# Dell™ Statistica™ 13.1

# Release Notes

## June 2016

These release notes provide information about the Dell™ Statistica™ 13.1 release.

Topics:





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# About this release

Dell Statistica is a general purpose analytics system that allows users to access, prepare, analyze, report and deploy advanced analytic models within vendor agnostic environments. This product line allows users to easily create and deploy statistical, predictive, data mining, machine learning, forecasting, optimization, and text analytic models.

Organizations gain the ability to manage the entire analytical lifecycle, from data aggregation and preparation, data visualization and discovery, model creation, model deployment, and model monitoring, with the Statistica Enterprise product line. Also this product line provides strong audit control to work within highly regulated environments.

Statistica 13.1 is a minor release with new features and functionality, including an improved performance and a more modern user interface. See New features and Enhancements.

# New features

## New Analytic Bundles

We have restructured our analytic products (bundles). The new analytic bundles are named Professional, Expert Manufacturing, Expert Data Science and Enterprise. New customers are currently purchasing new bundles. Over the next year, existing customers will migrate to new analytics bundles as they purchase new term licenses or renew their maintenance on their perpetual licenses.

To help with this transition, the release notes will contain the old analytic bundle names. Customers who own the new bundles will need to review the following table before reading the release notes. It maps the old bundles (Statistica Advanced, …) which have new features to the new bundles (Statistica Professional, …).

**Table 1 New Bundles**

| | Statistica Professional | Statistica Expert Manufacturing | Statistica Expert Data Science | Statistica Enterprise |
|---|---|---|---|---|
| **Statistica Advanced** | x | x | x | x |
| **Statistica Industrial Statistics** | x | x | x | x |
| **Statistica Reporting Tables** | x | x | x | x |
| **Statistica Multivariate Statistical Process Control (MSPC)** | x | x | x | x |
| **Statistica Data Miner** | | | x | x |
| **Statistica Weight of Evidence** | | | x | x |

## All Products

- Customers can now write or just copy Python scripts into a workspace node. See Table 5 Known issues for important information.


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- Connect to ADO.NET data sources with the Enterprise Manager application or Statistica Query to access new data sources. Examples include ADO.NET data providers for XML files, email servers and Salesforce.
- Customers can now perform a By-Group analysis with workspaces. The nodes can be executed repeatedly for a distinct combination of code values from a set of grouping variables.
- A new spreadsheet formula was added, Round to Even. Use this alternative tie breaking strategy, Round Half to Even, when the number is midway between two targets. In AKA convergent rounding, statisticians rounding, Dutch rounding, Gaussian Rounding, and odd-even rounding, or banker's rounding, the round-half-up rule is not symmetric and can introduce a positive bias in round-off errors. When rounding x.5 with the Round Half to Even strategy, half of the time it rounds up, and half the time it rounds down, thus eliminating the positive bias. When rounding x.5 to the nearest integer, it rounds up when x is odd and down when x is even. The feature is found on spreadsheet formulas as ROUNDEVEN.
- The variance module allows customers to estimate variance components for a three-way random effect hierarchically nested design to determine how much variation in the response is attributable to each factor.

## Statistica Advanced

- Perform single linkage clustering to determine if any homogeneous clusters/groups exist within the data.
- Compute a silhouette coefficient to determine the cluster solution.
- Create a heat-map for a dataset that contains more than 300 observations to interpret in a cluster solution.

## Statistica Data Miner

- Evaluate the overall accuracy of the respective prediction model in Lasso Regression using V-fold validation. When enabled, V-fold allows you to choose the best lambda.
- Implement a manual step-wise predictor selection for Random Forest Regression and Classification to perform a What-if analysis on the data.

## Statistica Industrial Statistics

- Generate more complex Quality Control Charts using SPC Charts with Alarming node. With this feature, you can create quality control charts that alert by running the analysis configuration or scheduling via web Statistica, and be notified of issues for a human to investigate.


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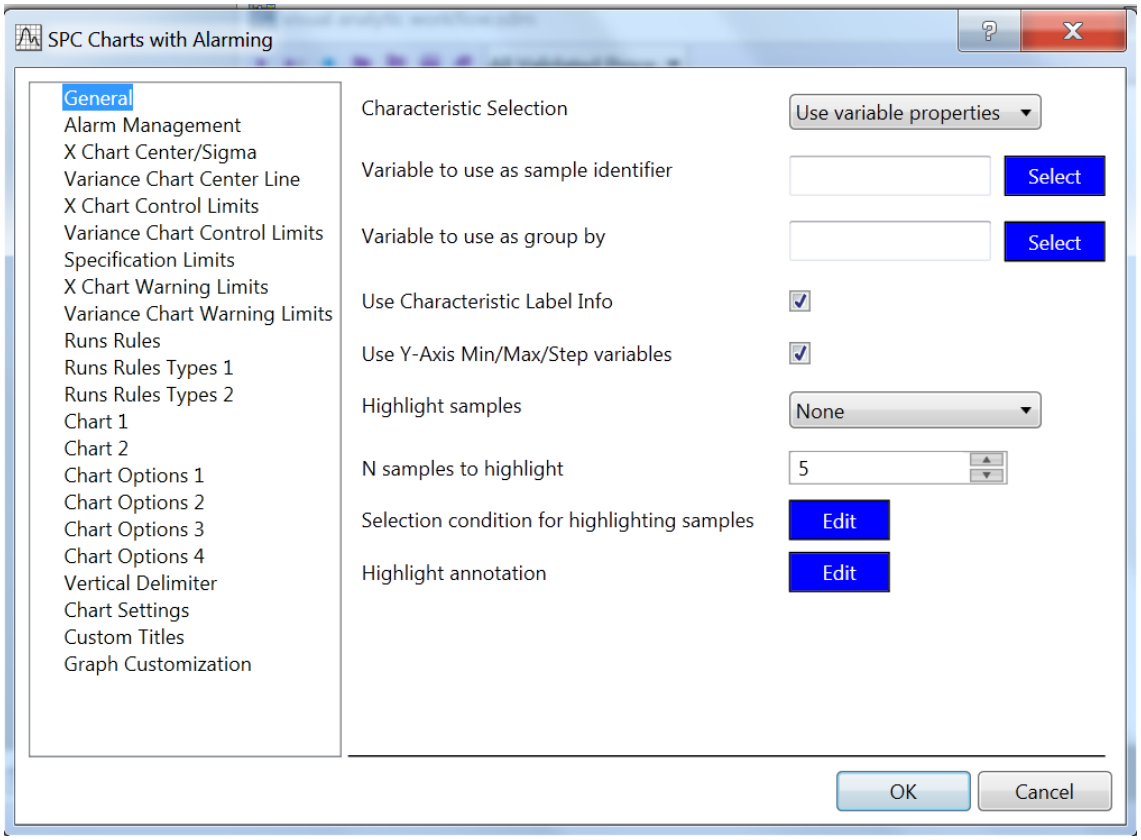


