MPE Related DRs (AWIPS Build 17.2.1)

DR #	Title	Description and Testing Instructions
19805	MPE Daily QC: if data is displayed as contours, the display remains in contour mode after exiting to the 1 hour display	In the MPE Daily QC, after the user has performed the render-grids operation, there are options to display the data in various formats: Points, Points+Grids, Points+MATs, etc. If the user sets the display format to either "Contours" or "Points+Contours", the display mode remains in contour mode when exiting from the Daily QC back to the hourly MPE. to reproduce: 1. load the MPE perspective in CAVE. 2. in the Choose Data Period window, click the 'Display MPE Data' button. 3. from the top menu select Tools-->Display Data As. Verify that the setting is "Image". 4. from the top menu select Gages-->QC Precipitation to load the Daily QC. (Daily QC can also be loaded by re-opening the Choose Data Period window). 5. when the Daily QC data is loaded, MB3-click on one of the stations to open the Edit Precipitation Stations window. 6. edit either the 6-hour values or the quality code of the station, then click 'Apply' then 'Close'. (This is the enable the 'Render Grids' button) 7. click the 'Render Grids+MAPs' button. The rendering process will be complete when the button becomes deactivated. 8. click on the "Points" drop-down list and select either "Points+Contours" or "Contours". The data on the map will be redisplayed with contour lines. 9. exit the Daily QC by clicking the 'X' control in the upper right-hand corner of QC Precipitation Options window. Note: saving the level 2 data is optional - the problem occurs whether or not the data is saved. 10. view the data display for the hourly mode. Expected result: the hourly data is displayed in image mode, as verified in step 3. Actual result: the hourly data is displayed in contour mode. If Tools-->Display Data As is selected, Image mode is still indicated -- meaning the mode setting between hourly and QC mode is out-of-sync.
19802	MPE Multi-Hour QPE: missing values in the legend for display types other than "Grid"	In the MPE Multi-Hour QPE screen, setting the display type to Basin, County or Zone displays a line of text in the legend at the bottom right-hand corner of the window. In the text, the symbols "%d" and "%s" are displayed in place of actual duration and date data. To reproduce: 1. load the MPE perspective in CAVE. 2. in the Choose Data Period window, click the 'Display MPE Data' button. 3. from the top menu, select Misc-->Multi-Hour QPE. 4. in the Multi-Hour Precipitation Accumulation window, leave the settings at the defaults and click 'Show Data'. 5. the 1-hour QPE data for the current date and hour is displayed in grid format. There won't be an entry in the legend.

		6. click on the "Display As" drop-down list, and select "Basin", then click 'Show Data'. 7. the 1-hour QPE data is redisplayed by basin. There is an entry in the legend. Expected result: the legend displays duration, display type and date values matching the Multi-Hour Precipitation Accumulation window. Actual result: the legend displays the text: "%d hr Saved Precip Estimate For %s Ending %s (in)" (see attached screen capture). Note: this problem occurs for all possible selections for Product to Accumulate, all selections for Duration, and the Display As selections "Basin", "County" and "Zone".
19625	MPE: Daily QC precipitation estimates are different than A1	DailyQC precipitation estimates are different in A1 and A2 versions. For test, I used the same inputs for both A1 and A2 (files and tokens). I manually altered the value highlighted in graphics to 3.10", then "Rendered Grids+Maps" and displayed "Estimated". Notice difference at Coastal site (.66" in A1, 2.15" in A2, Site along Columbia River (.42" in A1, 0.0 in A2). 1. Open MPE, choose hour with saved data. 2. Select MPE Control -> Choose Hour. 3. Select Current hydro day -1 in lower section and select Precipitation. 4. Make sure that there is current data displayed in Level 1. 5. Click Render.... 6. Check to see that station values shown match what should be expected based on surrounding data. 7. Display Grid to see if it corresponds. Done.
19495	MPE: Daily QC for Temperature: the Edit Precipitation Stations panel has Station Quality buttons transposed	In the MPE Daily QC for Temperature, the Edit Precipitation Stations panel has the radio buttons for Questionable" and "Screened" transposed. Opening the panel for a station with a quality setting of "Questionable" will display the "Screened" radio button selected. Similarly, a station with a quality setting of "Screened" will display the "Questionable" button selected. Steps to reproduce: 1. load the MPE perspective in CAVE. 2. in the Choose Data Period window, click the 'Temperature' button to load the Daily QC for temperature. 3. in the QC Temperature Options panel, clear the check boxes in the Point Quality section, then select only "Questionable". (this makes the questionable stations easier to find on the map display). 4. select a test station: verify that it's displayed in the correct color according to the color key (yellow). 5. MB3-click on the station to open the Edit Temperature Stations window. 6. note the selected radio button in the Station quality section. Expected result: the "Questionable" radio button is selected.

