

# QIMacros® vs Minitab

10% of Lean 6σ Tools will be used 90% of the time.  
The design of the QI Macros reflects this mindset.

	Minitab	QI Macros
<b>DMAIC (Define, Measure, Analyze, Improve Control)</b>		
Balanced Scorecard		Y
SIPOC		Y
Flow chart		Y
Run chart	Y	Y
Pareto chart	Y	Y
Weighted Pareto Chart	Y	Y
Fishbone diagram	Y	Y
Paynter Chart		Y
Love Bug Diagram		Y
Bow Tie Risk Assessment	Y	Y
Turtle Diagram		Y
Failure Modes and Effects Analysis (FMEA)		Y
Scatter chart		Y
Quadrant Scatter chart		Y
Quadrant Bubble chart		Y
Action plan, Gantt charts		Y
<b>Basic Statistics</b>		
Descriptive statistics	Y	Y
Confidence intervals	Y	Y
One- and two-sample t-tests, paired t-tests	Y	Y
Correlation and covariance	Y	Y
Autocorrelation	Y	Y
Chi-square test	Y	Y
Normality test	Y	Y
Test for equal variances	Y	Y
Analysis of Variance (ANOVA)	Y	Y
<b>Regression Analysis</b>		
Linear regression	Y	Y
Logistic regression (Binary)	Y	Y
Residual plots	Y	Y
Polynomial regression	Y	
Logistic regression	Y	
Partial least squares (PLS)	Y	
Stepwise and best subsets	Y	

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<b>Multivariate Analysis</b>		
Principal component analysis	Y	
Discriminant analysis	Y	
Cluster analysis	Y	
Factor analysis	Y	
Correspondence analysis	Y	
<b>Ease of Use</b>		
<b>Chart Wizard:</b> Selects the right control chart		Y
Customizable menus and toolbars	Y	Y
Online tutorials	Y	Y
Clear, comprehensive HTML Help system	Y	Y
Project Manager: logically organizes analysis	Y	
Smart dialogs: remember recent settings	Y	Excel
Extensive preferences and profiles	Y	
<b>Nonparametrics</b>		
Sign test	Y	Y
Wilcoxon test	Y	Y
Mann-Whitney test	Y	Y
Kruskal-Wallis test	Y	Y
Friedman test	Y	Y
Runs test	Y	
Mood's median test	Y	Y
<b>Time Series and Forecasting</b>		
Time series plots	Y	Y
Auto-, partial auto-, and cross correlations	Y	
Y ARIMA analysis	Y	
Trend analysis	Y	
Decomposition	Y	
Exponential smoothing	Y	Y
Winter's method	Y	
Moving average	Y	Y

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<b>Price</b>	\$1610 per year	\$329 Perpetual
<b>Design for Six Sigma</b>		
QFD House of Quality		Y
Pugh Concept Selection Matrix		Y
MODAPTS		Y
POLCA Diagram		Y
Value Stream Map	Y	Y
Cage & KANO Models	Y	Y
<b>Macros</b>		
Complete command language	Y	Excel
Powerful macro capability	Y	Excel
<b>Statistical Process Control (SPC)</b>		
<b>Chart Wizard:</b> Selects the right control chart		Y
XBarR-S, XMedR, XmR, CUSUM, EWMA, MA	Y	Y
p, np, c, u	Y	Y
g chart		Y
Pre-Control Chart		Y
Historical/shift-in-process charts	Y	Y
Process capability	Y	Y
Process Capability Sixpack™	Y	Y
Histograms, Box and Whisker	Y	Y
Multi-Vari charts	Y	Y
Symmetry plot	Y	Y
Scatter plots, dotplots, time series plots	Y	Y
Probability plots, contour plots	Y	Y
Matrix plots, pie charts	Y	Y
Control charts: MA, EWMA, zone, ZmR	Y	Y
Short Run and Median Control charts	Y	Y
Multivariate control charts	Y	T2
XmR Autocorrelated	Y	Y
Box-Cox transformation	Y	Y
Johnson transformation	Y	

