

# FFMP Functionality Walk-Through

## Introduction

Follow these steps to see how much of the functionality in FFMP works.

Note: In the following slides, any actions using FFMP or D2D are in a bulleted format, and any actions for this presentation are shown in red.

Click on many of the graphics contained in this presentation for a larger view.

## 2205 UTC: Default Display

To launch FFMP from the main AWIPS (D2D) window,

- Change the map scale to **WFO**.
- Under the **SCAN** menu, choose the **FFMP kabr Display** option in the **FFMP** section.

Note: Depending upon local office configurations, the **FFMP** section likely contains items for additional FFMP displays. In particular, **HPE** (High-resolution Precipitation Estimator) and **BiasHPE** include multiple sources of information to obtain rainfall amounts. These multiple sources incorporate radar mosaics, potentially simplifying using FFMP in CWAs that have multiple radars.

Eventually a new "Basin Table" window appears. Much of the user interaction with FFMP occurs through this table.

- In the Basin Table, click on the **CWA** menu and choose **ABR**.
- In the Basin Table, click the **Refresh D2D** button.

Click on the picture below for an illustration of these steps at 2205 UTC.

See the [Introduction to the FFMP Graphical User Interface](#) for more information on the functionality associated with the various buttons.

## 2205 UTC: Display Rate

In its default state, FFMP shows a 1.5 hour rainfall accumulation map. This step changes the display to a rainfall rate graphic.

- In the FFMP table, click the **Rate** button.
- Click the **Refresh D2D** button.

The D2D window should update with a new county-coded graphic. In this example, the basin table shows no data because it wants to sort by ratio which requires both a FFG and QPE value. For FFMP, rate is a 0-hr accumulation, and both the accumulation (QPE) and FFG for 0 hours is undefined.

- Click the **Rate** column heading for the table to sort the table by county-averaged rainfall rates.

Click the graphic below to obtain an animation that illustrates these actions. The graphic should match your display for 2205 UTC.

## 2205 UTC: 3 Hour Duration

This step changes the display back to precipitation accumulation, but selects a different duration (3 hours).

- Move the **Time Duration** slider to **3.0**.
- Click the **Refresh D2D** button.

Click on the graphic below to see the display valid at 2205 UTC.

## 2205 UTC: Display Ratio

This step changes the display to the QPE-FFG difference for a 3 hour duration.

- Click the **D2D** menu, choose **diff**, and refresh D2D

Click the graphic below which illustrates the results. The graphic should match your display for 2205 UTC.

Note that table is sorted by Ratio, by default. In this case, little difference occurs if the table is sorted by Diff. Compare the D2D graphic and the table at 2205 UTC and note that different color schemes are used in the FFMP table and the D2D graphic. In D2D, the 8 counties with Diff values greater than -1 are colored with dark yellow (three counties), and bright yellow (five counties). In the table, difference values for six counties are shown in light red (differences greater than -0.5).

It is possible to change the color scheme in the FFMP table, by right-clicking on the column headings (except NAME or GUID).

It is not generally possible or advisable to make the color schemes for the FFMP table and D2D image to match.

## 2210 UTC: Display Precip/Sort Table

This step changes the display to the Precipitation Accumulation for a 3 hour duration and sorts the table by Precip.

- Click the **D2D** menu, choose **qpe**, and refresh D2D.
- Left-click on the **QPE** column heading to sort the table by Precip.

Compare the D2D graphic and the table at 2210 UTC and note that the colored counties in the graphic do correspond to the counties in the sorted table, although the color scales between the table and the D2D display do not match.

Click the graphic below which illustrates the results.

## 2210 UTC: Zooming Into Basins

The FFMP table can be used to zoom into specific basins.

At 2210 UTC, from the default display:

- Change **Durations** to **3.00**
- Refresh D2D
- Click on the cell that says **SD, CAMPBELL**.

The table lists the basins that are in Campbell County, SD. The D2D display zooms into the same county and puts an X in the center of the county.

Identify the four basins that have rainfall exceeding 95% of the FFG.

- Move the mouse (no click or drag) over the basin names in the table to see the basin ID numbers.

Since these ID numbers are long, let's reference them by the 4 digits that come after "1988": "**6227**", "**6226**", "**6229**", and "**6228**" (from top to bottom, or greatest ratio to lowest).

Zoom into these three basins successively:

- Click on the "xxxx" in the top row (id "**6227**").

- Click on the "xxxx" in the second row (id "6226").
- Click on the "xxxx" in the third row (id "6229").
- Click on the "xxxx" in the third row (id "6228").

Note how the X in the D2D display marks the basin location.

Use cursor-sampling on the D2D image to also obtain basin ID information:

- Hold down the left mouse button while roaming around the D2D image

Zoom all the way back out to the original colored county display:

- In the Basin Table, click on the button labeled "SD, CAMPBELL" above the **NAME** column.

It is possible to use an intermediate zoom level. To see this:

- Zoom all the way to the basin level, as above, by clicking on the cell that says "SD, CAMPBELL", then on the "xxxx" in the third row.
- Click on the "xxxx" in the tan (bottom) row of the table.

Clicking on the name cell in the bottom row un-zooms the display by one level.

*Note: For the graphic below to match your display, make sure that the settings in the **Zoom** menu are set as follows:*

- *Maintain Layer: off*
- *Only Basins in Parent: on*

*These are the default FFMP settings. Part 2 of this module contains additional information about these settings.*

Click the graphic below to obtain an animation that illustrates these actions. The graphic should match your displays for 2210 UTC.

Continue to the next presentation:

[Part 2 of the FFMP Functionality Walk Through](#)