		Actual result: the "Screened" radio button is selected. 7. repeat steps 3-6, viewing Screened stations. Expected result: the "Screened" radio button is selected. Actual result: the "Questionable" radio button is selected.
19139	Problem with sending 6Z 6-hr QPE grid to CHPS	One of the things we do in the open water/operational season that we do not routinely do in the winter is create an 18Z 6-hr QPE grid that is sent to CHPS. In the past this has been done by running MPE1 after 1830Z (and usually before 19Z), editing the 12Z-18Z 6-hr precip values, and saving the level 2 data (thus creating the 6-hr 18Z QPE grid). Since we are trying to switch to using MPE2, yesterday (5/12) I decided to use MPE2 to produce the 6-hr 18Z QPE grid. Shortly after 1830Z, I opened MPE2, loading 2 days of precip data. I then changed from 24-hr to 6-hr, and the first thing I noticed was that most of the values were "time distributed". Some more in-depth checking revealed that precip data that came in as PPQR* (came in as a 6-hr incremental) was shown as either "verified" or "questionable" (as expected), whereas the data which came in as PC (accumulating precip) was showing as "time distributed" (not expected - in MPE1 it also displays as "verified" or "questionable"). After further checking, it appears that for the PC data, MPE2 treated the 12Z-18Z 6-hr total (on the 12th) as being the 24 hour total at 12Z on the 13th (ie, the 12Z-12Z total). It is then evenly time distributing that total back over the 4 6-hr periods (12-18Z, 18-0Z, 0-6Z, and 6-12Z). This resulted in 6-hr values that are too small (by a factor of 4) at 18Z, and the "time distributed" values can not be edited... so a grid produced from this data would be incorrect. After trying (unsuccessfully) to edit the time distributed 12-18Z data, I quit MPE2 without saving, and returned to MPE1 to produce the 18Z 6-hr grid. Test procedure: 1- Load the MPE perspective around 18:05Z or later. 2- Click the 'Precipitation' button to load the daily QC. 3- MB3-click on a station to open the Edit Precipitation Stations window. this is what you should see in the window at 18Z, 00Z, 06Z and 12Z if the gage value is 0.0 at 18Z 12-18 0.00 18-00 M 00-06 M 06-12 M 12-12 0.00 at 00Z 12-18 M 18-00 0.00 00-06 M

		06-12 M 12-12 0.00 at 06Z 12-18 M 18-00 M 00-06 0.00 06-12 M 12-12 0.00 at 12Z 12-18 M 18-00 M 00-06 M 06-12 0.00 12-12 0.00 Note: before the fix it will be evenly distributed for example see bellow at 18Z 12-18 0.00 18-00 0.00 00-06 0.00 06-12 0.00 12-12 0.00 End of the test procedure
18927	MPE Gage Table: if edits to gage values are cancelled, they are still applied by fieldgen	There are two scenarios in which edits to a gage value are seemingly cancelled, but are still applied to the gage when field gen is run. Steps to reproduce: 1. load the MPE perspective in CAVE. 2. from the top menu, select Gages-->Gage Table 3. in the MPE Gage Table window, select a gage with a value >= 0. 4. Double MB1-click in the Edit Gage Value column for that gage. Enter a value different from the current one, and press Enter. 5. Repeat step 4 for a second gage. 6. Double MB1-click on the first gage that was edited (in step 4). Erase the entry using the backspace key, then press Enter. The Edit Gage Value column for the first gage is now blank. 7. click the 'Save' button to close the MPE Gage Table window and return to the hourly display. 8. from the top menu select MPEControl-->Regenerate Hour Fields. Click Yes in the confirmation popup. 9. when the process completes and the popup closes, select Gages-->Gage Table. 10. locate the two gages edited previously. Expected result: the value for the first gage has remained unchanged, since the edit was cancelled.

