



# SNAP Automated Testing Framework for RELAP5-3D DA

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INFORMATION  
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# Introduction

- Automated Testing Framework (ATF)
  - Available in SNAP via AVF plugin
  - Replaces legacy AVScripts which relied on Perl
  - Provides automated assessment and validation testing
- RELAP5-3D Developmental Assessment
  - Completely automated using SNAP AVF plugin
  - Greatly simplifies DA on each new code version
  - Easy to add/modify DA cases
  - Regression testing provides quick look at performance improvement/degradation

# ATF Features

- Automated Assessment
  - Generates plots of key parameters
  - Version-to-version plots
  - Version-to-data plots
  - Time series plots, Axial plots, and Parametrics plots
  - Provides ACAP functionality for generating FOMs
- Regression Testing
  - Version-to-version comparison
  - Specify suites and suite sets for selective testing

# ATF Features (cont'd)

- Report Generation
  - Provides a quick summary of differences between two code versions
  - Produces comparison of key statistical data from the results of two user-selected code versions
    - CPU Time
    - End Time
    - Number of advancements
    - System mass & mass error
    - Etc.
  - Produces difference files from the two outputs



# Assessment Jobs

The screenshot displays the Model Editor 1.1.4 interface. The main window is titled "R53D-DA-v292b-tmp.med - (R53D-DA)". The left sidebar shows a hierarchical tree view of the model structure:

- Model Options
  - Regression [210]
    - Input Models [150]
    - Suites [55]
    - Suite Sets [5]
  - AV Script [62]
    - Executables [4]
    - Scripts [58]
      - PH\_Bubbling-Steam-Through-Liquid
      - PH\_Conduction-Enclosure
      - PH\_Conduction-Enclosure-1D-Transient
      - PH\_Conduction-Enclosure-2D-Transient
      - PH\_Core-Power
      - PH\_Fill-Drain
      - PH\_Gravity-Wave\_1D
      - PH\_Gravity-Wave\_3D
      - PH\_Manometer
      - PH\_Point-Kinetics-Ramp
      - PH\_Pryor-Pressure
      - PH\_Pure-Radial-Symmetric-Flow
      - PH\_Rigid-Body-Rotation
      - PH\_RTheta-Symmetric-Flow
      - PH\_Water-Faucet
      - PH\_Water-Over-Steam\_1D
      - PH\_Water-Over-Steam\_3D
      - SE\_Bennett-HT\_5294
      - SE\_Bennett-HT\_5358
      - SE\_Bennett-HT\_5394
      - SE\_Chan
      - SE\_Christensen\_15
      - SE\_Dukler
      - SE\_Edwards-Pipe
      - SE\_FLECHT-SEASET\_31504
      - SE\_FLECHT-SEASET\_31701
      - SE\_GE-16-Scale-Jetpump
      - SE\_GE-Level-Swell-1ft\_1004-3
      - SE\_GE-Level-Swell-4ft\_5801-15

The bottom of the interface features a "Category" pane with "General" selected and "Show Disabled" checked. Below it, a "Messages" pane displays a log of system events:

- Note: Loading D:\Project Files\TASK-Orders\4577-002\_Bettis\ATF\R53D-DA\R53D-DA-v292b-tmp.med p...
- Note: Open Complete.
- Note: Report successfully submitted: /R53D-DA/DACases/Reports/V291b-to-V292b
- Note: Job successfully submitted: /R53D-DA/DACases/Regression\_Runs/V291b-Win32
- Note: Job successfully submitted: /R53D-DA/DACases/Regression\_Runs/V292b-Win32
- Note: Report successfully submitted: /R53D-DA/DACases/Reports/V291b-to-V292b
- Note: Report successfully submitted: /R53D-DA/DACases/Reports/V291b-to-V292b
- Note: Report successfully submitted: /R53D-DA/DACases/Reports/V291b-to-V292b



# Assessment Jobs

IE\_LOBI\_A1-04R - R53D-DA-v292b.med - Table Editor

Name	File	Location	Check Existence	Case Type	Input Type	Version	Restart Case
R53D-si_ss	LOBI-A1-4R.i	./MasterList	<input checked="" type="checkbox"/>	RELAP		V292b	
R53D-ni_ss	LOBI-A1-4R-ni.i	./MasterList	<input checked="" type="checkbox"/>	RELAP		V292b	
R53D-si	LOBI-A1-4R_rst.i	./MasterList	<input checked="" type="checkbox"/>	RELAP		V292b	R53D-si_ss
R53D-ni	LOBI-A1-4R-ni_rst.i	./MasterList	<input checked="" type="checkbox"/>	RELAP		V292b	R53D-ni_ss
Data	A1-04R.bin	IE_LOBI_A1-04R/Data	<input checked="" type="checkbox"/>	DATABANK Data			

Cases [5]   Figures [40]   Pages [0]   Data Traces [127]   ACAP [63]