- Identify the measurement variables and time periods of abnormal operation within an industrial process with Contribution plots.
- Compute the variable contributions to a Hoteling T2 statistic for principal component analysis, such as PCA analysis, and TMPCA analysis using plots and tables.

## Statistica Multivariate Statistical Process Control (MSPC)

- Customize a variable trajectory chart easily to identify the trajectory of specified batches.
- Specify control and warning limits for the trajectory plot and variable trajectory spreadsheet as multiples of the standard deviation.
- Optionally display the warning limits in the variable trajectory plot and variable trajectory spreadsheet.
- Display the control and warning limits as regions in the variable trajectory plot.

## Statistica Weight of Evidence (WoE)

- Generate a more valuable log odds plot for more useful information based on custom defined C&RT bins.
- See a blank custom group graph to begin with after using the Compute groups function to customize and generate custom group graphs only for the predictors of interest.
- Save the new WoE settings as the module defaults.


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# Statistica Interactive Visualizations & Dashboards

When customers renew their maintenances or purchase new licenses, they will receive the new analytic bundles mentioned above. All the new bundles will include the ability to create interactive dashboards with the Statistica application.

Starting with 13.1, customers can purchase an add-in, Statistica Visualization (dashboards) Server, which is a web server for information consumers. Designers create these visualizations (dashboards) within Statistica and then publishes them to the visualization server, which is integrated with Datawatch visualization tools. Use the Datawatch designer application to define data sources and dashboards.

One initial integration point will be to use the Statistica OLE DB provider and specify both standalone spreadsheets and spreadsheets in Enterprise.

# Statistica Enterprise Small Business Edition and Statistica Enterprise Server

## Data Entry Server

The calendar is now the default for entering date/time fields.

To support a larger number of users, multiple worker processes per server, and configuration of multiple data entry servers through load balancing solutions (such as Microsoft NLBS) can now be configured.

The data migration utility now includes hidden field properties. You can mark characteristics and labels of a data entry setup as hidden on the data entry form. They do not show up during data entry, but will continue to be present in historical data.

Customers who own Statistica Data Miner, Code Deployment with Statistica Enterprise Server can now publish models to the edge with Boomi. AKA Edge Scoring can consume models developed in Statistica and deploy them as processing nodes that can be executed *near* the data in the cloud.

## In-database analytics

Statistica now offers methods to execute native distributed analytics (NDA) that will analyze the data where it lives.

Customers who own Statistica Data Miner with Statistica Enterprise Server or the new analytic bundle Statistica Enterprise with Statistica Enterprise Server can execute analytics within a database.

New In-database nodes available:

- Filter duplicate cases
- Sort
- Correlation matrices
- Random sampling
- Descriptive statistics
- Logistic regression
- Multiple regression

Results of the analysis can be written back to a database or displayed. These analyses can be run within SQL Server, Oracle, Teradata, Apache Hive or MySQL databases.

- Execute workspaces within a database for a complete analytic workflow, data acquisition, data management, and model building
- Push model related calculations to the database to leverage database performance and optimization capabilities, as well as distributed processing, map-reduction and other underlying technologies.
- Perform data management operations in a database to offload complex data management operations to the database.


