TELEDYNE TEST SERVICES
Everywhereyoulook™
Valve Diagnostic Testing and Maintenance

Seventh Annual QUIKLOOK Users Group Meeting

August 14 & 15, 2013

Presented by: **Mike Richard**

TELEDYNE TEST SERVICES
Everywhereyoulook™
Valve Diagnostic Testing and Maintenance

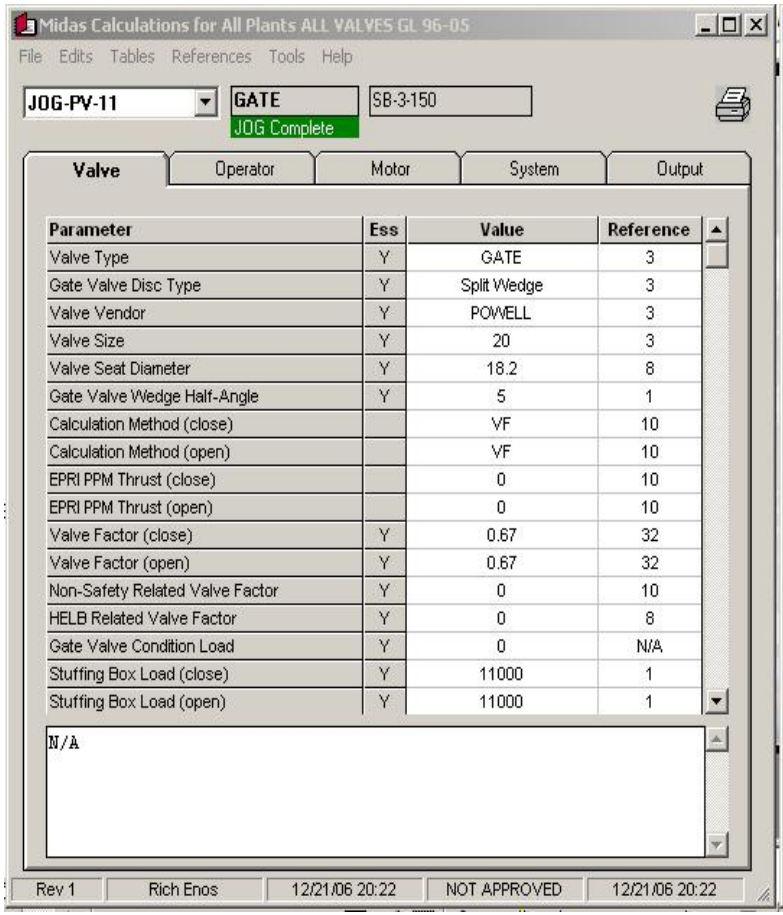
MIDAS

Update

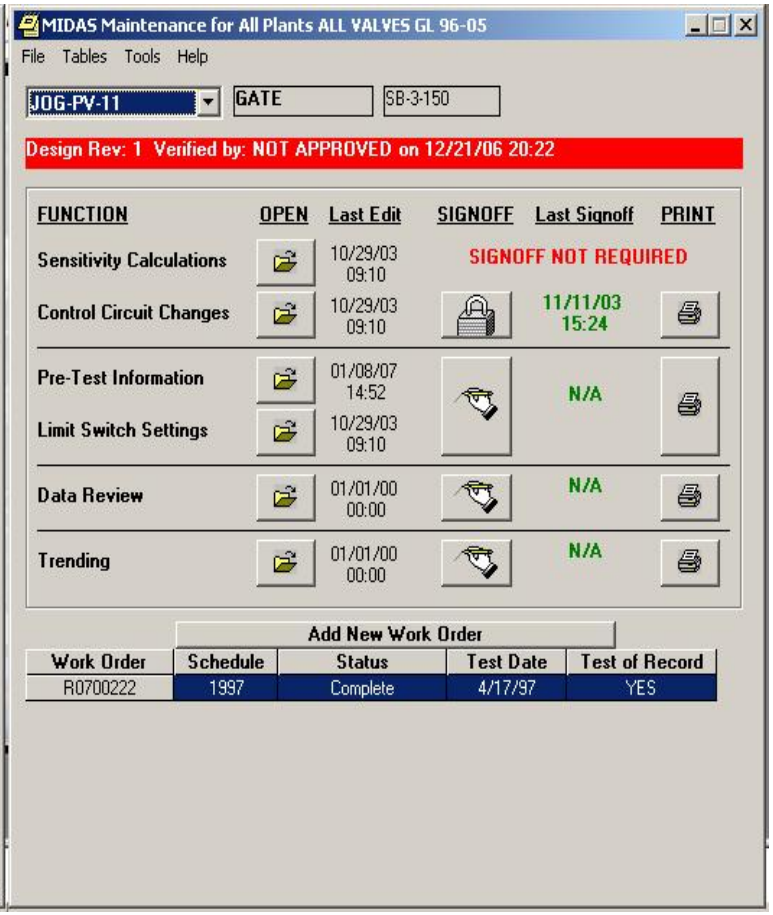
Manager Computer Interaction
Michael C Richard

MOV Software

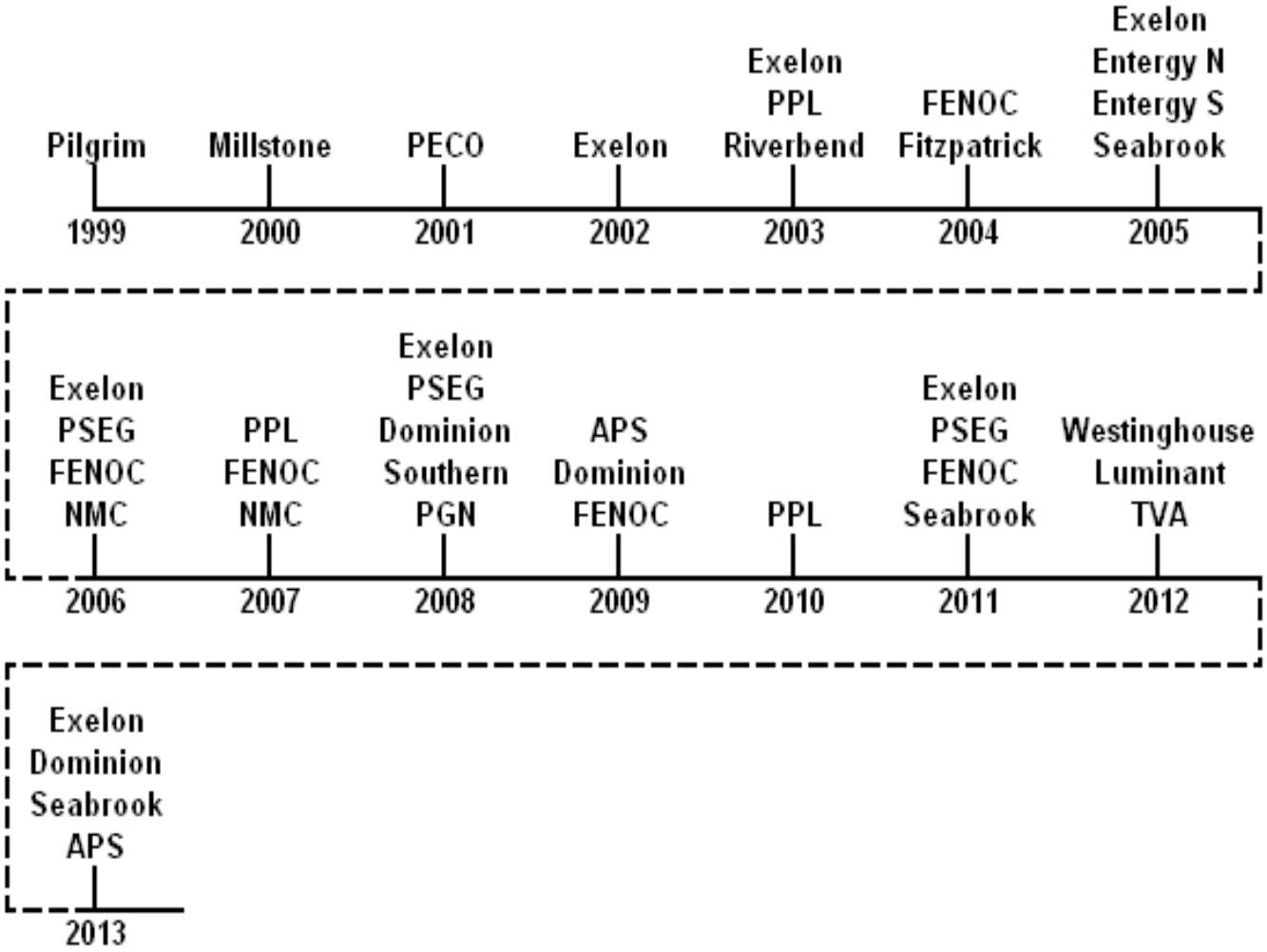
Design Calculation
MIDAS



Test Analysis
MIDASTEST



MOV Software Timeline



Revised Industry Standards

- New AC motor curves for small frame aluminum rotor motors for use with ComED WP-125 methodology. KCI report released.
- New AC motor curves for large frame aluminum rotor motors for use with ComED WP-125 methodology. KCI report pending release.
- Replacement motor curves for use with BWROG DCMM. MPR report released (?).

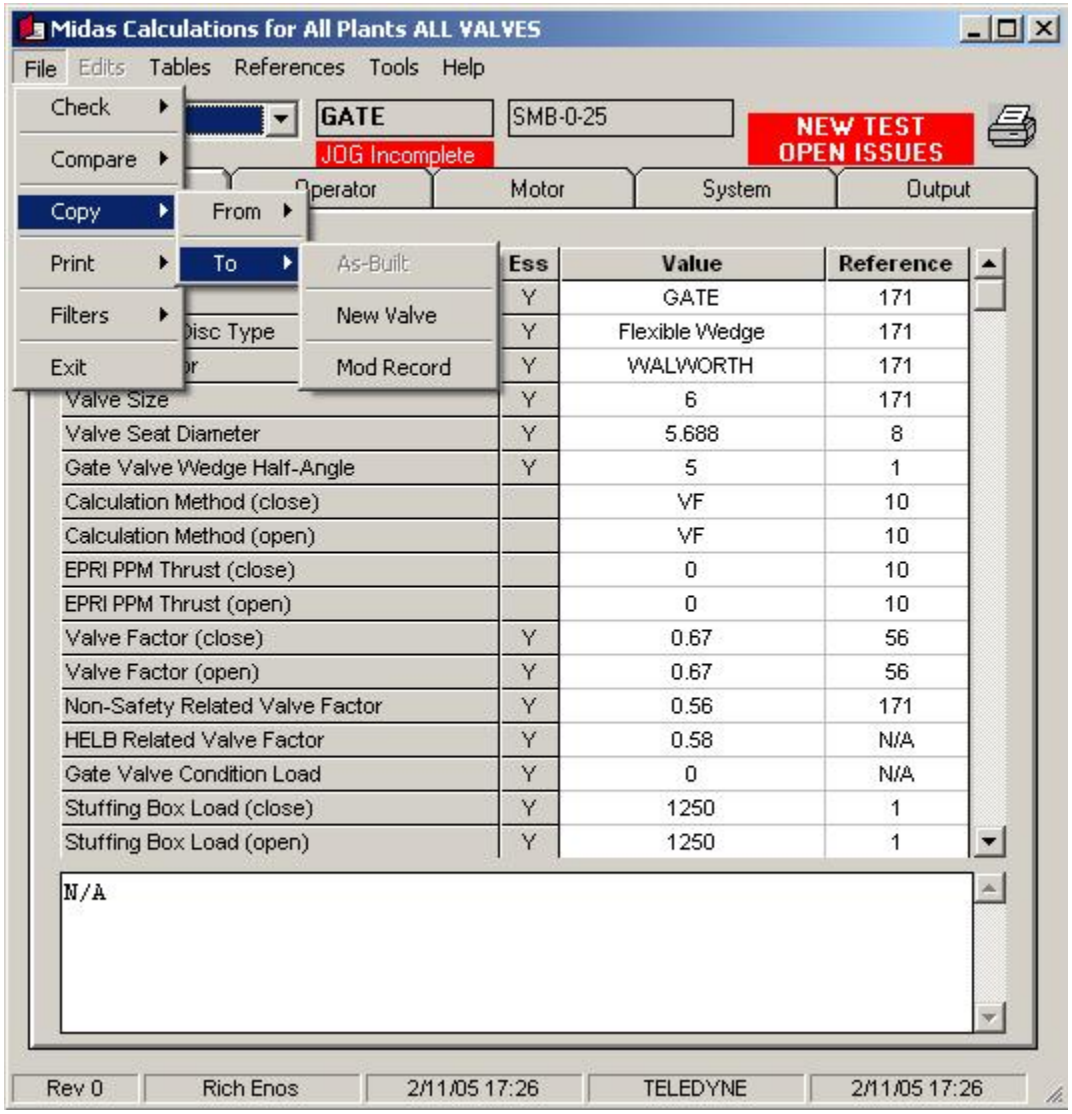
2013 MIDAS Highlights

- Added method Copy To or From Mod Record
- Added method Compare to Mod Record
- Added method Compare to Other Valve
- Added tool Calculation List
- Revised Export To Excel User Interface
- Revised Build SQL User Interface
- Revised Select Reference User Interface
- Updated several customers to latest software specifications
- Teledyne Citrix Server

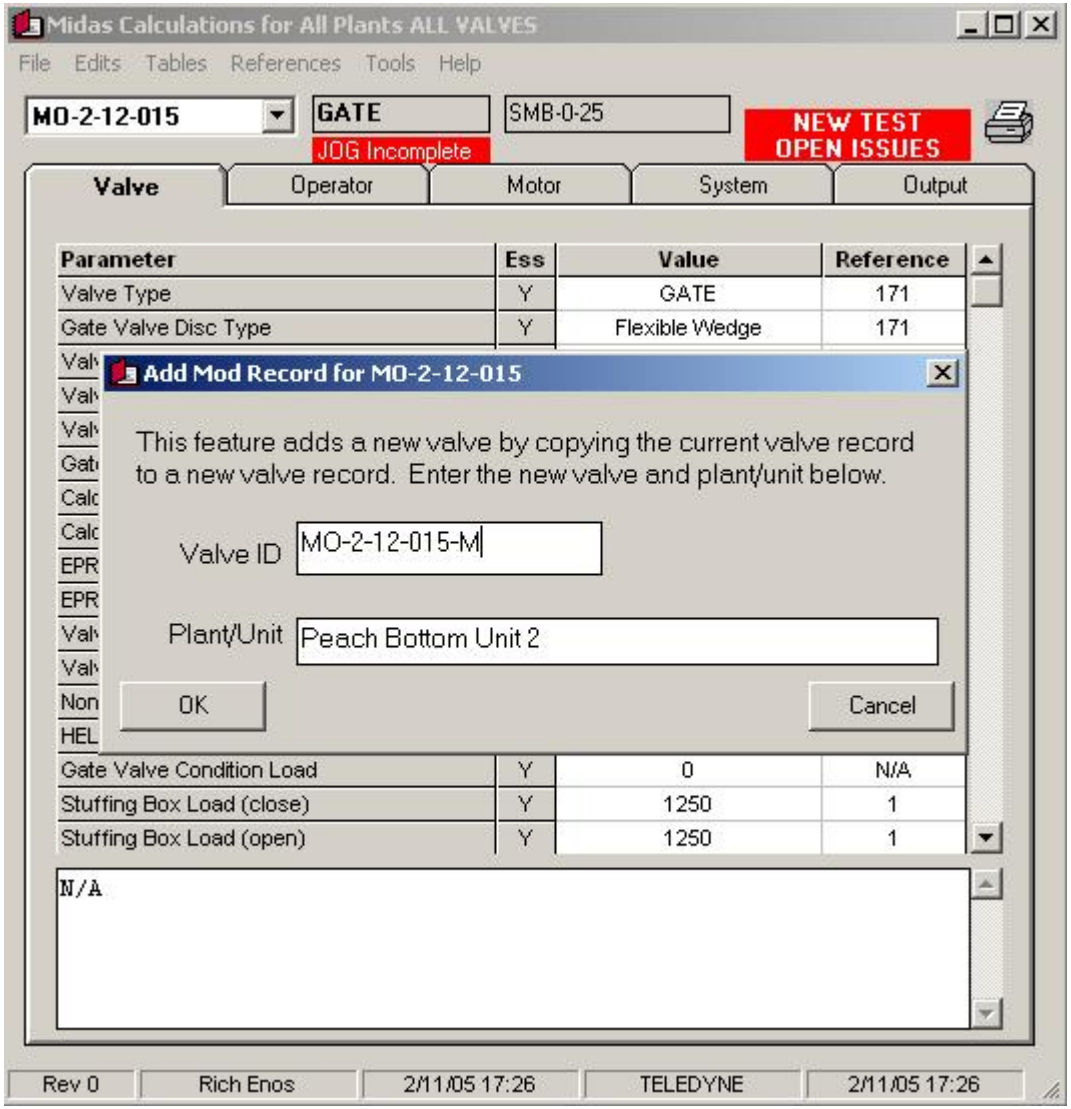
2013 MIDASTEST Highlights

- Enhanced Main User Interface to Notify for Unsat Post-Test Evaluations
- Enhanced Add Workorder function to allow user control of previous test
- Enhanced Pre-Test function to allow user control of previous test
- Relocate Grease History Functionality
- Added tool Trend View
- Added tool Software Verification
- Added SQL Server compliance
- Updated several customers to latest software specification

