

## 1.0 Example: Displaying a Tally Plot

This example will plot a tally applied to a sphere containing U235.

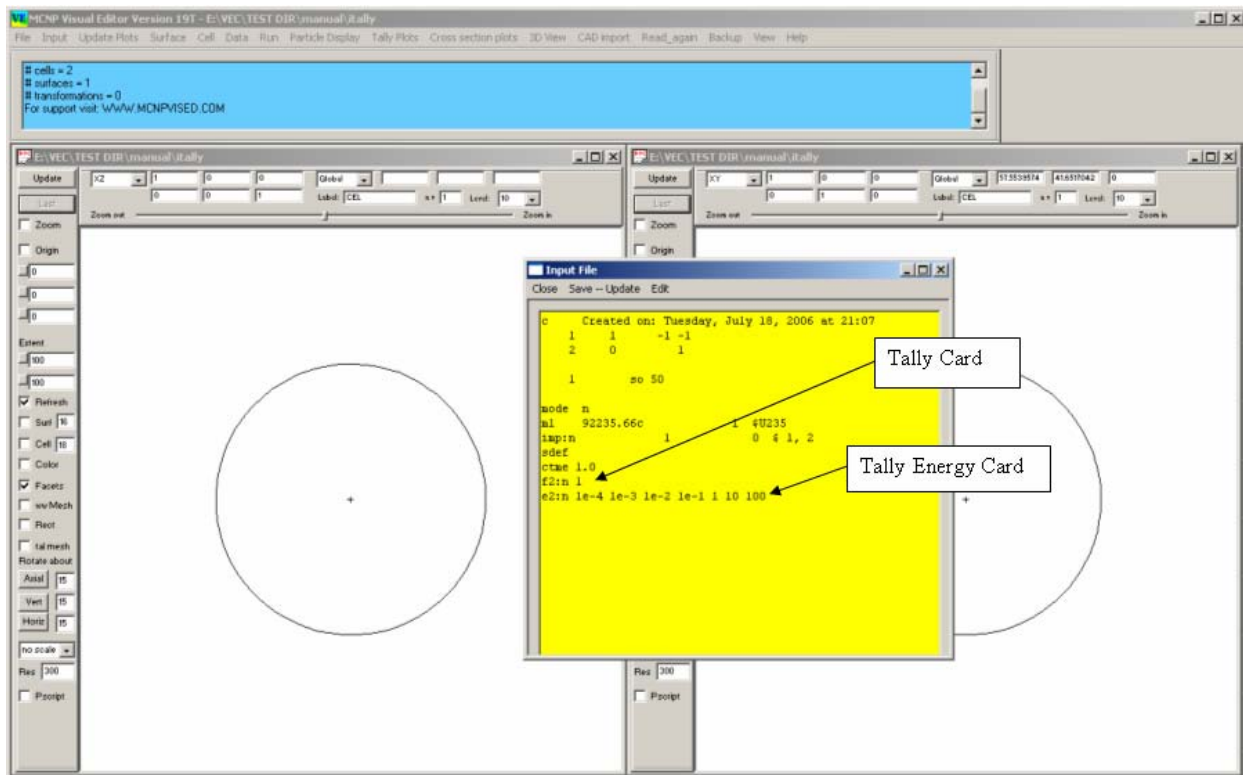


Figure 1-1 The itally Input File

Start the Visual Editor.