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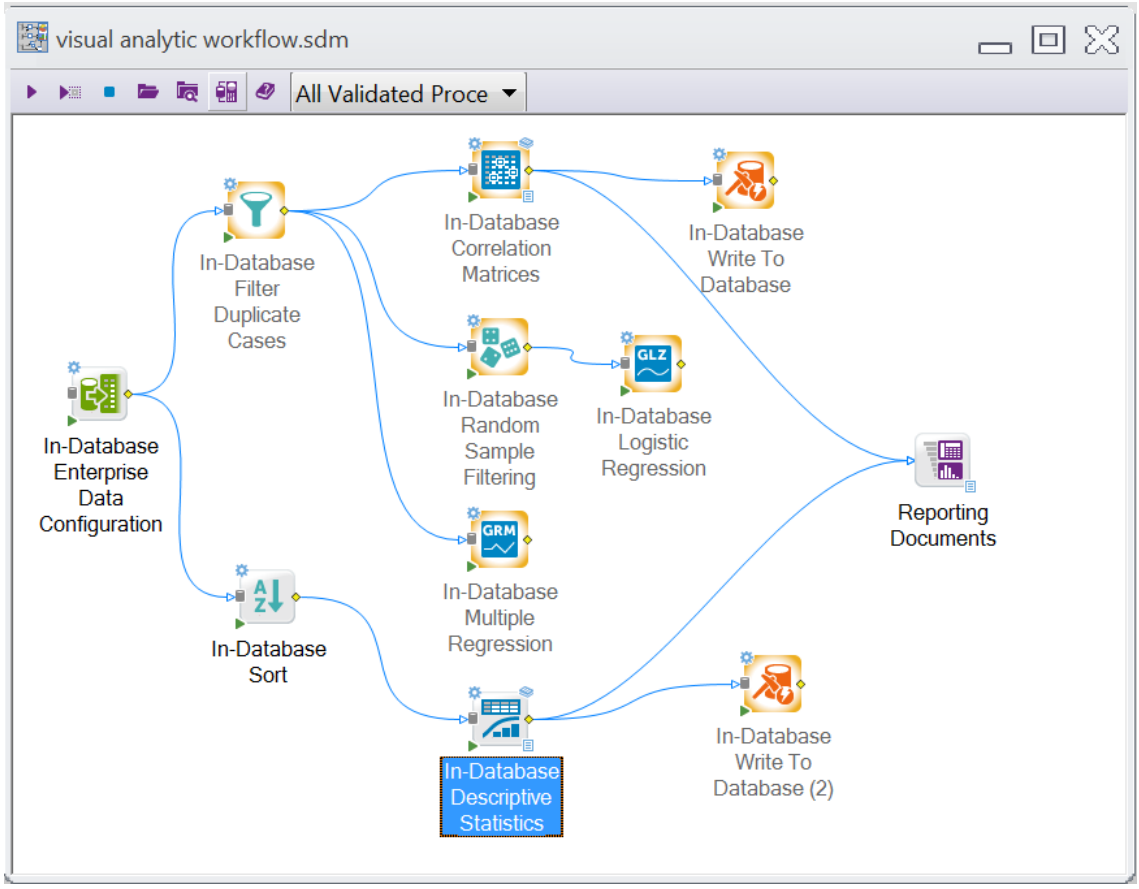
- Easily add nodes that support different database platforms in an object oriented fashion to write clean implementations.




# Statistica Network Analytics (new product)

- Convert data sources to networks to analyze networks.
- Drill-down and visualize the network, based on filtering conditions, to visualize the actors and edges of interest.
- Score the network and writeback the score to the database to score newly added data to the network.
- User interface and features are improved for a better network analytics experience.
- Create a workspace node to score, cluster, and perform anomaly detection for the network and use the data downstream.

See also:

- Enhancements
- Resolved issues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# Enhancements

The following list of enhancements was implemented in Statistica 13.1:

**Table 2 General enhancements**

| Enhancement | Issue ID |
|---|---|
| New option to set the default IQC Chart type in Systems Options>>analysis page in Enterprise Manager for newly created characteristics and analysis configuration. | 104318 |
| Retaining SQL information when the column names in the query are the same. | 105504 |
| Configure Export Data not to export entire spreadsheet regardless of the actual size. | 105501 |
| WebSTATISTICA search capability enhancement to display folder contents. | 103440 |
| Increased Scatterplot matrix to 60 inches. | 103894 |
| Warnings to accommodate a security scanner. | 105653 |
| Favorites Ribbon quick access tool | 105277 |
| Option to order the Analysis or Report alphabetically system wide. | 102200 |
| Scientific notation recognized when importing text | 104726 |
| Visual difference between environments | 94750 |
| Improved readability on WebSTAT search darker font | 105778 |
| Workspace generalized linear model (GLM) where output includes predicted values generated from the linear equation for each dependent variable in the model | 106103 |
| Dynamically split a table based on values of grouping variable will generate a set of spreadsheets. | 105831 |
| Migration utility option in SDMS Options section to allow transferring unapproved versions when approved version is unavailable. | 105845 |
| Reporting workspaces that depend on a data configuration when deleting. | 105846 |
| Remove spreadsheet header in the workspace before carrying forward through subsequent nodes | 106006 |
| Decimal precision differences with Oracle accuracies to 15 and 17 decimal digits. | 106216 |

# Deprecated Features

The features in the following list are no longer supported, starting with Statistica 13.1. Customers under maintenance who need time to transition to a replacement product may request licensing for deprecated products until August 31, 2017 for everything except Statistica Scorecard.