# Assessment Jobs (cont'd)

IE\_LOBI\_A1-04R - R53D-DA-v292b.med - Table Editor

Name	Title	Sub-title	X-Axis Label	Y-Axis Label	Axis Scaling Type	
Figure-A	Core Power	Comparison of Semi and Nearly with EXP Data (SS)	Time (s)	Power (MW)	Linear X,Y	[0.0, 4]
Figure-B	Pressurizer Pressure	Comparison of Semi and Nearly with EXP Data (SS)	Time (s)	Pressure (MPa)	Linear X,Y	[0.0, 1]
Figure-C	Pressurizer Level	Comparison of Semi and Nearly with EXP Data (SS)	Time (s)	Level (m)	Linear X,Y	[0.0, 0]
Figure-D	Intact Loop Mass Flow Rate	Comparison of Semi and Nearly with EXP Data (SS)	Time (s)	Mass flow rate (kg/s)	Linear X,Y	[0.0, 0]
Figure-E	Broken Loop Mass Flow Rate	Comparison of Semi and Nearly with EXP Data (SS)	Time (s)	Mass flow rate (kg/s)	Linear X,Y	[0.0, 6]
Figure-F	Intact Loop Temperatures	Comparison of Semi and Nearly with EXP Data (SS)	Time (s)	Fluid temperature (K)	Linear X,Y	[0.0, 0]
Figure-G	Broken Loop Temperatures	Comparison of Semi and Nearly with EXP Data (SS)	Time (s)	Mass flow rate (kg/s)	Linear X,Y	[0.0, 0]
Figure-H	Feedwater Flow	Comparison of Semi and Nearly with EXP Data (SS)	Time (s)	Mass flow rate (kg/s)	Linear X,Y	[0.0, 0]
Figure-I	Feedwater Temperature	Comparison of Semi and Nearly with EXP Data (SS)	Time (s)	Fluid temperature (K)	Linear X,Y	[0.0, 4]
Figure-J	Steam Temperature	Comparison of Semi and Nearly with EXP Data (SS)	Time (s)	Fluid temperature (K)	Linear X,Y	[0.0, 5]
Figure-K	Secondary Side Pressure	Comparison of Semi and Nearly with EXP Data (SS)	Time (s)	Pressure (MPa)	Linear X,Y	[0.0, 6]
Figure-L	Accumulator Pressure	Comparison of Semi and Nearly with EXP Data (SS)	Time (s)	Pressure (MPa)	Linear X,Y	[0.0, 2]
Figure-1	Broken Loop Pressure	Comparison of Semi and Nearly with EXP Data	Time (s)	Pressure (MPa)	Linear X,Y	[-10.0, 0]
Figure-2	Intact Loop Pressure	Comparison of Semi and Nearly with EXP Data	Time (s)	Pressure (MPa)	Linear X,Y	[-10.0, 0]
Figure-3	Pump-side Break Mass Flow Rate	Comparison of Semi and Nearly with EXP Data	Time (s)	Mass flow rate (kg/s)	Linear X,Y	[-10.0, 0]
Figure-4	Vessel-side Break Mass Flow Rate	Comparison of Semi and Nearly with EXP Data	Time (s)	Mass flow rate (kg/s)	Linear X,Y	[-10.0, 0]
Figure-5	Core Differential Pressure	Comparison of Semi and Nearly with EXP Data	Time (s)	Differential pressure (MPa)	Linear X,Y	[-10.0, 0]
Figure-6	Accumulator Injection Flow Rate	Comparison of Semi and Nearly with EXP Data	Time (s)	Mass flow rate (kg/s)	Linear X,Y	[-10.0, 0]
Figure-7	Fluid Density at Accumulator Injection Point	Comparison of Semi and Nearly with EXP Data	Time (s)	Density (kg/m <sup>3</sup> )	Linear X,Y	[-10.0, 0]
Figure-8	Fluid Temperature at Accumulator Injection Point	Comparison of Semi and Nearly with EXP Data	Time (s)	Fluid temperature (K)	Linear X,Y	[-10.0, 0]
Figure-9	Lower Core Rod Temperature	Comparison of Semi and Nearly with EXP Data	Time (s)	Rod temperature (K)	Linear X,Y	[-10.0, 0]
Figure-10	Lower Core Rod Temperature	Comparison of Semi and Nearly with EXP Data	Time (s)	Rod temperature (K)	Linear X,Y	[-10.0, 0]
Figure-11	Mid-core Rod Temperature	Comparison of Semi and Nearly with EXP Data	Time (s)	Rod temperature (K)	Linear X,Y	[-10.0, 0]
Figure-12	Mid-core Rod Temperature	Comparison of Semi and Nearly with EXP Data	Time (s)	Rod temperature (K)	Linear X,Y	[-10.0, 0]
Figure-13	Mid-core Rod Temperature	Comparison of Semi and Nearly with EXP Data	Time (s)	Rod temperature (K)	Linear X,Y	[-10.0, 0]
Figure-14	Mid-core Rod Temperature	Comparison of Semi and Nearly with EXP Data	Time (s)	Rod temperature (K)	Linear X,Y	[-10.0, 0]
Figure-15	Upper Core Rod Temperature	Comparison of Semi and Nearly with EXP Data	Time (s)	Rod temperature (K)	Linear X,Y	[-10.0, 0]
Figure-16	Upper Core Rod Temperature	Comparison of Semi and Nearly with EXP Data	Time (s)	Rod temperature (K)	Linear X,Y	[-10.0, 0]
Figure-17	Core Inlet Density	Comparison of Semi and Nearly with EXP Data	Time (s)	Density (kg/m <sup>3</sup> )	Linear X,Y	[-10.0, 0]
Figure-18	Intact Loops Steam Generator Temperature	Comparison of Semi and Nearly with EXP Data	Time (s)	Fluid temperature (K)	Linear X,Y	[-10.0, 0]
Figure-19	Intact Loops Steam Generator Temperature	Comparison of Semi and Nearly with EXP Data	Time (s)	Fluid temperature (K)	Linear X,Y	[-10.0, 0]
Figure-20	Broken Loop Steam Generator Temperature	Comparison of Semi and Nearly with EXP Data	Time (s)	Fluid temperature (K)	Linear X,Y	[-10.0, 0]
Figure-21	Broken Loop Steam Generator Temperature	Comparison of Semi and Nearly with EXP Data	Time (s)	Fluid temperature (K)	Linear X,Y	[-10.0, 0]
Figure-22	Broken Loop Steam Generator Temperature	Comparison of Semi and Nearly with EXP Data	Time (s)	Fluid temperature (K)	Linear X,Y	[-10.0, 0]
Figure-23	Broken Loop Steam Generator Temperature	Comparison of Semi and Nearly with EXP Data	Time (s)	Fluid temperature (K)	Linear X,Y	[-10.0, 0]
Figure-24	Heat Transfer Mode (Lower Level)	Comparison of Semi and Nearly with EXP Data	Time (s)	Heat transfer mode	Linear X,Y	[-10.0, 0]
Figure-25	Heat Transfer Mode (Mid-Level)	Comparison of Semi and Nearly with EXP Data	Time (s)	Heat transfer mode	Linear X,Y	[-10.0, 0]
Figure-26	Heat Transfer Mode (Mid-Level)	Comparison of Semi and Nearly with EXP Data	Time (s)	Heat transfer mode	Linear X,Y	[-10.0, 0]
Figure-27	Heat Transfer Mode (Upper Level)	Comparison of Semi and Nearly with EXP Data	Time (s)	Heat transfer mode	Linear X,Y	[-10.0, 0]
Figure-28	Flow Regime (Mid-Level (Level 6))	Comparison of Semi and Nearly with EXP Data	Time (s)	Flow regime	Linear X,Y	[-10.0, 0]

Cases [5] Figures [40] Pages [0] Data Traces [127] ACAP [63]