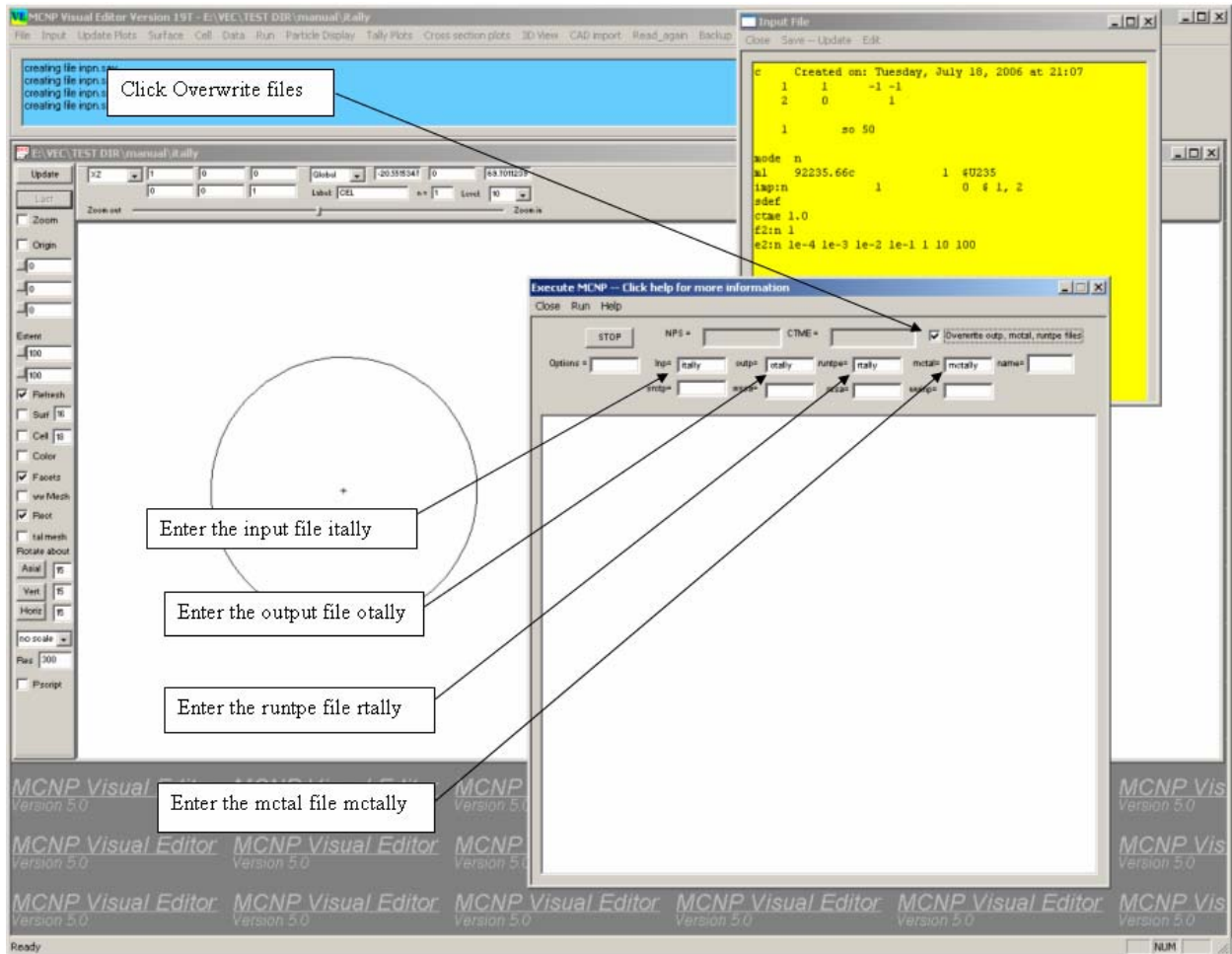
Click on Update Plots.

Click on Input.

Verify that the file contains the **F, Tally, card** specifying a F2 (Flux averaged over a surface) tally measuring neutrons (F2n) and applied to surface 1. The card appears as:

```
f2:n 1
```

Verify that the file contains an **E, Tally Energy, card** applied to tally number 2 (the only tally in the file). The energy bands are 1e-4, 1e-3, 1e-2, 1e-1, 1, 10, 100 which are from lowest to highest as required by MCNP.



