Compare XLSTAT Packages: Essentials, Standard, and Advanced

XLSTAT provides a comprehensive suite of statistical and data analysis tools designed to meet the needs of both beginner and advanced users.

This document offers an overview of the features and functionalities included in each XLSTAT package. Whether you're new to data analysis or require advanced tools for complex modeling, this guide will help you select the most suitable XLSTAT package for your needs.

A. The Feature Comparison Table

Quickly compare the core features across XLSTAT's three package levels.

Feature	XLSTAT Essentials	XLSTAT Standard	XLSTAT Advanced
Preparing data	✓	✓	✓
Describing data	✓	✓	✓
Analyzing data	✓	✓	✓
Modeling data	✓	✓	✓
Visualizing data	✓	✓	✓
Testing a hypothesis	✓	✓	✓
Clustering	✓	✓	✓
Statistical Process Control (SPC)	✓	✓	✓
Modeling data (Advanced)		✓	✓
Sensory data analysis		✓	✓
PLS Path Modeling		✓	✓
Marketing tools		✓	✓
Conjoint analysis		✓	✓
Decision aid		✓	✓
Bayesian Networks		✓	✓
Text mining		✓	✓
Multiblock data analysis		✓	✓
Machine learning		✓	✓
Survival analysis			✓
Method validation			✓
Dose effect analysis			✓
OMICS data analysis			✓

POWER analysis	✓
Design of experiments	✓
Times series analysis	✓
Monte Carlo simulations	✓
Easy Fit / Easy Predict	✓
XLSTAT-R	✓
XLSTAT-RNotebook	✓
DataViz	✓
Workflow Builder	✓
AI Assistant	✓

B. Complete Feature Breakdown by Package

A detailed look at the tools and techniques available in each XLSTAT package.

XLSTAT Features by Package Comparison

Feature	XLSTAT Essentials	XLSTAT Standard	XLSTAT Advanced
PREPARING DATA			
Data sampling	✓	✓	✓
Distribution sampling	✓	✓	✓
Discretization	✓	✓	✓
Coding	✓	✓	✓
Coding by ranks	✓	✓	✓
Presence/Absence coding	✓	✓	✓
Missing data	✓	✓	✓
Complete disjunctive tables (Creating dummy variables)	✓	✓	✓
Create contingency tables	✓	✓	✓
Variables transformation	✓	✓	✓
Data management	✓	✓	✓
Data anonymization	✓	✓	✓
Multiple answer questions		✓	✓
DESCRIBING DATA			
Descriptive statistics (including box plots and scattergrams)	✓	✓	✓

	XLSTAT Essentials	XLSTAT Standard	XLSTAT Advanced
Histograms	✓	✓	✓
Normality tests	✓	✓	✓
Contingency table (descriptive statistics)	✓	✓	✓
Similarity/Dissimilarity matrices (correlation…)	✓	✓	✓
Multicollinearity statistics	✓	✓	✓
Quantiles estimation	✓	✓	✓
Resampled statistics	✓	✓	✓
Kernel density estimation	✓	✓	✓
Variable characterization	✓	✓	✓
Intelligent Pivot Tables	✓	✓	✓
Reliability analysis	✓	✓	✓
Multiway crosstabs generator		✓	✓
ANALYZING DATA			
Principal component analysis (PCA)	✓	✓	✓
Factorial analysis of mixed data (PCAmix)	✓	✓	✓
Correspondence analysis (CA)	✓	✓	✓
Multiple correspondence analysis (MCA)	✓	✓	✓
Factor analysis	✓	✓	✓
Discriminant analysis (DA)	✓	✓	✓
Principal coordinate analysis		✓	✓
Multidimensional scaling (MDS)		✓	✓
Gaussian mixture models		✓	✓
MODELING DATA			
Distribution fitting	✓	✓	✓
Linear regression	✓	✓	✓
ANOVA (Analysis of variance)	✓	✓	✓
ANCOVA (Analysis of Covariance)	✓	✓	✓
Multivariate analysis of variance (MANOVA)	✓	✓	✓
Logistic regression	✓	✓	✓
Cubic splines	✓	✓	✓
Nonlinear regression	✓	✓	✓

	XLSTAT Essentials	XLSTAT Standard	XLSTAT Advanced
MODELING DATA (ADVANCED)			
Partial least squares regression (PLS)		✓	✓
Mixed models		✓	✓
Two-stage least squares regression		✓	✓
LASSO regression		✓	✓
Ridge regression		✓	✓
Elastic net regression		✓	✓
Log-linear regression (Poisson regression)		✓	✓
Quantile regression		✓	✓
Nonparametric regression (Kernel and Lowess)		✓	✓
Repeated measures analysis of variance (ANOVA)		✓	✓
VISUALIZING DATA			
Scatter plots	✓	✓	✓
Bar charts	✓	✓	✓
Univariate plots	✓	✓	✓
Radar charts	✓	✓	✓
Word clouds	✓	✓	✓
Funnel charts	✓	✓	✓
Bar chart race	✓	✓	✓
Truncated Barchart	✓	✓	✓
Motion charts	✓	✓	✓
Parallel coordinates plots	✓	✓	✓
Ternary diagrams	✓	✓	✓
2D plots for crosstabs	✓	✓	✓
Semantic differential charts	✓	✓	✓
Probability plots	✓	✓	✓
Error bars	✓	✓	✓
Plot a function	✓	✓	✓
EasyLabels	✓	✓	✓
AxesZoomer	✓	✓	✓
Plot transformation	✓	✓	✓

