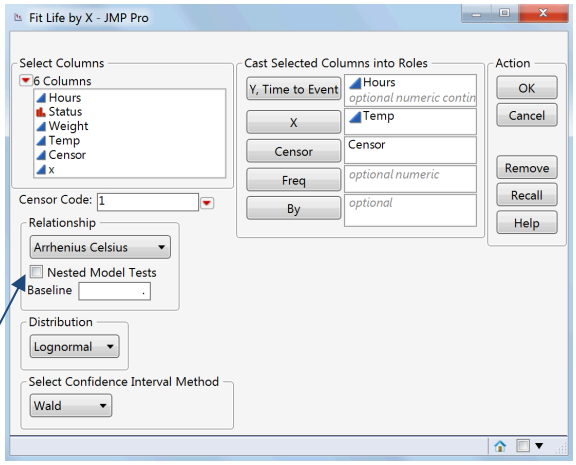
Accelerated Life Testing (Fit Life by X)

Use Fit Life by X for accelerated life-testing analysis. In particular, the platform can be used to model the relationship between the time to an event and a factor of interest.

Accelerated Testing (Fit Life by X)

1. From an open JMP® data table, select **Analyze > Reliability and Survival > Fit Life by X.**
2. Select a continuous time variable from **Select Columns**, then Click **Y, Time to Event** (continuous variables have blue triangles).
3. Select the factor and click **X**.
4. If the data contains censored values, select the censoring variable and click **Censor**. Change the **Censor Code** if needed (the default is 1).
5. Select the **Relationship**, the **Distribution** and the **Confidence Interval Method**, and click **OK**.

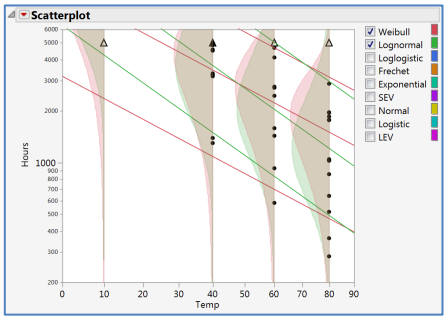
Devalt.jmp (Help > Sample Data Library > Reliability)

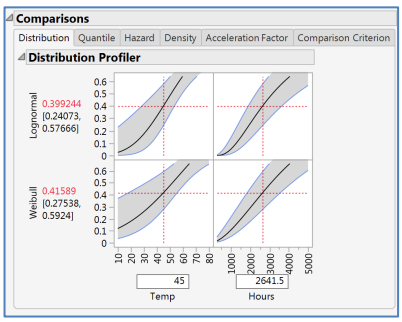


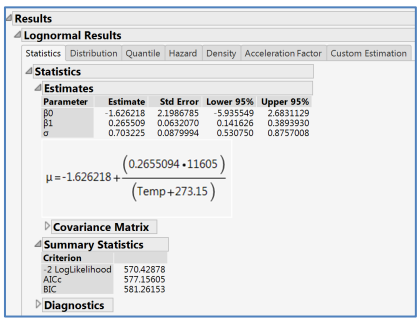
Note: The **Nested Model Tests** option is checked. This appends nested model tests and other plots to the report window. This option has been deselected here.

JMP will display:

- A **scatterplot** of the data, with the time to event (Y) variable plotted against the factor (X). Triangles indicate censored values. Under the **red triangle** next to **Scatterplot** select **Show Density Curves** and **Add Quantile Lines** to compare density curves and quantiles for different values of the factor. Click to select different distributions (displayed below, left).
- The **Comparisons** panel, which allows you to compare various **profilers** and **statistics** for each of the selected distributions (below, middle).
- The **Results** panel for each selected distribution, containing diagnostic plots, statistical output, profilers, and **Custom Estimation** calculators to compute quantiles and probabilities (below, right).







Notes: Other options, such as fit individual distribution, fit all distributions, and view tabbed or individual reports are available under the **top red triangle.** Click on **red triangles** throughout the report to access additional features. For more information, see the book ***Reliability and Survival Methods*** (under **Help > Books**) or search for "fit life by X" in the JMP Help.