**Figure 1-2 Enter Run Parameters.**

**Click on Run** on the Main Menu.

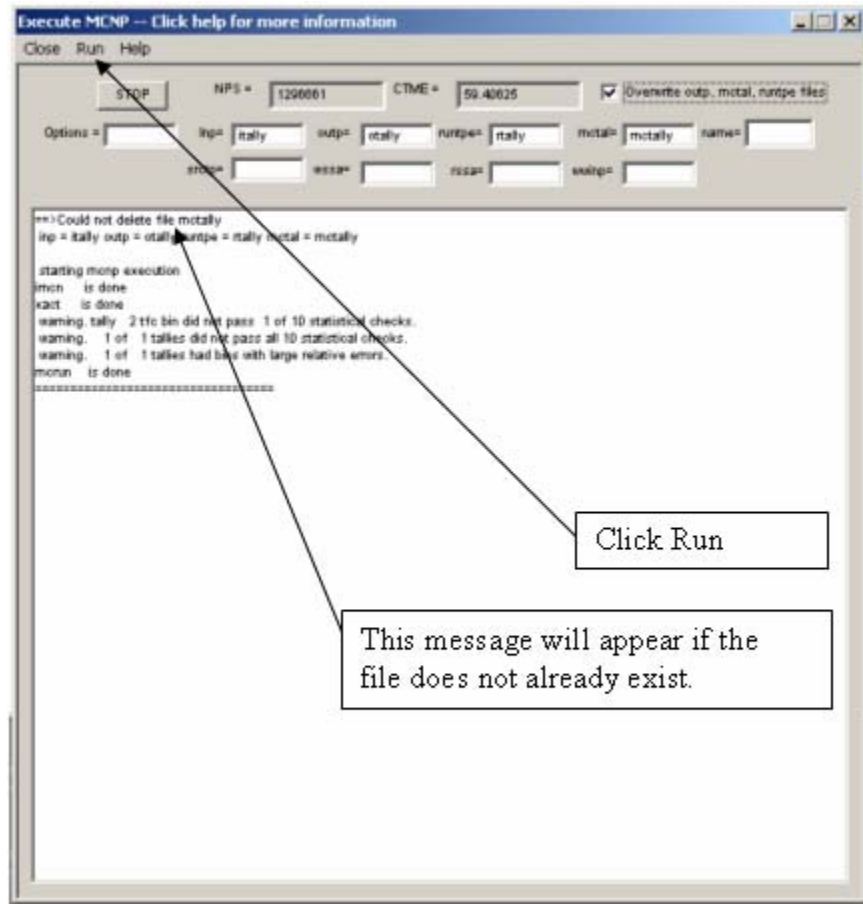
On the Run Panel, **Click on Overwrite outp, metal, and runtpe files**. If this is not checked, output files will increment, outa, outb, outc, etc... When there are 26 files and the alphabet starts to repeat, a fatal error will occur.

In the input box, **type itally**.

In the output box, **type otally**.

In the runtpe box, **type rtally**.

In the metal box, **type mctally**.



**Figure 1-3 Run MCNP to generate Tally File**

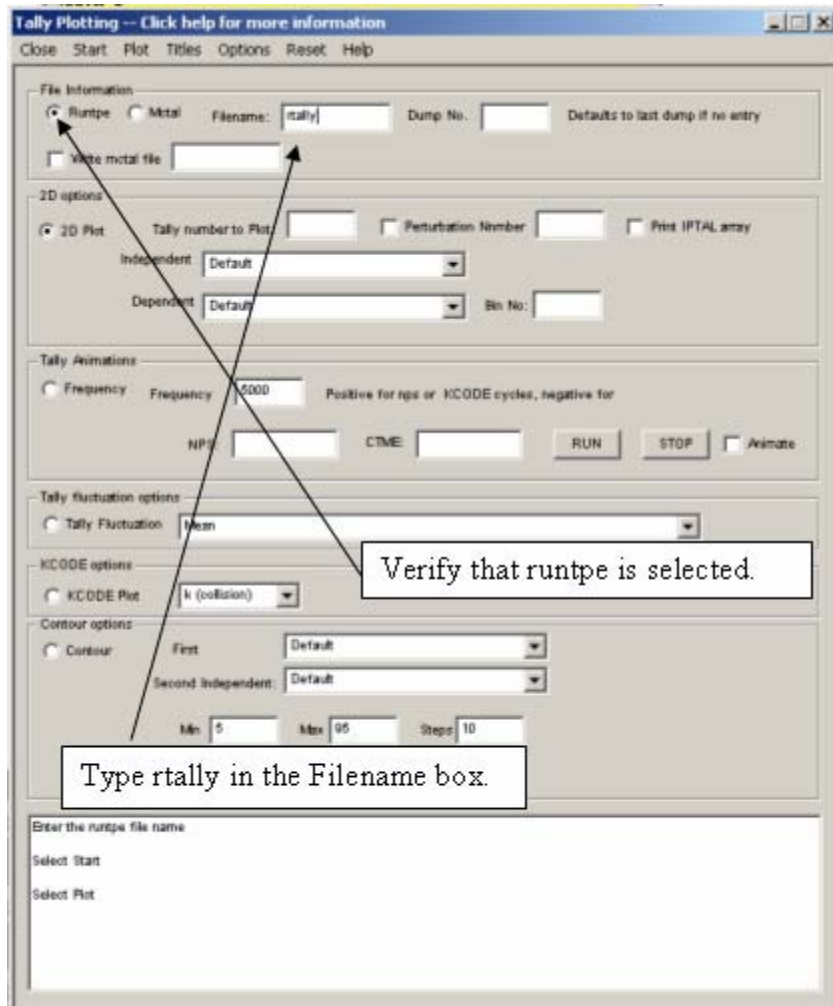
On the Run Panel Window, **click on Run**. If the files specified for outp, runtpe, and metal do not already exist, a message will be printed. The file will run for one minute which is the time specified in the input file.