# Assessment Jobs (cont'd)

IE\_LOBI\_A1-04R - R53D-DA-v292b.med - Table Editor

	X-Axis Label	Y-Axis Label	Axis Scaling Type	Axis Bounds	Legend Location	Legend Length	Tick Marks	Viewport	Char Size	Symbol Size	Page Size
(SS)	Time (s)	Power (MW)	Linear X,Y	[0.0, 4.0, 500.0, 6.0]	W25.0, 5.95	4	[50.0, 100.0, 0.1, 0.5]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
(SS)	Time (s)	Pressure (MPa)	Linear X,Y	[0.0, 14.0, 500.0, 16.0]	W50.0, 15.95	4	[50.0, 100.0, 0.25, 0.5]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
(SS)	Time (s)	Level (m)	Linear X,Y	[0.0, 0, 500.0, 0]	W250.0, 3.0	4	[50.0, 100.0, 0.25, 0.5]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
(SS)	Time (s)	Mass flow rate (kg/s)	Linear X,Y	[0.0, 0, 500.0, 0]	W100.0, 21.15	4	[50.0, 100.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
(SS)	Time (s)	Mass flow rate (kg/s)	Linear X,Y	[0.0, 6.6, 500.0, 7.2]	W25.0, 7.15	4	[50.0, 100.0, 0.05, 0.1]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
(SS)	Time (s)	Fluid temperature (K)	Linear X,Y	[0.0, 0, 500.0, 0]	W25.0, 595.0	4	[50.0, 100.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
(SS)	Time (s)	Mass flow rate (kg/s)	Linear X,Y	[0.0, 0, 500.0, 0]	W25.0, 595.0	4	[50.0, 100.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
(SS)	Time (s)	Mass flow rate (kg/s)	Linear X,Y	[0.0, 0, 500.0, 0]	W25.0, 2.95	4	[50.0, 100.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
(SS)	Time (s)	Fluid temperature (K)	Linear X,Y	[0.0, 490.0, 500.0, 495.0]	W25.0, 494.9	4	[50.0, 100.0, 0.5, 1.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
(SS)	Time (s)	Fluid temperature (K)	Linear X,Y	[0.0, 550.0, 500.0, 560.0]	W25.0, 559.0	4	[50.0, 100.0, 1.0, 2.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
(SS)	Time (s)	Pressure (MPa)	Linear X,Y	[0.0, 6.4, 500.0, 6.7]	W25.0, 6.6	4	[50.0, 100.0, 0.05, 0.1]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
(SS)	Time (s)	Pressure (MPa)	Linear X,Y	[0.0, 2.6, 500.0, 2.801]	W25.0, 2.78	4	[50.0, 100.0, 0.05, 0.1]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Pressure (MPa)	Linear X,Y	[-10.0, 0, 60.0, 0]	0.55, 0.8	4	[5.0, 10.0, 2.5, 5.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Pressure (MPa)	Linear X,Y	[-10.0, 0, 60.0, 0]	0.55, 0.8	4	[5.0, 10.0, 2.5, 5.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Mass flow rate (kg/s)	Linear X,Y	[-10.0, -5.0, 60.0, 30.0]	0.55, 0.8	4	[5.0, 10.0, 2.5, 5.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Mass flow rate (kg/s)	Linear X,Y	[-10.0, 0, 60.0, 0]	0.55, 0.8	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Differential pressure (MPa)	Linear X,Y	[-10.0, -0.02, 60.0, 0.1]	0.55, 0.8	4	[5.0, 10.0, 0.005, 0.02]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Mass flow rate (kg/s)	Linear X,Y	[-10.0, 0, 60.0, 0]	0.75, 0.32	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Density (kg/m <sup>3</sup> SN)	Linear X,Y	[-10.0, 0, 60.0, 0]	0.55, 0.8	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Fluid temperature (K)	Linear X,Y	[-10.0, 0, 60.0, 0]	0.69, 0.8	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Rod temperature (K)	Linear X,Y	[-10.0, 400.0, 60.0, 900.0]	0.55, 0.83	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Rod temperature (K)	Linear X,Y	[-10.0, 400.0, 60.0, 900.0]	0.55, 0.83	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Rod temperature (K)	Linear X,Y	[-10.0, 400.0, 60.0, 900.0]	0.55, 0.83	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Rod temperature (K)	Linear X,Y	[-10.0, 400.0, 60.0, 900.0]	0.55, 0.83	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Rod temperature (K)	Linear X,Y	[-10.0, 400.0, 60.0, 900.0]	0.55, 0.83	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Rod temperature (K)	Linear X,Y	[-10.0, 400.0, 60.0, 900.0]	0.55, 0.83	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Rod temperature (K)	Linear X,Y	[-10.0, 400.0, 60.0, 900.0]	0.55, 0.83	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Rod temperature (K)	Linear X,Y	[-10.0, 400.0, 60.0, 900.0]	0.55, 0.83	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Density (kg/m <sup>3</sup> SN)	Linear X,Y	[-10.0, 0.0, 60.0, 900.0]	0.48, 0.83	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Fluid temperature (K)	Linear X,Y	[-10.0, 0, 60.0, 0]	0.55, 0.8	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Fluid temperature (K)	Linear X,Y	[-10.0, 0, 60.0, 0]	0.55, 0.8	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Fluid temperature (K)	Linear X,Y	[-10.0, 0, 60.0, 0]	0.55, 0.8	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Fluid temperature (K)	Linear X,Y	[-10.0, 0, 60.0, 0]	0.55, 0.8	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Fluid temperature (K)	Linear X,Y	[-10.0, 0, 60.0, 0]	0.25, 0.5	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Fluid temperature (K)	Linear X,Y	[-10.0, 0, 60.0, 0]	0.55, 0.8	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Heat transfer mode	Linear X,Y	[-10.0, 0, 60.0, 0]	0.62, 0.8	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Heat transfer mode	Linear X,Y	[-10.0, 0, 60.0, 0]	0.62, 0.8	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Heat transfer mode	Linear X,Y	[-10.0, 0, 60.0, 0]	0.62, 0.4	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Heat transfer mode	Linear X,Y	[-10.0, 0, 60.0, 0]	0.62, 0.4	4	[5.0, 10.0, 50.0, 100.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5
	Time (s)	Flow regime	Linear X,Y	[-10.0, 0.0, 60.0, 15.0]	0.65, 0.8	4	[5.0, 10.0, 1.0, 5.0]	[0.14, 0.15, 1.25, 0.85]	0.95	0.7	11 x 8.5

Cases [5]
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ACAP [63]