**Table 3 Deprecated Features**

| Product | Change |
|---|---|
| **Statistica Small Business Edition** | Customers with this product will receive the replacement product Statistica Enterprise Server. |


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| Product | Change |
|---|---|
| **Desktop Data Entry (SDAT)** | Customers with this product will receive the replacement product Statistica Web Data Entry Server. Desktop Data Entry, which is started from the Statistica application, is an add-on module for the Statistica Enterprise Server product. |
| **In-database Analytics** | Starting with 13.1 this feature's licensing will change. Customers under maintenance who own Statistica Data Miner plus Statistica Enterprise Server will be migrated to the new licensing. The feature will be licensed with the Statistica Enterprise Analytics Bundle and Statistica Enterprise Server. |
| **Statistica core licensing** | Performance will no longer be limited for the client application by cores. |
| **Automatic Data Collection** | This tool does not have a replacement product. |
| **Statistica Scorecard** | Customers should email info@scorecard.solutions to purchase Scorecard. Dell Statistica no longer sells this product. |

# Resolved Issues

The following is a list of issues addressed in this release:

**Table 4 Resolved issues**

| Resolved Issue | Issue ID | Category |
|---|---|---|
| After running a workspace, closing, then reopening, that workspace would not run again. Corrected population of distribution list to avoid null parameters. | 106399 | Analysis/Cluster Analysis |
| The percent of expected values displayed incorrectly in Distribution Fitting. The expected percentage was inadvertently scaled by the number of observations. | 106498 | Analysis/Distribution Fitting |
| Hierarchically-Nested GLM Model Produced (Incorrect) Error Message, but Identical VEPAC Analysis did not. The error message was actually a warning message when almost or all zeros could not be estimated. These coefficients are now zeroed out, but the analysis runs as expected. | 102323 | Analysis/General Linear Models |
| GLM prediction equation output seemed incomplete, with some terms missing. Prediction equation is reset to include only design terms and remove the reference level term for sigma-restricted coding. Also, design matrix output with predictions has been added to the **GLM Results**>>**Quick tab**. | 105797 | Analysis/General Linear Models |
| You can now lock spreadsheets in IQC Analysis Configuration when adding more output spreadsheets. | 104469 | Enterprise |
| Invalid dates now convert as missing data (MD) instead of a date format. | 105080 | Enterprise |
| Changes to String Builder have improved the performance, and also speeds up macro generation for all WPF nodes in general. | 105242 | Enterprise |
| An Enterprise User can now edit. The solution was to disable copy of a data configuration if the DADM user has read-only permission. | 105712 | Enterprise |


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| Resolved Issue | Issue ID | Category |
|---|---|---|
| Rounding issue, such as 1.15 represented as 1.4999. Changed rounding to match display so that e.g. 1.15 will now round to1.1. | 105800 | Enterprise |
| Virtual Cloning now more efficiently handling the variable length text vars. Increased performance on large data sets with many variables. | 102385 | Macro |
| Increased performance after adding a function, Variable Format/Rename operates very quickly when changing type/lengths for large files. | 105265 | MAS |
| Addressed quotes being in the name and not displaying correctly in the system view. | 106015 | Product Traceability |
| PDF printer crashing caused by bad use of login macro. Modified so that when the default private profile is being used and unchecking the option for PDF on tools>>Options>>Documents. | 105978 | Report |
| Added window in lower right corner that displays the current name and piece number. In addition, it also highlights the corresponding header cells when navigating. | 105610 | Rules Builder |
| Added logic so that if a matching sample or about to create a matching sample, it will not calculate that field. Further, if the primary BlindDE has a matching sample, it also will not calculate the BlindDE field. | 105863 | Rules Builder |
| Reduced the time needed by removing the call to get the sample data object unless it's needed. Modified the UI so that is not locked by the calculated fields. Moved the refresh button to the header of the query label input and it animates when updating query label values. Calculated fields will flash to inform the user an update has occurred when calculating fields. | 105171 | Spreadsheets |
| Checkbox added to use the customer connection info or login to a different DSN. | 105933 | Spreadsheets |
| Increased WebDE loading time by using a method to initialize list box items. Also modified the default web.config file. | 106194 | Spreadsheets |
| Added conditions that when true, the Settings Options dialog, will include the parent sample information. True conditions require for setup has property Sample approval checked or setup contains at least one date/time label. False conditions will not see the prompt. | 105768 | STATISTICA Server |
| Removed virtual spreadsheets in those data management nodes which could suffer. Affected nodes: filter duplicate cases, filter sparse data, MD imputation, process invariant variables, and rank. Reduced execution time after applying 64-bit hotfix and reduced the temp file size. | 1062801 | UI (toolbars/menus/keys) |
| Improved performance after applying changes to compress the workspace raw data within the XML. Significantly reduces the size of the data needed to move around the network. | 96267 | Web-based Data Entry |
| Applied a change to detect a crash failure and throw an exception, so that the code will catch failed memory allocation. | 104481 | Web-based Data Entry |
| Improved performance when a subset uses selection conditions with Lookup involving a range within the current table, which itself does a subset of the same table, which was not properly handling. | 105558 | Web-based Data Entry |
| Added feature, defaulting to enabled, but can be disabled with profile setting to trim text vars on importXML. | 105844 | Web-based Data Entry |
| Corrected action to select a file path when using Import Text and Import Fixed Data nodes. | 106093 | Web-based Data Entry |


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| Resolved Issue | Issue ID | Category |
|---|---|---|
| Apply different customizations to the X Bar charts when mapping for output customization scripts in nodes. | 106133 | Web-based Data Entry |
| Increased performance by reducing the temp file size when filtering duplicates. | 105550 | Workspace |
| Virtual Cloning now more efficiently handling the variable length text vars. Increased performance on large data sets with many variables. | | |
| Increased performance after adding a function, Variable Format/Rename operates very quickly when changing type/lengths for large files. | 105858 | Workspace |
| Addressed quotes being in the name and not displaying correctly in the system view. | 106076 | Workspace |
| PDF printer crashing caused by bad use of login macro. Modified so that when the default private profile is being used and unchecking the option for PDF on tools>>Options>>Documents. | 106086 | Workspace |
| Added window in lower right corner that displays the current name and piece number. In addition, it also highlights the corresponding header cells when navigating. | 106129 | Workspace |
| Added logic so that if a matching sample or about to create a matching sample, it will not calculate that field. Further, if the primary BlindDE has a matching sample, it also will not calculate the BlindDE field. | 106234 | Workspace |
| Reduced the time needed by removing the call to get the sample data object unless it's needed. Modified the UI so that is not locked by the calculated fields. Moved the refresh button to the header of the query label input and it animates when updating query label values. Calculated fields will flash to inform the user an update has occurred when calculating fields. | 106550 | Workspace |

