

AE IV&V Test Case: Baseline CAVE VB Plan

Rev. No.	Date	By	Description of Changes
0	18-apr-2008	S. Davison	Adapted from AWIPS OB8.1 test case: SIT_Baseline_CAVE_VBPlan_1.4.1.2_V4.doc

Test Case Identifier

Baseline CAVE VB Plan

Narrative

This test case demonstrates the capability of AWIPS to display a representative sample of plan view model products from available models.

Note for TO8: Specific products identified in this test case may need to be changed based on product availability in TO8 and the localization.

AE IV&V Test Case: Baseline CAVE VB Plan

Step #	Action	Expected Results	Actual Results	Pass(P)/ Fail(F)	Comments
1.	Start CAVE	CAVE launches			
2.	If CAVE is already open, clear the main pane.	Main pane is cleared.			
3.	From the Scale pull-down menu (left side of toolbar), select N. Hemisphere, North American, CONUS, or Regional depending on what model is to be used. Usually, CONUS is the default scale and generally most models will be able to be displayed on this scale.	Main pane map scale changes to selected scale.			
4.	From the Frames pull-down menu (right side of toolbar), select the highest number of frames 64.	Number of frames available becomes 64.			
5.	From the Volume menu, select Browser.	The Volume Browser window opens.			
6.	In the Volume Browser select a source from the Grid or Other list. NOTE: The number of models available on each scale will vary. Pick any source, but you may want to try and stick to the main models such as GFS, NAM, etc.	Source shows up highlighted in the source selection list.			
7.	In the Volume Browser select a field from one of the lists (Basic, Derived, Sfc/2d, Other, Ensemble). Select a green colored field in the menu. NOTE: Many of the submenus are colored black, but there may be green fields under them to select.	Field shows up highlighted in the field selection list.			
8.	In the Volume Browser select a plane from one of the lists (Pres, Theta, Hgt, Misc, Lyrs). Select a green colored	Plane shows up highlighted in the plane selection list; product shows up			

AE IV&V Test Case: Baseline CAVE VB Plan

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	plane in the menu. NOTE: Many of the submenus are colored black, but there may be green plane under them to select.	highlighted in the product selection list.			
9.	To remove selected items from the volume browser, use the clear options under the edit menu. It is possible to clear all or just a source, field, or plane. If a source, field, or plane is cleared the products in the product list will also be cleared.	Selections are removed.			
10	From time-to-time toggle between time and space. The pull-down menu for that is located next to the view pull-down menu.	The will toggle between loading each frame sequencing in time (model initiation through forecast hours) and space (bottom of troposphere or ground to top of troposphere... generally 1000mb to 150mb).			
11	In the Volume Browser select the Load button at the bottom.	Product is loaded in the main pane as a graphic. It defaults to the last frame.			
12	Close the Volume Browser: File > Close.	Volume Browser closes.			
13	View all the frames (model forecast times) by using the arrow keys on the keyboard or toolbar and make sure the date displays correctly and with the right time stamp. The model data should step ever 1-3hrs for RUC, 3hrs	The model data should change from frame to frame. Generally, most features between 60N and 20N latitude will move west to east most of the			

AE IV&V Test Case: Baseline CAVE VB Plan

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	for NAM, 6hrs for GFS & NGM.	time.			
14	Select clear on the CAVE toolbar menu.	Product is cleared from the main pane.			
15	Complete steps 2-14 for a couple of different sources, fields, and planes.	Steps 2-14 were executed successfully.			
16	The SREF products were new in OB7.2. They are available for all scales except N. Hemisphere. Load a sample of the SREF selections under the Ensemble Field. The selections can be several menu levels deep. The available SREF planes are listed in Table 1.	The selected SREF products load on the North American, CONUS, Regional, State(s) and WFO scales.			

Table 1

Available Planes in the Volume Browser for SREF model		
Field	SREF Means & Spreads	SREF Probabilities
Pres	1000, 850, 700, 500, 250 MB	850 MB
Misc	Misc: Surface	Surface, BL, Cloud Ceiling
Lyrs	Layer, 1000-850 MB	

17	Toggle all layers off and toggle each on one at a time. Verify that the product legend is correct.	The product legend should list the correct product name, time and date for the displayed image.			
18	Also, new in OB7.2 were Gridded MOS on the CONUS scale and smaller.	The selected GriddedMOS products load on the CONUS, Regional, State(s)			

AE IV&V Test Case: Baseline CAVE VB Plan

	<p>On the graphics workstation, display the Gridded MOS products:</p> <p>From the Volume Browser select GriddedMOS under Grids, :</p> <p>Select MDL MOS under Sfc/2D</p> <p>Select Max Temp, Min Temp, POP 6h, POP 12 hr, Tstorm Prob 3hr, Tstorm Prob 6hr, Tstorm Prob 12hr, 24hr Snowfall</p> <p>Press Load to load the grids.</p> <p>Repeat above on the CONUS, Regional, State(s) and WFO scales.</p>	and WFO scales.			
19	Toggle all layers off and toggle each on one at a time. Verify that the product legend is correct.	The product legend should list the correct product name, time and date for the displayed image.			
20	The ECMWF-HiRes products were new in OB8.1. The ECMWF-HiRes display is available for Northern Hemisphere, N. American, CONUS and Regional scales. Load a sample of the ECMWF-HiRes parameters listed in Table 2.	The selected ECMWF-HiRes products load on the Northern Hemisphere, N. American, CONUS and Regional scales.			