# Assessment Jobs (cont'd)

IE\_LOBI\_A1-04R - R53D-DA-v292b.med - Table Editor

Name	Case	Figure	Plot Type	X Variable	Y Variable	Legend String	Use SI Units	X Shift	Y Shift	Slope	Symbol
Figure-A1	R53D-si_ss	Figure-A	Time		cntrlvar-22	Power (cntrlvar-22) (Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Circle
Figure-A2	R53D-ni_ss	Figure-A	Time		cntrlvar-22	Power (cntrlvar-22) (Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Triangle U
Figure-B1	R53D-si_ss	Figure-B	Time		p-301070000	p-301070000 (Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Circle
Figure-B2	R53D-ni_ss	Figure-B	Time		p-301070000	p-301070000 (Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Triangle U
Figure-C1	R53D-si_ss	Figure-C	Time		cntrlvar-9	cntrlvar-9 (Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Circle
Figure-C2	R53D-ni_ss	Figure-C	Time		cntrlvar-9	cntrlvar-9 (Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle U
Figure-D1	R53D-si_ss	Figure-D	Time		mflowj-101010000	mflowj-101010000 (Hot leg, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Circle
Figure-D2	R53D-ni_ss	Figure-D	Time		mflowj-101010000	mflowj-101010000 (Hot leg, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle U
Figure-D3	R53D-si_ss	Figure-D	Time		mflowj-107030000	mflowj-107030000 (Cold leg, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Diamond
Figure-D4	R53D-ni_ss	Figure-D	Time		mflowj-107030000	mflowj-107030000 (Cold leg, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle L
Figure-E1	R53D-si_ss	Figure-E	Time		mflowj-401010000	mflowj-401010000 (Hot leg, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Circle
Figure-E2	R53D-ni_ss	Figure-E	Time		mflowj-401010000	mflowj-401010000 (Hot leg, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle U
Figure-E3	R53D-si_ss	Figure-E	Time		mflowj-409020000	mflowj-409020000 (Cold leg, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Diamond
Figure-E4	R53D-ni_ss	Figure-E	Time		mflowj-409020000	mflowj-409020000 (Cold leg, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle L
Figure-F1	R53D-si_ss	Figure-F	Time		tempf-101010000	tempf-101010000 (Hot leg, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Circle
Figure-F2	R53D-ni_ss	Figure-F	Time		tempf-101010000	tempf-101010000 (Hot leg, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle U
Figure-F3	R53D-si_ss	Figure-F	Time		tempf-107010000	tempf-107010000 (Cold leg, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Diamond
Figure-F4	R53D-ni_ss	Figure-F	Time		tempf-107010000	tempf-107010000 (Cold leg, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle L
Figure-G1	R53D-si_ss	Figure-G	Time		tempf-401010000	tempf-401010000 (Hot leg, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Circle
Figure-G2	R53D-ni_ss	Figure-G	Time		tempf-401010000	tempf-401010000 (Hot leg, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle U
Figure-G3	R53D-si_ss	Figure-G	Time		tempf-409010000	tempf-409010000 (Cold leg, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Diamond
Figure-G4	R53D-ni_ss	Figure-G	Time		tempf-409010000	tempf-409010000 (Cold leg, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle L
Figure-H1	R53D-si_ss	Figure-H	Time		mflowj-210010000	mflowj-210010000 (Intact, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Circle
Figure-H2	R53D-ni_ss	Figure-H	Time		mflowj-210010000	mflowj-210010000 (Intact, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle U
Figure-H3	R53D-si_ss	Figure-H	Time		mflowj-710010000	mflowj-710010000 (Broken, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Diamond
Figure-H4	R53D-ni_ss	Figure-H	Time		mflowj-710010000	mflowj-710010000 (Broken, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle L
Figure-I1	R53D-si_ss	Figure-I	Time		tempf-213040000	tempf-213040000 (Intact, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Circle
Figure-I2	R53D-ni_ss	Figure-I	Time		tempf-213040000	tempf-213040000 (Intact, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle U
Figure-I3	R53D-si_ss	Figure-I	Time		tempf-713040000	tempf-713040000 (Broken, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Diamond
Figure-I4	R53D-ni_ss	Figure-I	Time		tempf-713040000	tempf-713040000 (Broken, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle L
Figure-J1	R53D-si_ss	Figure-J	Time		tempg-208010000	tempg-208010000 (Intact, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Circle
Figure-J2	R53D-ni_ss	Figure-J	Time		tempg-208010000	tempg-208010000 (Intact, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle U
Figure-J3	R53D-si_ss	Figure-J	Time		tempg-708010000	tempg-708010000 (Broken, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Diamond
Figure-J4	R53D-ni_ss	Figure-J	Time		tempg-708010000	tempg-708010000 (Broken, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle L
Figure-K1	R53D-si_ss	Figure-K	Time		p-208010000	p-208010000 (Intact, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Circle
Figure-K2	R53D-ni_ss	Figure-K	Time		p-208010000	p-208010000 (Intact, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Triangle U
Figure-K3	R53D-si_ss	Figure-K	Time		p-708010000	p-708010000 (Broken, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Diamond
Figure-K4	R53D-ni_ss	Figure-K	Time		p-708010000	p-708010000 (Broken, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Triangle L
Figure-L1	R53D-si_ss	Figure-L	Time		p-600010000	p-600010000 (Intact, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Circle
Figure-L2	R53D-ni_ss	Figure-L	Time		p-600010000	p-600010000 (Intact, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Triangle U

Cases [5] Figures [40] Pages [0] Data Traces [127] ACAP [63]



