CS777
Use of PETERS

The aim is to find a model that seems to work for the data set. This is not trivial and there may not be one! We also need to analyze predictive accuracy, perhaps recalibrate. It is important to know when you can say something and when you can not.

1. Download and install the software on your PC.
2. Collect the data from the textbook website.
3. Put the data into a text file. (Paste into word, make a table, delete a column, single column, paste into notepad and save as txt).
4. Create a new database – give it a suitable name.
5. Add a new data set (your .txt file). Be sure to specify the input type (note which works with which models), and give it the name from the Lyu data. [DATA menu]
6. Open a failure time graph (i.e. look at a plot of the raw failure data). [PLOT menu]. You can see sequential and cumulative plots. <NOTE – can print these or save to paste in documents>. Can also see the failure data in tabular form. [TABLE menu]
7. Select a data set. (You may only have one open – it saves you from getting confused.)
8. Apply one or more prediction systems (i.e. models). Check one or more, press apply and cancel when done (funny interface). [ESTIMATES menu]
9. Select one of resulting estimates set. [ESTIMATES menu] – you can see a table of its estimates and compare with that of the failure data [TABLE menu]
10. Open a graph showing its median plot. [PLOT menu] Can also see MTTF and quartiles.
11. Optionally, add more medians plots. [Open and add from PLOT menu] <note can change plot ranges>
12. Select another set of model estimates to look at [ESTIMATES menu]
13. Select a predictions set.
14. Open a log(PLR) graph.
15. Select a reference predictions set.
16. Optionally change the reference set.
17. Add more plots.
18. Look into the y-plot and u-plot and get a feel about the data set and whether models work on it.
19. Recalibrate models if needed.
20. Which model works best for the dataset?

The tool is a BIT RUSTY – lots of windows and not full implementation! It is a research implementation! If you find problems with this, let me know and we will try to find something commercial but free for trial.

Olly