# Known Issues

The following list of issues includes those attributed to third-party products, which were known to exist at the time of release:

**Table 5 Known issues**

| Known issue | Issue ID |
|---|---|
| The Python node looks for any installations of Python that are present in the PATH environment variable, and displays those as available Python environments. Once you have created a Python node with any version of Python, save it, then send it to someone else. The friend must use the same version of Python or they will get an error message at runtime.<br>Recommended versions of Python include 3.5.1 and 2.7.11. Also recommended is Panda 0.18.1 for the extension functions. The comtypes module is required for Python integration.<br>1. When the Python node is run, sometimes an “unexpected error loading Statistica library…” may be encountered, due to issues with the comtypes library. Clearing temporary file cache and comtypes file cache should resolve the issue. | 106673 |


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| Known issue | Issue ID |
|---|---|
| 2. With a small fraction of Statistica datasets, the extensions ActiveDataSet, spreadsheet, and RouteOutput do not function property. Exporting and importing via CSV is a possible workaround for such datasets. | |

# System Requirements

Before installing or upgrading Statistica 13.1, ensure that your system meets the following minimum hardware and software requirements.

We recommend the 64-bit version of Statistica. If you need the 32-bit Statistica, we recommend a 64-bit processor and operating system, due to the better memory management of the 64-bit operating systems.

## Statistica Single User or Client Workstation

**Table 6 Minimum hardware requirements for standard client configuration**

| Requirement | Details |
|---|---|
| **Processor** | 500 MHz, 32-bit version of Statistica requires processor support for the SSE2 instruction set |
| **Memory** | 4 GB RAM |
| **Hard disk space for installation** | 10 GB |
| **Minimum Scratch/Temporary Disk Space** | 50 GB recommended per user |
| **Operating system** | Microsoft Windows™ Vista |

**Table 7 Recommended hardware requirements for standard client configuration**

| Requirement | Details |
|---|---|
| **Processor** | 2.0 GHz, 64-bit, quad core or more |
| **Memory** | 4 GB RAM or more |
| **Hard disk space for installation** | 10 GB |
| **Minimum Scratch/Temporary Disk Space** | 50 GB recommended per user |
| **Operating system** | Microsoft Windows™ 7 or above |

**Table 8 Recommended hardware requirements for advanced analytics configuration, including Data Mining applications**

| Requirement | Details |
|---|---|
| **Processor** | 2.0 GHz, 64-bit, quad core or more |
| **Memory** | 8 GB RAM or more |
| **Hard disk space for installation** | 10 GB |
| **Minimum Scratch/Temporary Disk Space** | 50 GB recommended per user |
| **Operating system** | Microsoft Windows™ 7 or above |


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**NOTE:** The optional advanced hardware graphics support for transparency requires:

- Windows 7 or Windows Vista SP2 with the "Platform Upgrade" system update
- A graphics card that supports Direct2D

# Statistica Enterprise Server Database Sizing

Statistica Enterprise Server requires deployment of a metadata database schema on an ODBC compliant database. Most commonly, it will be deployed on the existing customer DBMS infrastructure, such as Oracle or SQL Server. The system can also deploy SQL Server Express. It supports other DBMS systems as well.

Customers who own Statistica Enterprise Server also own licensing for the Statistica Document Management Server (SDMS) for managing version and approval history. Installing SDMS is optional and it has a separate database schema. This schema is usually deployed to the same DBMS system where the metadata database has been deployed.

The database sizing requirements vary on usage. The actual metadata describing the Statistica objects is small, but the tablespace can be used to store reports and files (Excel, scripts) within the database (stored as BLOBs), which can increase the overall size.

**Table 9 Recommended metadata schema database sizing**

| Requirement | Details |
|---|---|
| **Initial tablespace** | 1 GB, grow 1 GB intervals |
| **If explicit cap required** | 100 GB but may need to grow over time |

The Statistica Document Management Server schema contains only metadata about the individual document storage. The document storage is kept outside the database. Therefore, SDMS tablespace requirements are small.

**Table 10 Recommended SDMS schema database sizing**

| Requirement | Details |
|---|---|
| **Initial tablespace** | 100 MB |
| **Network Bandwidth** | 100 MBits/s or faster |
| **Operating system** | Microsoft Windows™ Server 2008 R2 or later |

# Statistica Enterprise Server

We recommend that Statistica Enterprise software be run on a server dedicated to Statistica Enterprise Server, the Statistica Enterprise Server Web Server, the Statistica License Manager, and the Statistica Document Management Server (SDMS), independent from any other application software.

The Statistica Enterprise Server is a analytic engine. Statistica Enterprise Server application files are stored and Statistica Enterprise Server scripts are executed here.

