

# **Test Case GFE Layout (la 001-006)**

**for the  
AWIPS  
Contract  
DG133W-05-CQ-1067**

Prepared for:

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## Revision History

Revision	Date	Affected Pages	Explanation of Change
1.0	27 July 2008	ALL	Initial Draft
2.0	8 August 2008	6-13	Redlines per PDT
3.0	4 September 2008	ALL	Redlines per DT

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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**

- Legacy NWS GFE Acceptance Test Case ID Numbers: la001 – la006.
- Legacy NWS GFE Test Cases for Test Areas AC – VP.
- Section 3.1.3 of the AWIPS D-2D User's Manual Build 8.1.
- Software Test Plan for the Advanced Weather Information Processing System Project, Contract #DG133W-05-CQ-1067, August 2008.
- 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 verifies that the edit area NWS test cases.

#### **3.1 Assumptions, Constraints and Preconditions**

- Several weather elements are loaded
- There are multiple grids available for the weather elements (at minimum T, Td, Wind, Wx, and Hazards weather elements)
- TO9 software has been installed successfully
- CAVE, EDEX and pgAdmin III are running
- Data has been ingested
- Actions, Results, and Requirements highlighted in yellow indicate requirements and/or capabilities to be included in the scope of future task orders. They are included here for purposes of continuity and traceability with the original AWIPS I test case documents.

#### **3.2 Recommended Hardware**

See Software Test Plan.

#### **3.3 Test Inputs**

Section 4.0 below contains the test procedures for this test case. Sections 2.2 – 2.9 of the Software Test Plan contain general test inputs applicable to all TO9 test cases.

#### **3.4 Test Outputs**

The results outlined in section 4.0 are met.

##### **3.4.1 GFE GUIs Tested**

- TBD

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#### 4.0 TEST SCENARIO

Step #	Action	Result	Pass/Fail
<b>la001</b> – To ensure that the GFE online help is accessible.			
1.	Select the online help by selecting <a href="#">Help -&gt; Online Table of Contents.</a>	A netscape browser window should appear with the TOC.	
2.	Select various entries from each section to ensure that navigation occurs properly.	Verified.	
<b>la002</b> – Relative positioning of Grid Manager and Spatial Editor			
3.	From the CAVE window, Mouse Button (MB) 1 click the ‘Open Perspective’ icon and select ‘GFE’ from the dropdown menu.	The GFE perspective displays in CAVE. The Spatial Editor (SE) window and the Grid Manager (GM) window should appear in either horizontal or vertical opposition (depending on config settings).	
4.	Change the SE and GM to the alternate layout by MB1 clicking and dragging the Grid Manager tab to a location near the left-center side of the display (if the GM is originally displayed horizontally above the SE), or to a location near the top-center side of the display (if the GM is originally displayed vertically to the left of the SE). Note: The ‘Toggle Vertical/Horizontal Display’  or  buttons are not supported.	SE and GM windows are now in the alternate layout.	DR #1410
5.	Change the SE and GM back to the original layout by repeating step 4.	SE window and the GM window should appear in the layout as they did when the GFE was invoked.	
<b>la003</b> – Relative sizing of Grid Manager and Spatial Editor			
6.	Ensure that the SE window and the GM window appear in horizontal opposition (repeat step 4 if necessary).	The SE window and the GM window appear in horizontal opposition.	
7.	Change the GM to a larger size by MB1 dragging the sizing bar downward.	The GM is stretched vertically to a larger size (displaying more WEs), while the SE size is reduced. The displayed maps/domain in the SE are resized to continue to show the approximate same geographical area.	
8.	Change the GM to a smaller size by MB1 dragging the sizing bar upward.	The GM stretches vertically to a smaller size (displaying fewer WEs), while the SE size increases. The displayed map/domain in the SE resizes to continue to show approximately the same geographical area.	