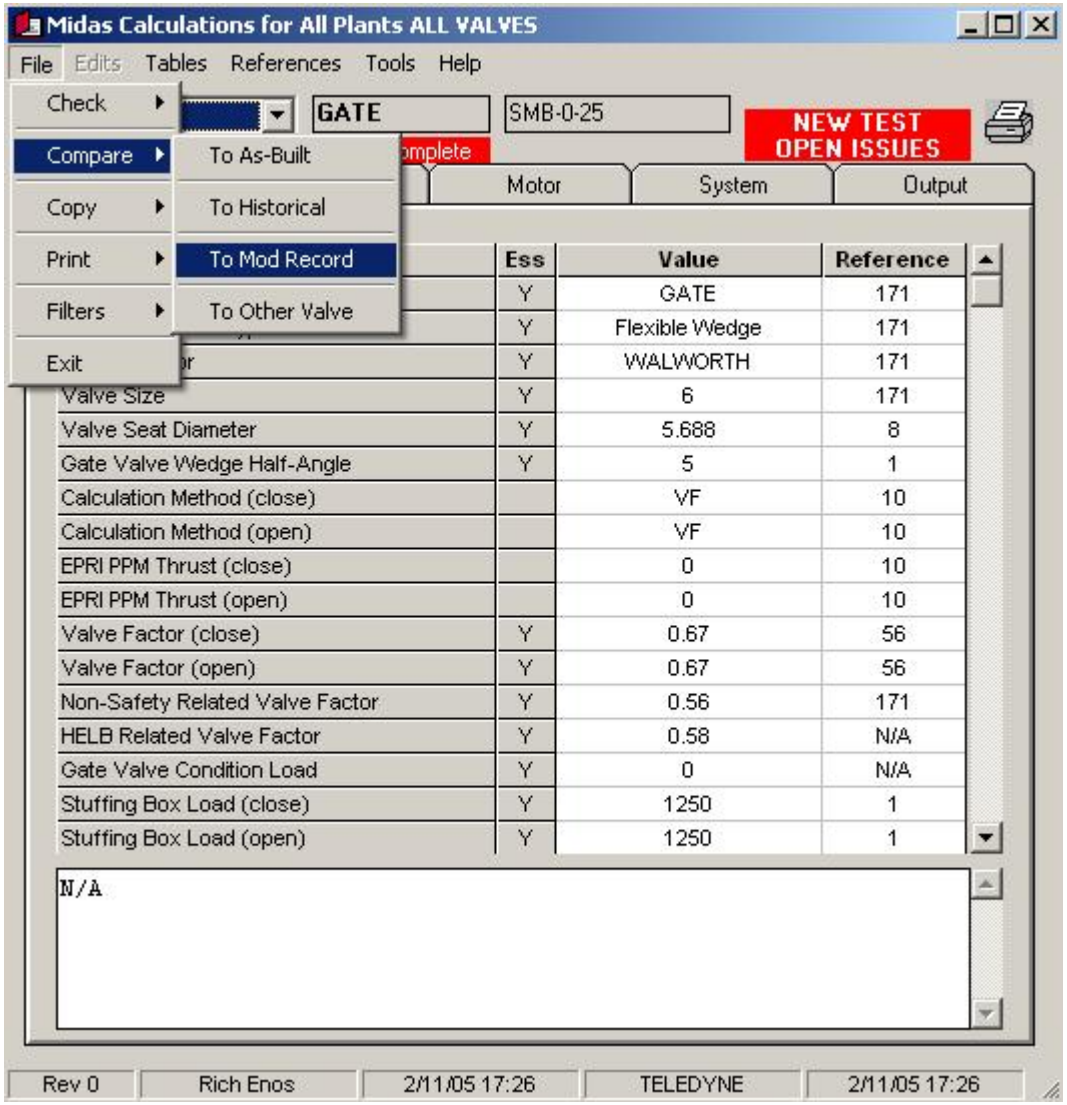
Copy To Mod Record



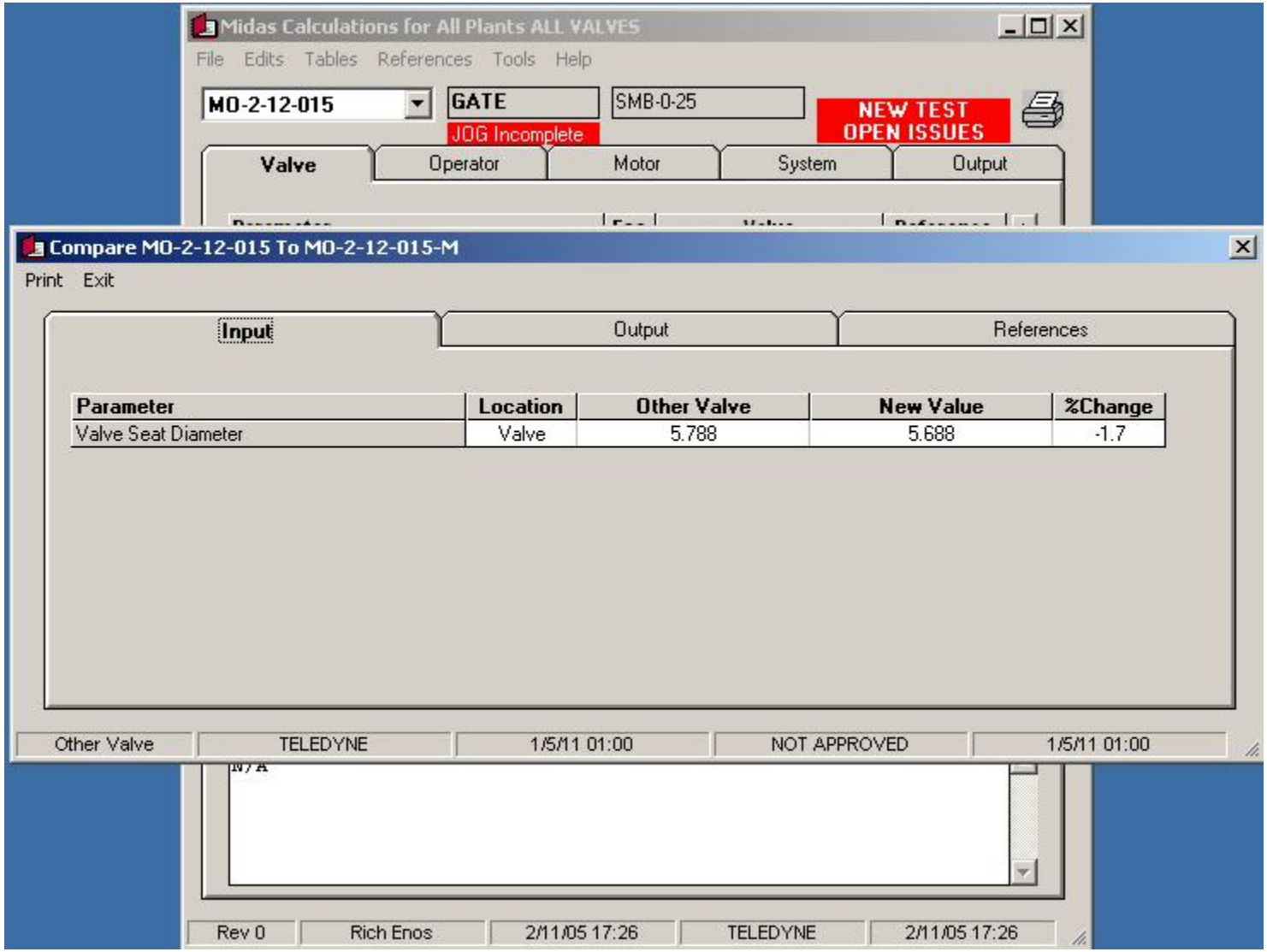
Copy To Mod Record



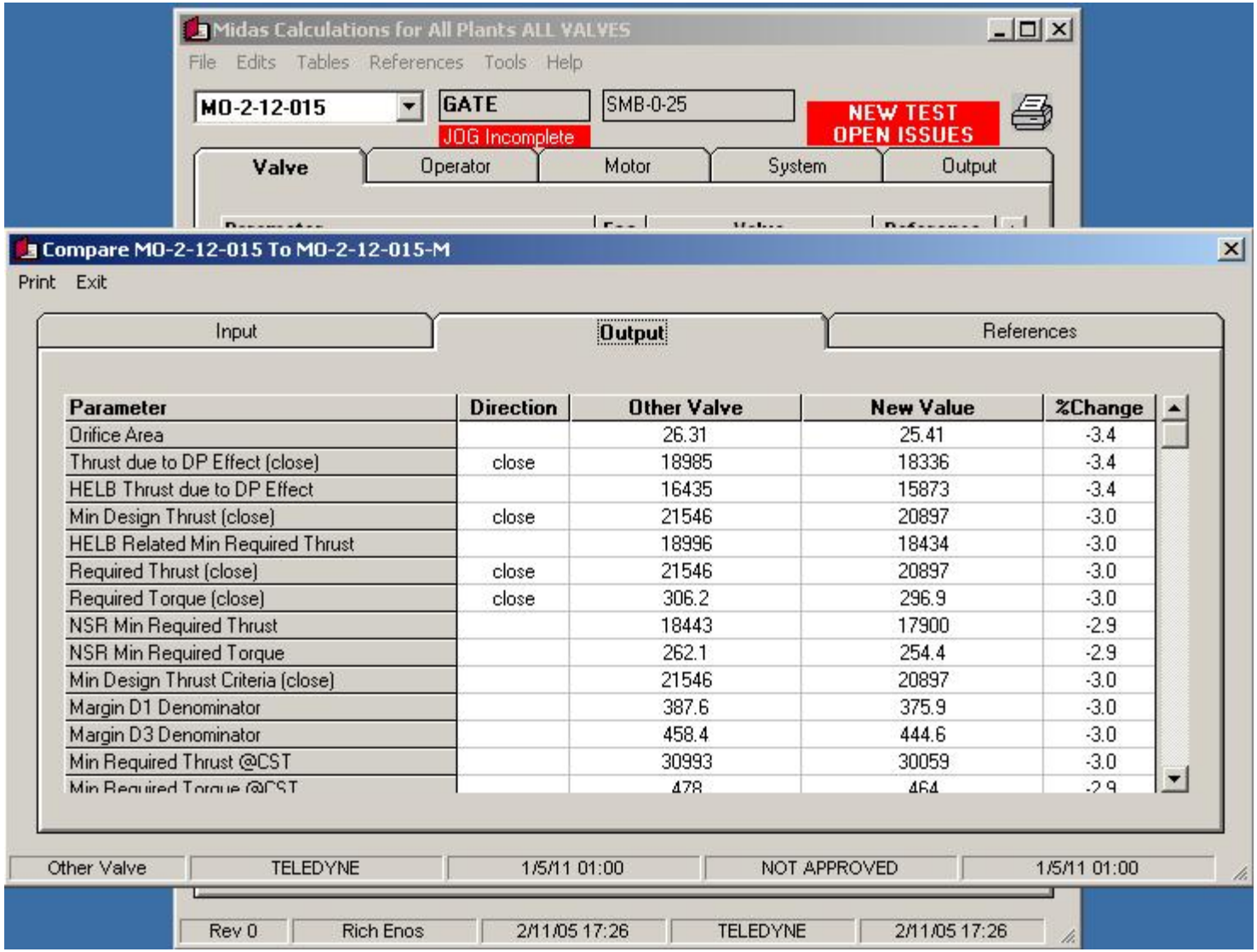
Compare To Mod Record



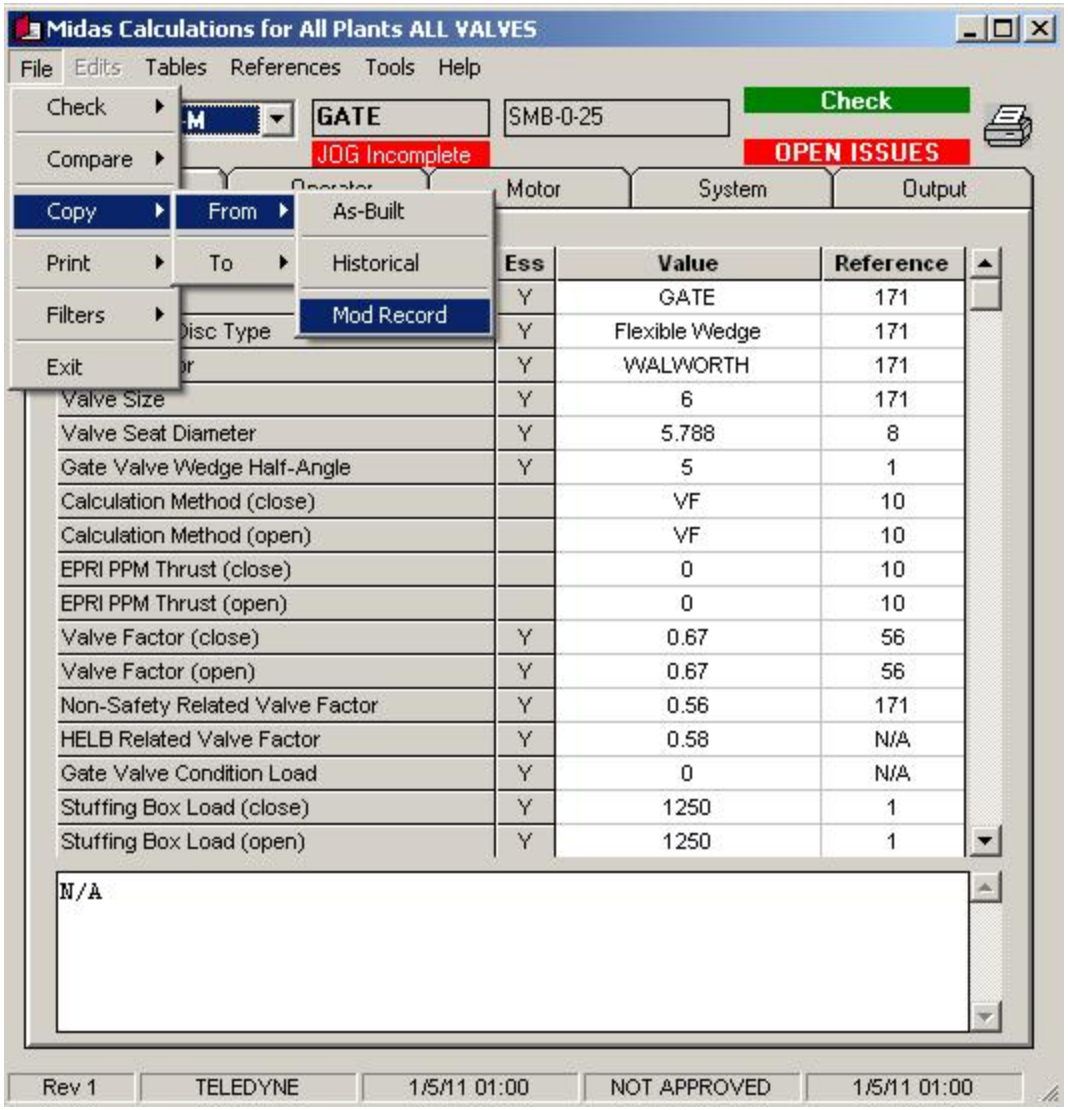
Compare To Mod Record



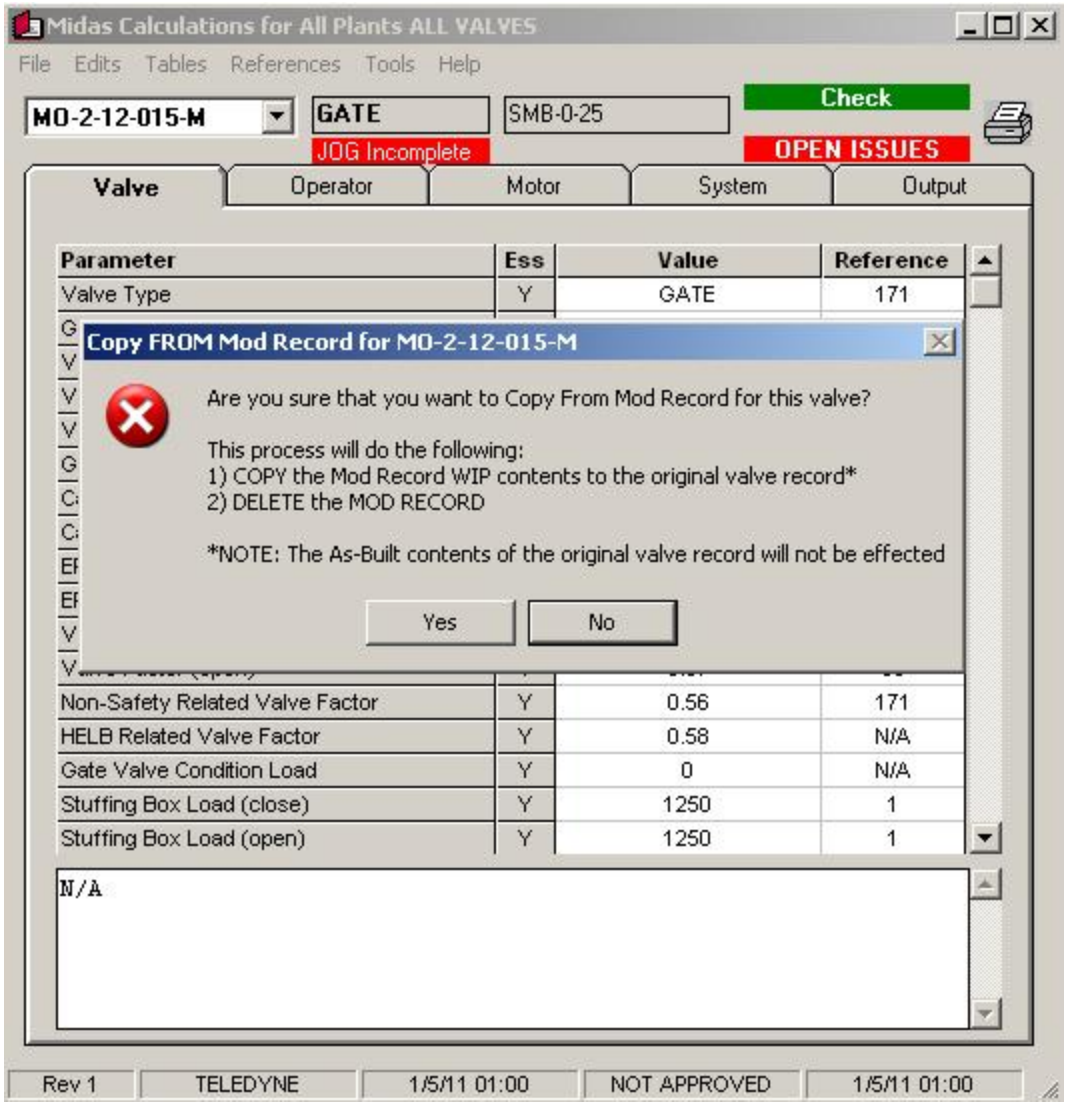
Compare To Mod Record



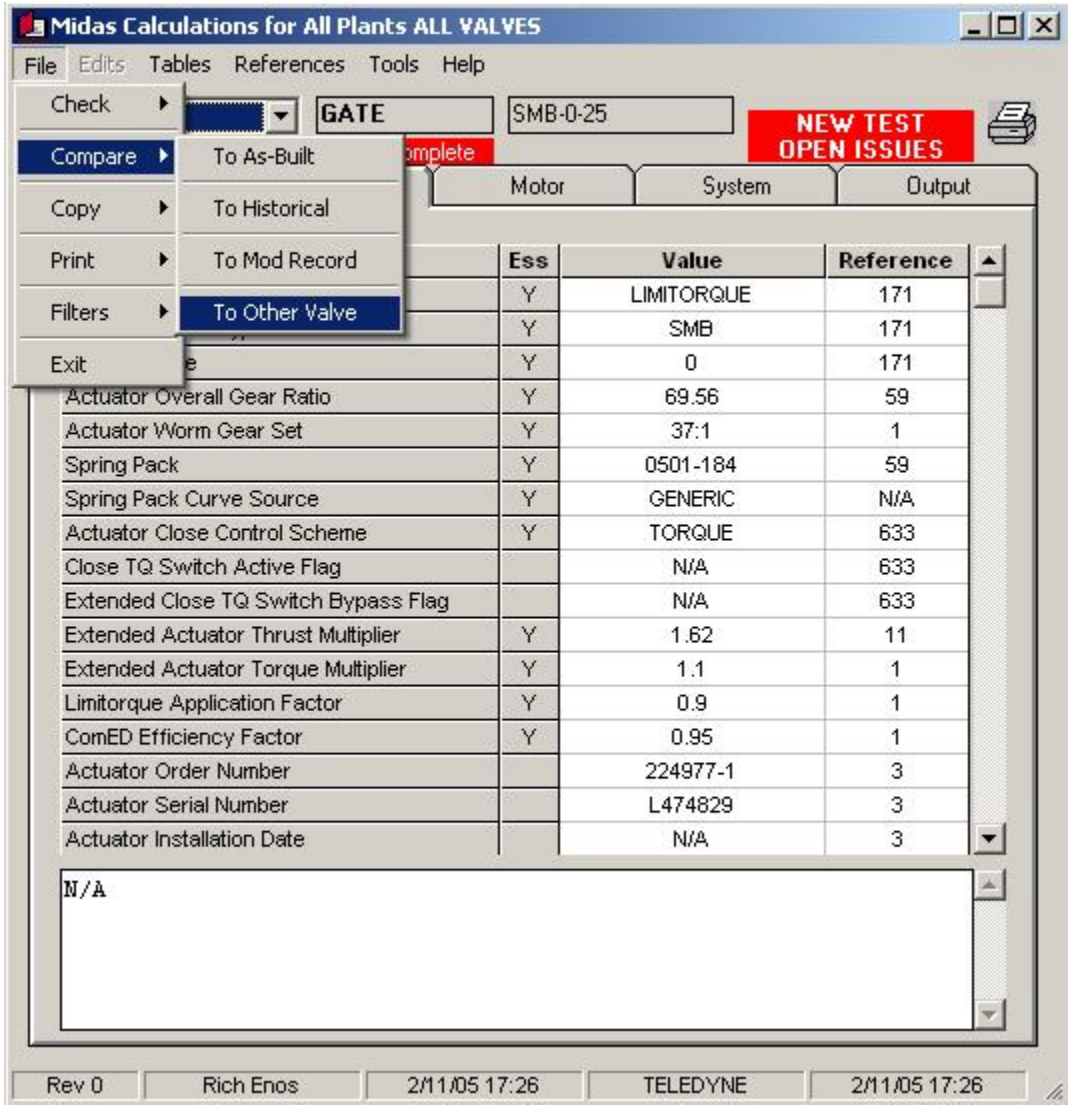
Copy From Mod Record



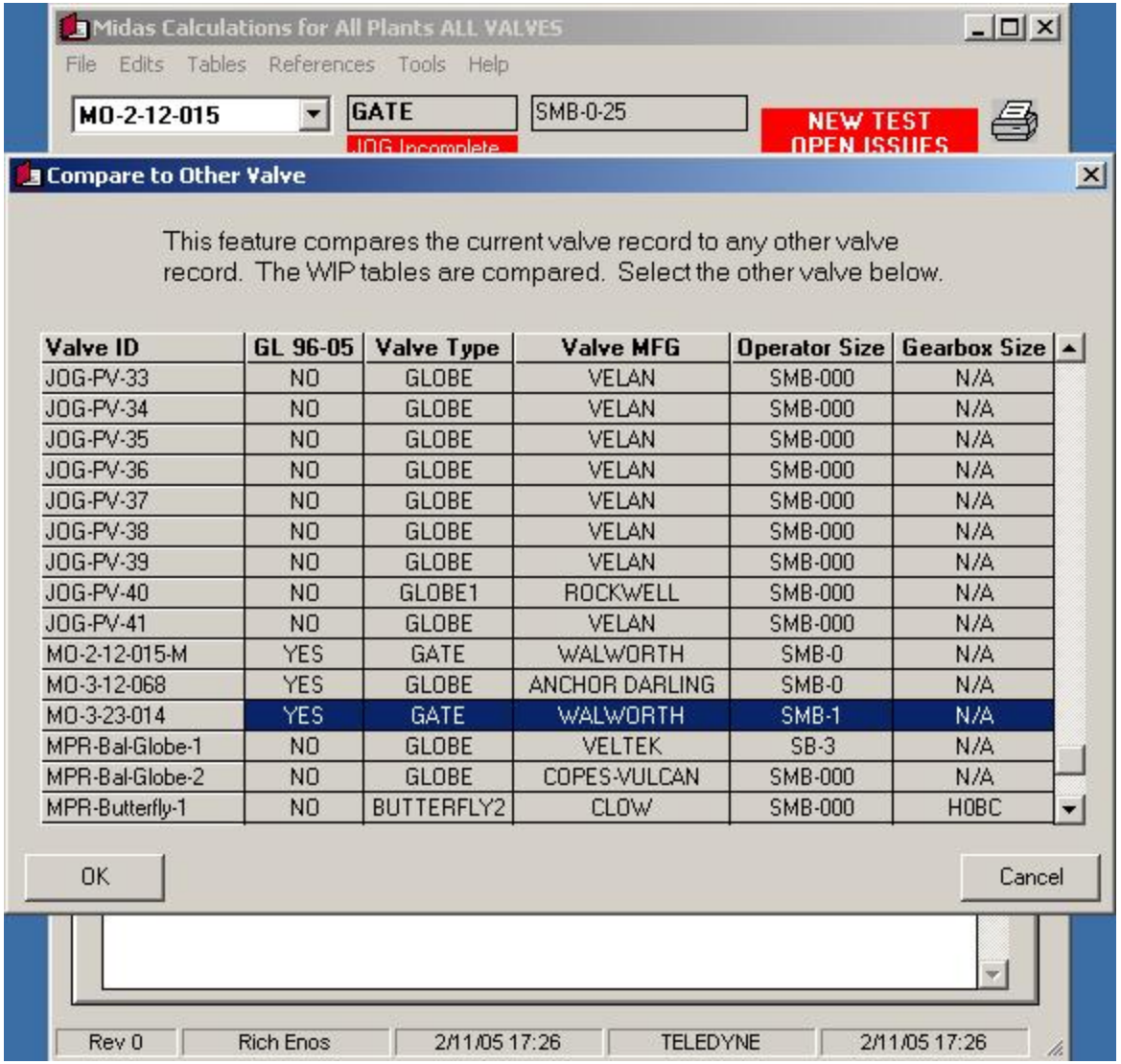
Copy From Mod Record



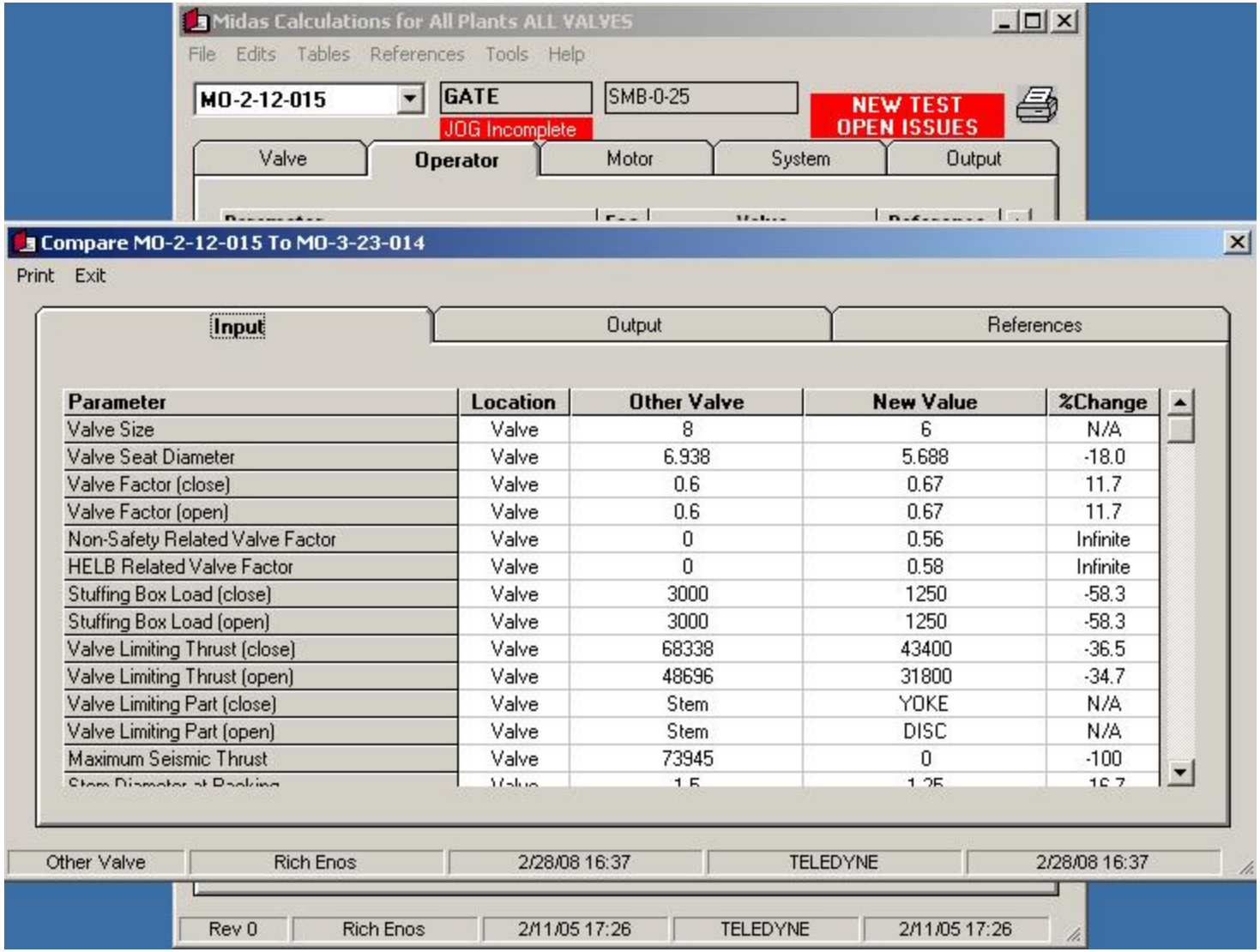
Compare To Other Valve