# Assessment Jobs (cont'd)

IE\_LOBI\_A1-04R - R53D-DA-v292b.med - Table Editor

X Variable	Y Variable	Legend String	Use SI Units	X Shift	Y Shift	Slope	Symbol	Symbol Fill	Symbol Skip	Line Style	Line Color	Line Width	Time	Axial Start Index	Axial Locations
	cntrlvar-22	Power (cntrlvar-22) (Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Circle	<input type="checkbox"/>	25	Solid	Blue	1.0			
	cntrlvar-22	Power (cntrlvar-22) (Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Triangle Up	<input type="checkbox"/>	35	Solid	Red	1.0			
	p-301070000	p-301070000 (Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Circle	<input type="checkbox"/>	25	Solid	Blue	1.0			
	p-301070000	p-301070000 (Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Triangle Up	<input type="checkbox"/>	35	Solid	Red	1.0			
	cntrlvar-9	cntrlvar-9 (Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Circle	<input type="checkbox"/>	25	Solid	Blue	1.0			
	cntrlvar-9	cntrlvar-9 (Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle Up	<input type="checkbox"/>	35	Solid	Red	1.0			
	mflowj-101010000	mflowj-101010000 (Hot leg, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Circle	<input type="checkbox"/>	20	Solid	Blue	1.0			
	mflowj-101010000	mflowj-101010000 (Hot leg, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle Up	<input type="checkbox"/>	25	Solid	Red	1.0			
	mflowj-107030000	mflowj-107030000 (Cold leg, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Diamond	<input type="checkbox"/>	30	Solid	Green	1.0			
	mflowj-107030000	mflowj-107030000 (Cold leg, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle Left	<input type="checkbox"/>	35	Solid	Brown	1.0			
	mflowj-401010000	mflowj-401010000 (Hot leg, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Circle	<input type="checkbox"/>	20	Solid	Blue	1.0			
	mflowj-401010000	mflowj-401010000 (Hot leg, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle Up	<input type="checkbox"/>	25	Solid	Red	1.0			
	mflowj-409020000	mflowj-409020000 (Cold leg, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Diamond	<input type="checkbox"/>	30	Solid	Green	1.0			
	mflowj-409020000	mflowj-409020000 (Cold leg, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle Left	<input type="checkbox"/>	35	Solid	Brown	1.0			
	tempf-101010000	tempf-101010000 (Hot leg, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Circle	<input type="checkbox"/>	20	Solid	Blue	1.0			
	tempf-101010000	tempf-101010000 (Hot leg, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle Up	<input type="checkbox"/>	25	Solid	Red	1.0			
	tempf-107010000	tempf-107010000 (Cold leg, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Diamond	<input type="checkbox"/>	30	Solid	Green	1.0			
	tempf-107010000	tempf-107010000 (Cold leg, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle Left	<input type="checkbox"/>	35	Solid	Brown	1.0			
	tempf-401010000	tempf-401010000 (Hot leg, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Circle	<input type="checkbox"/>	20	Solid	Blue	1.0			
	tempf-401010000	tempf-401010000 (Hot leg, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle Up	<input type="checkbox"/>	25	Solid	Red	1.0			
	tempf-409010000	tempf-409010000 (Cold leg, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Diamond	<input type="checkbox"/>	30	Solid	Green	1.0			
	tempf-409010000	tempf-409010000 (Cold leg, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle Left	<input type="checkbox"/>	35	Solid	Brown	1.0			
	mflowj-210010000	mflowj-210010000 (Intact, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Circle	<input type="checkbox"/>	20	Solid	Blue	1.0			
	mflowj-210010000	mflowj-210010000 (Intact, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle Up	<input type="checkbox"/>	25	Solid	Red	1.0			
	mflowj-710010000	mflowj-710010000 (Broken, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Diamond	<input type="checkbox"/>	30	Solid	Green	1.0			
	mflowj-710010000	mflowj-710010000 (Broken, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle Left	<input type="checkbox"/>	35	Solid	Brown	1.0			
	tempf-213040000	tempf-213040000 (Intact, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Circle	<input type="checkbox"/>	20	Solid	Blue	1.0			
	tempf-213040000	tempf-213040000 (Intact, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle Up	<input type="checkbox"/>	25	Solid	Red	1.0			
	tempf-713040000	tempf-713040000 (Broken, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Diamond	<input type="checkbox"/>	30	Solid	Green	1.0			
	tempf-713040000	tempf-713040000 (Broken, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle Left	<input type="checkbox"/>	35	Solid	Brown	1.0			
	tempg-208010000	tempg-208010000 (Intact, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Circle	<input type="checkbox"/>	20	Solid	Blue	1.0			
	tempg-208010000	tempg-208010000 (Intact, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle Up	<input type="checkbox"/>	25	Solid	Red	1.0			
	tempg-708010000	tempg-708010000 (Broken, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Diamond	<input type="checkbox"/>	30	Solid	Green	1.0			
	tempg-708010000	tempg-708010000 (Broken, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0	Triangle Left	<input type="checkbox"/>	35	Solid	Brown	1.0			
	p-208010000	p-208010000 (Intact, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Circle	<input type="checkbox"/>	20	Solid	Blue	1.0			
	p-208010000	p-208010000 (Intact, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Triangle Up	<input type="checkbox"/>	25	Solid	Red	1.0			
	p-708010000	p-708010000 (Broken, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Diamond	<input type="checkbox"/>	30	Solid	Green	1.0			
	p-708010000	p-708010000 (Broken, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Triangle Left	<input type="checkbox"/>	35	Solid	Brown	1.0			
	p-600010000	p-600010000 (Intact, Semi)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Circle	<input type="checkbox"/>	20	Solid	Blue	1.0			
	p-600010000	p-600010000 (Intact, Nearly)	<input checked="" type="checkbox"/>	0.0	0.0	1.0E-6	Triangle Up	<input type="checkbox"/>	25	Solid	Red	1.0			

Cases [5] Figures [40] Pages [0] Data Traces [127] ACAP [63]



# Assessment Jobs (cont'd)

IE\_LOBI\_A1-04R - R53D-DA-v292b.med - Table Editor

Name	Config File	Config Location	Base Data	Compared Data
FOMBLPressure_SemitoData	BLPressure_Semi_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-1c	(1) Figure-1a
FOMBLPressure_NearlytoData	BLPressure_Nearly_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-1c	(1) Figure-1b
FOMBLPressure_SemitoNearly	BLPressure_Semi_to_Nearly_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-1b	(1) Figure-1a
FOMILPressure_SemitoData	ILPressure_Semi_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-2c	(1) Figure-2a
FOMILPressure_NearlytoData	ILPressure_Nearly_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-2c	(1) Figure-2b
FOMILPressure_SemitoNearly	ILPressure_Semi_to_Nearly_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-2b	(1) Figure-2a
FOMPBMFlow_SemitoData	PBMFlow_Semi_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-3c	(1) Figure-3a
FOMPBMFlow_NearlytoData	PBMFlow_Nearly_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-3c	(1) Figure-3b
FOMPBMFlow_SemitoNearly	PBMFlow_Semi_to_Nearly_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-3b	(1) Figure-3a
FOMVBMFlow_SemitoData	VBMFlow_Semi_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-4c	(1) Figure-4a
FOMVBMFlow_NearlytoData	VBMFlow_Nearly_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-4c	(1) Figure-4b
FOMVBMFlow_SemitoNearly	VBMFlow_Semi_to_Nearly_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-4b	(1) Figure-4a
FOMCDPressure_SemitoData	CDPressure_Semi_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-5c	(1) Figure-5a
FOMCDPressure_NearlytoData	CDPressure_Nearly_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-5c	(1) Figure-5b
FOMCDPressure_SemitoNearly	CDPressure_Semi_to_Nearly_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-5b	(1) Figure-5a
FOMAIFlow_SemitoData	AIFlow_Semi_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-6c	(1) Figure-6a
FOMAIFlow_NearlytoData	AIFlow_Nearly_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-6c	(1) Figure-6b
FOMAIFlow_SemitoNearly	AIFlow_Semi_to_Nearly_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-6b	(1) Figure-6a
FOMFDensity_SemitoData	FDensity_Semi_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-7c	(1) Figure-7a
FOMFDensity_NearlytoData	FDensity_Nearly_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-7c	(1) Figure-7b
FOMFDensity_SemitoNearly	FDensity_Semi_to_Nearly_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-7b	(1) Figure-7a
FOMFTemperature_SemitoData	FTemperature_Semi_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-8c	(1) Figure-8a
FOMFTemperature_NearlytoData	FTemperature_Nearly_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-8c	(1) Figure-8b
FOMFTemperature_SemitoNearly	FTemperature_Semi_to_Nearly_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-8b	(1) Figure-8a
FOMLCRTemperature1_SemitoData	LCRTemperature1_Semi_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-9c	(1) Figure-9a
FOMLCRTemperature1_NearlytoData	LCRTemperature1_Nearly_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-9c	(1) Figure-9b
FOMLCRTemperature1_SemitoNearly	LCRTemperature1_Semi_to_Nearly_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-9b	(1) Figure-9a
FOMLCRTemperature2_SemitoData	LCRTemperature2_Semi_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-10c	(1) Figure-10a
FOMLCRTemperature2_NearlytoData	LCRTemperature2_Nearly_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-10c	(1) Figure-10b
FOMLCRTemperature2_SemitoNearly	LCRTemperature2_Semi_to_Nearly_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-10b	(1) Figure-10a
FOMMCRTTemperature1_SemitoData	MCRTemperature1_Semi_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-11c	(1) Figure-11a
FOMMCRTTemperature1_NearlytoData	MCRTemperature1_Nearly_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-11c	(1) Figure-11b
FOMMCRTTemperature1_SemitoNearly	MCRTemperature1_Semi_to_Nearly_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-11b	(1) Figure-11a
FOMMCRTTemperature2_SemitoData	MCRTemperature2_Semi_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-12c	(1) Figure-12a
FOMMCRTTemperature2_NearlytoData	MCRTemperature2_Nearly_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-12c	(1) Figure-12b
FOMMCRTTemperature2_SemitoNearly	MCRTemperature2_Semi_to_Nearly_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-12b	(1) Figure-12a
FOMMCRTTemperature3_SemitoData	MCRTemperature3_Semi_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-13c	(1) Figure-13a
FOMMCRTTemperature3_NearlytoData	MCRTemperature3_Nearly_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-13c	(1) Figure-13b
FOMMCRTTemperature3_SemitoNearly	MCRTemperature3_Semi_to_Nearly_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-13b	(1) Figure-13a
FOMMCRTTemperature4_SemitoData	MCRTemperature4_Semi_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-14c	(1) Figure-14a
FOMMCRTTemperature4_NearlytoData	MCRTemperature4_Nearly_to_Data_fom.cfg	IE_LOBI_A1-04R/AcapInpnts	Figure-14c	(1) Figure-14b