		The second gage displays the new value, input in step 5. Actual result: both the first and second gages display the new values. second scenario: 1. following step 10, locate a third test gage. 2. double MB1-click in the Edit Gage Value column for that gage. 3. enter a different value, then backspace over it to cancel. Do_not_ press Enter. 4. double MB1-click on a different gage. 5. enter a new value, then press Enter. 6. click the 'Save' button to close the MPE Gage Table window and return to the hourly display. 7. from the top menu select MPEControl-->Regenerate Hour Fields. Click Yes in the confirmation popup. 8. when the process completes and the popup closes, select Gages-->Gage Table. 9. locate the two gages edited previously. Expected result: the value for the first gage has remained unchanged, since the edit was cancelled. The second gage displays the new value, input in step 5. Actual result: the first gage now displays an 'M' (missing). The second gage displays the new value.
18707	MPE Gage Table: column sort indicators do not move when rearranging column orders	In the MPE Gage Table, if a column which has been selected as a sort-key is moved, the sort-key indicator switches to a different column. To reproduce: 1. load the MPE perspective in CAVE. 2. from the top menu, select Gages-->Gage Table 3. click on four column headers: note the column names and their sort-key number. In the attached screen capture GageTable_start.png, the "Multi-sensor Mosaic" is selected as sort-key 1. 4. MB1 click-and-drag on one of the sort column number 1, and move it to the left or right. Expected result: the sort-key indicator moves with the column it was assigned to. Actual result: the sort-key indicator remains "stuck" in the same position -- which is now occupied by a different column. In the screen capture GageTable_move_column1.png, Multi-sensor Mosaic has been moved one column to the left. Note that "Maximum Radar Mosaic" now displays the "1". In the screen capture GageTable_move_column3.png, "Gage Value" (sort column 3) has been moved to the left of "LID" (sort column 4). Gage Value now displays a "4", and LID a "3".
18589	MPE: Daily QC can sometimes throw an error when setting 6	This was uncovered during some regression testing, in certain situations while editing the 6 hour values for a station and setting the 24 hour quality code to Screened will cause upon any subsequent editing of this station to throw an error when bringing up the edit window. This is found that the data

	hour values	is considered outside of QC and is reset to Missing, but the value of the Qual code is a numeric value for Missing, but there is no such Qual code, this should not be allowed QC checks in the code should be fixing up the MIssing value and qc code to be a Time-Distributed value or an Estimate. The code appears to not have ever worked properly in this particular case. 1. Load the MPE Perspective in CAVE. 2. in the Choose Data Period window, click the 'Precipitation' button to load the Daily QC data. 3. Open the Edit Precipitation Station window for a station with a mix of 2 Verified and 2 Time-Distributed six-hour periods. If needed you can manually edit the level 1 data file to produce this result for a test station. 4. Edit the all four of the 6-hour values, then clicked 'Apply' --> result: all 6-hour values changed to Manual. 5. Set the 24-hour to Screened by clicking the "Screened" radio button, then click Apply. 6. Verify that the 24-hour and all 6-hour values were set to "Screened". This should happen without throwing an error, currently this can throw an error.
18424	KRF- dailyQC is slow and unresponsive in the MPE perspective	There is a problem in the MPE Perspective. Daily QC is slow and unresponsive. In Daily QC, Zooming and Panning is very slow and jumpy. For example, zooming in by one level can take up to 5 seconds. In panning there is a several seconds delay, making it difficult to use. In the AWIPS-1 version there is no delay. Nor is there a delay in any other cave features. Selecting data is also very slow compared to AWIPS-1 version This was a problem since at lest 14.3.1 1. Load Cave and MPE 2. In the Choose Hour dialog click the Precipitation button near the bottom 3. Verify the screen redraws quickly and that you can pan and zoom without issue 4. Repeat for Temperature and Freezing buttons
18414	KRF- color scale incorrect for post analysis in MPE for the area between >= 0.00 and < 0.01	John Lague called to state a problem with Color Scale in Post analysis in MPE. he is reporting that the zero in the legend means "greater than zero, less than or equal to 0.01". With the current settings, the whole display is painted with "skyblue3" where values are < 0.01. You must be localized to a RFC for these test procedures to work. 1. Start CAVE. 2. Open the Localization perspective. 3. Expand Hydro Aps->Hydro->Apps_defaults->SITE. 4. Set mpe_post_analysis to ON in Apps_defaults (if it is not already) and save the file. 5. Open the MPE perspective. 6. In the Choose Data Options window, click the 'Precipitation' button to load