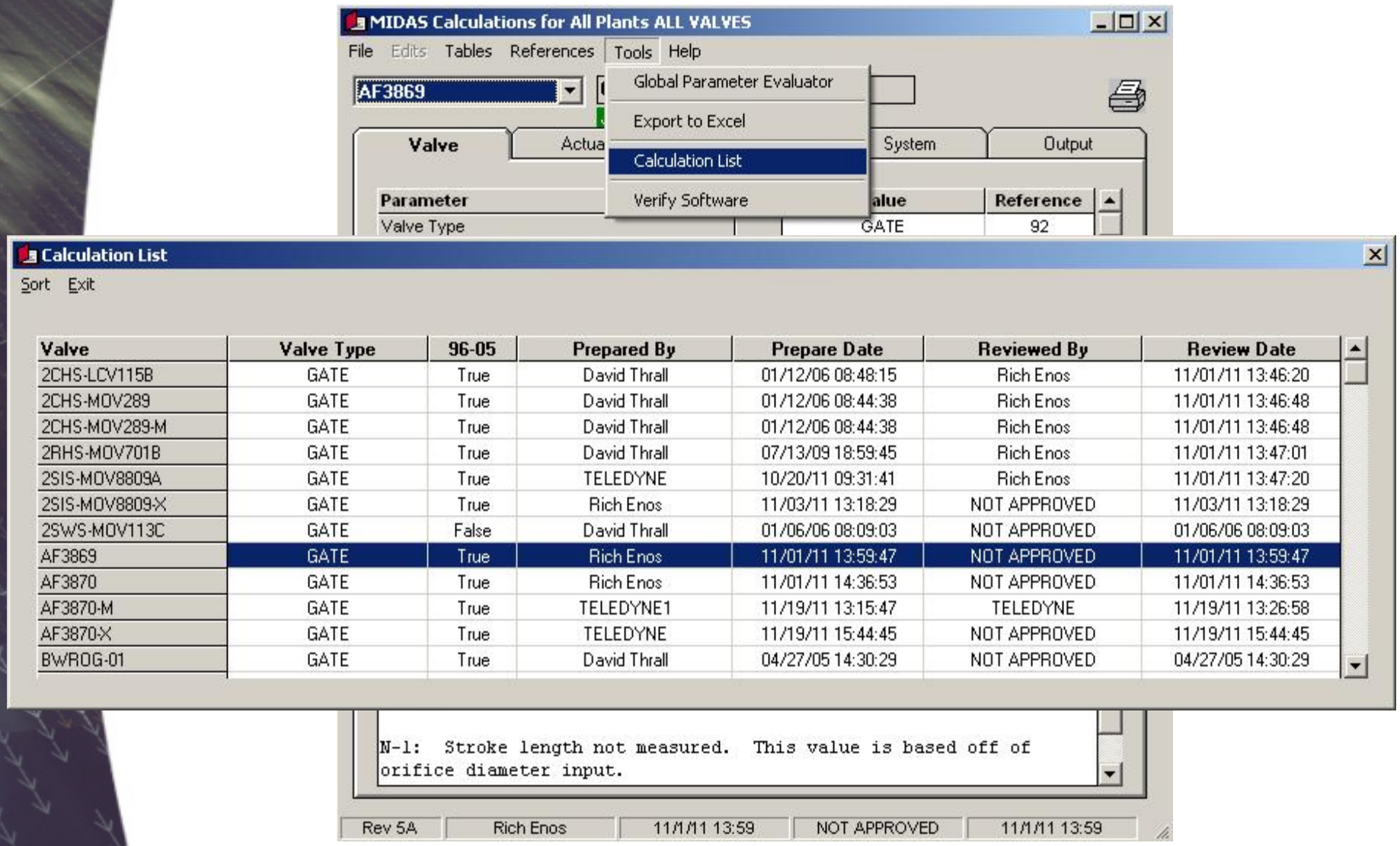
Compare To Other Valve



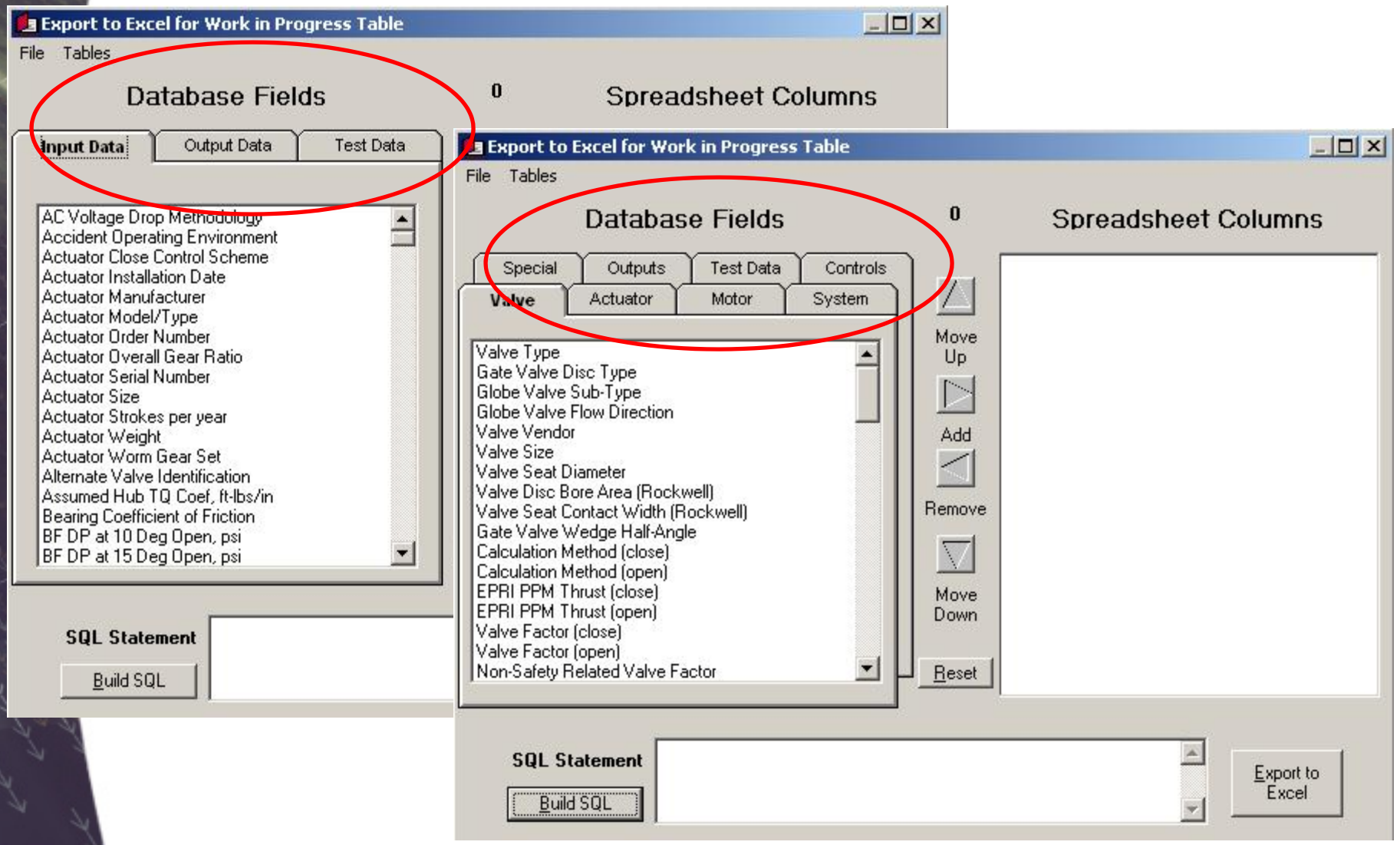
Compare To Other Valve



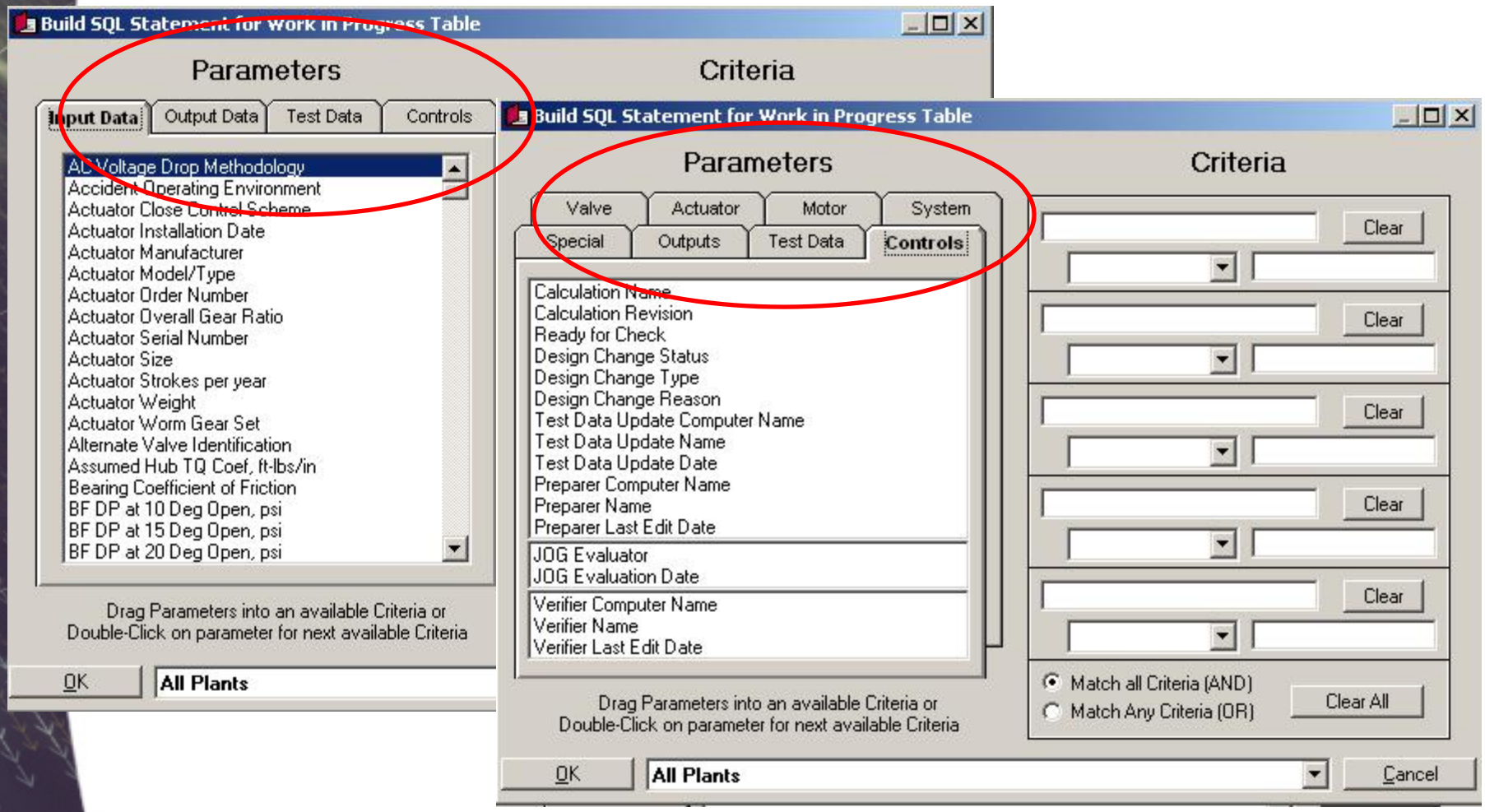
Calculation List Tool



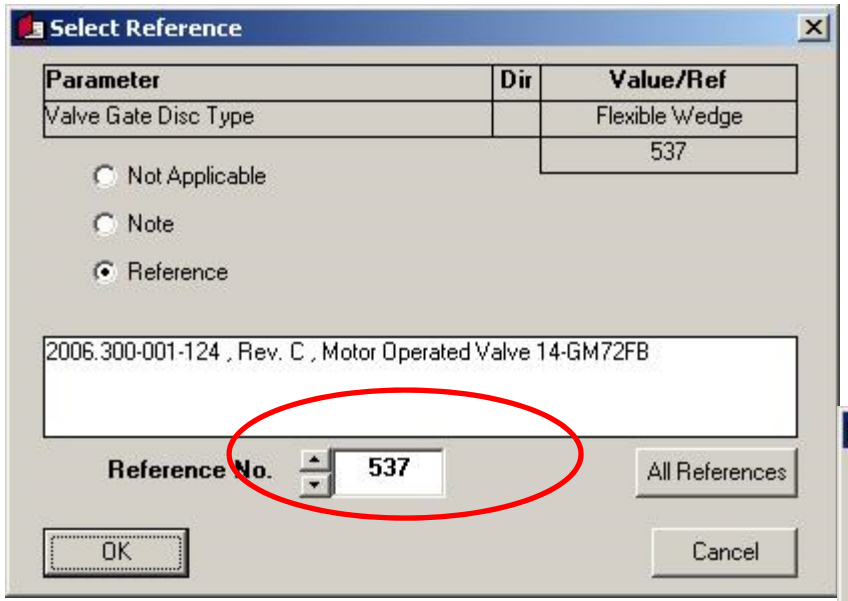
Export To Excel Interface

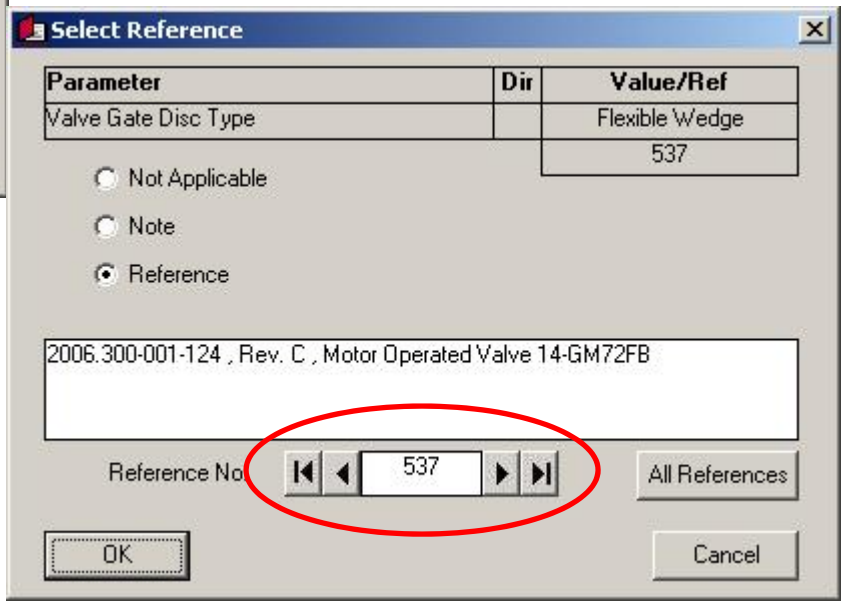


Build SQL Interface

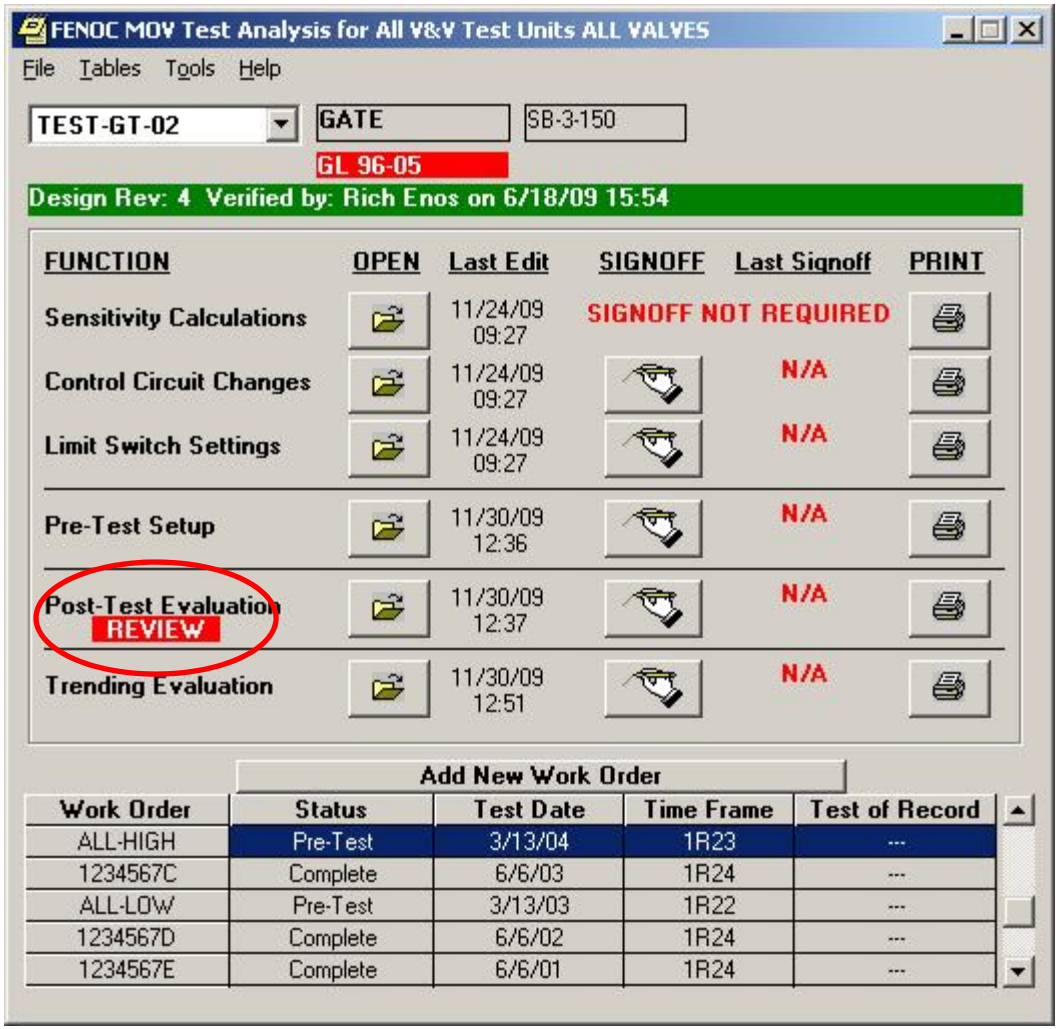


Select Reference Interface

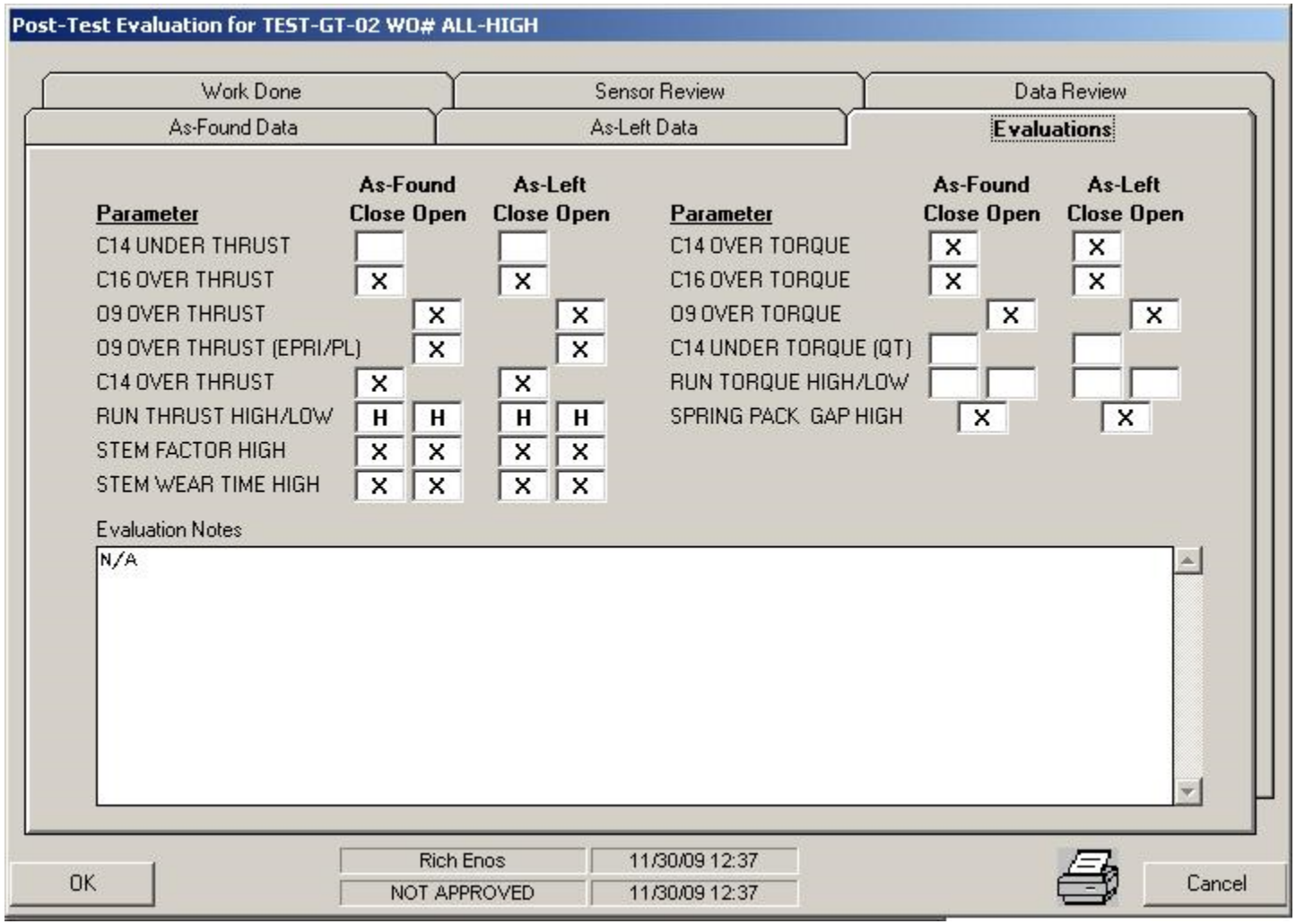




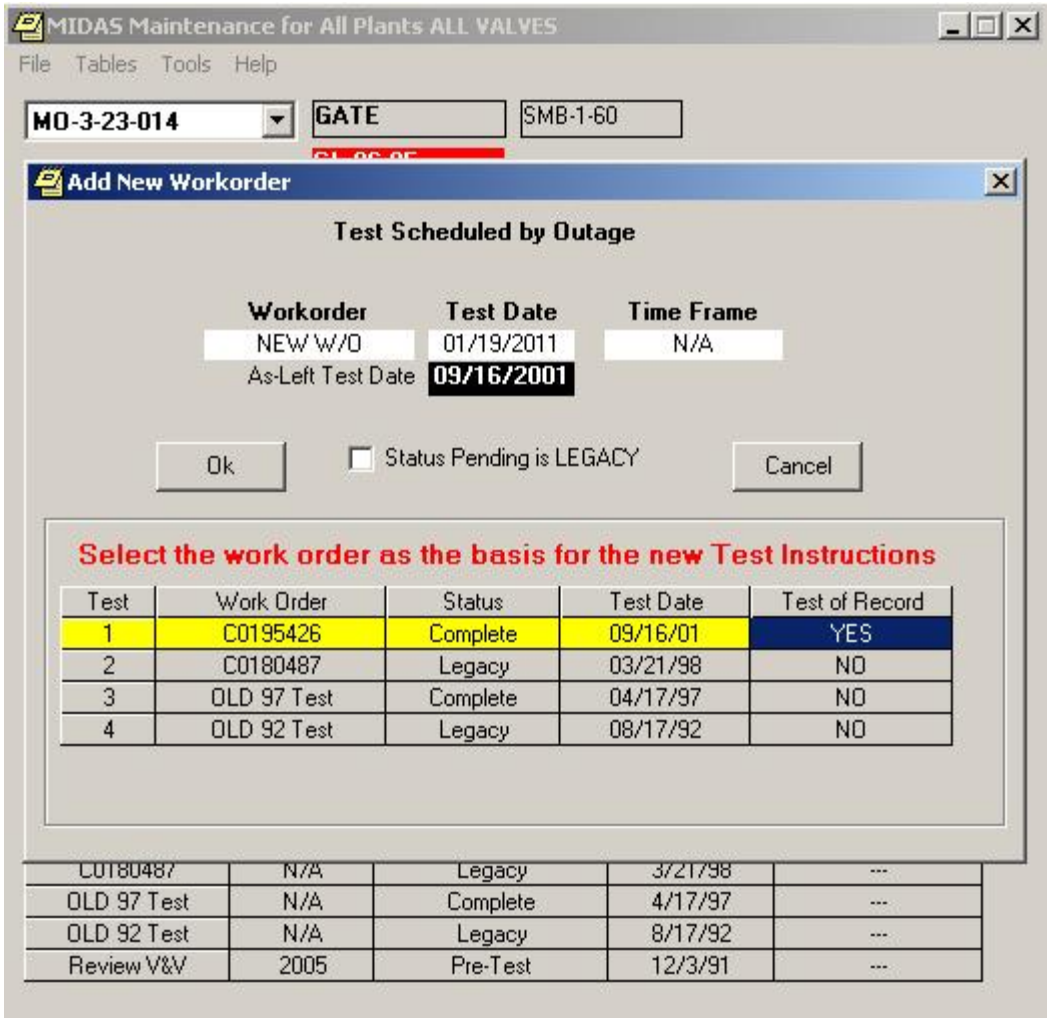
MIDASTEST Main User Interface