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# Assessment Jobs (cont'd)

**Submit AVScript Job**

**Location** | Scripts | Options

**Server Information**

Server: localhost:5006

Input Folder: /R53D-DA/DACases/Assessment/

Target Folder: /R53D-DA/DACases/Assessment\_Runs/

Figures:  /R53D-DA/DAManual/Figures-V292b-Lnx64/

**Run Options**

Name:  V292b-Win32

Overwrite:  Yes  No  Prompt

Priority: 5

Submit Cancel Help

# Assessment Jobs (cont'd)

**Submit AVScript Job**

Location Scripts Options

Select the AVScript definitions to submit

Submit	ID
<input type="checkbox"/>	PH_Bubbling-Steam-Through-Liquid
<input type="checkbox"/>	PH_Conduction-Enclosure
<input checked="" type="checkbox"/>	PH_Conduction-Enclosure-1D-Transient
<input type="checkbox"/>	PH_Conduction-Enclosure-2D-Transient
<input type="checkbox"/>	PH_Core-Power
<input type="checkbox"/>	PH_Fill-Drain
<input checked="" type="checkbox"/>	PH_Gravity-Wave_1D
<input type="checkbox"/>	PH_Gravity-Wave_3D
<input type="checkbox"/>	PH_Manometer
<input type="checkbox"/>	PH_PointKinetics-Ramp

All None

Executables required for the selected scripts

ID	Type	Executable
V292b	RELAP	V292b

Submit Cancel Help

# Assessment Jobs (cont'd)

**Submit AVScript Job**

Location Scripts **Options**

**General**

Run cases  Show titles

Generate figures  Demultiplex plot files

Run ACAP  Force updates

Timestamp plots  Use long file names

Custom image resolution

Append to legend entries

**Figure Options**

Generate the following image types:

JPEG  PostScript

PNG  TIFF

PDF  EMF

SVG

Submit Cancel Help



# Assessment Jobs (cont'd)

```
V292b-Win32 - Job Console
Job: V292b-Win32
Pause Job End Job Terminate Command
[20090727_150518] - Note: Initializing SNAP analysis code interface.
[20090727_150520] - Calculation Server analysis code port communication initialized.
[20090727_150520] - Note: SNAP analysis code interface initialization complete.
[20090727_150520] - Connecting to local calculation server.
[20090727_150520] - Connecting to local calculation server.....
[20090727_150521] - Initializing scripts...
[20090727_150521] - Launching job '/R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/PH_Core-Power/Runs/R53D-si/ans79' for script PH_Core-Power.
[20090727_150521] - Launching job '/R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/PH_Gravity-Wave_ID/Runs/R53D-si/1Dwave2' for script PH_Gravity-Wave_ID.
[20090727_150522] - Launching job '/R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_3079B/Runs/R53D-si/ornl379B' for script SE_ORNL-THTF_3079B.
[20090727_150522] - Launching job '/R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_3079N/Runs/R53D-si/ornl379N' for script SE_ORNL-THTF_3079N.
[20090727_150522] - Launching job '/R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_3079W/Runs/R53D-si/ornl379W' for script SE_ORNL-THTF_3079W.
[20090727_150522] - Launching job '/R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_30910/Runs/R53D-si/ornl30910i' for script SE_ORNL-THTF_30910.
[20090727_150527] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/PH_Core-Power/Runs/R53D-si/ans79[1002] completed.
[20090727_150532] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/PH_Core-Power/Runs/R53D-si/ans79[1002] completed.
[20090727_150532] - Launching job '/R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/PH_Core-Power/Runs/R53D-ni/ans79-ni' for script PH_Core-Power.
[20090727_150540] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_3079B/Runs/R53D-si/ornl379B[1004] completed.
[20090727_150540] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_3079N/Runs/R53D-si/ornl379N[1005] completed.
[20090727_150545] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_3079B/Runs/R53D-si/ornl379B[1004] completed.
[20090727_150545] - Launching job '/R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_3079B/Runs/R53D-ni/ornl379B-ni' for script SE_ORNL-THTF_3079B.
[20090727_150545] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_3079N/Runs/R53D-si/ornl379N[1005] completed.
[20090727_150545] - Launching job '/R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_3079N/Runs/R53D-ni/ornl379N-ni' for script SE_ORNL-THTF_3079N.
[20090727_150547] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_3079W/Runs/R53D-si/ornl379W[1006] completed.
[20090727_150551] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/PH_Core-Power/Runs/R53D-ni/ans79-ni[1008] completed.
[20090727_150552] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/PH_Gravity-Wave_ID/Runs/R53D-si/1Dwave2[1003] completed.
[20090727_150552] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_3079W/Runs/R53D-si/ornl379W[1006] completed.
[20090727_150552] - Launching job '/R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_3079W/Runs/R53D-ni/ornl379W-ni' for script SE_ORNL-THTF_3079W.
[20090727_150555] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_3079B/Runs/R53D-si/ornl379B-ni[1009] completed.
[20090727_150556] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/PH_Core-Power/Runs/R53D-ni/ans79-ni[1008] completed.
[20090727_150556] - Launching job '/R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/PH_Core-Power/Runs/R53D-ac-si/ans79ac' for script PH_Core-Power.
[20090727_150556] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_3079N/Runs/R53D-ni/ornl379N-ni[1010] completed.
[20090727_150557] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/PH_Gravity-Wave_ID/Runs/R53D-si/1Dwave2[1003] completed.
[20090727_150557] - Launching job '/R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/PH_Gravity-Wave_ID/Runs/R53D-ni/1Dwave2-ni' for script PH_Gravity-Wave_ID.
[20090727_150600] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_3079B/Runs/R53D-ni/ornl379B-ni[1009] completed.
[20090727_150600] - Copying data file 'SE_ORNL-THTF_3079B\Data\THTF3079BRodSurfTemp95PctConf' for case 'RodCladTempBars' script SE_ORNL-THTF_3079B.
[20090727_150601] - Copying data file 'SE_ORNL-THTF_3079B\Data\THTF3079BHCT95PctConf' for case 'HTCBars' script SE_ORNL-THTF_3079B.
[20090727_150601] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/SE_ORNL-THTF_3079N/Runs/R53D-ni/ornl379N-ni[1010] completed.
[20090727_150602] - Copying data file 'SE_ORNL-THTF_3079N\Data\THTF3079NRodSurfTemp95PctConf' for case 'RodCladTempBars' script SE_ORNL-THTF_3079N.
[20090727_150602] - Note: (JOBCHECK) Job /R53D-DA/DACases/Assessment_Runs/V292b-Win32_Jobs/PH_Core-Power/Runs/R53D-ac-si/ans79ac[1012] completed.
[20090727_150602] - Copying data file 'SE_ORNL-THTF_3079N\Data\THTF3079NHCT95PctConf' for case 'HTCBars' script SE_ORNL-THTF_3079N.
Status: Interactive Calc Time: 0.000000e+00 Close
```

