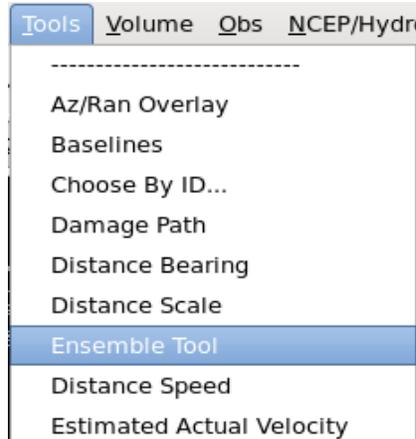


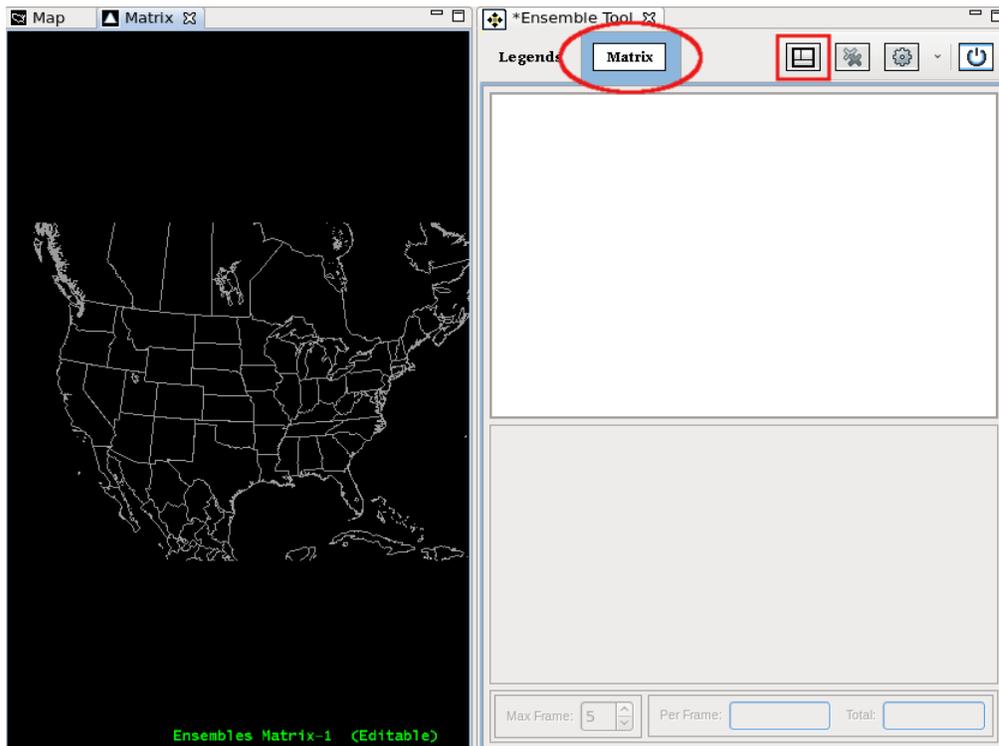
Ensemble Tool Model Families Matrix Viewer Jobsheet