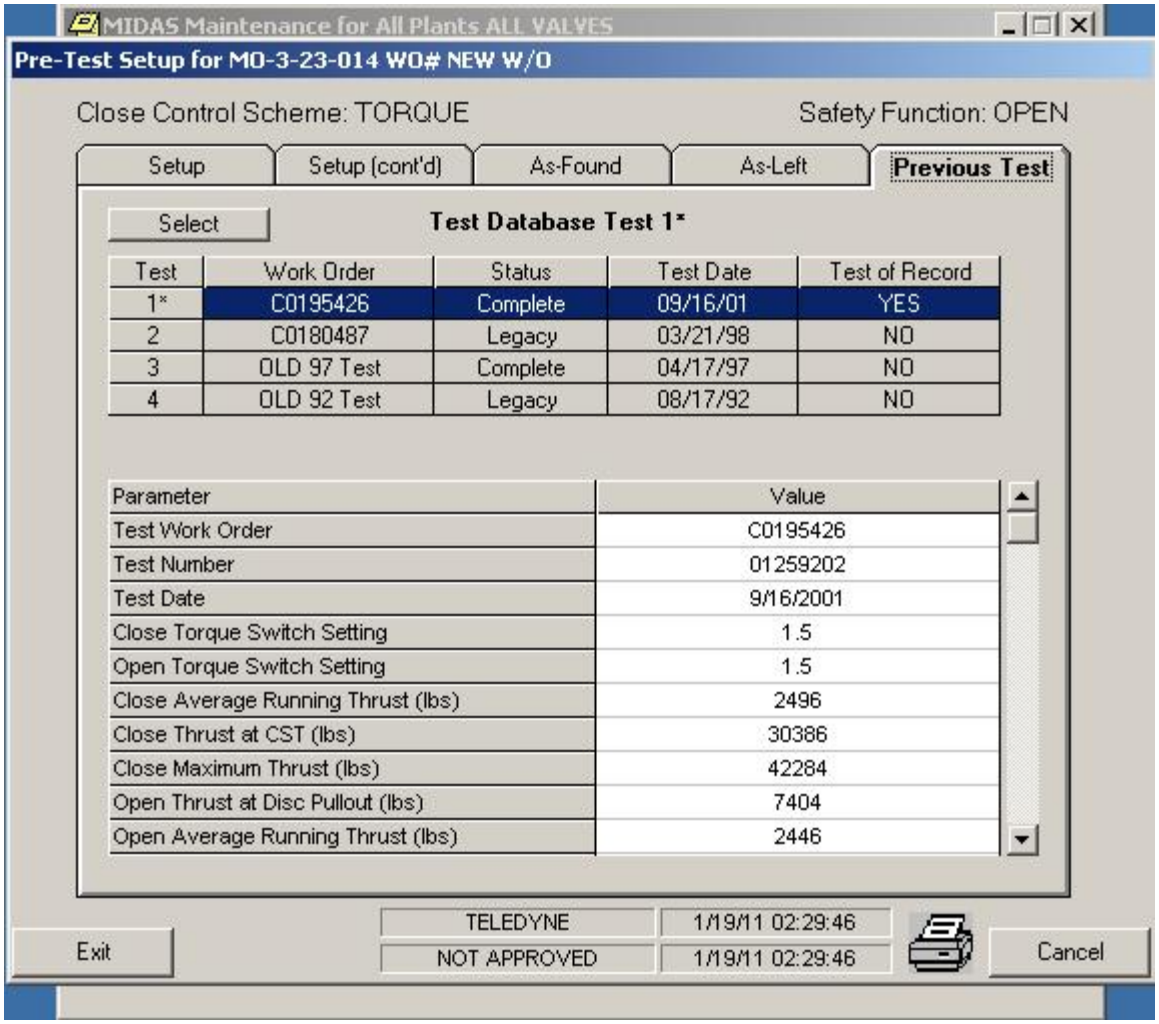
Review Post-Test Evaluations



Enhanced Add New Workorder

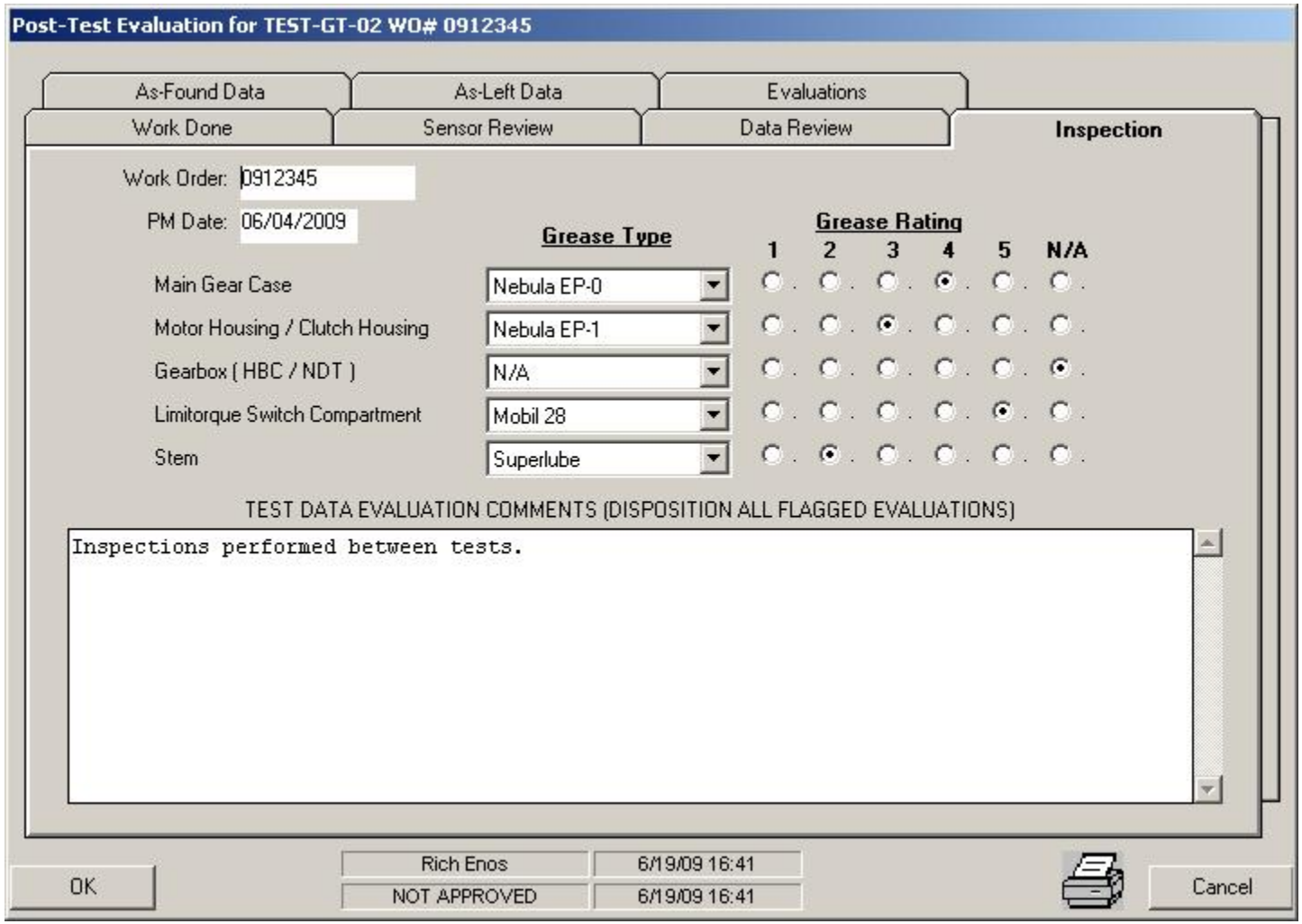


Enhanced Pre-Test Function



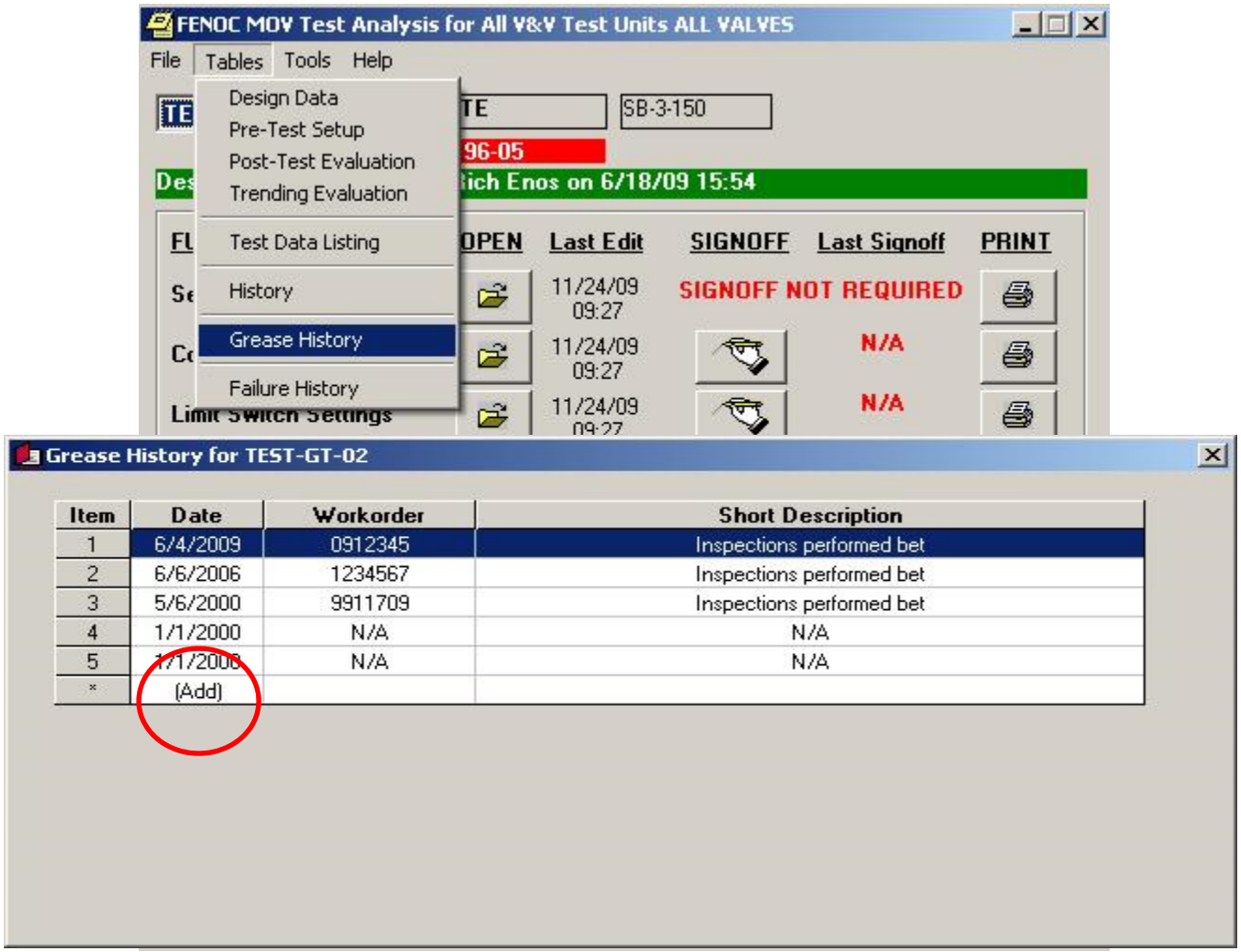
Relocate Grease History

OLD: Post-Test Evaluation / Inspection

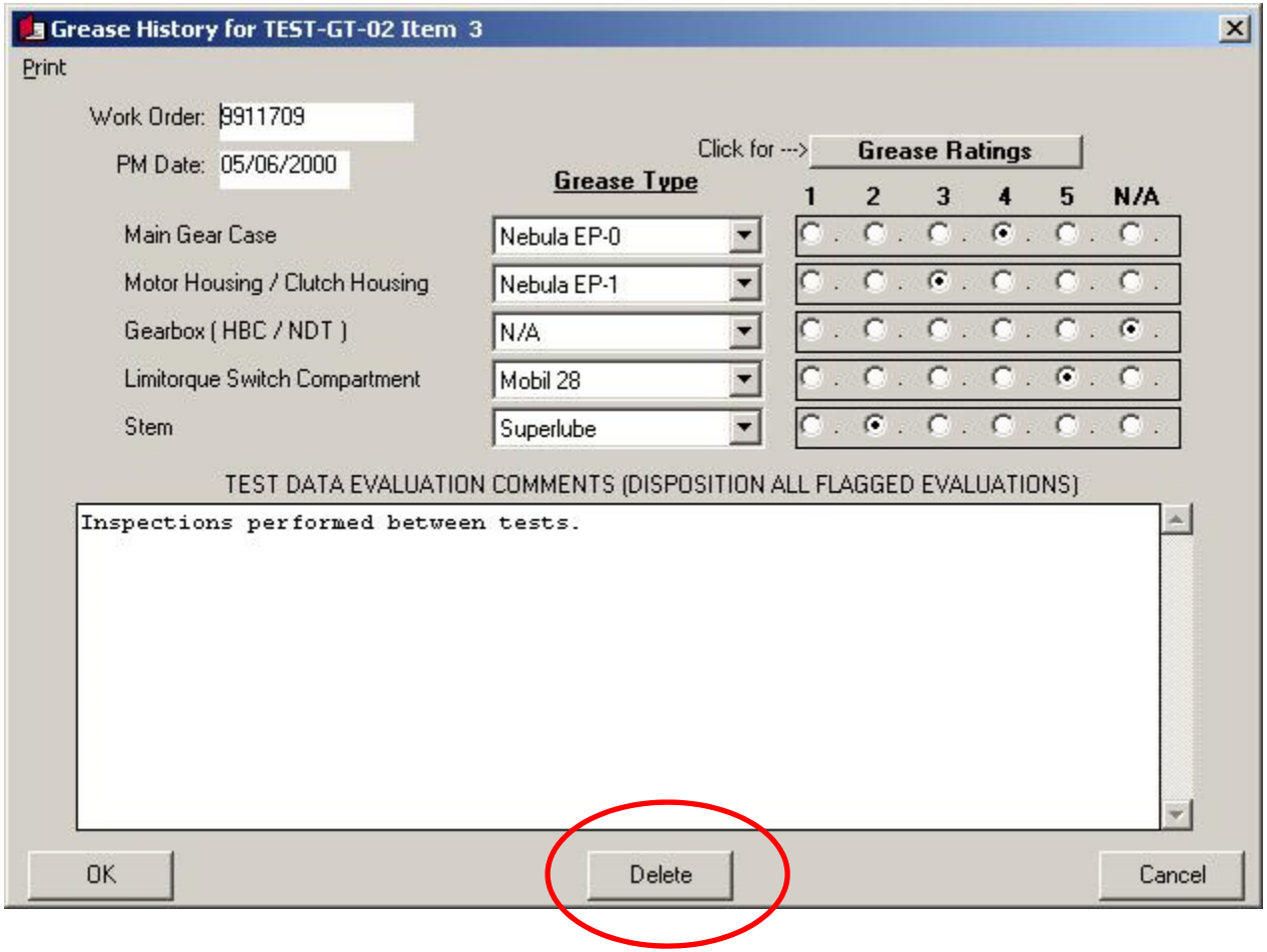


Relocate Grease History

NEW: Tables



Relocate Grease History



Relocate Grease History

FENOC Nuclear MOV Program **Sheet 1 of 1**

MOV Diagnostic Test Instructions / Criteria

