



IBM® SPSS® Statistics Subscription: Base, add-ons and features

Base package

The Base subscription includes the following features:

Data access and management

- Compare two data files for compatibility
- Data prep features: Define Variable Properties tool; Copy Data Properties tool, Visual Bander, Identify Duplicate Cases; Date/Time wizard
- Data Restructure wizard
 - Single record to multiple records
 - Multiple records to single record
- Direct Excel data access
- Easier importing from Excel and CSV
- Export data to SAS and current versions of Excel
- Export/insert to Database wizard
- Import data from IBM Cognos® Business Intelligence
- Import/export to/from Dimensions
- Import Stata files (until V14)
- Long variable names
- Longer value labels
- Multiple datasets can be run in one SPSS session
- ODBC Capture—DataDirect drivers
- OLE DB data access
- Password protection
- SAS 7/8/9 data files including compressed files)
- Text wizard
- Unicode support
- Very long text strings

Data preparation

- Automated data preparation—enhanced model viewer for automated data preparation
- Validate data—streamline the process of validating data before analyzing it
- Anomaly detection—identify unusual cases in a multivariate setting
- Optimal binning

Graphs

- Auto and cross correlation graphs
- Basic graphs
- Mapping (geospatial analysis)
- Chart gallery
- Chart options
- ChartBuilder UI for commonly used charts
- Charts for multiple response variables
- Graphics Production Language for custom charts
- Interactive graphs—scriptable
- Overlay and dual Y charts
- Panelled charts
- ROC analysis
- Time series charts

Base features

1 • 2 • 3

Add-on: Custom tables and advanced statistics

Add-on: Complex sampling and testing

Add-on: Forecasting and decision trees



Output

- Case summaries
- Style output
- Conditional formatting
- Codebook
- Export charts as Microsoft Graphic Object
- Export model as XML to SmartScore
- Export to PDF
- Export to Word/Excel/PowerPoint
- HTML output

Help features

- Application examples
- Index
- Statistics coach
- Tutorial
- Extensions

Data editor enhancements

- Custom attributes for user-defined metadata
- Spell checker
- Splitter controls
- Variable sets for wide data
- Variable icons

- Improved performance for large pivot tables
- OLAP cubes/pivot tables
- Output management system
- Output scripting
- Reports summaries in rows and columns
- Search and replace
- Smart devices (tablets and phones)
- Table to graph conversion
- Web reports

Extended programmability

- Custom UI builder enhancements (work seamlessly with Python and R and can be used in IBM SPSS Modeler)
- New Extensions hub
- Custom dialog builder for Extensions
- Flow control or syntax jobs
- Partial least squares regression
- Python, .NET and Java for front-end scripting
- SPSS equivalent of the SAS DATA STEP
- Support for R algorithms and graphics
- User-defined procedures

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Statistics

- ANOVA (in syntax only)
- Automatic linear models
- Cluster
- Correlate—bivariate, partial, distances
- Crosstabs
- Define variable sets
- Descriptive ratio statistics (PVA)
- Descriptives
- Discriminant analysis
- Enhanced model viewer on two-step cluster and new nonparametrics
- Explore
- Factor analysis
- Frequencies
- Geo-spatial analytics (STP and GSAR) (NEW!)
- Improved performance for frequencies, crosstabs, descriptives (Statistics Base Server)
- Matrix operations

Multithreaded algorithms

- SORT

Bootstrapping

- Sampling and pooling
- Descriptive procedures that can be bootstrapped
 - Correlations/nonparametric correlations
 - Crosstabs
 - Descriptives
 - Examine
 - Frequencies
 - Means
 - Partial correlations
 - T tests

- Means
- Monte Carlo simulation
- Nearest neighbor analysis
- New nonparametric tests
- One way ANOVA
- Ordinal regression (PLUM)
- Ordinary least squares regression
- PP plots
- QQ plots
- Ratio
- Reliability and ALSCAL multidimensional scaling
- ROC curve
- Compare ROC curves
- Rule checking on secondary SPC charts
- Summarize data
- T tests: paired samples, independent samples, one-samples
- Two-step cluster: categorical and continuous data/large data sets