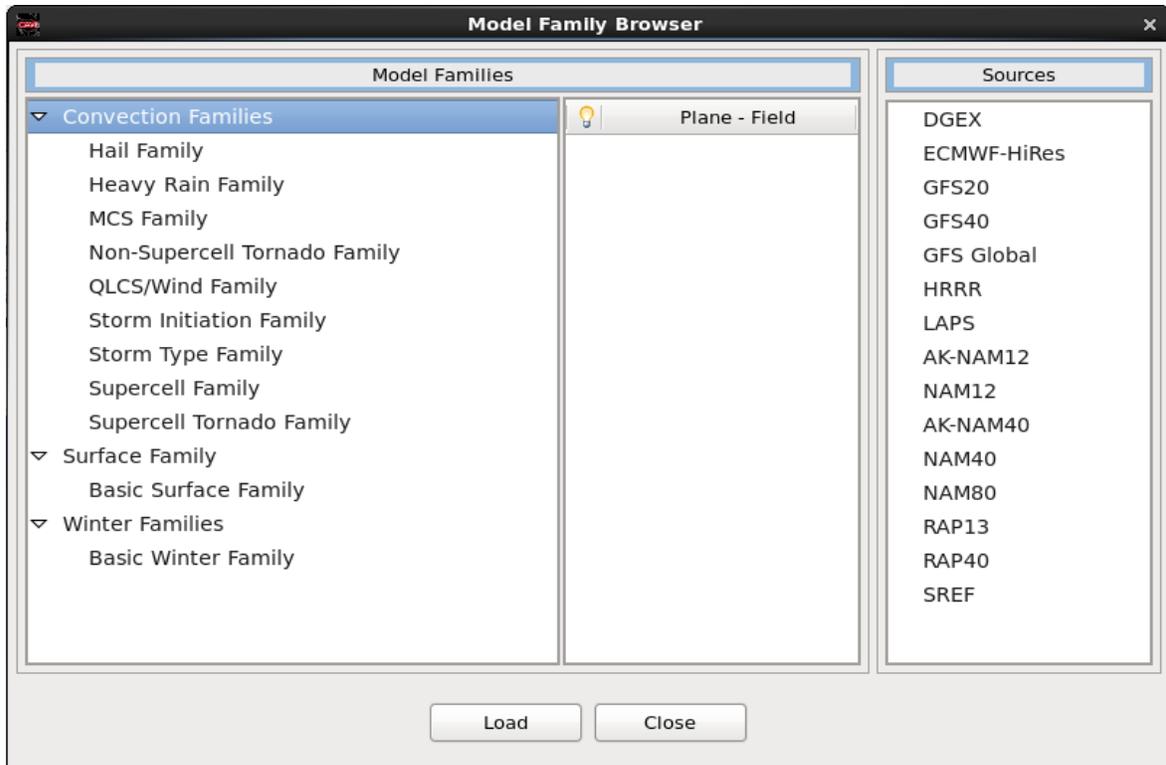
Summary: The Ensemble Tool has a Matrix button which allows the user to load volume model family parameters and cycle through individual models with single mouse clicks. This is useful for easily comparing groups of parameters between different models.

