SPSS Modules Features – Statistics Premium

Core System Functionality (included in every license)

Data access and management
- 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
- Export data to SAS and current versions of Excel
- Export to Database Wizard
- Import/export to/from Dimensions
  - (mr Interview and mr Heritage products)
- Long Variable names
- Longer value labels
- Multiple datasets can be run in one SPSS session
- ODBC Capture - DataDirect Drivers
- OLE DB data access
- SAS 7/8/9 data files including compressed files
- Text Wizard
- Unicode support
- Very long text strings

Graphs
- Auto and Crosscorrelation Graphs
- Basic Graphs
- 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

Output
- Case Summaries
- Codebook
- Enhanced control over output when exporting to MS Office
- 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
- Smartreader
- Table to Graph Conversion

**Data Editor**
- Custom Attributes for user-defined meta data
- Spell Checker
- Splitter controls
- Variable Sets for wide data

**Help**
- Application Examples
- Index
- Statistics Coach
- Tutorial

**Extended Programmability**
- Custom UI Builder enhancements (work seamlessly with Python and R, and can be used in Modeler)
- Flow control or syntax jobs
- Partial Least Squares regression
- Python for front end scripting
- SPSS equivalent of the SAS DATA STEP
- Support for R algorithms and graphics
- User defined procedures

**Syntax Editor** – only XMLs for supported commands

**SPSS Statistics Base**

**Statistics**
- ANOVA
- 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
- Improved performance for Frequencies,
  Crosstabs, Descriptives (Statistics Base Server)
- Matrix Operations
- Means
- Nearest Neighbour Analysis
- New Non-Parametric Tests one way ANOVA
- Ordinal Regression (PLUM)
Ordinary Least Squares Regression
PP Plots
QQ Plots
Ratio
Reliability and ALSCAL 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

Graphs
Legacy Chart Dialogs

Multithreaded algorithms
SORT

Syntax editor

SPSS Forecasting
Core System Capabilities
Auto Regressive Integrated Moving Average
Autoregression
Expert Modeler
Exponential Smoothing Methods
Forecast multiple series (outcomes) at once
Seasonal Decomposition
Spectral Analysis

SPSS Regression
Core System Capabilities
Binary Logistic Regression
Logit Response Models
Multinomial Logistic Regression
Nonlinear Regression
Probit Response Analysis
Two Stage Least Squares
Weighted Least Squares

SPSS Exact Tests
>30 Tests for nonparametric & categorical data
1-Sample Chi-square test
1-Sample Kolmogorov-Smirnov test
1-Sample Wald-Wolfowitz runs test
2-Sample Kolmogorov-Smirnov test
Binomial test
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

**SPSS Advanced Statistics**

**General Linear Modelling (GLM)**

- General Factorial
- Multivariate (MANOVA in syntax only)
- Repeated Measures
- Variance Components

**Generalised Linear Models and Generalised Estimating Equations**

- Gamma Regression
- Poisson Regression
- Negative Binomial

**GENLOG for Loglinear and Logit**

**Hierarchical Loglinear Models**

**Kaplan Meier**

**Linear Mixed-level Models (aka Hierarchical Linear Models)**

**Survival**

**Variance Component Estimation**

**SPSS Categories**

**ANACOR**

- Correspondence analysis

**ATPCA**
- Principal components analysis for categorical data (replaces PRINCALS)

**CATREG**
- Ridge Regression, Lasso, Elastic Net

**CORRESPONDENCE**

**OVERALS**
- Nonlinear canonical correlation

**PROXSCAL**
- Multidimensional scaling for individual differences scaling with constraints

**PREFSCAL**
- Preference scaling (multidimensional unfolding)

**Multiple Correspondence Analysis**

**SPSS Missing Values**
- Data Patterns Table
- Imputation with Means Estimation or Regression
- Listwise and Pairwise Statistics
- Missing Patterns Table
- Multiple imputation of missing data
- Pooling

**SPSS Custom Tables**
- Core system capabilities
- 35 descriptive statistics
- Drag and drop interface
- Inferential statistics
- Nested Tables
- Place totals in any row, column, or layer
- Post Computed Categories
- Put multiple variables into the same table
- Sig tests on multiple response variables
- Significance test in Custom Tables main table
- Specialized multiple response set tables
- Syntax converter
SPSS Complex Samples

Core system capabilities
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

SPSS Decision Trees

C&RT
CHAID
Core system capabilities
Exhaustive CHAID
QUEST

SPSS Data Preparation

Enhanced Model Viewer for Automated Data Preparation

Validate data
- Streamline the process of validating data before analysing it

Anomaly detection
- Identify unusual cases in a multivariate setting

Optimal Binning

SPSS Neural Networks

Multilayer Perception
Radial Basis Function

SPSS Conjoint

CONJOINT
- Estimate Utilities
ORTHOPLAN

- For conjoint analysis

PLANCARDS

SPSS Direct Marketing

Core system capabilities

Cluster Analysis
Contact Profiling
Control Package Test
Propensity to Purchase
RFM analysis - recency, frequency, monetary
Zip code response

SPSS Bootstrapping

Sampling and pooling

Descriptive Procedures that can be bootstrapped

- 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)

Modelling Procedures that can be bootstrapped

- 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)