

# **Test Case River Monitor**

**for**

**Contract DG133W-05-CQ-1067**

**Advanced Weather Interactive Processing System (AWIPS)  
Operations & Maintenance**

**AWP.TE.SWCTR/TO10-0011**

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## Change History

Revision	Date	Affected Pages	Explanation of Change
Draft	21 Nov. 2008	ALL	Initial Draft
1	16 Jan. 2009	ALL	Result of NWS comments and PDT.
2	6 Feb. 2009	iii, 3	Result of DT

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## **1.0 SCOPE**

See TO10 Software Test Plan.

## **2.0 APPLICABLE DOCUMENTS**

### **2.1 Source Documents**

- None.

### **2.2 Reference Documents**

- Legacy NWS Test Cases: Baseline\_RiverMonitor (OB8.3).
  - Software Test Plan for the Advanced Weather Interactive Processing System Project, Contract #DG133W-05-CQ-1067, January 2009.
- The Silver Spring NWS AWIPS 1 test bed application.
- Rational RequisitePro.

### 3.0 TEST CASE DESCRIPTION

This test case demonstrates that the River Monitor Software can be successfully utilized. This test case also illustrates the Alert Alarm support.

#### 3.1 Assumptions, Constraints and Preconditions

- TO10 software has been installed successfully
- CAVE and EDEX are running
- Data has been ingested
- Actions, Results, and Requirements highlighted in gray 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 TO10 Software Test Plan.

#### 3.3 Test Inputs

Section 4.0 contains the test procedures for this test case. Sections 2.2 – 2.9 of the TO10 Software Test Plan contain general test inputs applicable to all TO10 test cases. Grayed out test step(s) indicate functionality not yet delivered.

#### 3.4 Test Outputs

The results outlined in section 4.0 are met.

### 4.0 TEST SCENARIO

Step #	Action	Result	Pass/Fail
1.	In CAVE, Mouse Button (MB) 1 click on the Perspectives icon and select 'Hydro' from the dropdown menu if available. If not available, select 'Other...'. Then select 'Hydro' from the Open Perspective dialog.	The Hydro Perspective displays in CAVE.	
2.	Under the 'HydroApps' menu, select the 'Launch River Monitor...' option.	The River Monitor window opens, listing all of the forecast points in the site-specific database for the WFO.	
3.	MB1 click 'Display' → 'Select Columns'.	Column Selection window displays.	DR1868
4.	Choose one or more columns from the 'Allowed Items' list. Then MB1 click on the 'Add' button.	The selected items list updates with the chosen columns.	
5.	Choose one or more columns from the 'Selected Items' list. Then MB1 click on the 'Remove' button.	The selected items list updates with the removal of the chosen columns.	
6.	Choose one or more columns from the 'Selected Items' list. Then MB1 click on the '^' or 'v' buttons.	The columns position moves by one step up or down depending on the button clicked.	
7.	MB1 click the 'Confirm' button.	The Column Selection window closes. The table updates to reflect the columns in the selected columns list.	
8.	MB1 click 'Display' → 'Select Columns'.	The Column Selection window displays.	
9.	Choose one or more columns from the 'Allowed Items' list. Then MB1 click on the 'Add' button.	The selected items list updates with the chosen columns.	
10.	MB1 click on 'Cancel'.	The column selection window closes. The displayed table is unchanged.	
11.	MB1 click 'File' → 'Save Settings'.	The Save window opens to /awips/hydroapps/whfs/local/data/app/rivermon. The user can select a file name to save the settings.	
12.	Enter a filename and MB1 click the 'Save' button.	The displayed settings are saved in the file selected.	
13.	MB1 click 'File' → 'Load Custom Settings'.  MB1 click 'Cancel' in the Open window.	The Open window opens to /awips/hydroapps/whfs/local/data/app/rivermon. The user can select the path and file name to load settings.  Verify the file saved in step 12 is there. After clicking 'Cancel', the Open window closes.	
14.	MB1 click 'File' → 'Load Office Settings'.	The tree and the table update based on the information in the file.	