Station / Unit Test Cases for Test Analysis Software UNIT 2

Valve Number TEST-GT-02

As-Found Grease Condition Table

Work Order 9911709

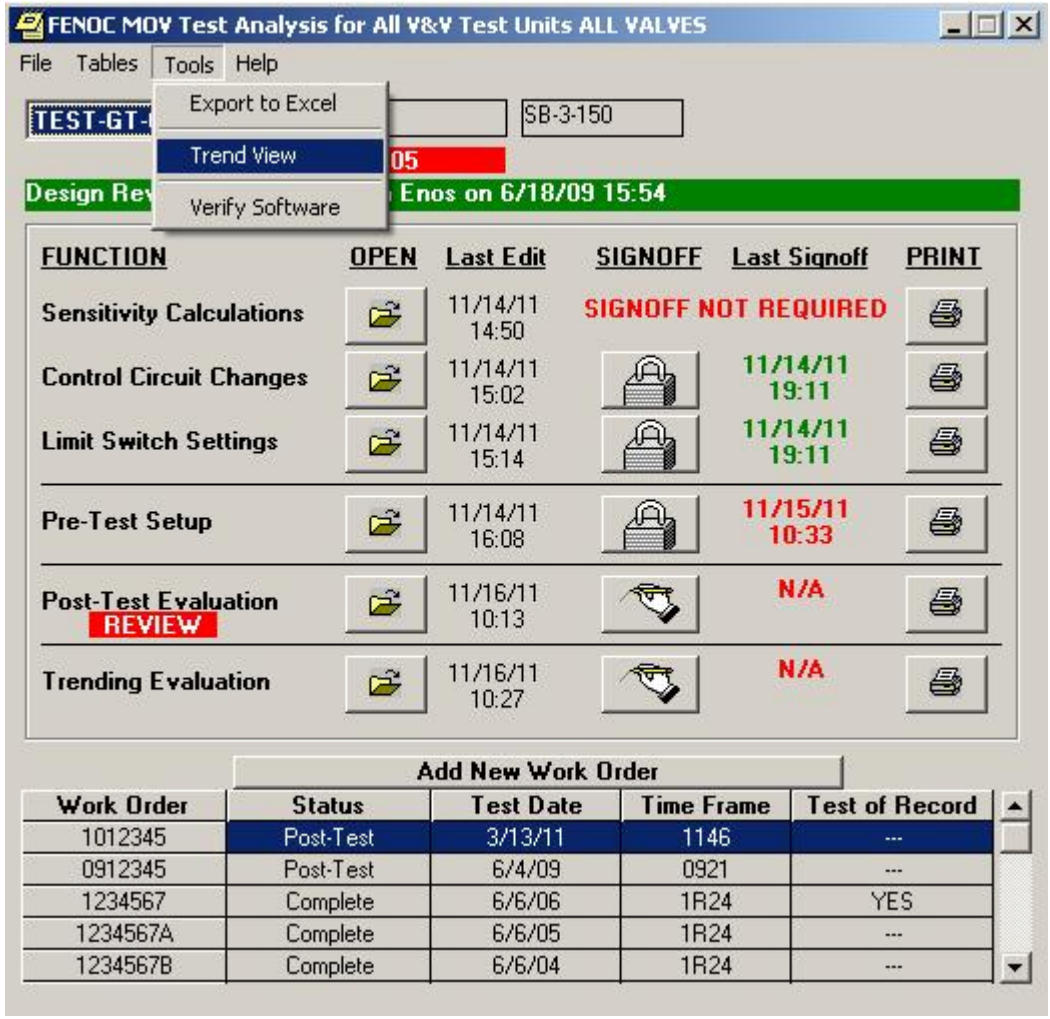
PM Date 05/06/2000

Location	Grease Type	Grease Rating					
		1	2	3	4	5	N/A
Main Gear Case	Nebula EP-0				X		
Motor Housing / Clutch Housing	Nebula EP-1			X			
Gearbox (HBC / NDT)	N/A						X
Limitorque Switch Compartment	Mobil 28					X	
Stem	Superlube		X				

TEST DATA EVALUATION COMMENTS (DISPOSITION ALL FLAGGED EVALUATIONS)

Inspections performed between tests.

