XLSTAT Tutorials

Installation and Settings

- Running XLSTAT the first time (Excel 2007 and 2010)
- Running XLSTAT the first time (Excel 2004, Excel 2003 and earlier versions)
- Installing XLStat on Windows
- Installing XLSTAT on Mac OS X
- Installing XLSTAT on a network with the XLSTAT network concurrent license
- Activating your XLSTAT license on your PC
- Activating your XLSTAT license on your Mac
- Running XLSTAT with admin rights under Windows Vista or Windows 7
- Updating your XLSTAT license on your PC
- Updating your XLSTAT license on your Mac
- Updating Excel
- Changing the language settings?
- Updating XLSTAT
- Closing XLSTAT
- Uninstalling XLSTAT on Windows
- Uninstalling XLSTAT on Mac OS X
- Deactivate your XLSTAT license key on your PC
- Deactivate your XLSTAT license key on your Mac

Getting Started

- Selecting data with XLSTAT
- Choosing the way the results are displayed
- Setting up an analysis in XLSTAT
- Creating and customizing a plot with XLSTAT
- Memorizing the data coordinates in the dialog box

- Selecting transposed data with XLSTAT
- Save and reuse settings of an analysis, example of Principal Component Analysis
- Automate a routine analysis, example of Principal Component Analysis, in XLSTAT

XLSTAT-Base

Preparing data

- Stratified data sampling with XLSTAT
- Coding and recoding data in XLSTAT
- Imputing missing data with the NIPALS method with XLSTAT
- Creating a contingency table in XLSTAT
- Discretizing a continuous variable
- Filtering observations with XLSTAT
- Transforming data using the stack/unstack function
- Transforming the data with XLSTAT - Example of a Box-Cox transformation
- Creating a disjunctive table in XLSTAT
- Raking a survey sample using XLSTAT

Describing data

- Sampling data in a distribution and running a normality test with XLSTAT
- Creating histograms and fitting a distribution with XLSTAT
- Creating dynamic histograms with XLSTAT
- Quantiles / percentiles with XLSTAT
- Generating bootstrap statistics using resampling in XLSTAT
- Computing biserial correlations with XLSTAT

Visualizing data

- Creating a Scatter plot with XLSTAT
- Generating box plots with XLSTAT
- Creating histograms and fitting a distribution with XLSTAT
- Creating dynamic histograms with XLSTAT
- Creating a Parallel Coordinates Visualization with XLSTAT

- Creating a ternary diagram in XLSTAT
- Creating a chart with error bars with just two clicks
- Adding a curve on an Excel chart with XLSTAT
- Using XLSTAT functions in Excel sheets
- Customizing a PCA chart with XLSTAT to make it easier to interpret
- Creating and customizing a plot with XLSTAT

Analyzing data

- Running a Principal Component Analysis (PCA) with XLSTAT
- Running a Factor analysis with XLSTAT
- Running a Discriminant analysis with XLSTAT
- Running a Correspondence analysis (CA) from a contingency table with XLSTAT
- Running a Correspondence Analysis (CA) from a raw data table with XLSTAT and plot a 3D representation with XLSTAT-3D Plot
- Running a Multiple Correspondence Analysis (MCA) with XLSTAT
- Running a Multidimensional Scaling with XLSTAT
- Running an Agglomerative Hierarchical Clustering with XLSTAT
- Running a k-means clustering to group observations
- Clustering big datasets with XLSTAT - Using k-means clustering followed by an AHC
- Running a gaussian mixture model clustering with XLSTAT
- Filtering observations within a principal component analysis (PCA) with XLSTAT
- Filtering observations and variables in principal component analysis charts
- How can associations rules help for market basket analysis?