Step #	Action	Result	Pass/Fail
15.	MB1 click 'Display' → 'Refresh'.	The data in the table updates. The refresh panel updates to reflect the appropriate last and next refresh time.	
16.	MB1 click 'File' → 'Export Data To Text File'.  MB1 click 'Cancel' in the Save window.	The menu displays the save window which allows the user to choose the directory and file name for saving the table information.	
17.	MB1 click 'Config' → 'Group Definitions'.	The Group Definitions window appears.	
18.	Type 'FIRST' in Group ID, 'first group' in group name, and '1' in group ordinal. MB1 click 'Save'.  The HSA is automatically set to the admin HSA and is uneditable.	The RiverMon Group table in the database is inserted with this entry. Also, the information displays in the table in Group Definitions window.	
19.	Highlight the Group Definitions created above in the table in RiverMon Group window.  Modify the group name field as 'first created group' and MB1 click 'Save'.	The RiverMon Group table in the database updates and the information displays in the table in Group Definitions window.	
20.	MB1 click the 'Close' button in the Group Definitions window. Verify that the <b>location tree</b> , main table, and 'rivermongroup' table in pgAdmin3 update to reflect the change.	The Group Definitions window closes. Verified.	
21.	MB1 click 'Config' → 'RiverMon Location'.	The RiverMon Location window displays.	DR1868
22.	Select a location ID, a group, and 5 as location ordinal. MB1 click 'Save'. MB1 click 'Close'.	The RiverMon Location table in the database updates with this entry and the information displays in the table in RiverMon Location window. The location tree and main table update to reflect the change.	
23.	Highlight the RiverMon Location created above in the table in RiverMon Location window. Modify the group ordinal to 4. MB1 click 'Save'. MB1 click 'Close'.	The RiverMon Location table in the database updates and the information displays in the table in the RiverMon Location window. The location tree and main table update to reflect the change.	
24.	Highlight the RiverMon Location created above in the table in RiverMon Location window and MB1 click 'Delete'.	The entry is deleted from the RiverMon Location table and is removed from the table.	
25.	MB1 click the 'Close' button.	The RiverMon Location window closes. Verify that the location tree and main table update to reflect the change.	
26.	MB1 click 'Config' → 'Derived Columns'.	An editor with Derived Columns file opens.	

Step #	Action	Result	Pass/Fail
27.	Change the information in a column and MB1 click 'Save and Update Now' in the main GUI. MB1 click 'X' on the DerivedColumns.txt window to close.	The change is visualized.	
28.	MB1 click 'Config' → 'RiverMonitor PE Config'.  MB1 click the 'X' on the DerivedColumns.txt window to close.	An editor with the RiverMonitor PE Config file opens.	
29.	MB1 click 'Display' → 'Forecast Source'.	A sub menu with radio buttons displays. Only one button can be selected at a time.  <b>NOTE:</b> There should be a <i>MaxFcst Value</i> column listed in the table. If not, add that column as was done in Steps 2-6. There should be some values listed in the <i>MaxFcst Value</i> column. If not, select 'Display' -> 'Latest Fcst Basis Time...' from the <b>River Monitor Application</b> GUI menu, which opens the <b>Latest Fcst Basis Time Filter</b> GUI. Then enter a value greater than or equal to 72 and MB1 click 'Close'. MB1 click on the 'MaxFcst Value' column to sort to see if there are any values present. If there are still no values, check to see that hydro data are being ingested.	
30.	MB1 click 'Display' → 'Forecast Source' → 'Choose FF'.	Only forecast data type source FF displays in the table (E.g., some of the MaxFcst should be changed/deleted from that data column, but the site rows for the modified values should remain).	
31.	MB1 click 'Display' → 'Forecast Source' → 'FZ'.	Only forecast data type source FZ displays in the table. (E.g. some of the MaxFcst should be changed/deleted from that data column, but the site rows for the modified values should remain).	
32.	MB1 click 'Display' → 'Forecast Source' → 'Ingest Filter'.	Only forecast data type source that has a ranking per the ingest filter displays in the table. (E.g. the MaxFcst should be restored to the way they were at Step 29).	
33.	MB1 click 'Display' → 'Alert Alarm Valid Time'.	The AlertAlarm valid time filter window displays.	
34.	Change the box value by MB1 clicking the '^' and 'v' buttons. Then close the window by MB1 clicking 'Close' or the 'X' on the upper right corner of the window.	The value in the box is used to determine how much alert alarm data should be included in the AlertAlarm summary column in the main window.	

Step #	Action	Result	Pass/Fail
35.	MB1 click 'Display' → 'VTEC Event EndTime'.	The VTEC Event EndTime filter window appears.	
36.	Change the box value by MB1 clicking the '^' and 'v' buttons. Then close the window by MB1 clicking on the 'Close' button in the window or 'X' on the upper right corner of the window.	The value in the box is used to determine the color of the VTEC Summary and Event EndTime cells included in the main window.	
37.	MB1 click 'Display' → 'UGCExpire Time'.	The UGC Expire Time filter window appears.	
38.	Change the box value by MB1 clicking the '^' and 'v' buttons. Then close the window by MB1 clicking on the 'Close' button in the window or 'X' on the upper right corner of the window.	The value in the box is used to determine the color of the UGC Expire Time cells included in the main window.	
39.	MB1 click 'Display' → 'Latest ObsTime'.	The Latest ObsTime filter window appears.	
40.	Change the box value by MB1 clicking the '^' and 'v' buttons. Then close the window by MB1 clicking on the 'Close' button in the window or 'X' on the upper right corner of the window.	The value in the box is used to determine the color of LatestObs Time, LatestObs Value, Latest StgValue, Latest StgTime, Latest FlowValue, Latest FlowTime cells in the main window.	
41.	MB1 click 'Sort' → 'HSA  Group  Location - Order'.	Choosing this menu causes the displayed data to be sorted first by HSA (ascending order), then by group ordinal (ascending order), then by location ordinal (ascending order).	
42.	MB1 click 'Details' → 'Office Notes'.	The Office Notes window appears. When this window displays, it highlights the first row (if any exist) that matched the location id of the station selected (if any) in the main window. Upon selecting the existing id in the combo box, its name, state and county display.	
43.	Choose an ID from the ID box, enter topic say 'Rivermon', enter note as say 'flooding from tomorrow', enter data time and expire time. Then MB1 click the 'Save' button.	The Officenotes table in the database contains this entry. The posting time and update time is the current system time. Also the information displays in the upper portion of the Officenotes window.	
44.	Highlight the above created office notes in the upper portion of the Officenotes window, and modify the notes field as 'may be flooding tomorrow'. Then MB1 click the 'Save' button.	The Officenotes table in the database updates with this change. The update time changes to current system time. Also the information displays in the upper portion of the Officenotes window.	
45.	Highlight the above created office notes in the upper portion of the Officenotes window and MB1 click on the 'Delete' button.	The highlighted entry is deleted from the Officenotes table. The highlighted row is removed from the upper portion of the Officenotes window.	
46.	MB1 click the 'Close' button.	The Officenotes window closes.	

