

Test Case GFE Frame (001-004)

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

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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	6-10	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: fn001 – fn004.
- 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 Frames 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
fn001 – Step back, step forward in animator .			
1.	Load a Weather Element (WE) through the ‘ Weather Elements ’ -> ‘ Weather Element Browser ’ (or create necessary grids using ‘ Create Grids From Scratch... ’ dialog) such that this WE consists of contiguous grids. MB1 click on the grid in the Grid Manager (GM) to load the WE on the Spatial Editor (SE).	The grid displays in the SE.	
Contiguous Grids			
2.	MB1 click the Step Back button in the toolbar. 	In the GM , the current GFE time indicator is positioned at the first earlier grid encountered before its previous position. (If necessary, scroll the GM to see it.)	
3.	MB1 click the Step Forward button in the toolbar. 	In the GM, the current GFE time indicator is positioned at the next later grid encountered after its previous position. (If necessary, scroll the GM to see it.)	
Non-Contiguous Grids			
4.	Load a WE through the ‘ Weather Elements ’ -> ‘ Weather Element Browser ’ (or create necessary grids using the ‘ Create Grids From Scratch... ’ dialog) such that this WE consists of some gaps (i.e., shadow blocks). Do not use a weather element that contains gaps in the time constraints that do not contain shadow blocks, such as MaxT. MB1 click on the grid in the GM to load the WE in the SE.	The grid displays in the SE.	
5.	MB1 click the Step Back button in the toolbar. 	In the GM , the current GFE time indicator is positioned at the first earlier grid encountered before its previous position, skipping over the shadow block (e.g., gap). (If necessary, scroll the GM to see it.)	
6.	MB1 click the Step Forward button in the toolbar. 	In the GM, the current GFE time indicator is positioned at the next later grid encountered after its previous position, skipping over the shadow block (e.g., gap). (If necessary, scroll the GM to see it.)	

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Step #	Action	Result	Pass/Fail
Wraparound			
7.	Go to the last grid for the WE, then click the Step Forward button in the toolbar. 	In the GM, the current GFE time indicator is now positioned at the earliest (first) grid for that WE. (If necessary, scroll the GM to see it.)	DR #1300
8.	Go to the first grid for the WE, then click the Step Backward button in the toolbar.	In the GM, the current GFE time indicator is now positioned at the latest (last) grid for that WE. (If necessary, scroll the GM to see it.)	DR #1300
fn002 – Frame Step functions with no grids.			
9.	Select a weather element without grids and create a scratch grid for that weather element. Then, MB3 click on the grid in the GM and select Delete grid to delete all grids from that WE.	The grid displays in the SE. The WE's grids are deleted.	
10.	MB1 click the Step Back button in the toolbar. 	No operation.	
11.	MB1 click the Step Forward button in the toolbar. 	No operation.	
fn003 – Frame Step functions with toggling ISC mode.			
Ensure that for the WE you use, grids exist in Fcst database, and that ISC grids exist at some, but not all, times that coincide with the Fcst grids. Also, some ISC grids should exist at times for which there is no Fcst grid. Modify the times of grids , Create From Scratch , or Delete Grids as necessary to meet the criteria.			
12.	Load a single WE, such as 'T', through the ' Weather Elements ' -> ' Weather Element Browser '. Make only the loaded WE visible through the MB1 click on the grid in the GM. The WE should match the criteria specified in the Test Setup section above.	The temperature grid image displays in the SE.	
13.	Toggle on the ISC mode with the 'Show ISC Mode' toolbar button.  For all cases below, the animator functions should be verified to work on the union of the Fcst and ISC grids as being in a 'virtual single' WE.	The ISC Mode becomes active.	

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Step #	Action	Result	Pass/Fail
14.	MB1 click the Step Back button in the toolbar several times. 	Each time in the GM, the current GFE time indicator is positioned at the first earlier grid encountered before its previous position. The first earlier grid is the earlier T grid if there isn't an ISC grid, the earlier ISC grid if there is only an ISC grid, or the combination of change in grid times if there is both an T and ISC grid at the current position or previous position. (If necessary, scroll the GM to see it.) For example, if the T inventory is the 12z-14z, 17z-18z, 21z-22z, and the T ISC inventory is the 13z-14z, 16z, 18z-19z, 21-23z, back stepping when the Show ISC Mode is enabled will occur at 23z, 22z, 21z, 19z, 18z, 17z, 16z, 14z, 13z, and 12z.	
15.	MB1 click the Step Forward button in the toolbar several times. 	Each time, in the GM, the current GFE time indicator is positioned at the next later grid encountered after its previous position. The first later grid is the earlier T grid if there isn't an ISC grid, the later ISC grid if there is only an ISC grid, or the combination of change in grid times if there is both an T and ISC grid at the current position or next position. (If necessary, scroll the GM to see it.)	
16.	Toggle off the ISC mode.  For all cases below, the animator functions should be verified to work on only the Fcst grid for that WE, such as 'T', and the inventory of the ISC 'T' is ignored.	The ISC Mode is deactivated.	
17.	MB1 click the Step Back button in the toolbar several times. 	Each time in the GM, the current GFE time indicator is positioned at the first earlier Fcst grid encountered before its previous position, with the inventory of the ISC grids being ignored. (If necessary, scroll the GM to see it.)	

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Step #	Action	Result	Pass/Fail
18.	MB1 click the Step Forward button in the toolbar several times. >	Each time, in the GM, the current GFE time indicator is positioned at the next later Fcst grid encountered after its previous position, with the inventory of the ISC grids being ignored. (If necessary, scroll the GM to see it.)	
fn004 – Frame Step functions multiple WEs.			
Ensure that there are several WEs that have a variety of grids available. Grids should exist at various times, some overlapping, some not overlapping. Modify the times of grids , Create From Scratch , or Delete Grids as necessary to meet the criteria.			
19.	MB1 click on a grid so that the grid image displays in the SE. MB1 click the Step Back button in the toolbar several times. <	Each time in the GM, the current GFE time indicator is positioned at the first earlier grid encountered before its previous position. The first earlier grid is the earlier visible grid from all of the WEs. For example, if the T inventory is the 12z-14z, 17z-18z, 20z-23z, and the Td inventory is the 13z-14z, 16z, 18z, 21-23z, back stepping will occur at 23z, 22z, 21z, 20z, 18z, 17z, 16z, 14z, 13z, and 12z.	DR #1412
20.	MB1 click the Step Forward button in the toolbar several times. >	Each time, in the GM, the current GFE time indicator is positioned at the next later grid encountered after its previous position. The first later grid is the next change in the visible WE grids inventory.	DR #1412
	End of test.		

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5.0 REQUIREMENTS VERIFICATION TRACEABILITY MATRIX (RVTM)

Number	Description	Test Step(s)
SYSR2354	The AWIPS GFESuite shall implement Step back, step forward in animator.	1-8
SYSR2355	The AWIPS GFESuite shall implement Frame Step functions with no grids.	9-11
SYSR2356	The AWIPS GFESuite shall implement Frame Step functions with toggling ISC mode.	12-18
SYSR2357	The AWIPS GFESuite shall implement Frame Step functions multiple WEs.	19-20

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