	XLSTAT Essentials	XLSTAT Standard	XLSTAT Advanced
Orthonormal plot	✓	✓	✓
Merge charts	✓	✓	✓
Reposition labels	✓	✓	✓
Resize a chart	✓	✓	✓
EasyPoints	✓	✓	✓
Colors, thickness and size	✓	✓	✓
Contour plot and Surface plot	✓	✓	✓
TESTING A HYPOTHESIS			
Tests for one proportion	✓	✓	✓
Tests for two proportions	✓	✓	✓
k proportions test	✓	✓	✓
One-sample t-test and z-test	✓	✓	✓
Two-sample t-test and z-test	✓	✓	✓
Two-sample comparison of variances	✓	✓	✓
k-sample comparison of variances	✓	✓	✓
Multidimensional tests (Mahalanobis, ...)	✓	✓	✓
Multinomial goodness of fit test	✓	✓	✓
TOST (Equivalence test)	✓	✓	✓
One-sample variance test	✓	✓	✓
Comparison of two samples (Wilcoxon, Mann-Whitney, ...)	✓	✓	✓
Comparison of two distributions	✓	✓	✓
Comparison of k samples (Kruskal-Wallis, Friedman, ...)	✓	✓	✓
Cochran's Q test	✓	✓	✓
McNemar's test	✓	✓	✓
One-sample runs test	✓	✓	✓
Cochran-Mantel-Haenszel test	✓	✓	✓
Durbin and Skillings-Mack tests	✓	✓	✓
Page test	✓	✓	✓
Mood test (Median test)	✓	✓	✓
One sample Wilcoxon Signed-Rank test	✓	✓	✓
Tests on contingency tables	✓	✓	✓

	XLSTAT Essentials	XLSTAT Standard	XLSTAT Advanced
Correlation tests	✓	✓	✓
Mantel test	✓	✓	✓
Cochran-Armitage trend test	✓	✓	✓
Biserial correlation	✓	✓	✓
RV coefficients	✓	✓	✓
Grubbs' test for outliers	✓	✓	✓
Dixon test for outliers	✓	✓	✓
Cochran C test for outlying variances	✓	✓	✓
Mandel's h and k statistics for outliers	✓	✓	✓
Friedman-Rafsky test		✓	✓
CLUSTERING			
Agglomerative Hierarchical Clustering (AHC)	✓	✓	✓
k-means clustering	✓	✓	✓
Univariate Clustering	✓	✓	✓
Fuzzy k-means clustering		✓	✓
Gaussian Mixture Models		✓	✓
DBSCAN		✓	✓
STATISTICAL PROCESS CONTROL			
Individual charts	✓	✓	✓
Subgroup charts	✓	✓	✓
Attribute charts	✓	✓	✓
Time weighted charts	✓	✓	✓
Pareto charts	✓	✓	✓
Gage repeatability and reproducibility (quantitative)	✓	✓	✓
Gage repeatability and reproducibility for attributes	✓	✓	✓
TOOLS			
Probability calculator	✓	✓	✓
Matrix operations	✓	✓	✓
Clean text data	✓	✓	✓
Lower and upper case	✓	✓	✓
Sensory data analysis			

	XLSTAT Essentials	XLSTAT Standard	XLSTAT Advanced
Preference Mapping (PREFMAP)		✓	✓
Internal preference mapping		✓	✓
Penalty analysis		✓	✓
Product characterization		✓	✓
Panel analysis		✓	✓
CATA data analysis		✓	✓
Liking data analysis		✓	✓
Temporal Dominance of Sensations (TDS)		✓	✓
Time-Intensity		✓	✓
Generalized Bradley-Terry model		✓	✓
Sensory shelf life analysis		✓	✓
Design of experiments for sensory discrimination tests		✓	✓
Sensory discrimination tests		✓	✓
DOE for sensory data analysis		✓	✓
Generalized Procrustes Analysis (GPA)		✓	✓
CLUSTATIS		✓	✓
STATIS		✓	✓
TCATA		✓	✓
CATATIS		✓	✓
Sensory wheel		✓	✓
Free sorting data analysis		✓	✓
CLUSCATA		✓	✓
Projective mapping data analysis		✓	✓
Power for sensory discrimination tests		✓	✓
Create Product/assessor table		✓	✓
RATA data analysis		✓	✓
JAR multivariate analysis		✓	✓
Flash profiling		✓	✓
R-Index		✓	✓
PLS path modelling		✓	✓