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Step #	Action	Result	Pass/Fail
9.	Change the SE and GM to vertical opposition by repeating step 4.	The SE window appears to the right of the GM window.	
10.	Change the GM to a larger size by MB1 dragging the sizing bar to the right.	The GM stretches horizontally to a larger size (displaying a greater time range), while the SE size is reduced. The displayed map/domain in the SE resizes to continue to show approximately the same geographical area.	
11.	Change the GM to a smaller size by MB1 dragging the sizing bar to the left.	The GM stretches horizontally to a smaller size (displaying a smaller time range), while the SE size increases. The displayed map/domain in the SE resizes to continue to show approximately the same geographical area.	
<b>la004 – Toggle <a href="#">Grid Manager and Temporal Editor</a></b>			
12.	Toggle on the Temporal Editor by MB1 clicking the ‘Toggle Grid Manager/Temporal Editor’  button on the toolbar.	The Temporal Editor appears in place of the Grid Manager.	
13.	Change the Temporal Editor and Spatial Editor to the alternate display MB1 clicking and dragging the Grid Manager tab to a location near the left-center side of the display (if the GM is originally displayed horizontally above the SE), or to a location near the top-center side of the display (if the GM is originally displayed vertically to the left of the SE).	The Temporal Editor and Spatial Editor have changed their opposition.	
<b>la005 – To ensure that the GFE Test Mode software is ready.</b>			
14.	Ensure the SE and GM are displayed in the GFE Perspective.	The SE and GM are displayed in the GFE Perspective.	
15.	MB1 click ‘CAVE’ -> ‘Preferences’ and verify the CAVE Mode is set to ‘Operational’. MB1 click on the menu bar to activate the selected mode.	CAVE is set in Operational Mode. The background/border color of CAVE and dialogs are in its normal state (gray).	
16.	From the Grid Manager in the GFE display, scroll down to find ‘Hazards’. Select a forecast grid and then use MB3 and select ‘Create From Scratch’.	A scratch Hazards grid displays in the SE with no values displayed.	

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Step #	Action	Result	Pass/Fail
17.	<p>MB3 click on the colorbar and select ‘Set PickUp Value...’.</p> <p>In the Set PickUp Value dialog, select the ‘WS.W (Winter Storm Warning)’ product and MB1 click ‘Assign Value.’</p> <p>From the colorbar use MB3 to select ‘Set to Common Values’ -&gt; ‘Warnings’ -&gt; ‘Winter Storm’ -&gt; ‘WS.W (Winter Storm Warning)’.</p> <p>The Empty Edit Area Warning dialog box may display. If necessary, select ‘Yes’.</p> <p>Then save the Hazards grid.</p>	The Hazards grid populates with the ‘WS.W (Winter Storm Warning)’ product.	
18.	<p>From the main menu, select ‘Products’ -&gt; ‘Publish to Official...’.</p> <p>Then MB1 click ‘Publish’.</p> <p>Then close the Publish to Official dialog.</p>	<p>The Publish to Official dialog box appears.</p> <p>A publish operation notice appears in the status bar.</p> <p>The Publish to Official dialog box closes.</p>	
19.	<p>From the main menu, select ‘Products’ -&gt; ‘Formatter Launcher...’.</p>	The Formatter Launcher dialog box appears.	
20.	<p>From the Formatter Launcher menu, select ‘Products’ -&gt; ‘Hazard’ -&gt; ‘Hazard_WSW (Winter Wx Product)’.</p>	The ‘Hazard_WSW (Winter Wx Product)’ tab appears below the menu bar.	
21.	<p>Run the product by pressing the Run Formatter icon (⚙️). Notice that when the product is displayed the MND product header does not indicate TEST, the first segment in the VTEC code is not T, and the headlines do not contain TEST.</p>	The Formatter Launcher runs. Verified.	
22.	<p>MB1 click ‘CAVE’ -&gt; ‘Preferences’ and set the CAVE Mode to ‘Test’.</p> <p>MB1 click on the menu bar to activate the selected mode.</p>	<p>CAVE is set in Test Mode.</p> <p>The background/border color of CAVE and dialogs are set in Test state (black).</p>	
23.	<p>Repeat steps 16, 17, 19, and 20 above. Step 18, Publish to Official, is not allowed in test mode.</p>	Refer to the associated test results.	DR #1411
24.	<p>Run the product by pressing the Run Formatter icon (⚙️). Notice when the product is displayed, the MND product header indicates ‘TEST’, the first segment in the VTEC code is in ‘T’ mode, and the headlines indicate ‘TEST’.</p>	The Formatter Launcher runs. Verified.	

