

Introduction to Minitab and Weibull Analysis for Accelerated Life Testing Workshop Details

Description

This training program introduces basic operations in Minitab for common statistics as well as Weibull Analysis. This course provides some examples of how Minitab can assist engineering efforts related to reliability studies based on the Weibull distribution. **Duration - 16 hours.**

Goal

You will learn common features often used by Minitab beginners and how to use some of the Weibull analysis features. Minitab features covered will include:

- Cpk, Ppk
- Stack and Unstack data
- Formulas in worksheets using Calc
- Sorting Data
- Descriptive Statistics
- Various Graphs (Box Plot, Scatterplot, Histogram, Run Charts, Interval Plots)
- Hypothesis Test (Normality, F Test)
- Weibull Probability Plot
- Least Squares Method Weibull Analysis

Outline / Topics

- Brief Introduction to Statistical Terms
- Minitab as a Windows Compliant Application
- Exploring Minitab Features
- Weibull Analysis for Accelerated Life Testing

Results

Upon successful completion of the training, participants will:

1. Understand common basic operations in Minitab.
2. Be able to create various graphs used in data analysis.
3. Determine Cpk and Ppk performance metrics.
4. Understand the Weibull Distribution and its relationship to Reliability Analysis
5. Be able to create Weibull Distribution plots.
6. Interpret and evaluate Least Squares Method Weibull Analysis.