



Additional Suggestions

- Configure Windows Layout
- User Preferences Manager
- Docking in workspace for additional windows
- Model Name menu button for main windows

Online Help: Browser-based