1. On **CONUS** scale, load the **Ensemble Tool** from the **Tools** menu.

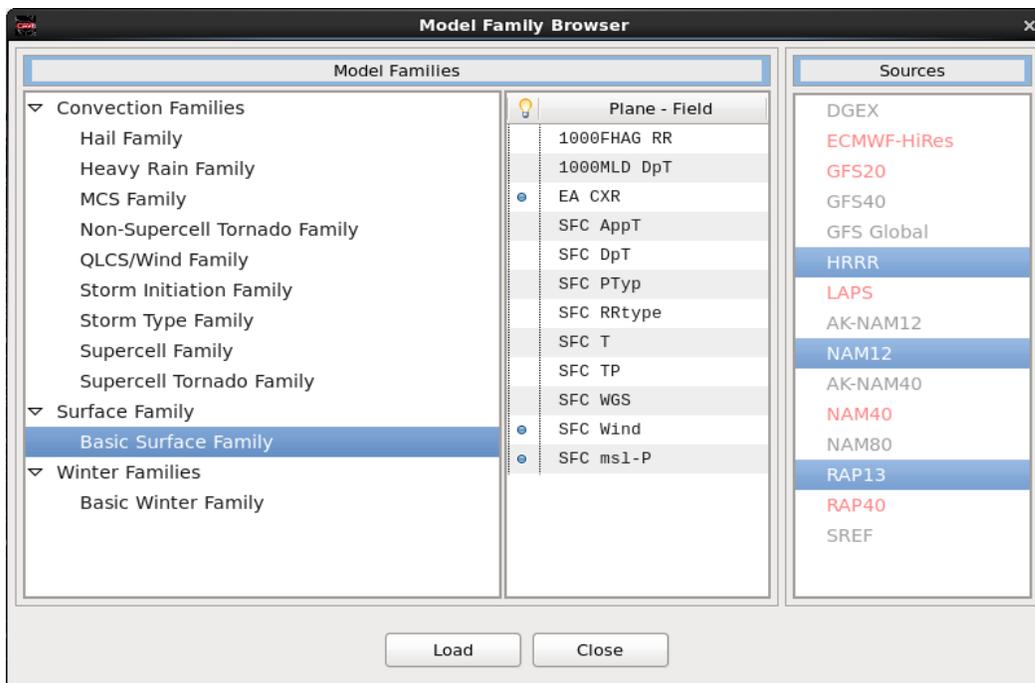


2. Click on the **Matrix** tab, then click on the **Open a Model Family** icon.

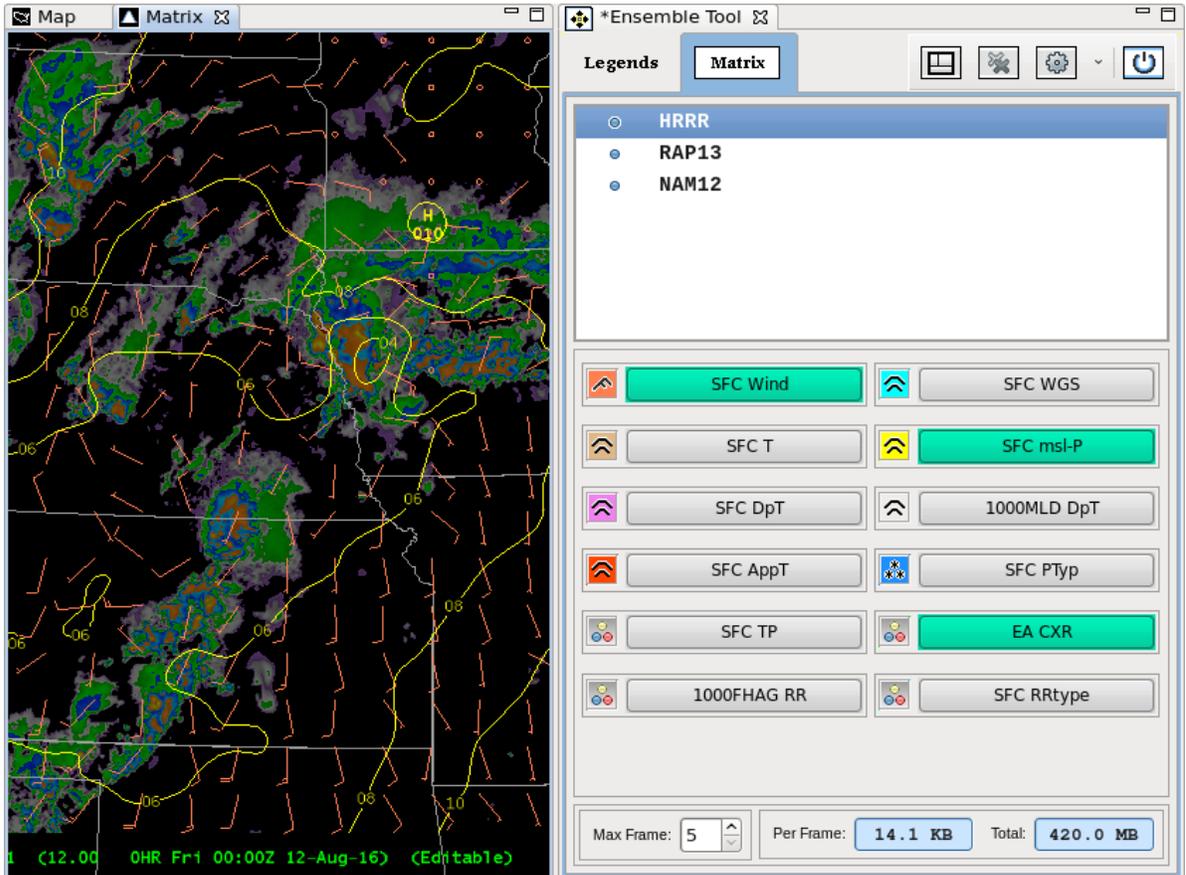




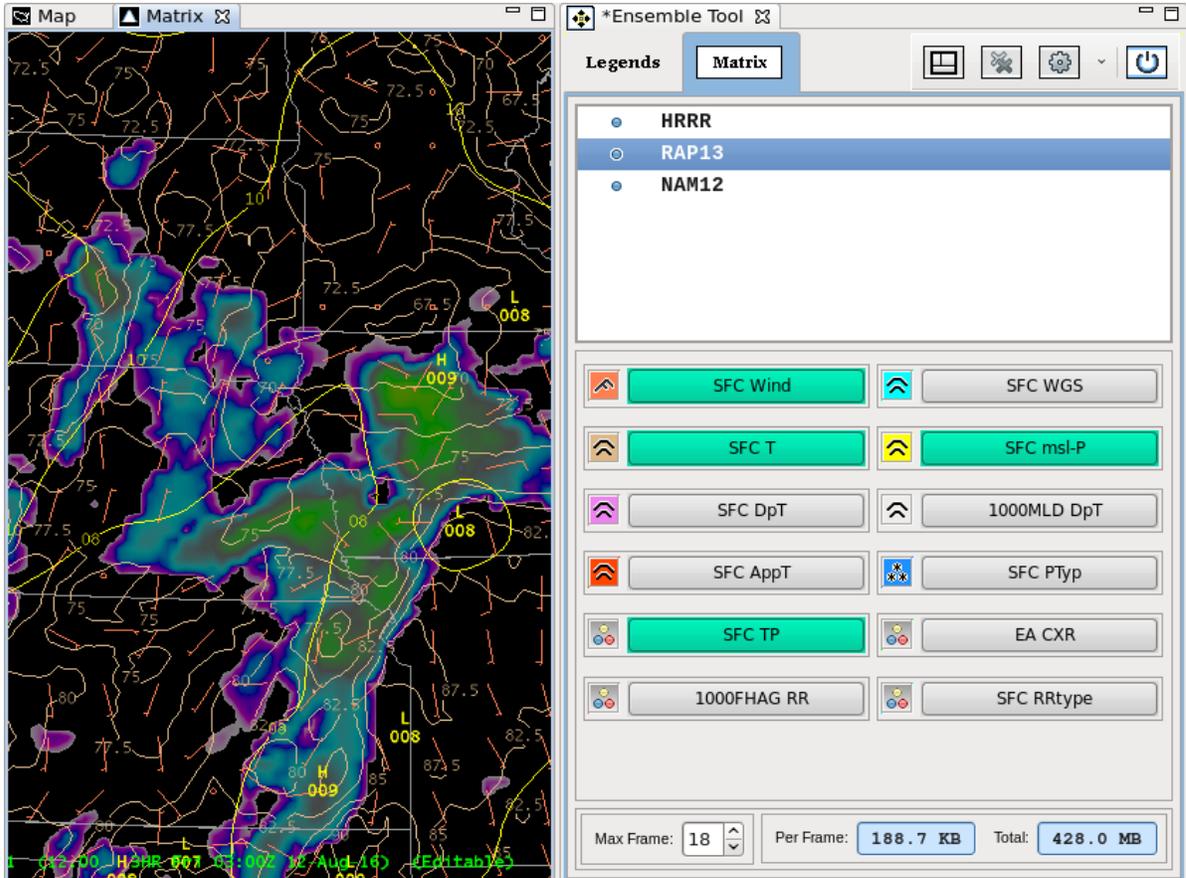
- Under **Surface Family**, click on **Basic Surface Family** in the left-most column. Then click on the **HRRR** model in the right-most column under Sources. Next, hold down the **Ctrl** key on the keyboard and select 2 more models (e.g. **NAM12**, **RAP13**) and click **Load** (may take up to 30 sec as it is loading multiple model families). The Model Families listed will be consistent with those available in your CAVE Volume menu.