Table 2

Parameter	Sfc	1000mb	925 mb	850mb	700mb	500mb	400mb	300mb	250mb
Geopotential Height	N/A	Yes	YES	YES	YES	YES	YES	YES	YES

AE IV&V Test Case: Baseline CAVE VB Plan

Parameter	Sfc	1000mb	925 mb	850mb	700mb	500mb	400mb	300mb	250mb
PMSL	YES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Relative Humidity	N/A	YES	YES	YES	YES	YES	YES	YES	YES
Temperature	YES	YES	YES	YES	YES	YES	YES	YES	YES
Wind	YES	YES	YES	YES	YES	YES	YES	YES	YES
Precipitation Accumulation	YES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dewpoint Temperature	YES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3-hour minimum temperature	YES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3-hour maximum temperature	YES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6-hour minimum temperature	YES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6-hour maximum temperature	YES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

21	Toggle all layers off and toggle each on one at a time. Verify that the product legend is correct.	The product legend should list the correct product name, time and date for the displayed image.			
22	From the Scale pull-down menu (left side of toolbar), select WFO. Usually, CONUS is the default scale.	Scale is changed to WFO.			
23	Make sure the proper radar ID is set as home. To set as home, open the Choose by ID GUI and type in the radar ID (kxxx) into the home box at the bottom. Tools > Choose by ID	Radar ID is set to kxxx.			
24	Load plan view radar data: (steps 4-9)	Volume Browser opens.			

AE IV&V Test Case: Baseline CAVE VB Plan

	Open the Volume Browser: Volume > Browser				
25	In the Volume Browser make sure the type is set to Plan View from the top center pull-down.	The Volume Browser size and options change.			
26	In the Volume Browser, select radar as the source: Other > Radar	Source shows up highlighted in the source selection list.			
27	In the Volume Browser, select radar reflectivity as the field: Other > Reflectivity	Field shows up highlighted in the field selection list			
28	In the plane section select surface: Misc > Surface	Plane shows up highlighted in the plane selection list; product shows up highlighted in the product selection list.			
29	At the bottom of the Volume Browser select load.	Data is loaded into main pane of CAVE as a graphic.			
30	Close the Volume Browser: File > Close	Volume Browser closes.			
31	Change the graphic to an image by clicking and holding MB3 over the product name in the product list (lower right of main pane). Use the menu to select: load as image.	Graphic remains loaded with image loaded under it.			
32	Sample the image by click and holding down MB1 while moving the mouse around.	Magnitude of the data field is displayed next to the cursor.			
33	Select Clear on the CAVE toolbar.	The main pane is cleared.			
34	Complete steps 27-32 two more times by loading velocity and column max	Steps are completed successfully.			

AE IV&V Test Case: Baseline CAVE VB Plan

	reflectivity as fields.				
35	Do not clear the main pane yet. The column max reflectivity should still be loaded and that will be used to set a baseline. In order to make a cross section you must select an area to sample. On the CAVE toolbar select the baseline button (has an image of three lines).	The Interactive Baselines appear (ABCDEFGHIJ).			
36	Observe the baselines and choose the one that is to be used to make the cross section. To move the baseline, move the mouse over the center of the line, left click, hold, move the mouse, and let go at the desired location. To move a vertex (point on line, move the mouse over a vertex, left click, hold, move the mouse, and let go at desired location. Move the baseline to an area where the column max reflectivity is a large value. Remember the line ID letter.	Line and/or vertex moves to desired location.			
37	From the Volume menu, select Browser.	The Volume Browser window opens.			
38	In the Volume Browser select Cross-section from the pull-down menu labeled Plan View.	The Volume Browser size and options change.			
39	In the Volume Browser select radar as a source: Other > Radar	Source shows up highlighted in the source selection list.			
40	In the Volume Browser select reflectivity as a field: Other > Reflectivity	Field shows up highlighted in the field selection list.			
41	In the Volume Browser select the baseline that was just aligned in step	Plane shows up highlighted in the plane selection list;			

AE IV&V Test Case: Baseline CAVE VB Plan

	30. Specified > <i>Line X</i> .	product shows up highlighted in the product selection list.			
42	At the bottom of the Volume Browser select load.	Data is loaded into main pane of CAVE.			
43	Change the product set to load from a graphic to an image by clicking over the product with the right mouse button (MB3) and select the second option in the pop-up menu.	Product set to load changes to an image.			
44	Sample the image by click and holding down MB1 while moving the mouse around.	Magnitude of the data field is displayed next to the cursor.			
45	Close the CAVE applications: CAVE > Exit.	CAVE closes.			