		the Daily QC for precip. 7. On the map display, MB3-click on a station to open the Edit Precipitation Stations window. 8. In the edit window, either change the Station quality setting or one-or-more of the hourly values. Click 'Apply' then 'Close'. 9. In the Edit Precipitation Stations window, click 'Render Grids+MAPs' . When the rendering process completes, the button will be deactivated. 10. Verify the station updates accordingly. 11. In the QC Precipitation Options window, click the 'X' in the upper right-hand corner to exit the Daily QC. 12. In the Send to Database window, select the Precipitation check box then click 'Yes'. MPE returns to the hourly mode. 13. Open a terminal window. 14. Navigate to /awips2/edex/data/share/hydroapps/precip_proc/local/data/mpe/dailyQC/precip/grid 15. Type: ls lrt 16. Verify that data with a value of 0.00 is rendered correctly according to the legend. With default legend coloring, the left panel should be black rather than light blue / teal.
18293	MPE Perspective sampling is limited by color scale	MPE Perspective: sampling is limited by color scale. When sampling in MPE (right mouse click - MPE Info), the value displayed is limited by the color scale. For example, if the highest color scale value is 3.00 then that is the highest value the sampling will display, even though the actual value might be over 5.00. This is especially noted when displaying multi-hour QPE which could have large totals that may exceed scale value. 1. Start MPE. 2. Display MPE data. 3. In the CAVE menu, select Polygons -> Draw Polygon. 4. Draw a polygon and right-click to bring up the Edit Precipitation dialog. 5. Adjust the slider in Adjust Precipitation value frame and set it to a value higher than the maximum of the legend. 6. Click the "Set" button in the dialog. 7. Right-click on the MPE perspective and select MPE Info in the context menu that is displayed. 8. Position the mouse cursor over the area of the polygon and verify that the MPE Info display shows a value larger than the legend maximum.
17296	MPE: only the default color scales are displayed: user and office-level color scales do not	If user and/or office-level color scales are created and saved using the MPE Color Manager, they are not displayed for the PrecipField item they're assigned to. Only the default color scale appears for every item. Steps to reproduce: 1. load the MPE perspective in CAVE. 2. in the Choose Data Period window, adjust the date and hour to one with data (if necessary), then click Display MPE Data. 3. from the top menu, select PrecipFields, then select an item from the list. Note: DP Average Radar Mosaic

		is used as an example. 4. from the top menu, select Tools-->MPE Color Manager. 5. leave the Source field as Default. From the Data Type drop-down list, select DP Avg Radar Mosaic. 6. compare the colors and values in the scale to those displayed in the legend at the bottom of the screen: verify that they match. 7. double-click on the Duration field and enter "1". 8. click on one of the color blocks in the upper scale. Using the Color Chooser, select a different color from the list and click OK. Repeat this for two or three other colors, in order to create a scale noticeably different than the default. When done, click Add/Update. 9. click Save as: Office. Click Yes in the confirmation popup. 10. from the top menu, select PrecipFields-->DP Avg Radar Mosaic. Expected result: the color scale created in step 8 is displayed in the legend. Actual result: the default color scale is displayed.
17104	MPE Display7x7 feature. Displayed field is not proper	The Display7x7 Selection Combo box changes the displayed product from the CAVE Menu, over-riding any selection made from the Precip Fields menu. The main precip field grid should not update when the 7x7 combo box menu changes the precip field selection, and vice-versa. 1. Open MPE perspective 2. Choose a date/time with data and 3. select Display MPE Data 4. Select the Gages menu and then Display 7 x 7 5. Click on a gage on the map and the 7x7 dialog opens Note the data type displayed in the map and the data type displayed in the dialog. 6. Change the data type combo in the dialog 7. Verify the 7x7 grid updates to the new data type and that the map does not change.
16775	MPE: the state of the pan on/off setting gets out of sync when switching between the MPE and Hydro perspectives	Steps to reproduce: 1. load the MPE perspective in Cave. Note that the pan is on by default: the pan button in the toolbar is selected. 2. Verify that pan mode is on: the map display can be moved using click-and-drag with the mouse; and scrolling the mouse wheel will zoom the display in and out. 3. Click on the pan button in the toolbar: it becomes de-selected. Verify that pan mode is off: neither click-and-drag or mouse-wheel zoom is working. 4. From the top menu select CAVE-->Perspective-->Hydro to open the Hydro perspective. Note that pan mode is on when it loads: button is selected and mouse operations are working. 5. From the menu select CAVE-->Perspective-->MPE to return to the MPE perspective. The pan button is displayed as being selected. Expected result: since the button is selected, the pan-and-zoom mouse operations are available.