In most cases, the Statistica Enterprise Server will also run the Statistica Enterprise Server Web Server, the Statistica Document Management server (if applicable), and the Statistica License Manager, required for all concurrently licensed products.

This server may be referred to as the Statistica Enterprise Application Server or Statistica Server.


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**Table 11 Minimum hardware requirements**

| Requirement | Details |
|---|---|
| **Processor** | 1 GHz, 32-bit version of Statistica requires processor support for the SSE2 instruction set |
| **Memory** | 4 GB RAM |
| **Hard disk space for installation** | 10 GB |
| **Scratch / Temporary Disk Space** | 50 GB or more |
| **Network Bandwidth** | 100 MBits/s or faster |
| **Operating system** | Microsoft Windows™ Server 2008 R2 |

**Table 12 Recommended hardware requirements.**

| Requirement | Details |
|---|---|
| **Processor** | 2.0 GHz, 64-bit, quad core or more |
| **Memory** | 8 GB RAM |
| **Hard disk space for installation** | 10 GB |
| **Scratch / Temporary Disk Space** | 100 GB or more |
| **Network Bandwidth** | 100 MBits/s or faster |
| **Operating system** | Microsoft Windows™ Server 2008 R2 or later |

**Table 13 Software requirement**

| Requirement | Details |
|---|---|
| **Microsoft Internet Information Server (IIS)** | installed and configured to run ISAPI and CGI applications |

**NOTE:** System Requirements are based on an average size implementation.

These requirements include the requirements for the Statistica Enterprise Server Web Server, Statistica License Manager, and SDMS server (if applicable). If any of these are to be run on a separate server, refer to their specific System Requirements documents.

# Statistica Live Score

We recommend that Statistica Live Score software be run on a server dedicated to Statistica Live Score, independent from any other application software. This is a transaction server.

The Statistica Live Score Server is the analytic engine that receives and executes the scoring/WebService (SOAP) calls for Statistica Live Score.

**Table 14 Minimum hardware requirements**

| Requirement | Details |
|---|---|
| **Processor** | 1 GHz, 32-bit version of Statistica requires processor support for the SSE2 instruction set |
| **Memory** | 4 GB RAM |


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| Requirement | Details |
|---|---|
| **Hard disk space for installation** | 10 GB |
| **Scratch / Temporary Disk Space** | 50 GB or more |
| **Network Bandwidth** | 100 MBits/s or faster |
| **Operating system** | Microsoft Windows™ Server 2008 R2 |

**Table 15 Recommended hardware requirements**

| Requirement | Details |
|---|---|
| **Processor** | 2.0 GHz, 64-bit, quad core or more |
| **Memory** | 8 GB RAM |
| **Hard disk space for installation** | 10 GB |
| **Scratch / Temporary Disk Space** | 100 GB or more |
| **Network Bandwidth** | 100 MBits/s or faster |
| **Operating system** | Microsoft Windows™ Server 2008 R2 or later |

**NOTE:** System Requirements are based on an average size implementation. Statistica Live Score applications often benefit from additional cores, depending on how many simultaneous requests are expected.

The Statistica Live Score is part of the Statistica Enterprise system. Installation of the Statistica Server Application Server must occur prior to the installation of the Live Score Server.

# Statistica Monitoring and Alerting Server (MAS)

We recommend that Statistica MAS software be run on a server dedicated to Statistica MAS, independent from any other application software. Users will log into a web browser to review the red light, yellow light, green light alerts. Alerts can also be configured to be sent by email.

**Table 16 Minimum hardware requirements**

| Requirement | Details |
|---|---|
| **Processor** | 1 GHz, 32-bit version of Statistica requires processor support for the SSE2 instruction set |
| **Memory** | 4 GB RAM |
| **Hard disk space for installation** | 10 GB |
| **Scratch / Temporary Disk Space** | 50 GB or more |
| **Network Bandwidth** | 100 MBits/s or faster |
| **Operating system** | Microsoft Windows™ Server 2008 R2 |

**Table 17 Recommended hardware requirements**

| Requirement | Details |
|---|---|
| **Processor** | 2.0 GHz, 64-bit, quad core or more, 32-bit version of Statistica requires processor support for the SSE2 instruction set |


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| Requirement | Details |
|---|---|
| **Memory** | 8 GB RAM |
| **Hard disk space for installation** | 10 GB |
| **Scratch / Temporary Disk Space** | 100 GB or more |
| **Network Bandwidth** | 100 MBits/s or faster |
| **Operating system** | Microsoft Windows™ Server 2008 R2 or later |

**NOTE:** The Statistica MAS Server is part of the Statistica Enterprise system. Installation of the Statistica Server Application Server must occur prior to the installation of the MAS Server.

# Statistica Enterprise Server Web Server

The Statistica Enterprise Server Web Server runs the web scripting language PHP, processes the web pages from the user, and sends them to the Statistica Enterprise Server Application Server.

Use these System Requirements in the special situation where the web server portion of Statistica Enterprise Server will be installed on a separate server from the Statistica Enterprise Server Application Server.

**Table 18 Minimum hardware requirements**

| Requirement | Details |
|---|---|
| **Processor** | 1 GHz |
| **Memory** | 2 GB RAM |
| **Hard disk space for installation** | 30 MB |
| **Network Bandwidth** | 100 MBits/s or faster |
| **Operating system** | Microsoft Windows™ Server 2008 R2 or later |

**Table 19 Recommended hardware requirements**

| Requirement | Details |
|---|---|
| Processor | 2.0 GHz, 64-bit, quad core or more |
| Memory | 2 GB RAM |
| Hard disk space | 30 MB |
| Network Bandwidth | 100 MBits/s or faster |
| Operating system | Microsoft Windows™ Server 2008 R2 or later |

**NOTE:** In most cases, the Statistica Enterprise Server Web Server will run on the same server as the Statistica Enterprise Server Application Server. The Statistica Enterprise Server Application Server System Requirements document includes the requirements for the Statistica Enterprise Server Web Server.