Trend View

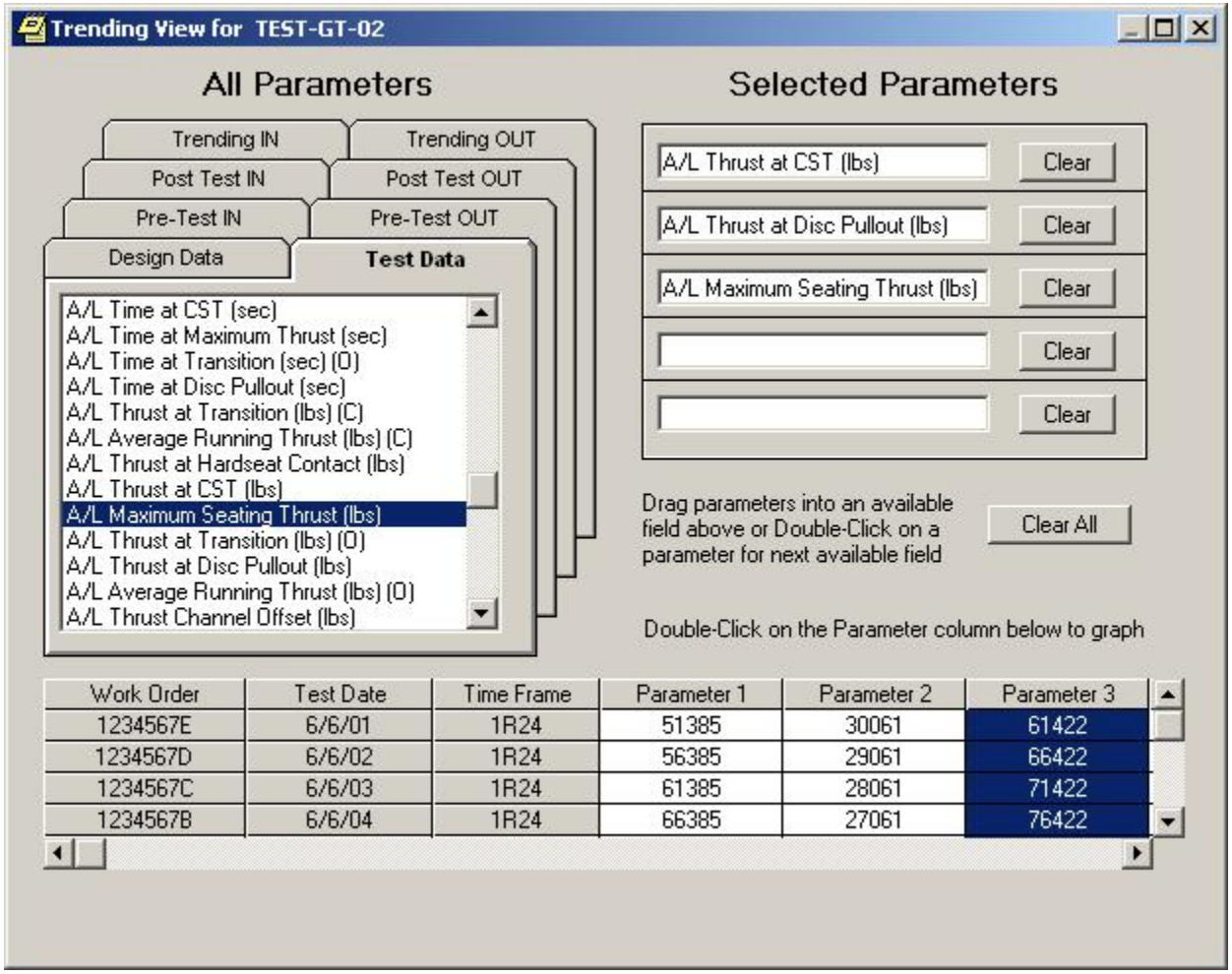

FENOC MOV Test Analysis for All V&V Test Units ALL VALVES
File
Tables
Tools
Help
Export to Excel
Trend View
Verify Software
TEST-GT-
SB-3-150
05
Design Rev
Enos on 6/18/09 15:54
FUNCTION
OPEN
Last Edit
SIGNOFF
Last Signoff
PRINT
Sensitivity Calculations
11/14/11 14:50
SIGNOFF NOT REQUIRED
Control Circuit Changes
11/14/11 15:02
11/14/11 19:11
Limit Switch Settings
11/14/11 15:14
11/14/11 19:11
Pre-Test Setup
11/14/11 16:08
11/15/11 10:33
Post-Test Evaluation
REVIEW
11/16/11 10:13
N/A
Trending Evaluation
11/16/11 10:27
N/A
Add New Work Order
Work Order
Status
Test Date
Time Frame
Test of Record
1012345
Post-Test
3/13/11
1146

0912345
Post-Test
6/4/09
0921

1234567
Complete
6/6/06
1R24
YES
1234567A
Complete
6/6/05
1R24

1234567B
Complete
6/6/04
1R24

Trend View

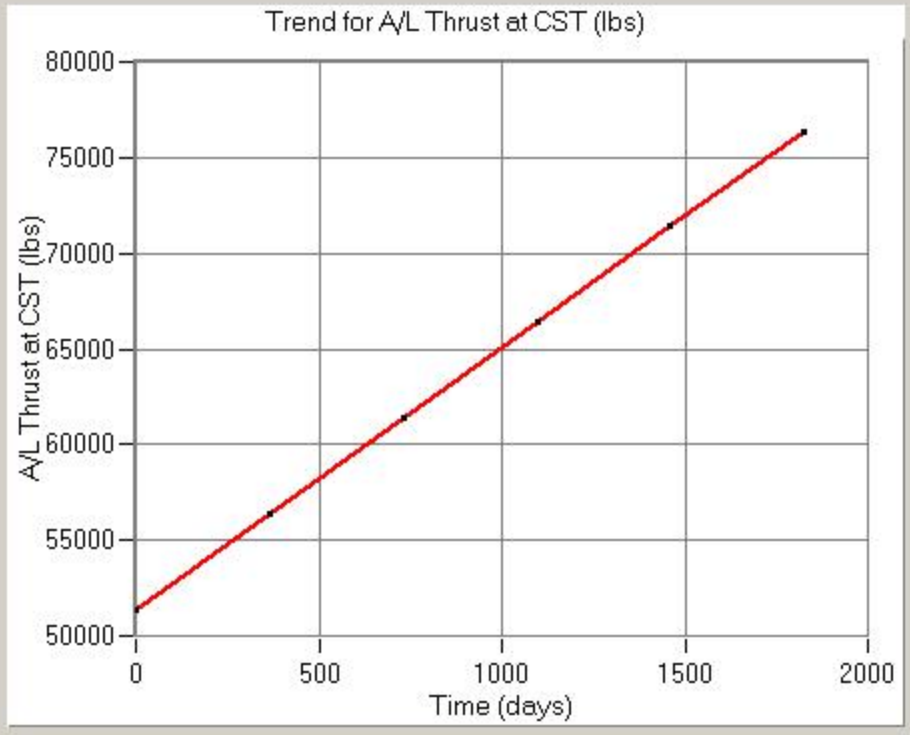

Trending View for TEST-GT-02
All Parameters
Selected Parameters
Trending IN
Trending OUT
Post Test IN
Post Test OUT
Pre-Test IN
Pre-Test OUT
Design Data
Test Data
A/L Time at CST (sec)
A/L Time at Maximum Thrust (sec)
A/L Time at Transition (sec) (O)
A/L Time at Disc Pullout (sec)
A/L Thrust at Transition (lbs) (C)
A/L Average Running Thrust (lbs) (C)
A/L Thrust at Hardseat Contact (lbs)
A/L Thrust at CST (lbs)
A/L Maximum Seating Thrust (lbs)
A/L Thrust at Transition (lbs) (O)
A/L Thrust at Disc Pullout (lbs)
A/L Average Running Thrust (lbs) (O)
A/L Thrust Channel Offset (lbs)
A/L Thrust at CST (lbs)
A/L Thrust at Disc Pullout (lbs)
A/L Maximum Seating Thrust (lbs)
Clear
Clear
Clear
Clear
Clear
Drag parameters into an available field above or Double-Click on a parameter for next available field
Clear All
Double-Click on the Parameter column below to graph
Work Order
Test Date
Time Frame
Parameter 1
Parameter 2
Parameter 3
1234567E
6/6/01
1R24
51385
30061
61422
1234567D
6/6/02
1R24
56385
29061
66422
1234567C
6/6/03
1R24
61385
28061
71422
1234567B
6/6/04
1R24
66385
27061
76422

Trend View

Trending View Plot for TEST-GT-02

Print

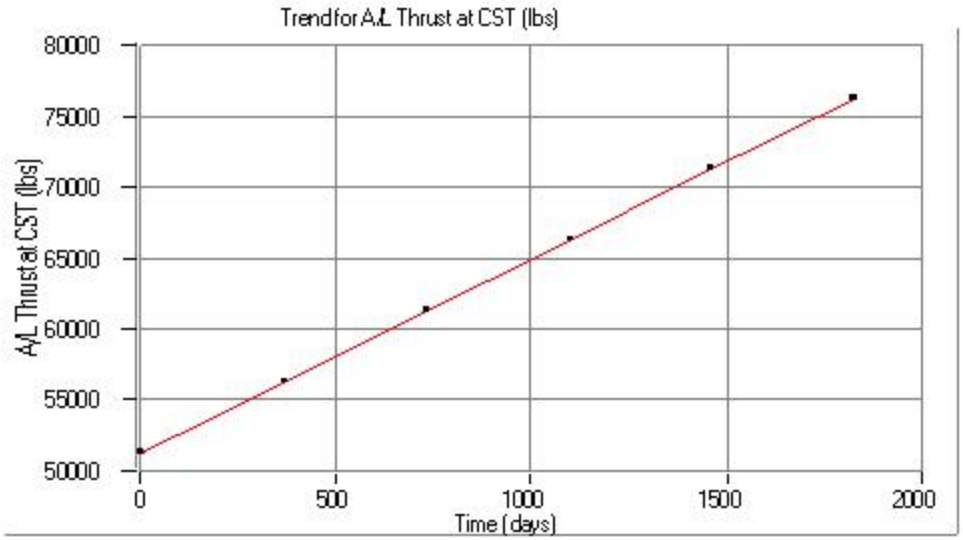
Date	Time	Parameter 1
6/6/01	0	51385
6/6/02	365	56385
6/6/03	730	61385
6/6/04	1096	66385
6/6/05	1461	71385
6/6/06	1826	76385



Trend View

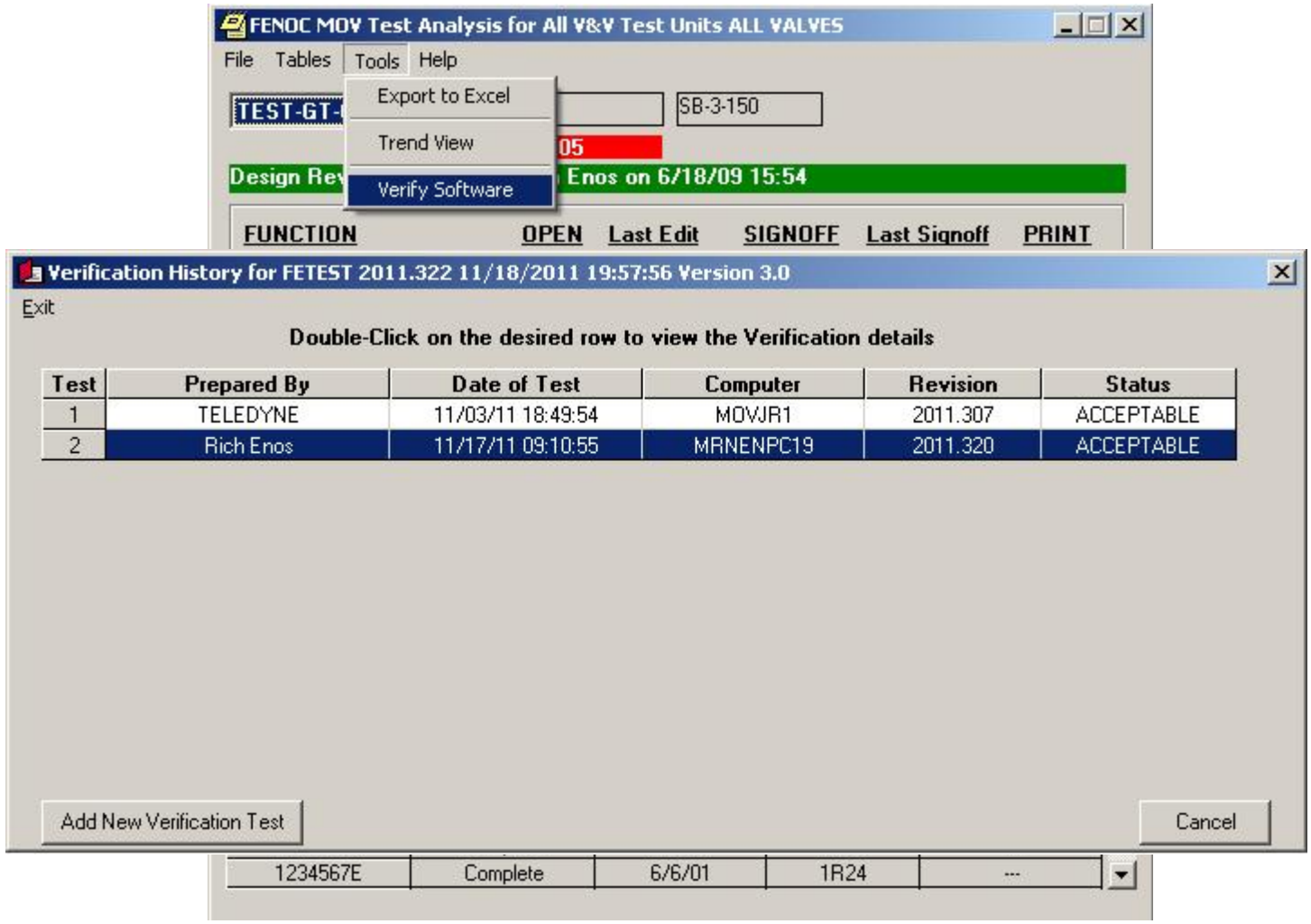
FirstEnergy

TRENDING VIEW REPORT
AC MOTOR OPERATED GATE VALVE
TEST-GT-02

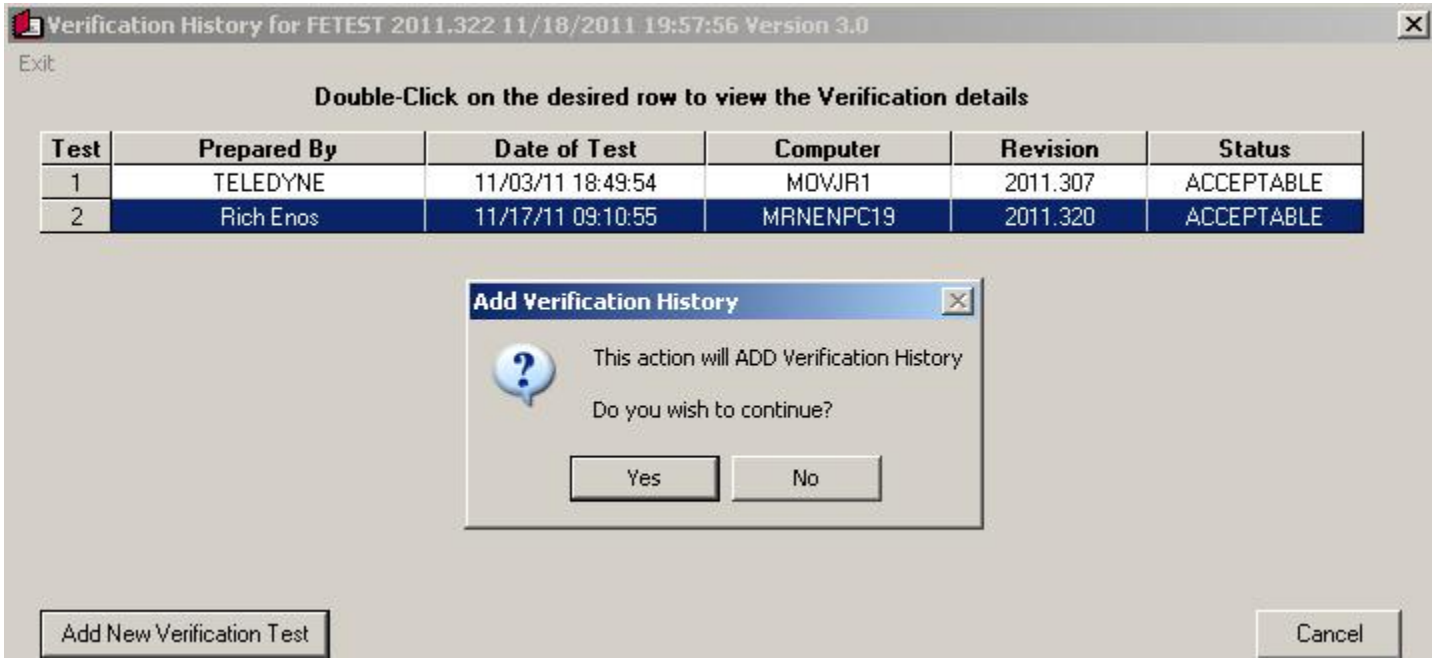


Work order	Test Date	Time (days)	Parameter
1234567E	6/6/01	0	51385
1234567D	6/6/02	365	56385
1234567C	6/6/03	730	61385
1234567B	6/6/04	1096	66385
1234567A	6/6/05	1461	71385
1234567	6/6/06	1826	76385

