

Cheat Sheet

Product/Product Family: Statistics Family

IBM SPSS Statistics Subscription (Base and 3 optional add-on's)
IBM SPSS Statistics Perpetual 25 (Standard, Professional Premium bundles)

Denotes that the module exists in the respective bundle

| Product | Feature | Function |
|---|-----------------------------------|---|
| IBM SPSS Statistics (General features & functions) | <i>Data Access and Management</i> | <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> ◦ 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 Cognos Business Intelligence • Import/export to/from Dimensions (mrInterview and mr Heritage products) • 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 |
| | <i>Graphs</i> | <ul style="list-style-type: none"> • Auto and Crosscorrelation Graphs • Basic Graphs • Mapping (Geospatial analysis) • Chart Gallery • Chart Looks • 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 |
| | <i>Output</i> | <ul style="list-style-type: none"> • 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 • Improved performance for Large Pivot Tables • OLAP Cubes/Pivot Tables • Output Management System • Output Scripting • Reports Summaries in Rows & Columns • Search and replace • Smart devices(Tablets and Phones) • Table to Graph Conversion • Webreports |
| | <i>Data Editor Enhancements</i> | <ul style="list-style-type: none"> • Custom Attributes for user-defined meta data • Spell Checker • Splitter controls • Variable Sets for wide data • Variable icons |
| | <i>Help</i> | <ul style="list-style-type: none"> • Application Examples • Index • Statistics Coach • Tutorial • Extensions |

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|--|---|--|
| | <i>Extended Programmability</i> | <ul style="list-style-type: none"> • Custom UI Builder enhancements (work seamlessly with Python and R and can be used in 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 |
| | <i>Syntax Editor- only XMLs for supported commands</i> | |
| IBM SPSS Statistics Base | <i>Core System Capabilities</i> | <ul style="list-style-type: none"> • See description |
| | <input checked="" type="checkbox"/> Standard | <ul style="list-style-type: none"> • 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 Non-parametrics • Explore • Factor analysis • Frequencies • Geo-spatial Analytics (STP and GSAR) (NEW!!!) • Improved performance for Frequencies, Crosstabs, Descriptives(Statistics Base Server) • Matrix Operations • Means • Monte Carlo Simulation • Nearest Neighbor Analysis • New Non-Parametric Tests • one way ANOVA • Ordinal Regression (PLUM) • Ordinary Least Squares Regression • PP Plots • QQ Plots • Ratio • Reliability and ALSICAL multidimensional scaling • ROC Curve • 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 |
| | <input checked="" type="checkbox"/> Professional | |
| | <input checked="" type="checkbox"/> Premium | |
| <input checked="" type="checkbox"/> IBM SPSS Statistics Subscription Base | | |
| | <i>Graphs</i> | <ul style="list-style-type: none"> • Legacy Chart Dialogs |
| | <i>Multithreaded algorithms</i> | <ul style="list-style-type: none"> • SORT |
| | <i>Syntax Editor Improved all supported</i> | |
| IBM SPSS Forecasting | <input type="checkbox"/> Standard | <ul style="list-style-type: none"> • Auto Regressive Integrated Moving Average • AutoRegression • Expert Modeler Exponential Smoothing Methods • Forecast multiple series (outcomes) at once • Temporal Causal Modeling (NEW!!!) • Seasonal Decomposition Spectral Analysis |
| | <input checked="" type="checkbox"/> Professional | |
| | <input checked="" type="checkbox"/> Premium | |
| | <input checked="" type="checkbox"/> Forecasting & Decision Trees Add-on (Subscription) | |
| IBM SPSS | <i>Core System Capabilities</i> | |