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# Statistica Visualization Server

The Visualization Server can be deployed as either a 32 or 64-bit application. The Visualization Server can also be deployed as a 32-bit application on a 64-bit OS. The query-able cache can also be deployed as a 64-bit application, while the rest of the Visualization Server is deployed as a 32-bit application.

Typically the choice of deployment depends on the data connectivity requirements, as only 32-bit data sources can be accessed by a 32-bit Designer / Visualization Server.

For optimal scalability and user experience, we recommend for the Visualization Server to be installed on a Server environment. Although basic functionality works on desktops, such as Windows 7, 8, 10, etc., only use that setup for demo purposes.

The Minimum requirement is four cores, which supports 25 current users. Eight cores will support 50 users, and so on.

## Installation on virtualized environments

The Visualization Server can be installed on virtualized environments from various vendors including Microsoft, VMWare, and Amazon.

Typical considerations for a virtualized deployment include:

- Storage of User Profile Content
- The Designer license, log, and configuration file stored in the user profile
- Virtualized resource specifications closely matched or exceeding that previously given for RAM, Hard Disk, CPU, etc.
- Appropriate access rights granted to open ports for inter process communication

**Table 20 Supported Microsoft WindowsTM operating systems either physical or virtualized**

| Requirement | Details |
|---|---|
| Windows Vista (with IIS 8) | For Development Environments Only |
| Windows 7 (with IIS 8) | For Development Environments Only |
| Windows 8/8.1 (with IIS 8) | For Development Environments Only |
| Windows 10 (with IIS 8) | For Development Environments Only |
| Windows Server 2008 | |
| Windows Server 2012 | |

**NOTE:** The Visualization Server for .NET requires Microsoft .NET Framework 4.5 or above.

We recommend installing the IIS 8 web server before installing Microsoft .NET Framework 4.5. If you install the .NET Framework first, it may not register itself correctly with the server.

For optimal performance (such as dashboard responsiveness, update latency, etc.), the IIS 8 hosting the Visualization Server for .NET must have WebSockets installed and enabled.

## Hardware & Data Sources

Hardware requirements are intrinsically linked to the data environment into which Designer will be deployed. Consequently providing sizing, without understanding the use case, data size, data throughput, and end client population is difficult. The following information is consequently included as a guide, and the exact hardware requirements should be determined on a case by case basis.

We recommend that the customer dedicate a server to this software, although it can also be installed on the Statistica Enterprise Application Server.


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Additionally, the requirements for data caching can significantly change the hardware specification. Designer supports two caching layers:

- Query-able Cache
- Result set Cache

Both are used to minimize end user interaction latency when accessing underlying slow data sources. The queryable cache caches a dataset in bulk. It can then be queried without repeatedly accessing the underlying source. The result sets the cache,and caches the results of queries, which minimizes the database load. Both are optional, and can be used in conjunction with each other.

- 1 x Dual Core CPU (Hyper Threaded to 4 Cores/Threads)
- 4 GB RAM (8 GB with Windows 8+)
- 2 GB Disk (Available)
- In Memory Caching limited to 3 GB RAM by default
- Disk Caching limited to available disk space
- 64-bit Designer deployments would typically have much greater than 4 GB RAM, either for the Designer itself, or for the memory based query-able cache

Multiple servers may be deployed to support different environments (Development, Test, Staging, Production), and for high availability.

### Development / Test

- 1 x Dual Core CPU (Hyper Threaded to 4 Cores/Threads)
- 8 GB RAM
- 4 GB Disk (Available)
- In Memory Caching limited to available Server RAM.

### Small Scale Deployment

- 1 x Quad Core CPU Or Equivalent (Hyper Threaded to 8 Cores/Threads)
- 16 GB RAM
- 4 GB Disk (Available)
- In Memory Caching limited to available Server RAM

### Medium Scale Deployment

- 2 x Quad Core CPU Or Equivalent (Hyper Threaded to 16 Cores/Threads)
- 32 GB RAM
- 4 GB Disk (Available)
- In Memory Caching limited to available Server RAM

### Large Scale Deployment

- 4 x Quad Core CPU Or Equivalent (Hyper Threaded to 32 Cores/Threads)
- 64 GB RAM
- 4 GB Disk (Available)
- In Memory Caching limited to available Server RAM


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**Table 21 Data sources only available in 32-bit**

| Requirement | Details |
|---|---|
| **MS Excel Streaming** | |
| **MS Access** | If 32-bit MS Office is installed |
| **SAP Sybase Aleri** | |
| **32-bit ODBC** | OLEDB Drivers |

**Table 22 Data sources only available in 64-bit**

| Requirement | Details |
|---|---|
| **64-bit ODBC** | OLEDB Drivers |
| **MS Access** | If 64-bit MS Office is installed |

32-bit applications are limited in memory to fewer than 4 GB of available RAM, which commonly equates to a maximum of between 5 to 10 million rows for a wide dataset. Typically this limitation does not apply to the Visualization Server because:

- The underlying data repository may be disk bases.
- The underlying data repository may be running in a 64-bit process.
- The query-able cache may be running in a 64-bit process.
- Aggregated/filtered result-sets are retrieved into the Designer.
- Large datasets are caches in 1000,000 row chunks to minimize memory consumption.
- The kdb+ based query-able cache is shipped by default as a 32-bit application, and has the 4 GB data limitation.
- A 64-bit option is, of course, available, and is typically deployed on the Server, where multiple datasets are being cached in parallel.
- In the 64-bit case, the cache is not limited to memory, and the primary limitation becomes how quickly large data volumes can be retrieved as a data extract from the external data source.

