

Test Case Performance_2.0

for the

AWIPS

Contract

DG133W-05-CQ-1067

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Revision History

Revision	Date	Affected Pages	Explanation of Change
1.0	5 December 2007	ALL	Initial Release
2.0	8 August 2008	ALL	Updated for TO9

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1.0 SCOPE

See Software Test Plan.

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2.0 APPLICABLE DOCUMENTS

2.1 Source Documents

- None

2.2 Reference Documents

TO9 Software Test Plan for the Advanced Weather Information Processing System Project, Contract #DG133W-05-CQ-1067, August 2008.

The AWIPS D-2D User's Manual Build 8.1.

The Silver Spring NWS AWIPS 1 test bed application.

Release OB8.1 and OB8.2 of the Weather Event Simulator (WES).

Rational RequisitePro.

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3.0 TEST CASE DESCRIPTION

This test case serves to document the performance of the TO9 software. Since there are no formal performance requirements in the TO9 proposal, performance testing is not part of the Delivery Test; however, performance will be monitored for reference purposes. The following capabilities will be monitored for performance:

- Data ingest performance: Will use the data collected during stability testing.
- CAVE data loading performance: Will use CAVE and EDEX logs
- A Set of Operator interactions can be monitored using clock time and logs (Operator interactions have a subjective component which will be collected by tester comment if needed)

3.1 Assumptions, Constraints and Preconditions

- TO9 software has been installed successfully on the test cluster and as many test workstations as practical (4 to 8)
- EDEX is running on both nodes of the cluster and CAVE is running on all the workstations
- All workstations are running loops of data
- Live data from a SBN data feed with filtering typical of a WFO (KOAX filter expressions)
- Monitoring cron same as the monitoring for stability testing case

3.2 Recommended Hardware

See Software Test Plan.

3.3 Test Inputs

Test inputs are defined by the SBN acquisition patterns which will be set to KOAX.

3.4 Test Outputs

- The stability test logs will be analyzed to come up with a data ingest metric (Data Ingested/Time/Resources)
- CAVE loading performance will be a loading metric (Data Loaded/Time)
- Operator interactions will be a time measure and/or tester comment

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4.0 TEST SCENARIO

Step #	Action	Result	Pass/Fail
1.	Analyze stability testing logs for data ingested over time. Over the time period selected determine the average system resources used.	Record ingested files per hour in the test report. Expect that with the KOAX SBN filters that free system resources are still available.	
2.	Load a satellite loop from the CAVE pull down menu. Zoom / Pan / Sample/ Change Color Maps and note interactive performance.	Record the load time and comments.	
3.	Load a radar all-tilts loop from the CAVE pull down. Zoom / Pan / Sample and note interactive performance.	Record the load time and comments.	
4.	Load a surface plot from the CAVE pull down. Zoom / Pan / Sample and note interactive performance.	Record the load time and comments.	
5.	Run a test CAVE procedure that loads contours and imagery into several panes. Convert a contour into an image and note conversion performance.	Record the load time and comments.	
6.	Retrieve text data into textWS window. Note load performance. Edit the data and save back into the test data base noting performance.	Record load and store times.	
7.	Retrieve model data using the volume browser and note load time.	Record the load time.	
8.	While data is looping start WarnGen and create a warning. Note interactive performance.	Record comments.	
9.	Determine data available performance by collecting data from EDEX and CAVE logs. (Time from when new data hits EDEX to the data being displayed in a active loop).	Record data available time.	
	End of test.		

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5.0 REQUIREMENTS VERIFICATION TRACEABILITY MATRIX (RVTM)

Number	Description	Test Step(s)
None	None	None

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