**Close the Run Window.**

**Click on the Left Plot Window** to select it as the active window.

**Click on the Rect Check box** to create a rectangular window.

**Click on Tally Plots** on the Main Menu.

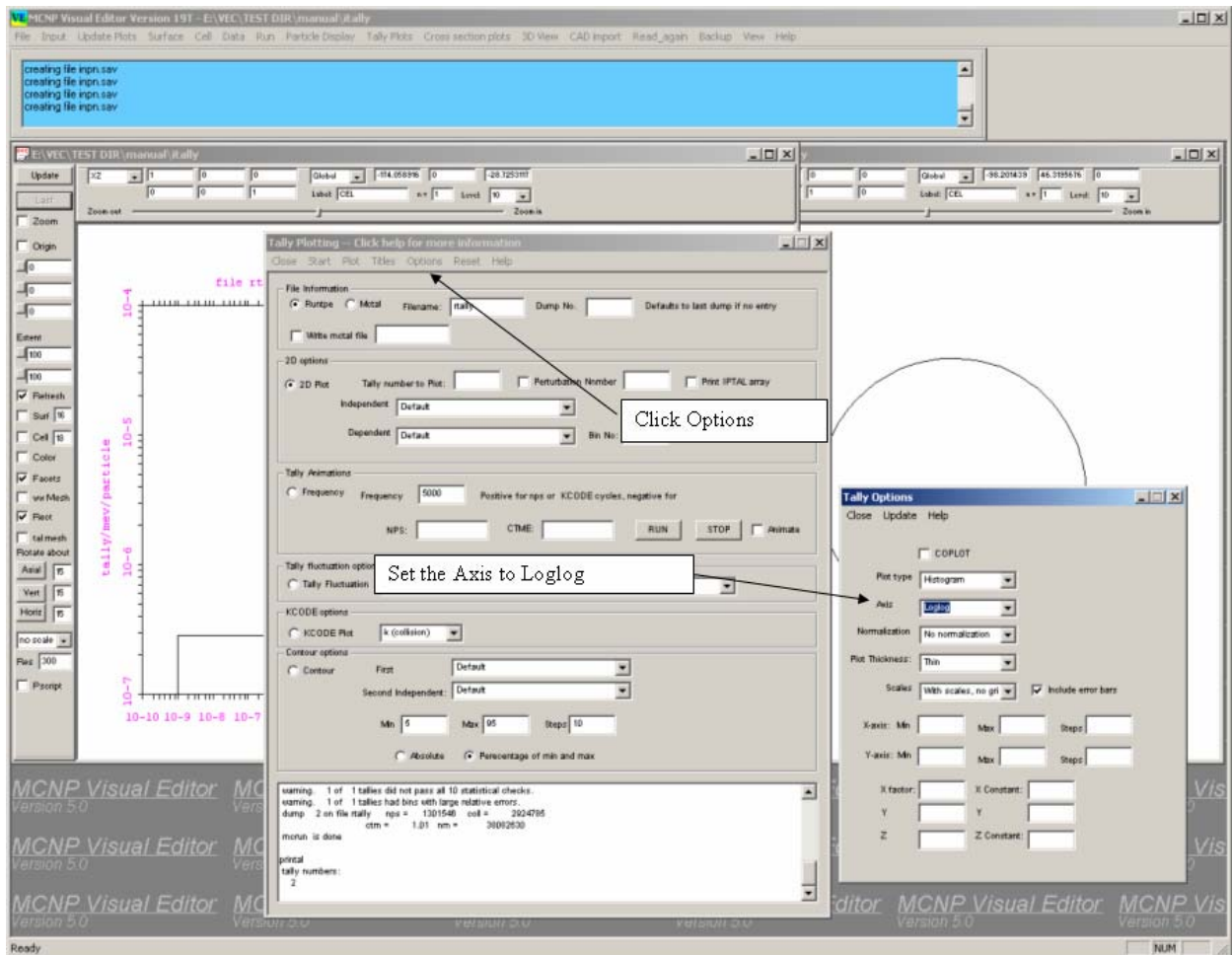


**Figure 1-4 Read in the runtpe file.**

On the Tally Plotting window, **verify** that the **Runtpe** box is checked. It is the default.