## The prerequisite for installation to support R data transforms and connectivity

- R
- R-serve
- Additional libraries, as required, for specific capabilities

## To support Python data transforms and connectivity

- CPython
- Pyro 4.24 / 4.25 (Python Remote Data Objects)
- Additional modules such as Numpy, Scipy, and Pandas, as required for specific capabilities


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## Upgrade and Compatibility

Technical support can be contacted via https://support.software.dell.com.

**IMPORTANT**

The 32-bit version of Statistica requires processor support for the SSE2 instruction set.

If you have been provided with a new bundle of analytics, such as Professional, Expert Manufacturing, Expert Data Science or Enterprise, and you don't own Statistica Enterprise Server, you must uninstall Statistica and then install with new keys. Do not use the Statistica 13.1 upgrade installer. You have until August 31, 2017 to install the new bundles. After this date licensing keys or access codes will not be issued to extend old bundles.

If you have been provided with a new bundle of analytics and you own Statistica Enterprise Server, prior to upgrading you must obtain a new license file (stat.lic). Request the license file via https://support.software.dell.com/licensing-assistance, and upload your current stat.lic file. After you apply the new licensing, you can upgrade.

If you have not been provided with a new bundle of analytics and you own Statistica Data Miner with Statistica Enterprise Server, you need to request additional licensing. The in-database analytics functionality is licensed differently in 13.1. Prior to upgrading, request "access code to add in-database analytics licensing" via https://support.software.dell.com/licensing-assistance

Download the Statistica 13.1 Full Installation https://support.software.dell.com/statistica/13.1/download-new-releases.

- Customers who have Statistica 12.0.65.4 or later installed on their computer can upgrade to 13.1. The installer will ask if the customer wants to upgrade their installation. The customer must select the checkbox agreeing to upgrade the older Statistica installation.
- Customers with older versions must uninstall Statistica and then install Statistica 13.1. Contact https://support.software.dell.com/licensing-assistance to request Statistica 13.1 keys.

If you own Statistica Enterprise Server Compliance, download Statistica Document Management System 1.0.6.0 (SDMS) from https://support.software.dell.com/statistica/13.1/download-new-releases. There is no longer a separate stat.lic file for SDMS.

Customers who have SDMS 1.0.2.3 or 1.0.4.0 installed can upgrade their installation.

Upgrade instructions:

1. Upgrade the Statistica installation.
2. Request "access code to add SDMS licensing" on https://support.software.dell.com/licensing-assistance.
3. When you receive the access code, follow the emailed instructions on how to apply the code.
4. Execute SDMS 1.0.6.0, which will upgrade the SDMS files.
5. Copy ClientSTAT.tmp file from FlexLM server directory to SDMS server directory. The file should be renamed to stat.lic.
6. Restart SDMS service.

Customers with other versions of SDMS will need to uninstall and then install the new SDMS.

# Product Licensing

Click the following link to access detailed instructions for activating your license:

https://support.software.dell.com/statistica/kb/150908 .


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# Installation Instructions

Visit https://support.software.dell.com/statistica/13.1/release-notes-guides to access installation and configuration instructions.

# More Resources

Additional information is available from the following:

- Getting Started with Statistica
- Statistica User Forums
- Statistica Developer Network

# Globalization

This section contains information about installing and operating this product in non-English configurations, such as those needed by customers outside of North America. This section does not replace the materials about supported platforms and configurations, found elsewhere in the product documentation.

This release supports any single-byte or multi-byte character set. In this release, all product components should be configured to use the same or compatible character encodings, and should be installed to use the same locale and regional options. This release is targeted to support operations in the following regions: North America, Western Europe and Latin America, Central and Eastern Europe, Far-East Asia, Japan. It supports bidirectional writing (Arabic and Hebrew). The release supports Complex Script (Central Asia – India, Thailand).

# About Dell

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# Contacting Dell

For sales or other inquiries, visit http://software.dell.com/company/contact-us.aspx or call 1-949-754-8000.


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# Technical Support Resources

Technical support is available to customers who have purchased Dell software with a valid maintenance contract and to customers who have trial versions. To access the Support Portal, go to http://support.software.dell.com.

The Support Portal provides self-help tools to help you solve problems quickly and independently, 24 hours a day, 365 days a year. In addition, the Support Portal provides direct access to product support engineers through an online Service Request system.

The Support Portal enables you to:

- Create, update, and manage Service Requests (cases)
- View Knowledge Base articles
- Obtain product notifications
- Download software. For trial software, go to http://software.dell.com/trials.
- View how-to videos
- Engage in community discussions
- Chat with a support engineer

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**Legend**

**CAUTION: A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.**

**WARNING: A WARNING icon indicates a potential for property damage, personal injury, or death.**

**IMPORTANT**, **NOTE**, **TIP**, **MOBILE**, or **VIDEO:** An information icon indicates supporting information.