Note: Bulleted products under the Plane – Field column will display when you click Load. These are hard coded and only vary depending on which model family you load. There is no way to change which products load first, as selecting different products does not make them bulleted nor does it translate to those products loading in the subsequent display. However, after loading, products may be added/removed.

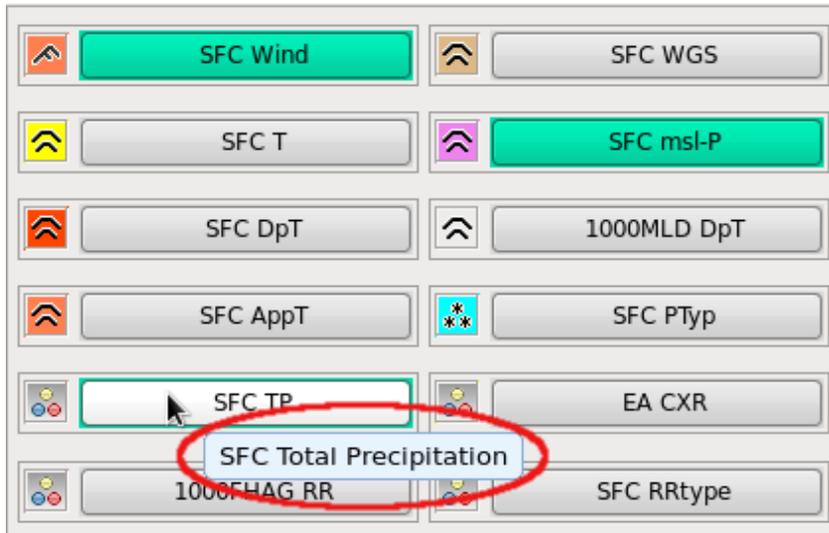


- In the top-right, select **RAP13**. In the product interface with clickable buttons click on **SFC T** to add temperature contours to the display. Notice that the SFC T button becomes **green** when you click on it. This means that the product is now displayed (as long as the data is available).



Note: Currently, there is no capability to change the graph type (i.e. contour → image) within the Ensemble Tool Matrix Viewer.