# Regression Jobs

**Submit Calculation**

**Location** **Suites and Executables**

**Server Information**

Server: localhost:5006

Input Folder: /R53D-DA/DACases/MasterList/

Target Folder: /R53D-DA/DACases/Regression\_Runs/

**Run Options**

Name:  V292b-Win32

Overwrite:  Yes  No  Prompt

Submit Cancel Help

# Regression Jobs

**Submit Calculation** [X]

Location **Suites and Executables**

Select the suites to submit All None

#	Submit	Type	ID
23	<input type="checkbox"/>	RELAP	PH_Pure-Radial-Symmetric-Flow
24	<input checked="" type="checkbox"/>	RELAP	PH_Rigid-Body-Rotation
25	<input type="checkbox"/>	RELAP	PH_RTheta-Symmetric-Flow
26	<input checked="" type="checkbox"/>	RELAP	PH_Water-Faucet
27	<input type="checkbox"/>	RELAP	PH_Water-Over-Steam_1D
28	<input type="checkbox"/>	RELAP	PH_Water-Over-Steam_3D
29	<input type="checkbox"/>	RELAP	SE Bennett-HT 5294

**Suites** **Sets**

Executables required for the selected suites

Type	Executable
<b>R5</b> RELAP	V292b

Submit Cancel Help

# Regression Jobs

```
V292b-Win32 - Job Console
Job: V292b-Win32
Pause Job  End Job  Terminate  View Files ▼
[20090727_151122] - Note: Initializing SNAP analysis code interface.
[20090727_151124] - Calculation Server analysis code port communication initialized.
[20090727_151124] - Note: SNAP analysis code interface initialization complete.
[20090727_151124] - Connecting to local calculation server.
[20090727_151125] - Connecting to local calculation server.....
[20090727_151125] - (LAUNCH) Launching jobs for suite 'PH_Rigid-Body-Rotation'.
[20090727_151126] - (LAUNCH) Launching jobs for suite 'PH_Water-Faucet'.
[20090727_151146] - Note: (JOBCHECK) Job [1021] completed.
[20090727_151154] - Note: (JOBCHECK) Job [1020] completed.
[20090727_151158] - Note: (JOBCHECK) Job [1022] completed.
[20090727_151202] - Note: (JOBCHECK) Job [1023] completed.
[20090727_151206] - Closing communication with Calculation Server analysis code port.

Status: Complete          Calc Time: 0.000000e+00          Close
```

