



Quantum XL 2016 - New Features

Reliability Modeling - Including Left, Right, and Interval Censored

Includes maximum likelihood estimation of parameters for both censored and uncensored data.

Also includes probability plot, Anderson Darling calculation (if available) and probability calculations.

Improved Distribution Fitting

Auto-Fit: Choose to rank order best fit by Anderson Darling p-Value, AIC (Akaike Information Criteria), or BIC (Bayesian Information Criteria).

Speed Improvements: 10X improvement in time to fit.

Fit to Calculator: Distribution fitting leads to calculations. Enter LSL and/or USL and Quantum XL will calculate the area out of spec, dpm, and Cpk.

Non-Normal Cpk: [Quantum XL](#) will calculate the Cpk for all distributions it fits.

Probability Plots: All distributions now include a probability plot with confidence bounds.

Distribution Calculators: 14 Continuous and 7 Discrete

Continuous Distributions: Normal, Uniform, Exponential, Gamma, Logistic, LogLogistic, LogNormal, Weibull, Beta, Laplace, Triangular, Cauchy, Rayleigh, and Gumbel.

Discrete Distributions: Bernoulli, Binomial, Negative Binomial, Geometric, Hypergeometric, Uniform Discrete, Poisson.

Johnson Transformation

Transform a dataset to normality. This is similar to the Box-Cox but more powerful.

Control Chart Enhancements

Control Charts Wizard

Computer guided wizard to help you pick the best control chart for the problem.

Control Chart Outliers

Mark any point as an outlier; the point will still be plotted, but not included in the math for the control limits.

ZMR Chart

The ZMR chart is also called "Short Run" control chart when sufficient samples aren't available for the XbarR, XbarS, or IMR chart.

G-Chart and T-Chart (Rare Event Chart)

Rare event charts used when the count between times is less than 1.

Minor Enhancements

Run Chart - Simple run chart plotting data vs. time.

Product Capability Report - Capability analysis on binomial data.

Fishbone Template/Diagram - Create a fishbone diagram from a template.

Summary Stats - Calculate summary statistics from one or multiple data sets.

One and Two Sample Poisson Rate Hypothesis Test - Test for difference in rates using Poisson distribution.