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Step #	Action	Result	Pass/Fail
25.	Exit GFE by closing the GFE Perspective tab in CAVE.	GFE closes.	
<b>la006</b> – To ensure that the GFE Test Mode software is ready.			
<b>Note:</b> Do not do this test on an operational platform.			
26.	From the CAVE window, MB 1 click the ‘Open Perspective’ icon and select ‘GFE’ from the dropdown menu.	The GFE perspective displays in CAVE. The SE window and the GM window should appear in either horizontal or vertical opposition (depending on config settings).	
27.	From the GFE menu bar, MB1 click ‘GFE’ -> ‘Define Config and ifpIMAGE files...’. MB3 click on the list that comes up and select ‘New’. Name it la006 and MB1 click ‘OK’.	The new config file ‘la006’ loads in a Python Editor window.	
28.	Delete everything in the Python Editor window. Copy and paste the following into it:  <b>from gfeConfig import * ISC_Sites = ['AMY']</b>  Save it and exit the GFE Perspective.	The edits are saved. The GFE Perspective closes.	
29.	From the CAVE window, MB 1 click the ‘Open Perspective’ icon and select ‘GFE’ from the dropdown menu.	The GFE perspective displays in CAVE. The SE window and the GM window should appear in either horizontal or vertical opposition (depending on config settings).	
30.	From the GFE Startup menu, select ‘User’ and ‘la006’ as config, then select ‘Start’. MB1 click ‘CAVE’ -> ‘Preferences’ and verify the CAVE Mode is set to ‘Practice’. MB1 click on the menu bar to activate the selected mode.	CAVE is set in Practice Mode. The background/border color of CAVE and dialogs are in its practice state (orange).	
31.	From the Grid Manager select a Hazards grid. Then use MB3 to select ‘Create From Scratch’.	A scratch Hazards grid (with the default value) displays in the SE.	

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Step #	Action	Result	Pass/Fail
32.	MB3 on the colorbar and select 'Set to Common Values' -> 'Warnings' -> 'Winter Storm' -> 'WS.W (Winter Storm Warning)'. If the Empty Edit Area Warning dialog box displays, select 'Yes'. Then save the weather element.	The Hazards grid is modified accordingly.	
33.	From the GFE, verify that 'selectConsistency' -> 'Send Intersite Grids' is available (not dimmed). Select 'Send Intersite Grids' to open the Send Intersite Grids dialog. MB1 click 'SendISCGrids' on the Send Intersite Grids dialog.	The 'Send Intersite Grids' selection is available (not dimmed). The Send Intersite Grids dialog opens.  The status bar indicates 'SEND ISC Simulated', meaning that the grids were not actually sent.	
34.	From the main menu, attempt to select 'Products' -> 'Publish to Official...'. Verify that the 'Publish to Official' item is not selectable.	Verified.	
35.	From the main menu, select 'Products' -> 'Formatter Launcher...'. Verify the top of the Formatter Launcher dialog displays (PRACTICE MODE). Verify that the only data source under Data Source is 'Fcst_Prac'.	The Formatter Launcher dialog box appears. Verified.	
36.	From the Formatter Launcher menu, select 'Products' -> 'Hazard' -> 'Hazard_WSW (Winter Wx Product)'.		
37.	Bring up a terminal window and get the list and modification time of files in the .../data/vtec directory.		
38.	Select 'Normal: O-Vtec' on the Formatter Launcher via the Formatting button.		
39.	Once again, bring up a terminal window and get the list and modification time of files in the .../data/vtec directory. Compare the two lists. Only PRACTICE.tbl should have been changed, and active.tbl, if it exists, should have remained the same.		
40.	Exit GFE by closing the GFE Perspective tab in CAVE.	GFE closes.	