In the Filename box, **type rtally**.

On the Tally Plotting menu, **click start**.

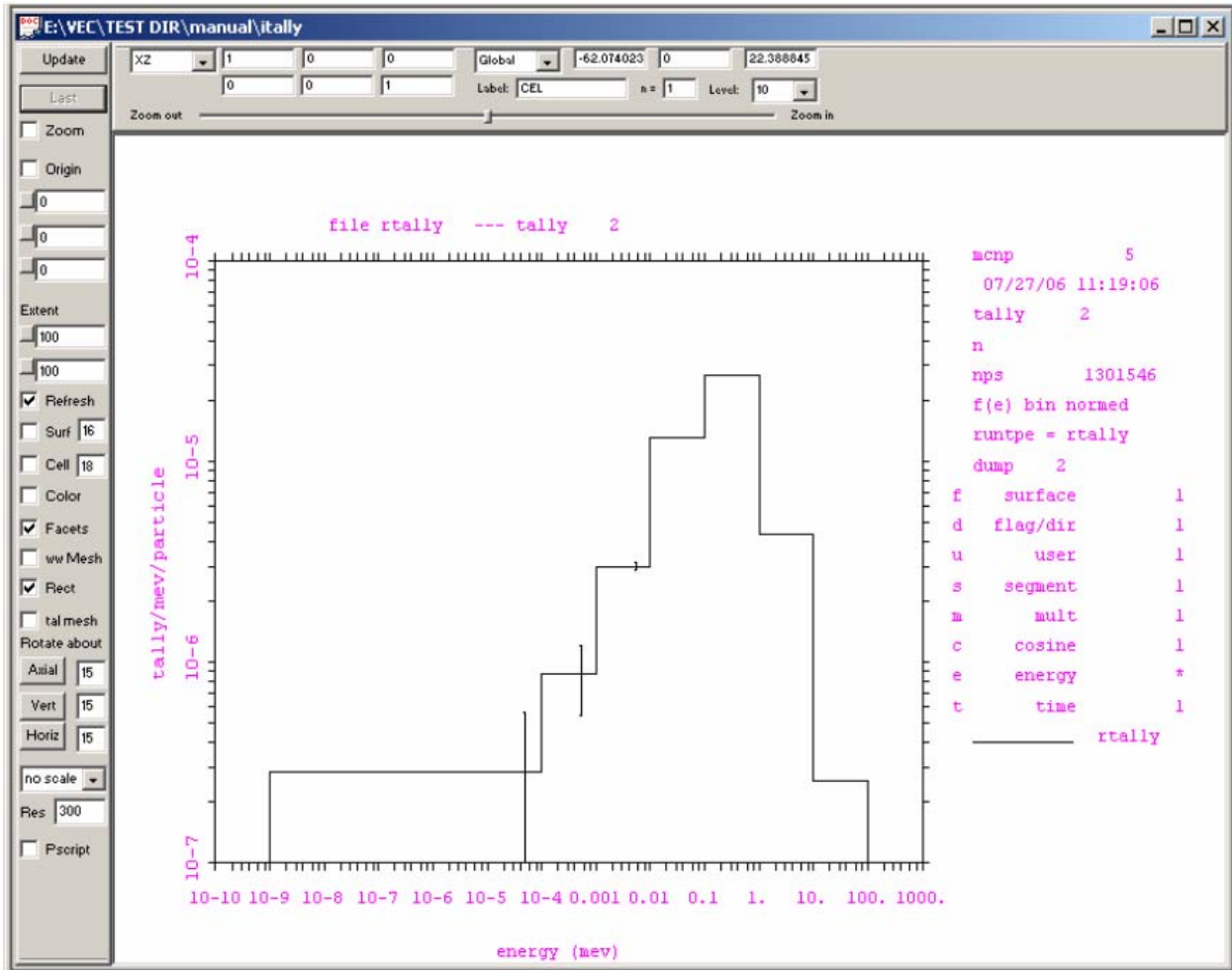


**Figure 1-5 Specify a Loglog file**

On the Tally Plotting Panel, **click Options**.

On the Tally Options Panel, set the **Axis to Loglog**.

On the Tally Plotting Panel, **Click Plot**.



**Figure 1-6 Tally Plot of itally Input File.**

Figure 1-6 Tally Plot of itally Input File. *Figure 1-6* shows the resulting Tally Plot.