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<b>Measurement Systems Analysis</b>		
Gage R&R: ANOVA and XBar-R methods	Y	Y
Attribute Gage Study - AIAG long method	Y	Y
Type 1 Gage R&R	Y	Y
Type 3 Gage R&R		Y
Honest Gage R&R		Y
Gage linearity and accuracy	Y	Y
Gage run chart	Y	Y
Nested Gage R&R	Y	
Attribute agreement analysis	Y	Y
Control Plan (AIAG)		Y
<b>Design of Experiments</b>		
Two-level factorial designs	Y	Y
General full factorial designs	Y	Y
Plackett-Burman designs	Y	Y
Taguchi designs	Y	Y
Analysis of variability for factorial designs	Y	Y
User-specified designs	Y	
Response surface designs	Y	
Mixture designs	Y	
D-optimal and distanced-based designs	Y	
Response prediction	Y	
Botched runs	Y	
Mixture plots	Y	Y
Overlaid contour plot	Y	
Plots: residual, main effects, interaction, cube, cc	Y	
Response optimization	Y	

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<b>Reliability/Survival Analysis</b>		
Parametric and nonparametric analysis	Y	
Goodness-of-fit measures	Y	Y
ML and least squares estimates	Y	
Exact failure, right-, left-, and interval-data	Y	
Accelerated life testing	Y	
Regression with life data	Y	
Reliability test plans	Y	
Threshold of parameter distributions	Y	
Analysis of repairable systems	Y	
Analysis of multiple failure modes	Y	
Probit analysis	Y	
Weibayes analysis	Y	
Hypothesis tests on distribution parameters	Y	
Plots: distribution, probability, hazard	Y	
Confidence intervals	Y	
<b>Tables</b>		
Cross-tabulation interface with new measures of association	Y	Pivot Table
Contingency tables	Y	
Tally	Y	
Fisher's exact test for 2x2 tables	Y	Y
Simulation and Distributions	Y	
Random number generator	Y	Excel
Density, distribution, and inverse cumulative distribution functions	Y	Excel
Random sampling	Y	Excel
<b>Power and Sample Size</b>		
One-sample Z, t, and proportion	Y	Y
Two-sample t and proportion	Y	Y
One-way ANOVA, two-level factorial, and Plackett-Burman	Y	Y
Solve for number of center points	Y	

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<b>Graphics</b>		
New state-of-the-art graphics engine	Y	Excel
Pictorial gallery and streamlined dialog boxes	Y	Excel
Interactively edit attributes (axes, scale, etc.)	Y	Excel
Place multiple graphs on one page	Y	Excel
Display data on the same page	Y	Excel
Information display tools	Y	Excel
Set preferences for graph attribute defaults	Y	Excel
Graphs can update as data change	Y	Excel
Built-in graph with a single click	Y	Y
Rotating 3D graphs	Y	Excel
Interval plots, value plots, area graphs	Y	Excel
Numerous special-purpose graphs	Y	Excel
Edit graphs in other applications	Y	Excel
Save as TIFF, JPEG, PNG, BMP	Y	Excel
<b>Data and File Management</b>		
Save output and data as HTML	Y	Excel
Unlimited worksheet size	Y	Excel
Import/export: Excel, text, and other formats	Y	Excel
Import individual Microsoft Excel worksheets	Y	Y
Import currency formats	Y	Excel
ODBC querying	Y	Excel
Autofill	Y	Excel
Hide and unhide columns	Y	Excel
Merge, subset, sort, transpose, change data type	Y	Y
Find and replace in Data window	Y	Excel
4000 columns per worksheet	Y	256
Matrix functions	Y	Excel
Double-precision worksheets	Y	Excel
New and updated sample data sets	Y	Y