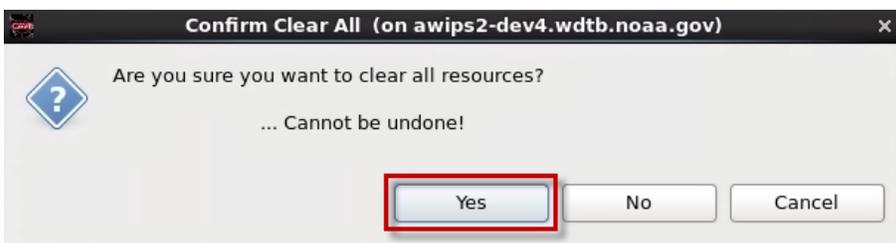
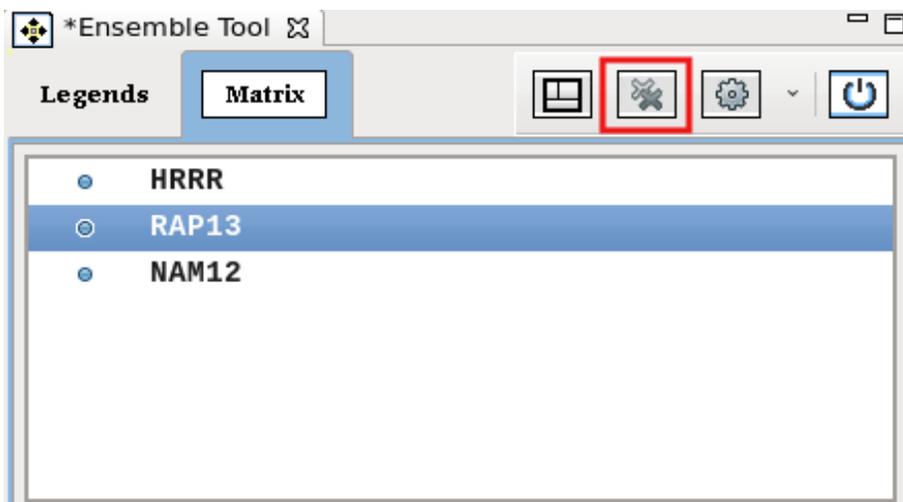
Tip: Product abbreviations may not be obvious. Hover over that product with the mouse to activate a Tool Tip function.



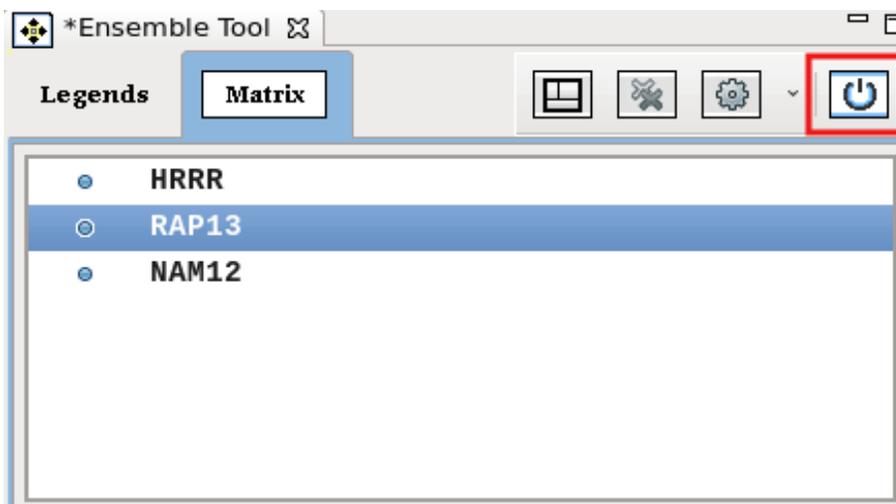
5. **Step** through the frames loaded by using the **keyboard left and right arrows**. Notice how there is a delay as each new frame loads all the data into memory. The **Max Frame** count widget in the bottom right of the Ensemble Tool controls the number of forecast hours that can be loaded. The CAVE Frames: count will respond to changes in the Max Frame: Ensemble Tool setting once the frame is loaded. Since the Ensemble Tool is memory intensive, limit what you display initially before you step through time to speed up performance.



6. Click on the **Clear All** button and **Yes** on the popup warning. All the products will be removed, but the Ensemble Tool will still be loaded. To unload the Ensemble Tool completely, you must click the Clear (under Volume) button in the CAVE display.



7. **Click** on the **Power button** on the right to **disable the tool**. However, upon attempt to power back on, none of the product buttons will come back green even though they are loaded. Parameters must be toggled on before they will be loaded when changing models or moving through time steps the first time.



8. So, to summarize, the **Legends** tab of the Ensemble Tool lets you drill down into one parameter in the ensembles in many different ways. The **Matrix** tab is more suited to overlaying more parameters at once and cycling through your available model families.