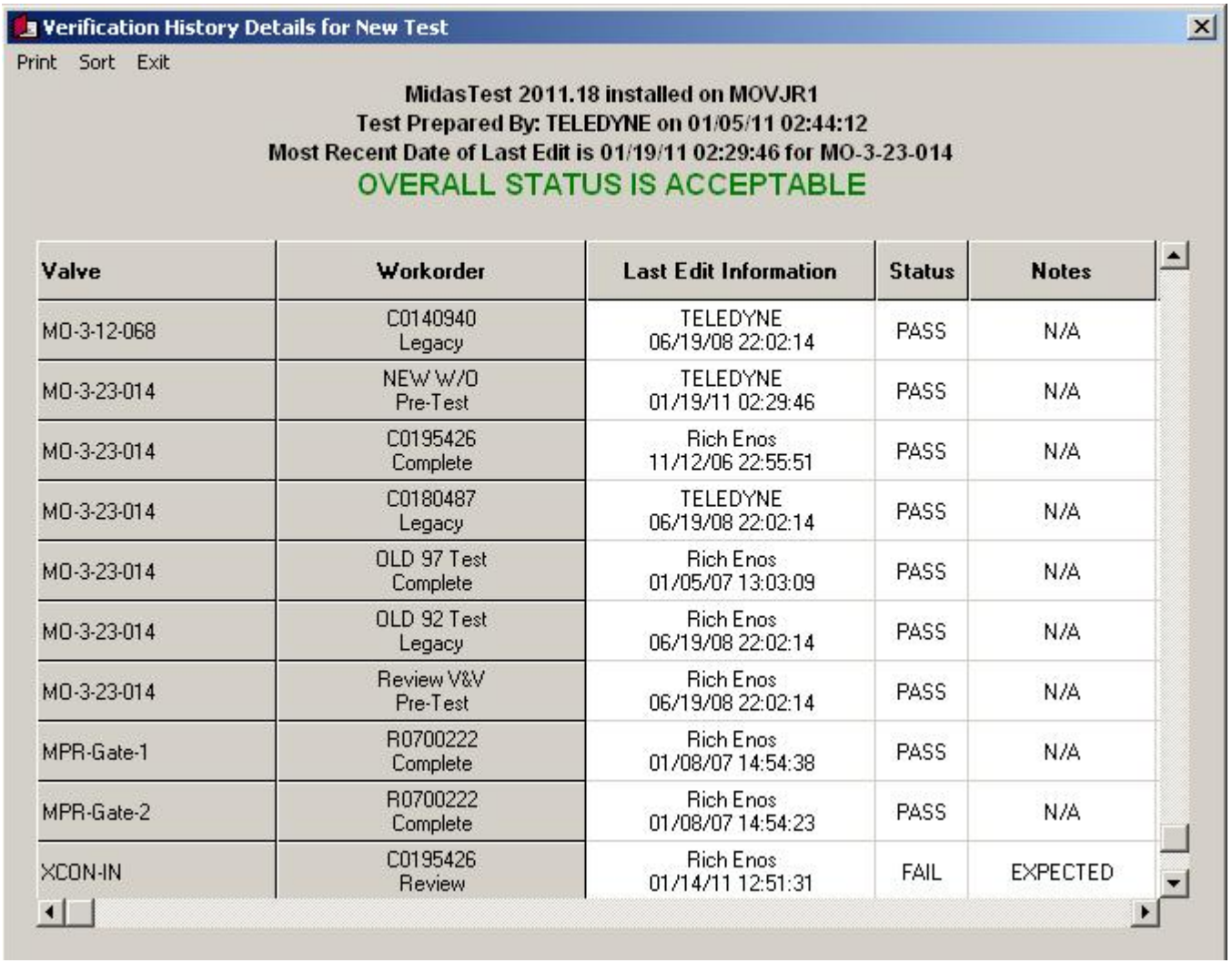
Verify Software



Verify Software



Verify Software



Verification History Details for New Test

Print Sort Exit

MidasTest 2011.18 installed on MOVJR1
Test Prepared By: TELEDYNE on 01/05/11 02:44:12
Most Recent Date of Last Edit is 01/19/11 02:29:46 for MO-3-23-014
OVERALL STATUS IS ACCEPTABLE

Valve	Workorder	Last Edit Information	Status	Notes
MO-3-12-068	C0140940 Legacy	TELEDYNE 06/19/08 22:02:14	PASS	N/A
MO-3-23-014	NEW W/O Pre-Test	TELEDYNE 01/19/11 02:29:46	PASS	N/A
MO-3-23-014	C0195426 Complete	Rich Enos 11/12/06 22:55:51	PASS	N/A
MO-3-23-014	C0180487 Legacy	TELEDYNE 06/19/08 22:02:14	PASS	N/A
MO-3-23-014	OLD 97 Test Complete	Rich Enos 01/05/07 13:03:09	PASS	N/A
MO-3-23-014	OLD 92 Test Legacy	Rich Enos 06/19/08 22:02:14	PASS	N/A
MO-3-23-014	Review V&V Pre-Test	Rich Enos 06/19/08 22:02:14	PASS	N/A
MPR-Gate-1	R0700222 Complete	Rich Enos 01/08/07 14:54:38	PASS	N/A
MPR-Gate-2	R0700222 Complete	Rich Enos 01/08/07 14:54:23	PASS	N/A
XCON-IN	C0195426 Review	Rich Enos 01/14/11 12:51:31	FAIL	EXPECTED

Verify Software

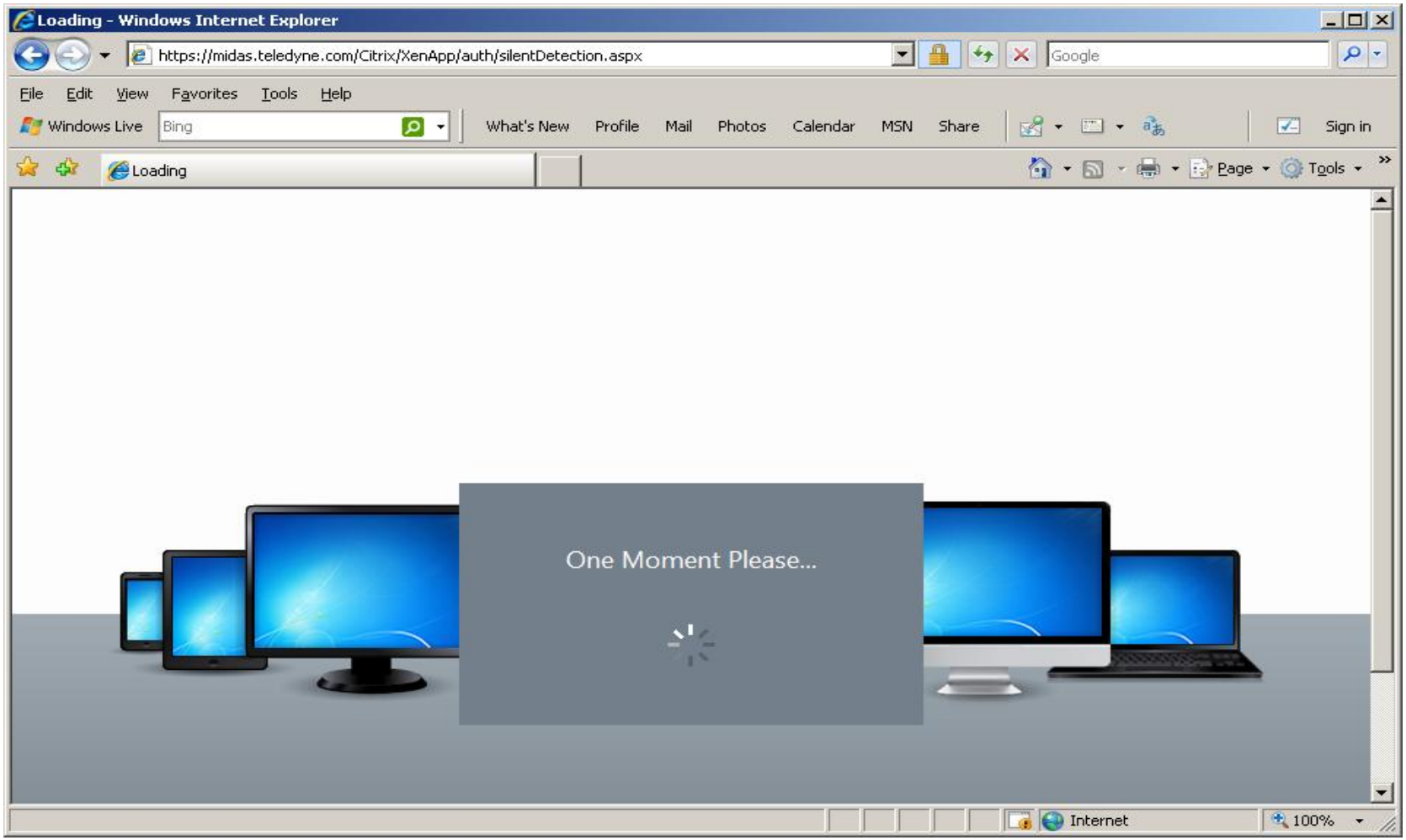
MIDASTEST VERIFICATION HISTORY
Midas Test 2011.18 Installed on MOVJR1

Test Prepared By: TELEDYNE on 01/05/11 02:44:12
Most Recent Date of Last Edit is 01/19/11 02:29:46 for MO-3-23-014
OVERALL STATUS IS ACCEPTABLE

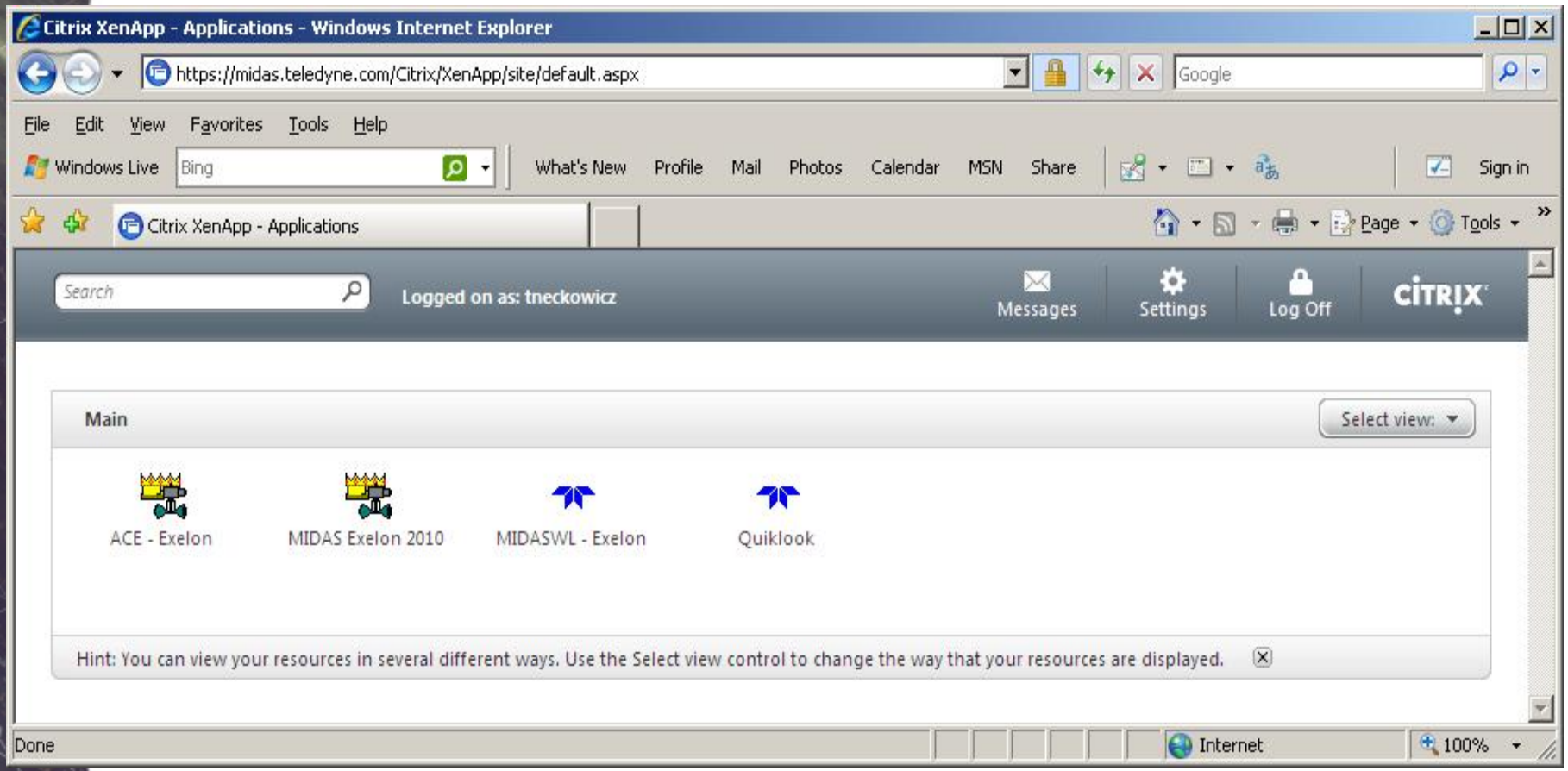
Valve	Workorder	Last Edit Information	Status	Notes
BWROG-01	TestCase Pre-Test	TELEDYNE 12/21/10 14:06:40	PASS	N/A
EPRI-BF-07	R0541639 Pre-Test	Rick Enos 06/19/08 22:02:10	PASS	N/A
FunctionGB	C0002345 Pre-Test	Rick Enos 06/19/08 22:02:10	PASS	N/A
FunctionGB1	Review V&V Pre-Test	Rick Enos 06/19/08 22:02:11	PASS	N/A
FunctionGB1	C0234567 Pre-Test	Rick Enos 06/19/08 22:02:11	PASS	N/A
FunctionGB2	C0456789 Pre-Test	Rick Enos 06/19/08 22:02:11	PASS	N/A
FunctionGT	C0123456 Complete	Rick Enos 10/29/06 13:21:16	PASS	N/A
FunctionGT	C0099876 Legacy	Rick Enos 06/19/08 22:02:11	PASS	N/A
FunctionGT-DD	C0987654 Pre-Test	Rick Enos 06/19/08 22:02:11	PASS	N/A
FV-DO-101A	NEW W.O Pre-Test	Rick Enos 06/19/08 22:02:11	PASS	N/A
FV-DO-101A	R0532801 Legacy	TELEDYNE 06/19/08 22:02:12	PASS	N/A
FV-DO-101A	C0145761 Legacy	TELEDYNE 06/19/08 22:02:12	PASS	N/A
FV-DO-101B	Test Case 2 Pre-Test	TELEDYNE 01/10/11 09:24:54	PASS	N/A
FV-DO-101B	TestCase Pre-Test	TELEDYNE 01/06/11 14:27:09	PASS	N/A
FV-DO-101B	TestCase1 Pre-Test	TELEDYNE 01/06/11 14:45:38	PASS	N/A
FV-DO-101B	C0176799 Complete	TELEDYNE 12/21/06 11:15:41	PASS	N/A
HV-011-011A	C0876543 Pre-Test	Rick Enos 06/19/08 22:02:12	PASS	N/A
HV-012-031A	C0181853 Legacy	TELEDYNE 06/19/08 22:02:12	PASS	N/A
HV-012-032B	R0541639 Pre-Test	Rick Enos 06/19/08 22:02:12	PASS	N/A
HV-012-032B	Review V&V Pre-Test	Rick Enos 06/19/08 22:02:12	PASS	N/A
HV-049-1F008	R0769302 Legacy	TELEDYNE 06/19/08 22:02:13	PASS	N/A
HV-049-1F008	R0663834 Legacy	TELEDYNE 06/19/08 22:02:13	PASS	N/A
HV-049-1F010	R0606425 Trending	TELEDYNE 12/11/06 11:19:52	PASS	N/A
HV-055-2F105	R0801097 Review	Jim Mihnak 06/06/08 14:27:07	PASS	N/A
HV-055-2F105	R0720054 Legacy	TELEDYNE 06/19/08 22:02:13	PASS	N/A
JOG-PV-01	R0700222 Complete	Rick Enos 01/08/07 14:50:38	PASS	N/A