Step #	Action	Result	Pass/Fail
47.	MB1 click 'Details' → 'VTEC Events'.	The Valid Time Event Code (VTEC) History window appears. When this window displays, it highlights the first row (if any exist) that matches the location id of the station selected (if any) in the main window.	
48.	MB1 click the 'Close' button.	The Valid Time Event Code (VTEC) History window closes.	
49.	MB1 click 'Details' → 'AlertAlarm'.	The AlertAlarm window appears. When this window displays, it highlights the first row (if any exist) that matches the location id of the station selected (if any) in the main window.	
50.	MB1 click the 'Close' button.	The AlertAlarm window closes.	
51.	MB1 click 'Details' → 'Time Series Lite'.	The TimeSeriesLite window appears only if a row is selected in the main window and it has latest obsvalue and/or maxfcst value displayed, or the forecast source option is not IngestFilter. If the row is not highlighted before choosing this option then a window asking the user to highlight the row will display.	
52.	MB1 click 'File' → 'Close'.	The Time Series window closes.	
53.	MB1 click on the 'Update Now' button on the main window.	The main window table updates with the current data from database. The last update time shows the current time. The next update time is the last update time + x minutes (where x is equal to the value in the spin box near update now button).	
54.	Change the value in the update box to '5'. Then MB1 click the 'Update Now' button.	The main window table updates with the current data from database. The last update time shows the current time. The next update time is the last update time + 5 minutes.	
55.	Choose a location not displayed in the table in the left tree. Select the checkbox to show selected.	The location information displays in the table.	
56.	Deselect the location in the left tree. Unselect the checkbox to show not selected.	The location information does not display in the table.	
57.	Choose a group name in the left tree, and select the checkbox to show selected.	All the location ids under this group are selected in the tree. All the location's information displays on the table.	
58.	Deselect the group name in the left tree. Unselect the checkbox to show not selected.	All the location ids under this group are deselected in the tree. All the location's information does not display on the table.	

Step #	Action	Result	Pass/Fail
59.	Choose a HSA in the left tree. Select the checkbox to show selected.	All the groups under this HSA and the location ids under these groups are selected in the tree. All the location's information displays on the table.	
60.	Deselect the HSA in the left tree. Unselect the checkbox to show not selected.	All the groups under this HSA and the location ids under these groups are deselected in the tree. All the location's information does not display on the table.	
61.	MB1 click on any of the column header in the table.	All the rows are sorted based on the data in the column that is clicked.	
62.	Extend/Shrink the width of the columns, by dragging the column border with MB1.	The column width extends/shrinks based on the direction of the MB1 drag.	
63.	Move the order of the columns displayed by MB1 clicking on the column header, dragging it and placing it in another position.	The column is placed to the new position the user places the column.	
64.	MB1 click 'File' → 'Save Settings'. The save window opens and the user can select the path and file name to save the settings.  MB1 click the 'Save' button.	The currently displayed settings like displayed columns, their order, sort information, fcst ts option, alertalarm valid time look up hours are saved in the file selected.	
65.	MB1 click 'File' → 'Load Office Settings'.	This causes the settings file RiverMonitorSettings.txt (if it exists) file to be read and the display updated according to its contents. The tree and the table update based on the information in the file. If the file doesn't exist then the message displays in a window.	
66.	MB1 click 'File' -> 'Load Settings'. Select the file created in step 64.  MB1 click on the 'Open' button.	The display of the main window has the look and feel as it was just before performing step 64.	
67.	MB1 click 'File' -> 'Exit' or close the window by MB1 clicking on the 'X' in the upper right corner of the window.	This causes the application to exit.	
End of Test			

**5.0 REQUIREMENTS VERIFICATION TRACEABILITY MATRIX (RVTM)**

Number	Description	Test Step(s)
SYSR3105	The AWIPS system shall implement RiverMonitor dialogs in the Hydroview perspective.	ALL