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|---|--|--------------------------------------|--|---|--|---------------|--|-----------------------|--|----------------|---|------------------|--|-----------------|---|---|--|--|
| Regression <input checked="" type="checkbox"/> Standard <input checked="" type="checkbox"/> Professional <input checked="" type="checkbox"/> Premium <input checked="" type="checkbox"/> Custom Tables & Advanced Statistics Add-on (Subscription) | <ul style="list-style-type: none"> Binary Logistic Regression Logit Response Models Multinomial Logistic Regression Nonlinear Regression Probit Response Analysis Two Stage Least Squares Weighted Least Squares | | | | | | | | | | | | | | | | | |
| IBM SPSS Exact Tests <input type="checkbox"/> Standard <input type="checkbox"/> Professional <input checked="" type="checkbox"/> Premium <input checked="" type="checkbox"/> Complex Sampling & testing Add-on (Subscription) | <i>Core System Capabilities</i> <ul style="list-style-type: none"> Cochran's Q test Contingency coefficient Cramer's V Fisher's exact test Somers' D—symmetric and asymmetric Friedman test Gamma | | | | | | | | | | | | | | | | | |
| IBM SPSS Exact Tests Contd... | <i>Core System Capabilities</i> <ul style="list-style-type: none"> 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 | | | | | | | | | | | | | | | | | |
| IBM SPSS Advanced Statistics <input checked="" type="checkbox"/> Standard <input checked="" type="checkbox"/> Professional <input checked="" type="checkbox"/> Premium <input checked="" type="checkbox"/> Custom Tables & Advanced Statistics Add-on (Subscription) | <i>Core system capabilities</i> <i>Cox Regression</i> <table border="1" style="width: 100%;"> <tr> <td style="width: 30%;"><i>General Linear Modeling (GLM)</i></td> <td> <ul style="list-style-type: none"> General Factorial Multivariate (MANOVA) Repeated Measures Variance Components </td> </tr> <tr> <td><i>Generalized Linear Models and Generalized Estimating Equations</i></td> <td> <ul style="list-style-type: none"> Includes Gamma Regression, Poisson Regression and negative binomial </td> </tr> </table> | <i>General Linear Modeling (GLM)</i> | <ul style="list-style-type: none"> General Factorial Multivariate (MANOVA) Repeated Measures Variance Components | <i>Generalized Linear Models and Generalized Estimating Equations</i> | <ul style="list-style-type: none"> Includes Gamma Regression, Poisson Regression and negative binomial | | | | | | | | | | | | | |
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| | <i>GENLOG for Loglinear and Logit</i> <i>Generalized Linear Mixed Models (GLMM) (ordinal targets included)</i> <i>Bayesian Statistics</i> <i>Hierarchical Loglinear Models</i> <i>Kaplan Meier</i> <i>Linear Mixed-level Models (aka Hierarchical Linear Models)</i> <i>Survival</i> <i>Variance Component Estimation</i> | | | | | | | | | | | | | | | | | |
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| IBM SPSS | <i>Core System Capabilities</i> | | | | | | | | | | | | | | | | | |

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|--|--|-----------------------------------|--|----------------------|---|--------------------------|--|------------------------|--|--|
| Missing Values <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Professional <input checked="" type="checkbox"/> Premium <input checked="" type="checkbox"/> Complex Sampling & testing Add-on (Subscription) | <ul style="list-style-type: none"> Data Patterns Table Imputation with Means Estimation or Regression Listwise and Pairwise Statistics Missing Patterns Table Multiple imputation of missing data Pooling | | | | | | | | | |
| IBM SPSS Custom Tables <input checked="" type="checkbox"/> Standard <input checked="" type="checkbox"/> Professional <input checked="" type="checkbox"/> Premium <input checked="" type="checkbox"/> Complex Sampling & testing Add-on (Subscription) | <i>Core System Capabilities</i> <ul style="list-style-type: none"> 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 Sig tests on multiple response variables Significance test in Custom Tables main table Sig values for column means and column proportion tests Specialized multiple response set tables False discovery correction method for multiple comparisons Syntax converter Table preview | | | | | | | | | |
| IBM SPSS Complex Samples <input type="checkbox"/> Standard <input type="checkbox"/> Professional <input checked="" type="checkbox"/> Premium <input checked="" type="checkbox"/> Complex Sampling & testing Add-on (Subscription) | <i>Core System Capabilities</i> <ul style="list-style-type: none"> CS Cox Regression (also multithreaded) CS Descriptives CS General Linear Models CS Logistic Regression CS Ordinal Regression CS Selection CS Tabulate SamplingWizard/Analysis Plan Wizard | | | | | | | | | |
| IBM SPSS Decision Trees <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Professional <input checked="" type="checkbox"/> Premium <input checked="" type="checkbox"/> Forecasting & Decision Trees Add-on (Subscription) | <i>Core System Capabilities</i> <ul style="list-style-type: none"> C&RT CHAID Exhaustive CHAID QUEST | | | | | | | | | |
| IBM SPSS Data Preparation <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Professional <input checked="" type="checkbox"/> Premium <input checked="" type="checkbox"/> IBM SPSS Statistics Subscription Base | <i>Core system capabilities</i> <table border="1" style="width: 100%;"> <tr> <td style="width: 30%;"><i>Automated Data Preparation</i></td> <td> <ul style="list-style-type: none"> Enhanced Model Viewer for Automated Data Preparation </td> </tr> <tr> <td><i>Validate data</i></td> <td> <ul style="list-style-type: none"> Streamline the process of validating data before analyzing it </td> </tr> <tr> <td><i>Anomaly detection</i></td> <td> <ul style="list-style-type: none"> Identify unusual cases in a multivariate setting </td> </tr> <tr> <td colspan="2"><i>Optimal Binning</i></td> </tr> </table> | <i>Automated Data Preparation</i> | <ul style="list-style-type: none"> Enhanced Model Viewer for Automated Data Preparation | <i>Validate data</i> | <ul style="list-style-type: none"> Streamline the process of validating data before analyzing it | <i>Anomaly detection</i> | <ul style="list-style-type: none"> Identify unusual cases in a multivariate setting | <i>Optimal Binning</i> | | |
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| IBM SPSS Neural | <i>Core System Capabilities</i> | | | | | | | | | |