Modelling data

- Fitting a distribution to a sample of data in XLSTAT

- Running a simple linear regression with XLSTAT
- Multiple linear regression with XLSTAT
- Running a one-way ANOVA followed by multiple comparisons tests
- Running a two-way unbalanced ANOVA with interactions
- Running an ANCOVA with XLSTAT?
- Running a repeated measures ANOVA
- Repeated measures ANOVA using the mixed models
- Running a random components mixed model
- Logistic regression with XLSTAT
- Running a multinomial logit model with XLSTAT
- Running an ordinal logit model with XLSTAT
- Nonparametric regression (kernel regression) with XLSTAT
- Nonlinear regression with XLSTAT
- Nonlinear multiple regression with XLSTAT
- Fitting a cubic spline with XLSTAT
- Running a two-stage least squares regression (2SLS) with XLSTAT
- Creating a CHAID classification tree with XLSTAT

Testing a hypothesis

Correlation tests

- Computing a Spearman correlation coefficient and test if it significant or not
- Running a Cochran-Armitage trend test with XLSTAT
- Running a Mantel test with XLSTAT
- RV coefficient test in Excel tutorial

Parametric tests

- Running a t-test or a z-test to compare the mean of a sample to a value in XLSTAT
- Running a Student's t test on two independent samples
- Running a Fisher's F-test in XLSTAT to assess the equality of variance of 2 samples

- Comparing k>2 variances using the Levene or Bartlett tests
- Test for comparing one proportion to a value in XLSTAT
- Comparing two proportions in XLSTAT
- Comparing k proportions with XLSTAT
- Running a multinomial goodness of fit test with XLSTAT
- Testing if 2 samples or more described by several variables are significantly different or not
- Testing equivalence with TOST in XLSTAT
- How to quickly run a two sample comparison test with XLSTAT spreadsheet functions?

Nonparametric tests

- Running a Kruskal-Wallis test with XLSTAT
- Running a Mann-Whitney test on two independent samples with XLSTAT
- Running a Wilcoxon signed rank test on two paired samples with XLSTAT
- Running a Friedman's test with XLSTAT
- Running a Mood test to compare medians with XLSTAT
- Running a Durbin, Skillings-Mack test with XLSTAT
- Running a Page test with XLSTAT
- Running a Cochran's Q test with XLSTAT
- Running a McNemar test with XLSTAT
- Running a Cochran-Mantel-Haenszel test with XLSTAT
- How to quickly run a two sample comparison test with XLSTAT spreadsheet functions?

Testing for outliers

- Running a Grubbs test to detect outliers with XLSTAT
- Running a Dixon test to detect outliers with XLSTAT
- Running a Cochran C test to detect outlying variances with XLSTAT
- Detecting outliers with Mandel’s h and k statistics with XLSTAT

The following tutorials require the installation of the appropriate advanced module.

XLSTAT-3DPlot

- Generating a 3 dimensional plot with XLSTAT-3DPlot
- Saving a 3D visualization model for reuse later

XLSTAT-Multiblock Data Analysis

- How to run a canonical correlation analysis in XLSTAT
- Running a Canonical Correspondence Analysis (CCA) with XLSTAT-ADA
- Multiple Factor Analysis with XLSTAT-ADA
- Generalized Procrustes Analysis with XLSTAT-ADA
- Principal Coordinate Analysis (PCoA) with XLSTAT

XLStat-CCR, Correlated Component Regression

- Getting started with Correlated Component Regression (CCR) in XLSTAT-CCR
- Using Correlated Component Regression with a Dichotomous Y and Many Correlated Predictors
- Obtaining Predictions from a 2-class Regression

XLSTAT-Conjoint Analysis

- Conjoint analysis with XLSTAT-Conjoint
- Choice based conjoint analysis (CBC) with XLSTAT-Conjoint
- Running a choice based conjoint analysis with hierarchical Bayes (CBC/HB) with XLSTAT-Conjoint
- Running a Max-Diff analysis with XLSTAT-Conjoint
- The conditional logit model with XLSTAT-Conjoint
- The monotone regression / MONANOVA method with XLSTAT-Conjoint

XLSTAT-Design of Experiments

- How can I generate a factor effect design and how to do the corresponding analysis of the results?
- How can I generate a surface response design and how to do the corresponding analysis of the results?