	XLSTAT Essentials	XLSTAT Standard	XLSTAT Advanced
Regularized generalized canonical correlation analysis (RGCCA)		✓	✓
Generalized structured component analysis (GSCA)		✓	✓
MARKETING TOOLS			
Sample size calculator		✓	✓
TURF analysis		✓	✓
Price sensitivity meter (Van Westendorp)		✓	✓
Price elasticity of demand		✓	✓
Customer lifetime value (CLV)		✓	✓
Customer long-term value (CLTV)		✓	✓
Raking survey data		✓	✓
PROCESS moderation and mediation		✓	✓
Bayesian Networks		✓	✓
CONJOINT ANALYSIS			
Designs for conjoint analysis		✓	✓
Conjoint analysis		✓	✓
Designs for choice-based conjoint analysis		✓	✓
Choice based conjoint analysis		✓	✓
Designs for MaxDiff		✓	✓
MaxDiff analysis		✓	✓
MONANOVA - Monotone regression		✓	✓
Conditional logit model		✓	✓
Conjoint analysis simulation tool		✓	✓
Market generator		✓	✓
DECISION AID			
Multicriteria decision aid - ELECTRE methods		✓	✓
Design of experiments for the analytic hierarchy process (DHP)		✓	✓
Analytic hierarchy process (AHP)		✓	✓
Decision trees		✓	✓
TEXT MINING			
Feature extraction		✓	✓

	XLSTAT Essentials	XLSTAT Standard	XLSTAT Advanced
Latent semantic analysis (LSA)		✓	✓
Sentiment Analysis		✓	✓
Term selection		✓	✓
Fuzzy k-means (Text Mining)		✓	✓
Multiblock data analysis			
Multiple factor analysis (MFA)		✓	✓
Canonical correspondence analysis (CCA and partial CCA)		✓	✓
Canonical correlation analysis (CCorA)		✓	✓
Redundancy analysis (RDA)		✓	✓
MACHINE LEARNING			
Naive Bayes classifier		✓	✓
K nearest neighbors (KNN)		✓	✓
Classification and regression trees		✓	✓
Classification and regression random forests		✓	✓
Association rules		✓	✓
Extreme gradient boosting		✓	✓
Model performance indicators		✓	✓
One-class support vector machine		✓	✓
Support vector machine		✓	✓
SURVIVAL ANALYSIS			
Life table analysis			✓
Kaplan-Meier analysis			✓
Cox proportional hazards models			✓
Proportional Hazards model with interval censored data			✓
Sensitivity and specificity analysis			✓
ROC curves			✓
Nelson-Aalen analysis			✓
Cumulative incidence			✓
Parametric survival regression (Weibull model)			✓
Parametric survival curves			✓
Propensity score matching			✓

	XLSTAT Essentials	XLSTAT Standard	XLSTAT Advanced
Illness-Death model			✓
METHOD VALIDATION			
Method comparison (Bland Altman, ...)			✓
Passing and Bablok regression			✓
Deming regression			✓
Youden plots			✓
DOSE EFFECT ANALYSIS			
Dose effect analysis			✓
4/5-parameter parallel lines logistic regression			✓
Inter-laboratory proficiency testing			✓
OMICS DATA ANALYSIS			
Differential expression			✓
Heat map			✓
POWER ANALYSIS			
Statistical power for mean comparison			✓
Statistical power to compare variances			✓
Statistical power for proportion comparison			✓
Statistical power for linear regression			✓
Statistical power for ANOVA / ANCOVA / Repeated measures ANOVA			✓
Statistical power for logistic regression			✓
Statistical power for Cox model			✓
Sample size for clinical trials			✓
Statistical power for correlation comparison			✓
DESIGN OF EXPERIMENTS			
Screening designs			✓
Analysis of a screening design			✓
Surface response designs			✓
Analysis of a surface response design			✓
Analysis of a mixture design			✓
Taguchi designs			✓
Analysis of a Taguchi design			✓

	XLSTAT Essentials	XLSTAT Standard	XLSTAT Advanced
Mixture designs			✓
TIME SERIES ANALYSIS			
Mann-Kendall trend tests			✓
Time series descriptive statistics			✓
Time series transformation			✓
Times series visualization			✓
Smoothing for time series			✓
ARIMA			✓
Cointegration test			✓
Unit root and stationarity tests			✓
Homogeneity tests for time series			✓
Heteroscedasticity tests			✓
Durbin-Watson test			✓
Cochrane-Orcutt model			✓
Fourier transform			✓
Spectral analysis			✓
MONTE CARLO SIMULATIONS			
Define a distribution			✓
Define a scenario variable			✓
Define a result variable			✓
Define a statistic			✓
Run simulation			✓
AI & AUTOMATION FEATURES			
Easy Fit / Easy Predict			✓
DataViz			✓
Workflow builder			✓
AI Assistant (only for Windows)			✓
XLSTAT-R			✓
XLSTAT-RNotebook			✓