		Actual result: the mouse operations do not work. It is necessary to click the pan button twice to enable pan mode.
14349	MPE - Map disappears from D2D when selecting a different map projection	After changing the view to split screen in MPE, and loading a field to the lower screen, and then changing the view back to full screen, the following anomaly was encountered. When changing the projection to HRAP, the State/County Boundaries map disappears from the display. 1. Launch CAVE and select the MPE perspective. 2. Select the previous Hour and click on Display MPE Data 3. Click on OK in the Data Not Saved dialog 4. Select PrecipFields -- Field Bias Radar Mosaic 5. Select Tools -- View... -- Split Screen 6. Holding down MB3 (right mouse button) in the lower screen, select Load To This Panel 7. Select PrecipFields -- Gage Only Analysis 8. Select Tools -- View... -- Full Screen 9. Select Projections -- HRAP - Map should display
13268	Symbol Sorting Indicators Missing from MPE Gage Table	While testing DR 15086, I encountered a problem with the MPE Gage Table sequence number sorting column headings. The symbol sorting indicators (triangle symbol) are missing from the columns that contain number 4, 3, and 2 (see attached screen print MPE_Gage_Table_Sorting_Indicator_A2). Also when I click the sorting indicator on the column containing number 1, the numbers 3 and 2 disappear and number 4 shifts to the column previously containing number 3 (MPE_Gage_Table_Sorting_Indicator_A2(a)).I compared my finding with A1, where the MPE Gage Table contains the sequence numbers and the indicator symbols (see attached screen print MPE_Gage_Table_Sorting_Indicator_A1). 1. Load Cave and MPE 2. Select an hour and click Display MPE Data 3. In the Gages menu select Gage Table... 4. Click various column headers to sort the columns 5. Verify each column that was sorted has a little triangle to show the direction of the sort.
289	MPE: Fault with the Gage Table Column Selector	The MPE Gage Table Column Selector 'selected items" list does not reflect all of the columns displayed in the MPE Gage Table. See the attached screen capture files selector.png and gage_table.png. The Average Radar Mosaic and Maximum Radar Mosaic are missing from the "Selected Items" list. Furthermore, after closing the Gage Table Column Selector, changes to the table are observed, even though no changes were made in the Gage Table Column Selector. moving the horizontal scroll bar of the MPE Gage Table, the cells in the table become misaligned and the scroll bar can not be moved completely to the right. Operationally, the MPE GE Table would have to be restarted after closing and making changes in the Gage Table Column Selector.
19491	MPE: UELE when saving	RFCs are receiving multiple errors when trying to save level 2 edits. This is happening only when using the Group Edit dialog and/or when trying

	Level 2 Data in Daily QC	to save from the main menu pull down MPE Gages -> Save Level 2 Data ... A workaround has been found to save data, if you do not use the Group Edit dialog to make edits and do not use the Save Level 2 Data menu options, you can, when done with edits, exit the QC Options dialog with the "X" in the corner and you get a prompt to save, at this point you can check the type of data to save and proceed. This has been found to work. This is confirmed at TIR, ACR, and ORN RFCs. 1. Open MPE Perspective 2. Pick a time that has data and click Display MPE Data. 3. Click on menu MPE Control -> Choose Hour. 4. At the bottom of the dialog select previous day as the date, and click Precipitation button. 5. Make edits to gage values by right clicking on the gage. 6. Click on menu MPE Gages -> Save Level 2 Data. 7. Check Precipitation and Save the data. 8. Make additional edits using the Group Edit dialog. 9. Exit Daily QC by clicking red "X" on the QC Precip Options dialog. 10. Save this data as before.
10478	MPE 6/24hr Mode: Grid Legend Options Problem - TTR5982	In the 6/24 hr mode, the "up" and "down" options on the grid legend do not work properly. 1. Open 6/24hr MPE and choose a time period with data. 2. Choose Render Grids+MAPs. 3. After grid is displayed, click on legend. 4. Choose "up" or "down" option. Chooses "off" to return legend and display to normal.