Base features

1 • 2 • 3

Add-on: Custom tables and advanced statistics

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Add-on: Custom tables and advanced statistics

This add-on to the Base subscription includes the following features:

Custom tables

- 35 descriptive statistics
- Drag and drop interface
- Inferential statistics
- Nested tables
- Place totals in any row, column, or layer
- Post computed categories
- Effective base for weighted sample results
- Put multiple variables into the same table
- Significance tests on multiple response variables
- Significance test in custom tables main table
- Significance values for column means and column proportion tests
- Specialized multiple response set tables
- False discovery correction method for multiple comparisons
- Syntax converter

Regression

- Binary logistic regression
- Logit response models
- Multinomial logistic regression
- Nonlinear regression
- Probit response analysis
- Two stage least squares
- Weighted least squares
- Quantile regression

Advanced statistics

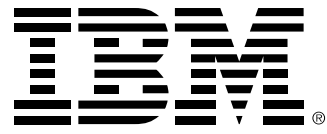
- Cox regression
- General linear modeling (GLM)
 - General factorial
 - Multivariate (MANOVA)
 - Repeated measures
 - Variance components
- Generalized linear models and generalized estimating equations
 - Gamma regression
 - Poisson regression
 - Negative binomial
- GENLOG for loglinear and logit
- Generalized linear mixed models (GLMM) (ordinal targets included)
- Bayesian statistics
- Hierarchical loglinear models
- Kaplan Meier
- Linear mixed-level models (aka hierarchical linear models)
- Survival
- Variance component estimation

Base features

Add-on: Custom tables and advanced statistics

Add-on: Complex sampling and testing

Add-on: Forecasting and decision trees



Add-on: Complex sampling and testing

This add-on to the Base subscription includes the following features:

Complex samples (CS)

- CS Cox regression (also multithreaded)
- CS descriptives
- CS general linear models
- CS logistic regression
- CS ordinal regression
- CS selection
- CS tabulate
- Sampling wizard/Analysis Plan wizard

Exact tests

- Cochran's Q test
- Contingency coefficient
- Cramer's V
- Fisher's exact test
- Somers' D—symmetric and asymmetric
- Friedman test
- Gamma
- Goodman and Kruskal tau
- Jonckheere-Terpstra test
- Kappa
- Kendall's coefficient of concordance
- Kendall's tau-b and tau-c
- Kruskal-Wallis test
- Likelihood ratio test
- Linear-by-linear association test
- Mann-Whitney U or Wilcoxon rank-sum W test
- Marginal homogeneity test
- McNemar test
- Median test
- Pearson Chi-square test
- Pearson's R
- Phi
- Sign test
- Spearman correlation
- Uncertainty coefficient—symmetric or asymmetric
- Wald-Wolfowitz runs test
- Wilcoxon signed-rank test

Categories

- Correspondence analysis (ANACOR)
- Principal components analysis for categorical data (CATPCA; replaces PRINCALS)
- Ridge regression, lasso, elastic net (CATREG)
- CORRESPONDENCE
- Nonlinear canonical correlation (OVERALS)
- Multidimensional scaling for individual differences scaling with constraints (PROXSCAL)
- Preference scaling (PREFSCAL; multidimensional unfolding)
- Multiple correspondence analysis

Missing values

- Data patterns table
- Imputation with means estimation or regression
- Listwise and pairwise statistics
- Missing patterns table
- Multiple imputation of missing data
- Pooling

Conjoint

- Estimate utilities (CONJOINT)
- For conjoint analysis (ORTHOPLAN)
- PLANCARDS

Base features

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Add-on: Forecasting and decision trees

This add-on to the Base subscription includes the following features:

Decision trees

- C&RT
- CHAID
- Exhaustive CHAID
- QUEST

Forecasting

- Auto regressive integrated moving average
- Autoregression
- Expert modeler exponential smoothing methods
- Forecast multiple series (outcomes) at once
- Temporal causal modeling
- Seasonal decomposition
- Spectral analysis

Neural networks

- Multilayer perception
- Radial basis function

Direct marketing

- Cluster analysis
- Contact profiling
- Control package test
- Propensity to purchase
- RFM analysis: recency, frequency, monetary
- Zip code response

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