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Step #	Action	Result	Pass/Fail
41.	MB1 click 'CAVE' -> 'Preferences' and verify the CAVE Mode is set to 'Operational'. MB1 click on the menu bar to activate the selected mode.	CAVE is set in Operational Mode. The background/border color of CAVE and dialogs are in its normal state (gray).	
42.	From the GFE Startup menu, select 'User' and 'la006' as config, then select <b>Start</b> . From the CAVE window, MB 1 click the 'Open Perspective' icon and select 'GFE' from the dropdown menu.	The GFE perspective displays in CAVE. The SE window and the GM window should appear in either horizontal or vertical opposition (depending on config settings).	
43.	From the Grid Manager in the GFE display, scroll down to find 'Hazards'. Verify that the hazard you entered in the first part is not present (since it is a different database).	Verified.	
44.	Select a hazards grid and then use MB3 to create a grid from scratch (use a different time from what was used in PRACTICE mode). MB3 click on the colorbar and select 'Set to Common Values' -> 'Warnings' -> 'Winter Storm' -> 'WS.W (Winter Storm Warning)'. In the Empty Edit Area Warning dialog box, select 'Yes'. Save the grid, verifying that there is a send to ISC option available on the save dialog and that it is not grayed out. Verify that the status bar indicates 'SEND ISC: Send request queued to: ...'. Note: Use the ^ on the status bar to see previous messages as the 'SEND ISC' entry may not be the latest message.	The Empty Edit Area Warning dialog box displays. Verified.	
45.	From the main menu, select 'Products' -> 'Publish to Official...'. In the Publish to Official dialog box, select 'Publish'.	The Publish to Official dialog box appears.	
46.	From the main menu, select 'Products' -> 'Formatter Launcher...'. In the Formatter Launcher dialog, verify there are several choices for Data Source available.	The Formatter Launcher dialog box appears. Verified.	
47.	From the Formatter Launcher menu, select 'Products' -> 'Hazard' -> 'Hazard_WSW (Winter Wx Product)'.	A 'Hazard_WSW (Winter Wx Product)' tab appears below the menu bar.	

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Step #	Action	Result	Pass/Fail
48.	Bring up a terminal window and get the list and modification time of files in the ../data/vtec directory.		
49.	Run the product by MB1 clicking the Run Formatter icon (⚙️). Examine the product. Verify that it has no knowledge of the event that you created while in PRACTICE mode.	Verified.	
50.	Verify that the 'Transmit' button is Red. MB1 click 'Transmit...' and verify that there is NOT a 'Simulate Transmit' message on the dialog that appears. Do not transmit the product.	Verified.	
51.	Exit GFE by closing the GFE Perspective tab in CAVE.	GFE closes.	
	End of test.		

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## 5.0 REQUIREMENTS VERIFICATION TRACEABILITY MATRIX (RVTM)

Number	Description	Test Step(s)
SYSR2427	The AWIPS GFESuite shall ensure that the GFE online help is accessible.	1-2
SYSR2428	The AWIPS GFESuite shall implement Relative positioning of Grid Manager and Spatial Editor.	3-5
SYSR2429	The AWIPS GFESuite shall implement Relative sizing of Grid Manager and Spatial Editor.	6-11
SYSR2430	The AWIPS GFESuite shall implement Toggle Grid Manager and Temporal Editor.	12-13
SYSR2431	The AWIPS GFESuite shall ensure that the GFE Test Mode software is ready.	14-25
SYSR2432	The AWIPS GFESuite shall implement GFE Practice Mode.	26-51

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