
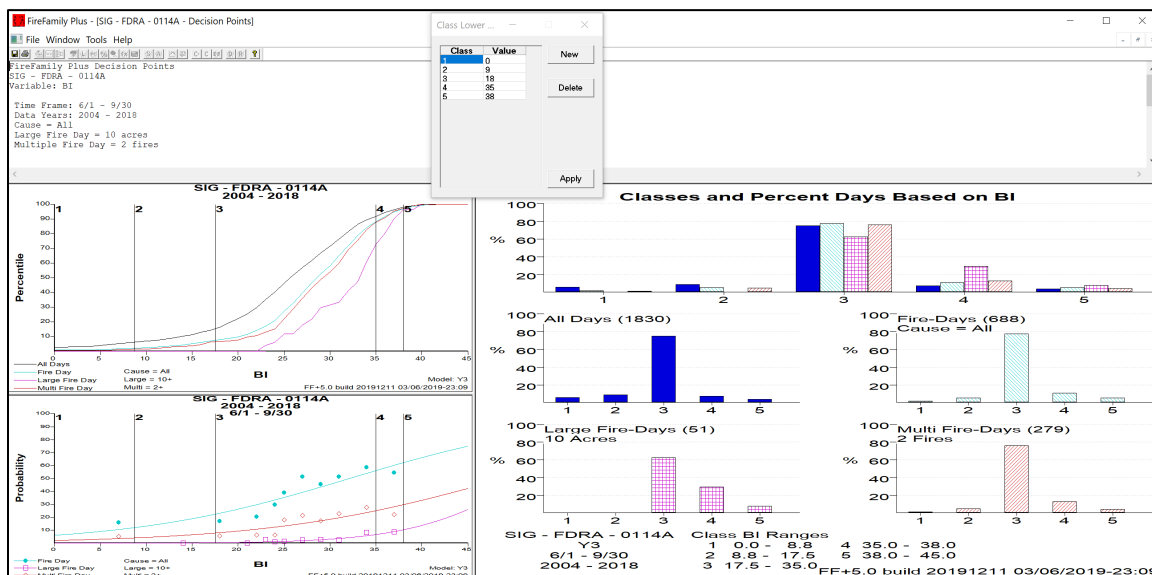


### FIRE BUSINESS THRESHOLDS

Click on the **Fires Probability Analysis** window, and the **Decision Points (DP)** icon (  ) on the tool bar activates. Click on the **Decision Points** icon to open the Decision Points window, similar to the one shown below.



A. The Initial Class Lower Limits are shown in the figure; FireFamilyPlus divides the data into 5 classes. You can think of these as 1-5, or Low, Moderate, High, Very High, and Extreme. The initial breakpoints (lower limits) to these five classes are set using Climatological Breakpoints, which is the logic used to set Adjective Levels in WIMS.

- Class 1: Zero
- Class 2: ¼ of the value of the index’s 90th percentile
- Class 3: ½ of the value of the index’s 90th percentile
- Class 4: The value of the index’s 90th percentile
- Class 5: The value of the index’s 97th percentile

You already are familiar with the contents of the two graphs in the lower left quadrant of the window, because they are exactly the same graphs that you looked at to get to this point. You’ve studied them enough to make some decisions based on their information. The vertical lines show you where the current class boundaries fall along the percentile or probability curves. The lines update every time you click **Apply**.

The lower right panel in the window is really quite simple. It is the relative frequency of the four weather type days (all, fire, large-fire, and multiple) within each class. The top graph shows all types combined. The bottom four graphs simply split them out so you can easily compare the relative frequency of day types as you go between classes. The bar charts update every time you click **Apply**.

- If you prefer tables, the top panel offers a table format. The table columns marked with asterisks – %, %FD, %LFD, and %MFD – are shown in the bar charts in the lower right panel. The table updates every time you click **Apply**.
- B. Start converting these to fire business thresholds by looking at either the histogram or fire percentiles graph to see where you might want to put your breakpoints visually. Look for values at which fire activity starts, at which large or multiple fire days begin to occur, at which there is a large increase in fire activity, and the value when fire activity peaks. Draw lines on the graphs to visually break it into the desired number of classes.
- C. Here are some thoughts related to the graphs and Decision Points in an ideal world.
- You would like to define classes so that the decision you make for fire business is different for the class above and below it.
  - You would like to have a large (maybe double) increase of fire potential (for example, a large fire day) with each class.
  - You have the minimum number of classes needed to support decisions and actions.
- D. What should your bar charts look like, and why?
- You want to see steady increase in the number (probability) of large and multiple fire days moving from class 1 to 5.
  - The ratio of large fire days to fire days should ideally increase as you go from class 1 to class 5.
  - The percentage of large fire days and multiple fire days should not decline when moving from class 3 to 4 to 5. In an ideal world, they will increase.
- E. Take a few minutes to review your graphs before continuing. There is a lot of information in these graphs, and all of it is interconnected. A small change in a Class Lower Limit can have large impacts on the graphs if there is a large change in fire occurrence.
- F. Modify the graphs by changing the Decision Points in the Class Lower Limits dialog box, using the graph below as a guide. Click Apply to update the tables and graphs. The lines over the bar graphs in the example below show the ideal distribution for each category if the analysis is done for the fire season. If a year-round analysis is made, then All days may decrease from Class 1 to Class 4, indicating that most days during the year are not fire days.

**Note:** *There is no exact recipe for success in this process. Look at the graphs and see what makes sense and what doesn't. There may be a lot that doesn't make sense, especially if the index/fire business relationships as described above are not very good. Use your best judgment to select the Decision Points based on the information you have.*