# Report Jobs

**Submit Report**

**Server Information**

Server: localhost:5006

Base Job: /R53D-DA/DACases/Regression\_Runs/V291b-Win32

Mod Job: /R53D-DA/DACases/Regression\_Runs/V292b-Win32

Location: /R53D-DA/DACases/Reports/

**Report Options**

Name:  V291b-to-V292b

Overwrite:  Yes  No  Prompt

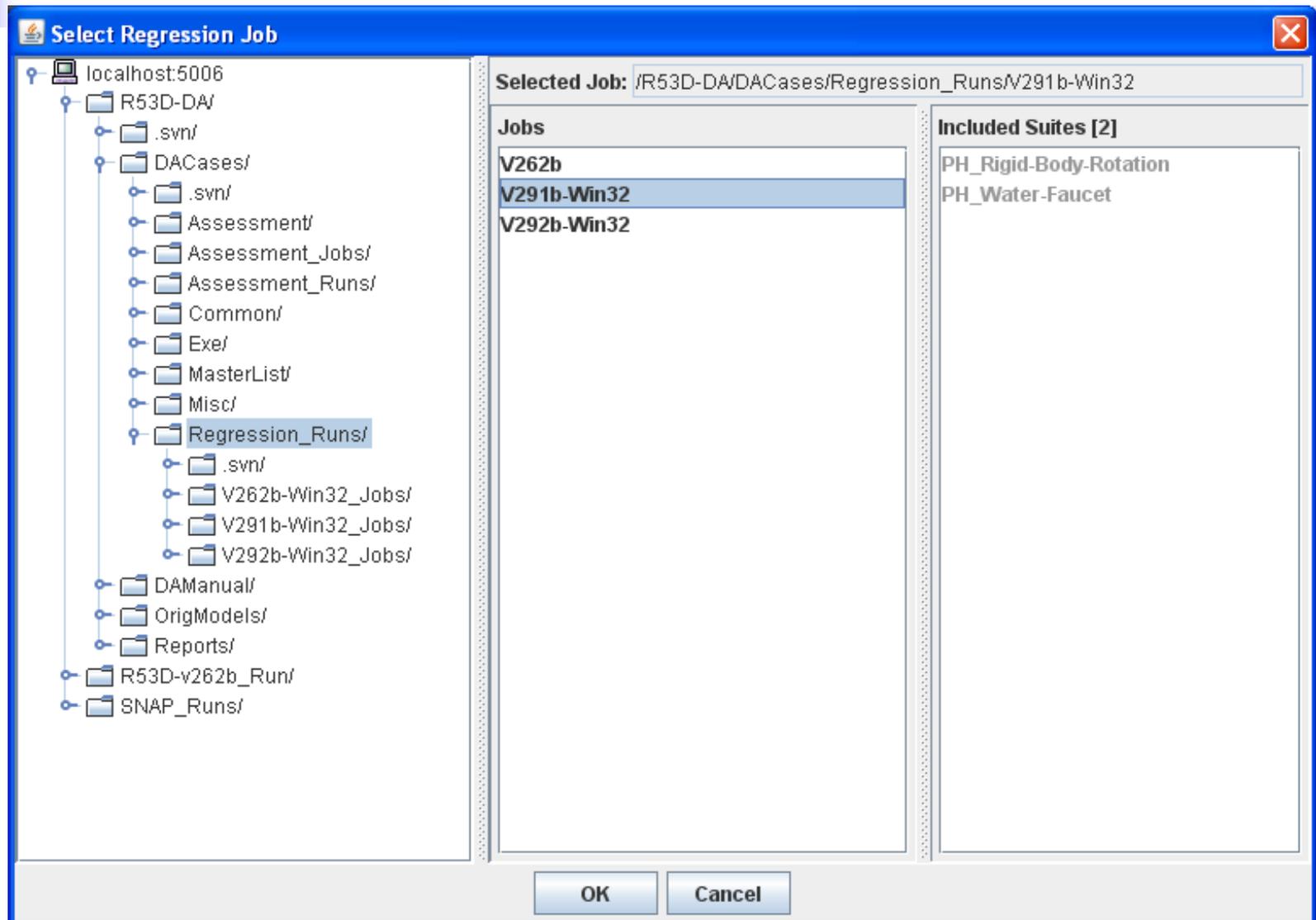
**Included Suites**

All None

#	Include	Suite Name
1	<input checked="" type="checkbox"/>	PH_Rigid-Body-Rotation
2	<input checked="" type="checkbox"/>	PH_Water-Faucet

Submit Cancel Help

# Report Jobs





# Report Jobs

```
V291b-to-V292b - Job Console
Job: V291b-to-V292b
Pause Job End Job Terminate View Files
[20090727_155918] - Reading C:\Program Files\snap\avf\reportDefs\RELAP.xml ...
[20090727_155919] - Note: Initializing SNAP analysis code interface.
[20090727_155921] - Calculation Server analysis code port communication initialized.
[20090727_155921] - Note: SNAP analysis code interface initialization complete.
[20090727_155921] - Creating stylesheet ...
[20090727_155921] - Processing RELAP inputs.
[20090727_155921] - Reading statistics files ...
[20090727_155921] - Reading statistics in PH_Rigid-Body-Rotation ...
[20090727_155921] - Reading statistics in PH_Water-Faucet ...
[20090727_155921] - Writing statistics report: RELAP Statistics
[20090727_155921] - Writing report RELAP_TimeStep.html ...
[20090727_155921] - Writing report RELAP_TimeStepCount.html ...
[20090727_155921] - Writing report RELAP_CPU.html ...
[20090727_155921] - Creating diffs ...
[20090727_155921] - Generating diff report: Diff Report
[20090727_155921] - Diffing files in PH_Rigid-Body-Rotation ...
[20090727_155921] - Diffing files in PH_Water-Faucet ...
[20090727_155922] - Writing diffs report ...
[20090727_155922] - Closing communication with Calculation Server analysis code port.
Status: Complete Calc Time: 0.000000e+00 Close
```



# Report Jobs

## RELAP Verification Test Results

Test description.

Base: **V291b-Win32** 4 tests executed

Mod: **V292b-Win32** 4 tests executed

Report date: **07/27/2009 - 03:59 PM**

### Difference Result Summary

Report Name	Threshold	Tests	Tests with Differences
<a href="#">Diff Report</a>	2.000 Kb	4	4

### RELAP Statistics

Test Name	Tests	No Differences	Negative Difference	Positive Difference
<a href="#">Changes in End Time</a>	4	4	0	0
<a href="#">Changes in Time Step Count</a>	4	3	0	1
<a href="#">Changes in CPU Time</a>	4	0	0	4



# Report Jobs

## Diff Report

Base: **V291b-Win32**, Mod: **V292b-Win32**

To be considered, diffs must meet or exceed a threshold of **2.000 Kb**.

Total number of tests diffed **4**  
Total number of tests with significant differences **4**

Test Name	Test Suite	File Type	File Size	Base File	Mod File
rigidbody	PH_Rigid-Body-Rotation	<a href="#">out</a>	39822	<a href="#">rigidbody.out</a>	<a href="#">rigidbody.out</a>
rigidbody-ni	PH_Rigid-Body-Rotation	<a href="#">out</a>	13504	<a href="#">rigidbody-ni.out</a>	<a href="#">rigidbody-ni.out</a>
waterfaucet	PH_Water-Faucet	<a href="#">out</a>	239688	<a href="#">waterfaucet.out</a>	<a href="#">waterfaucet.out</a>
waterfaucet-ni	PH_Water-Faucet	<a href="#">out</a>	97498	<a href="#">waterfaucet-ni.out</a>	<a href="#">waterfaucet-ni.out</a>



# Report Jobs

## Changes in Time Step Count

Total number of time steps

Base: **V291b-Win32**, Mod: **V292b-Win32**

To be considered, differences must exceed a threshold of **0.000**

Total number of tests reported	4
Total number of tests with no significant difference	3
Total number of tests with negative differences	1
Total number of tests with positive differences	0

Test Name	Test Suite	Base Value	Mod Value	Difference	% Difference
waterfaucet.i	PH_Water-Faucet	1072.000	1000.000	-72.000	-6.716

# Report Jobs

## Changes in CPU Time

CPU time to run transient (initialization not counted)

Base: **V291b-Win32**, Mod: **V292b-Win32**

To be considered, differences must exceed a threshold of **100.000** or **5.000%** of the base value.

Total number of tests reported	4
Total number of tests with no significant difference	0
Total number of tests with negative differences	4
Total number of tests with positive differences	0

Test Name	Test Suite	Base Value	Mod Value	Difference	% Difference
rigidbody-ni.i	PH_Rigid-Body-Rotation	22.750	11.562	-11.188	-49.178
rigidbody.i	PH_Rigid-Body-Rotation	10.375	7.344	-3.031	-29.216
waterfaucet-ni.i	PH_Water-Faucet	1.500	1.000	-0.500	-33.333
waterfaucet.i	PH_Water-Faucet	1.422	1.063	-0.359	-25.276

# Summary

- SNAP ATF environment greatly simplifies assessment and regression tasks
  - DA Manual plots easily generated
    - Code-to-code comparison plots
    - Code-to-data comparison plots
    - ACAP functionality for generating FOMs
  - Code-to-code comparisons quickly obtained
    - Regression analysis and report generation automated
- Latest SNAP Version (1.1.4)
  - AVF plugin (2.2.6)
  - RELAP plugin (3.2.0)