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| Networks <input type="checkbox"/> Standard <input type="checkbox"/> Professional <input checked="" type="checkbox"/> Premium <input checked="" type="checkbox"/> Forecasting & Decision Trees Add-on (Subscription) | <ul style="list-style-type: none"> Multilayer Perception Radial Basis Function | | | | | | | |
| AMOS <input type="checkbox"/> Standard <input type="checkbox"/> Professional <input checked="" type="checkbox"/> Premium Note: Not part of Subscription | <i>Core System Capabilities</i> <ul style="list-style-type: none"> Bayesian estimation Confirmatory factor analysis Enter the model into a spreadsheet like table (no programming) Estimation of categorical and censored data Latent Class Analysis Non-graphical method of modeling Structural equation modeling/Path analysis | | | | | | | |
| IBM SPSS Conjoint <input type="checkbox"/> Standard <input type="checkbox"/> Professional <input checked="" type="checkbox"/> Premium <input checked="" type="checkbox"/> Complex Sampling & testing Add-on (Subscription) | <i>Core system capabilities</i> <table border="1" style="width: 100%;"> <tr> <td><i>CONJOINT</i></td> <td> <ul style="list-style-type: none"> Estimate Utilities </td> </tr> <tr> <td><i>ORTHOPLAN</i></td> <td> <ul style="list-style-type: none"> For conjoint analysis </td> </tr> </table> <i>PLANCARDS</i> | <i>CONJOINT</i> | <ul style="list-style-type: none"> Estimate Utilities | <i>ORTHOPLAN</i> | <ul style="list-style-type: none"> For conjoint analysis | | | |
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| IBM SPSS Direct Marketing <input type="checkbox"/> Standard <input type="checkbox"/> Professional <input checked="" type="checkbox"/> Premium <input checked="" type="checkbox"/> Forecasting & Decision Trees Add-on (Subscription) | <i>Core System Capabilities</i> <ul style="list-style-type: none"> Cluster Analysis Contact Profiling Control Package Test Propensity to Purchase RFM analysis- recency, frequency, monetary Zip code response | | | | | | | |
| IBM SPSS Bootstrapping <input type="checkbox"/> Standard <input type="checkbox"/> Professional <input checked="" type="checkbox"/> Premium <input checked="" type="checkbox"/> IBM SPSS Statistics Subscription Base | <i>Core system capabilities</i> <table border="1" style="width: 100%;"> <tr> <td><i>Bootstrapping</i></td> <td> <ul style="list-style-type: none"> Sampling and pooling </td> </tr> <tr> <td><i>Descriptive Procedures that can be bootstrapped</i></td> <td> <ul style="list-style-type: none"> Correlations/Nonparametric Correlations (Statistics Base) Crosstabs (Statistics Base) Descriptives (Statistics Base) Examine (Statistics Base) Frequencies (Statistics Base) Means (Statistics Base) Partial Correlations (Statistics Base) T-tests (Statistics Base) </td> </tr> <tr> <td><i>Modeling Procedures that can be bootstrapped</i></td> <td> <ul style="list-style-type: none"> Cox Regression (Advanced Statistics) Discriminant (Statistics Base) GENLIN (Advanced Statistics) GLM (Advanced Statistics) Linear Mixed Models (Advanced Statistics) Logistic Regression (Regression) Nominal Regression (Regression) Oneway (Statistics Base) Binary Multinomial Logistic ordinal regression (Statistics Base) Regression (Regression) UniAnova (Statistics Base) </td> </tr> </table> | <i>Bootstrapping</i> | <ul style="list-style-type: none"> Sampling and pooling | <i>Descriptive Procedures that can be bootstrapped</i> | <ul style="list-style-type: none"> Correlations/Nonparametric Correlations (Statistics Base) Crosstabs (Statistics Base) Descriptives (Statistics Base) Examine (Statistics Base) Frequencies (Statistics Base) Means (Statistics Base) Partial Correlations (Statistics Base) T-tests (Statistics Base) | <i>Modeling Procedures that can be bootstrapped</i> | <ul style="list-style-type: none"> Cox Regression (Advanced Statistics) Discriminant (Statistics Base) GENLIN (Advanced Statistics) GLM (Advanced Statistics) Linear Mixed Models (Advanced Statistics) Logistic Regression (Regression) Nominal Regression (Regression) Oneway (Statistics Base) Binary Multinomial Logistic ordinal regression (Statistics Base) Regression (Regression) UniAnova (Statistics Base) | |
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