Teledyne Citrix Server

https://midas.teledyne.com

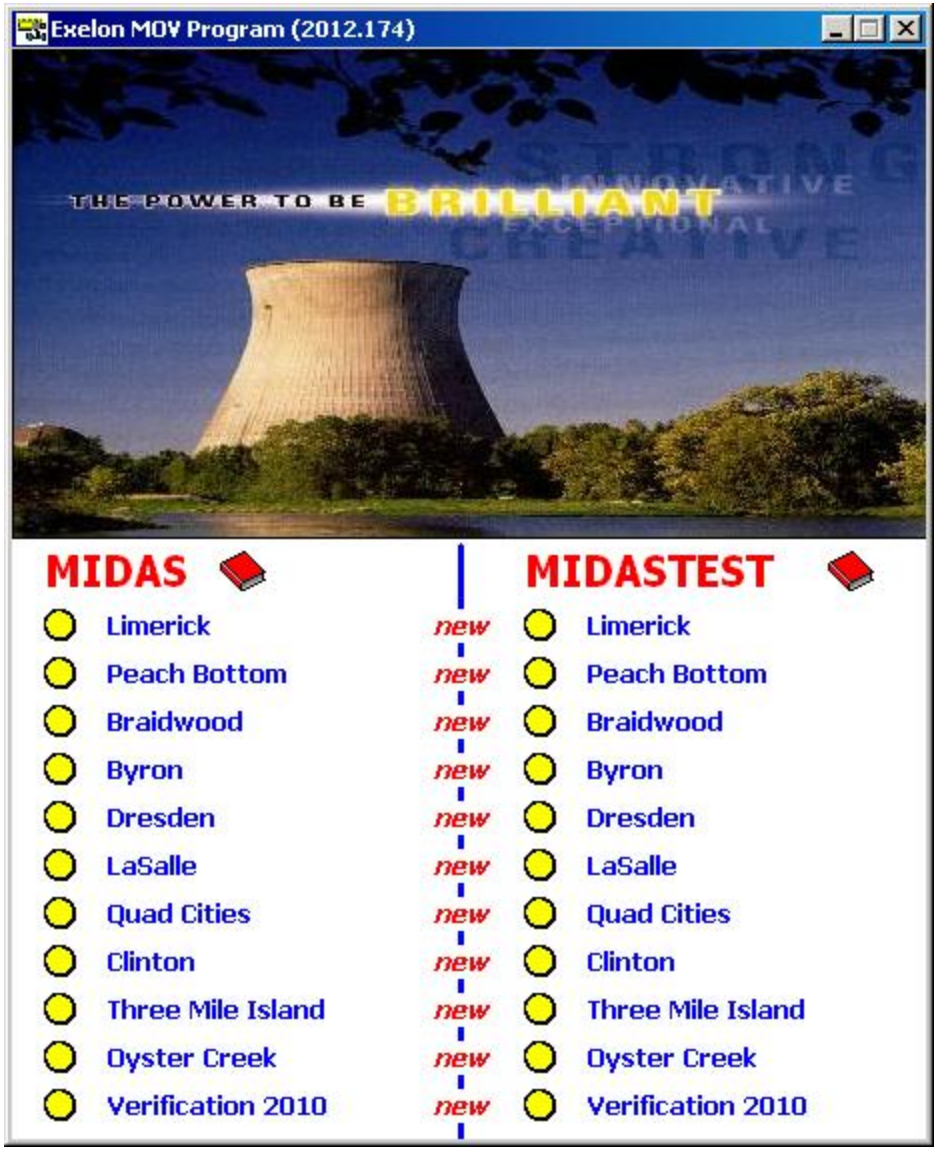


Teledyne Citrix Server



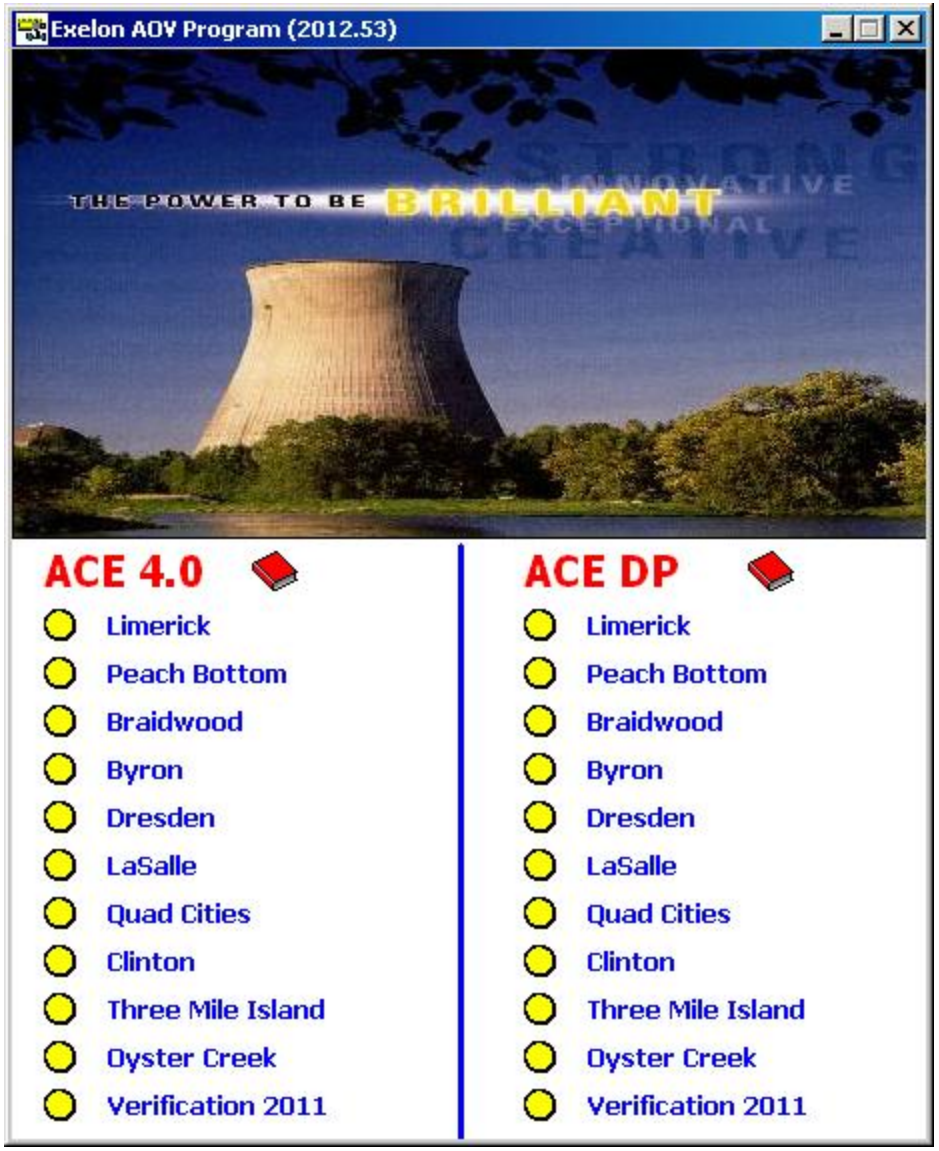
Teledyne Citrix Server

MOV



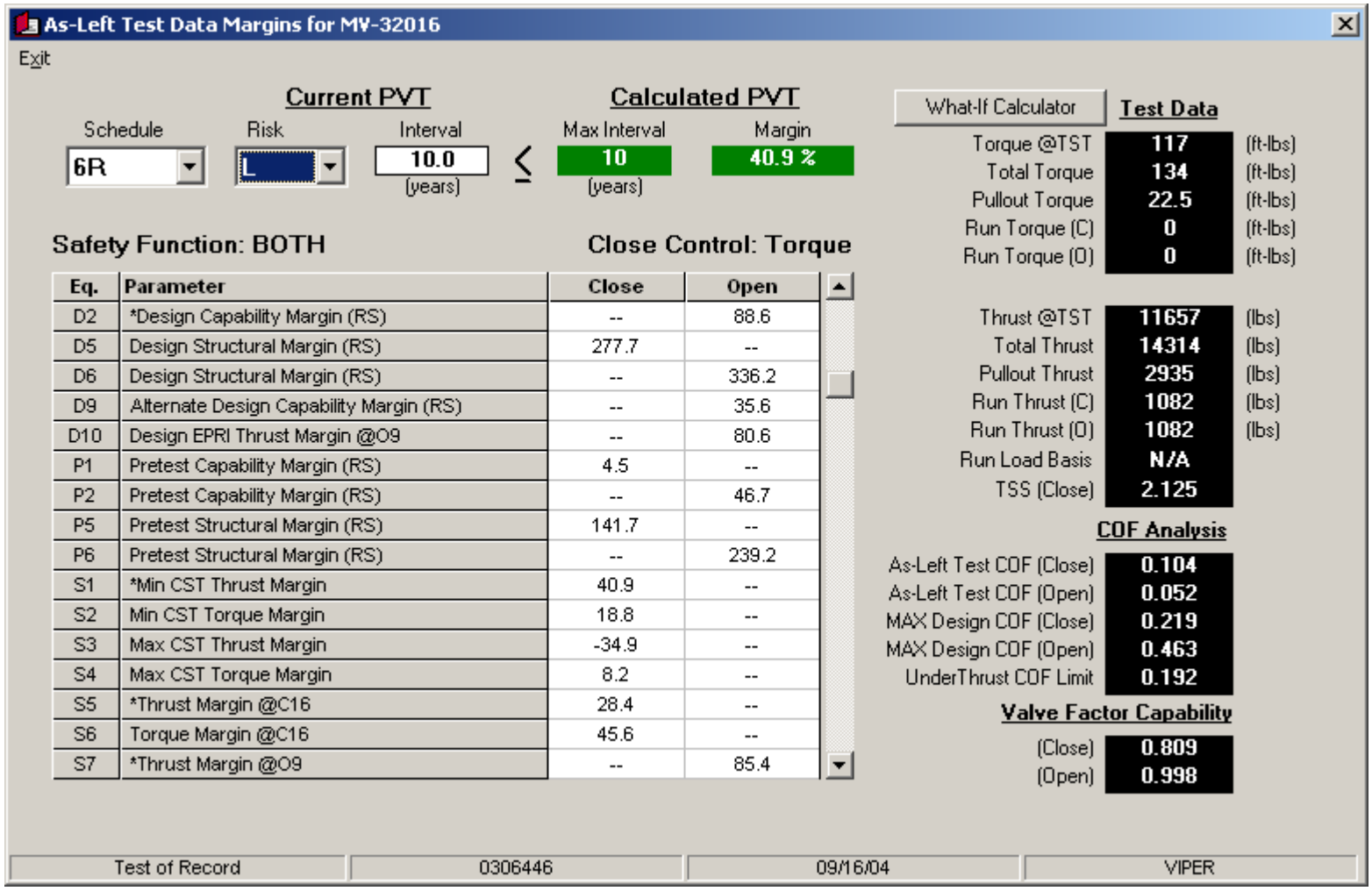
Teledyne Citrix Server

AOV

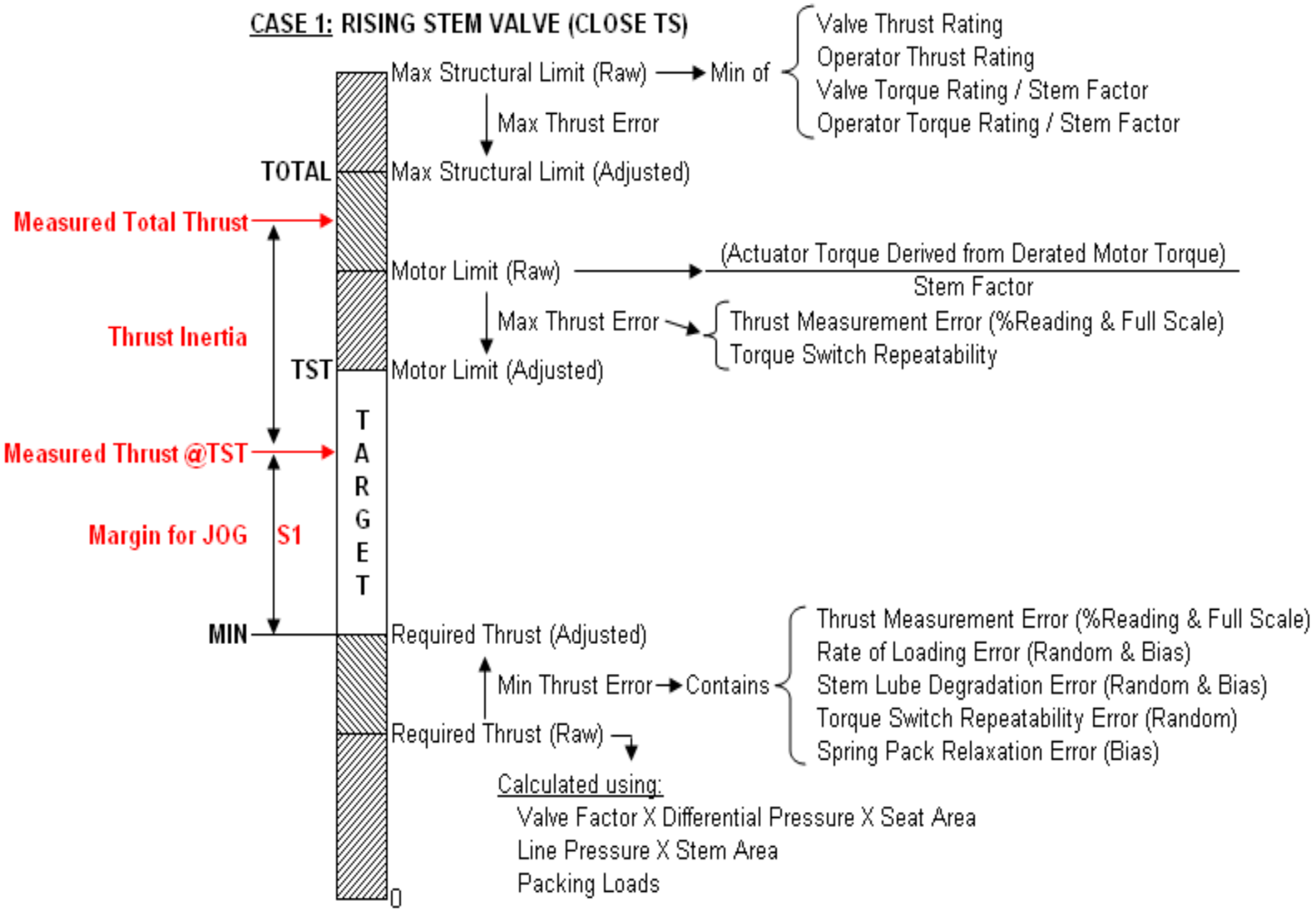


2014 MIDAS Enhancement

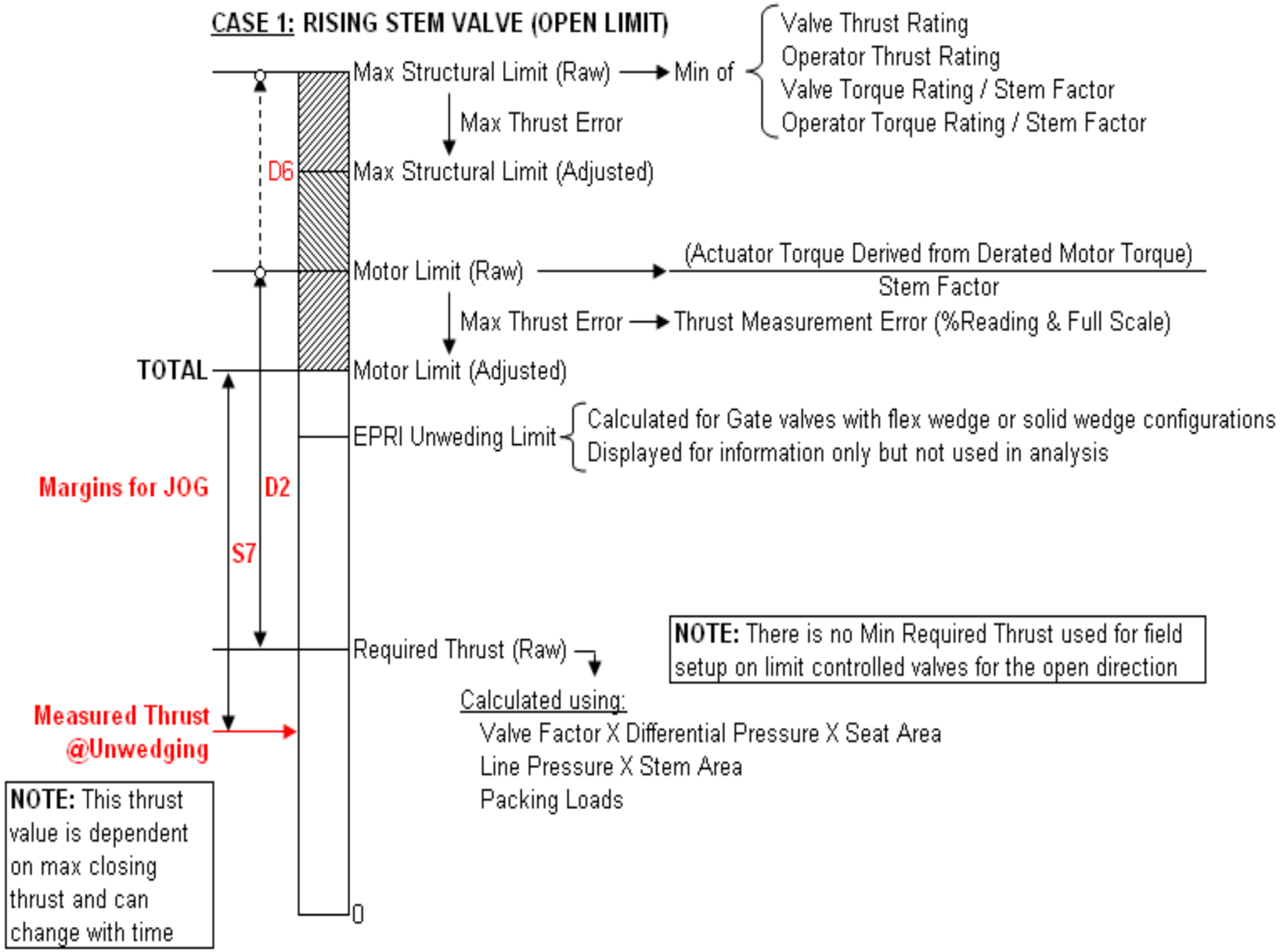
Margin Summary Form



2014 Margin Form Enhancement



2014 Margin Form Enhancement



MOV Software

Questions?