- Generating a mixture design and analysing the results with XLSTAT-DOE

XLSTAT-Dose Effect Analysis

- Dose effect analysis with XLSTAT
- Running a four parameters logistic regression to compare two samples

XLSTAT-Latent Class

- Estimating Latent Class Cluster Models in XLSTAT-Latent Class
- Estimating Latent Class Regression Models with XLSTAT-Latent Class

XLSTAT-Survival Analysis

- Generating a life table
- Running a Kaplan-Meier analysis
- Running a Nelson-Aalen analysis
- Running a Cumulative Incidence analyses
- Running a parametric survival curves analysis
- Cox proportional hazards model
- Running a Weibull model (parametric survival regression)
- Sensitivity and specificity analysis
- Creating an ROC curve and identifying the optimal threshold value for a detection method
- Comparing ROC curves across groups

XLSTAT-Method Validation

- Method comparison with the Bland Altman plot
- Method comparison with the Passing and Bablok regression
- Method comparison with the Deming regression

XLSTAT-Sensory Data Analysis

- Running a Preference Mapping in XLSTAT
- How to analyze the quality of a sensory panel?
- Penalty analysis with XLSTAT-MX
- Running a sensory shelf life analysis
- Running a Bradley-Terry model for pairwise comparisons

- Multiple Factor Analysis with XLSTAT
- Running a Generalized Procustes Analysis
- Creating a Semantic differential chart
- Product characterization in sensory analysis
- Running a TURF analysis
- Designing an experiment for sensory analysis

XLSTAT-OMICs

- Running differential expression analysis in XLSTAT
- Running heat map analysis in XLSTAT

XLSTAT-Pivot

- Creating an intelligent pivot table with XLSTAT-Pivot

XLSTAT-PLS

- Running a Partial Least Squares regression with XLSTAT-PLS
- Running a partial least squares (PLS) discriminant analysis with XLSTAT-PLS

XLSTAT-PLS Path Modelling

- Creating and running a basic XLSTAT-PLSPM project with Excel 2007
- Create and run an XLSTAT-PLSPM project with Excel 2003
- Comparing groups with XLSTAT-PLSPM
- Obtaining classes using the REBUS method with XLSTAT-PLSPM
- Studying moderating effects in PLS Path Modelling with XLSTAT-PLSPM

XLSTAT-Power Analysis

- Find necessary sample size for a clinical trial with XLSTAT-Power
- Calculation of the required sample size or statistical power of a mean comparison test with XLSTAT-Power
- Calculating the required sample size or statistical power in a multiple regression with XLSTAT-Power

XLSTAT-Monte Carlo Simulations

- Simple simulation model in XLSTAT-SIM
- Simulation model with scenario variables and statistics
- Simulation model integrating correlations between distributions be integrated and how can SPC (process capability) indicators
- Generating many distributions in a simulation model efficiently by copying

XLSTAT-Statistical Process Control

- Generating an individual chart in XLSTAT-SPC
- Generating a subgroup chart
- Generating an attribute chart
- Generating a Pareto plot
- Generating a time weighted chart
- Control and validate your measurement method and systems, when having several quantitative measures taken by one or more operators on several parts with XLSTAT

XLSTAT-Time Series Analysis

- Using differencing to obtain a stationary time series
- Identifying a trend using Mann-Kendall tests with XLSTAT-Time
- Checking if a time series is homogenous with XLSTAT-Time
- Fitting a Holt-Winters seasonal multiplicative model to a time series
- Fitting an ARIMA model to a time series with XLSTAT-Time
- Running a Spectral analysis with XLSTAT-Time
- Running a Durbin Watson test with XLSTAT-Time
- Running a Cochrane-Orcutt estimation
- Running a unit root (Dickey-Fuller) and stationarity test on a time series with XLSTAT
- Using differencing to obtain a stationary time series