Smit Consult
Consultancy in statistiek

Smit Consult 2023 Product overview:

We are pleased to promote our products

Smit Consult
Consultancy in statistiek

January 2023
Your choice is Smit Consult for advice for a product for analysing statistical data. Why?

The most important reasons are :

- We are for more than 33 years in the market of Software for Statistical Analyses;
- We have direct contact with a few, but very good software developing companies;
- We contribute in the development of the software, especially in statistics;
- We have a good and reliable ordering and delivery process;
- We are devoted in supporting all our customer with high priority;
- We support education in ICT and statistics;
- We always are looking for opportunities for you, as one of our customers.

During the offering process:

- Advice what product and options are the best choice;
- Clear about the pricing;
- When Maintenance and Support is included, informing about the implications;
- Inform about the statistical and data analyse features of the product.

When ordering :

- Always a confirmation about the correctness of the order;
- Ordering process is easy and direct;
- In case of a possible miscommunication we are looking for a direct solution;
- Support when implementing the product.

Why looking for another supplier?

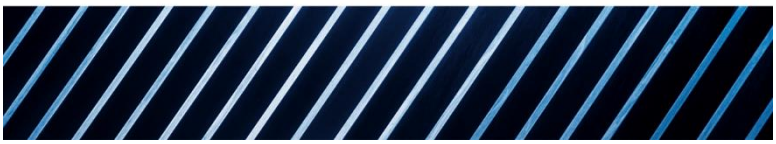
We are pleased to inform you of the products that we support.

EViews

EViews offers financial institutions, corporations, government agencies, and academics access to powerful statistical, time series, forecasting, and modelling tools through an innovative, easy-to-use object-oriented interface.
Find out for yourself why EViews is the worldwide leader in econometric software and the choice of those who demand the very best…

EViews is used by most National Banks throughout the European countries. Apart from that, it is used at Universities, macroeconomic statistical organisations and several European institutes. As EViews is the best possible product for macro econometric analyses, EViews is the main product. We are one of the few resellers of EViews in Europe. We are pleased to support all our customers.
See for more information on our site.

EViews® 13



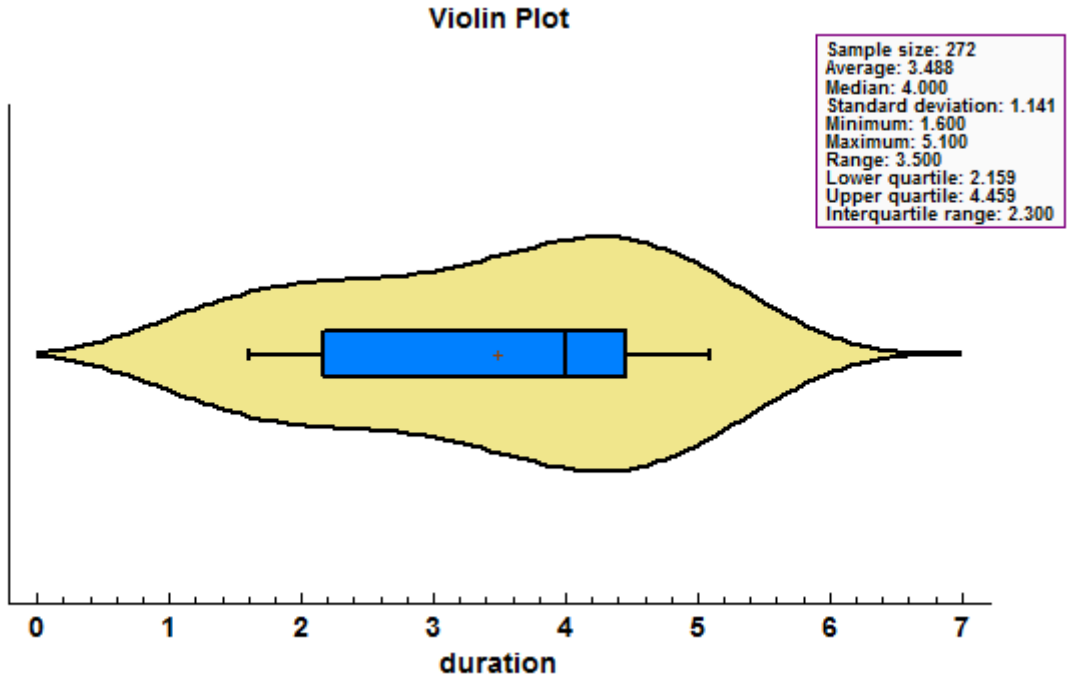
More information; https://smitconsult.nl/product/eviews/

statgraphics 19®
centurion

UNCOMPROMISING QUALITY, INSIGHT AND EXCELLENCE THROUGH BUSINESS INTELLIGENCE AND DATA ANALYTICS.

That's the STATGRAPHICS value proposition. It speaks to the current business environment that demands reliance on the data sciences to progress. STATGRAPHICS intuitive interface is unparalleled in power and sophistication, matched with simplicity of use. With STATGRAPHICS 19®, you will effortlessly develop protocols necessary to achieve successful outcomes. It gives you the statistical tools to pursue excellence, gain understanding and accomplish important business goals. The objective: advancement of systems performance for quality, increased productivity, development of best practices, and optimization of policies and procedures, driving cost saving efficiencies and controls. Achieve success through quality, insight and excellence in every segment of your enterprise.

STATGRAPHICS is one of these products that provides a constant high quality for statistical data analyses. STATGRAPHICS can well accept large data files, and have no problems with producing analyses and graphics. One can easily reveal the details that are hidden in the data. STATGRAPHICS has a good interface with external products. No other product has users that are pleased for so long.



Statgraphics and Artificial Intelligence and Machine Learning

Statgraphics is continuously building new machine learning procedures to assist users in developing predictive models for both classification and regression purposes. Machine Learning implements artificial intelligence techniques to extract useful information from many types of datasets. Statgraphics Centurion 19.3 includes a new menu item called LEARN that accesses decision trees, decision forests, support vector machines, k-means clustering, principal components analysis, factor analysis and multidimensional scaling. When combined with the many statistical models in other sections of Statgraphics, these machine learning methods give the program a broad set of procedures for predictive modeling. More procedures are being added on a continuous basis since AI is evolving quickly.

Predictive modeling is a type of artificial intelligence that is used in many application areas. These include sales forecasting, market analysis, actuarial science, risk assessment, customer targeting, quality control, finance, healthcare, inventory management, transportation, mining, and many other applications. Unlike classical statistical techniques that are limited by the need to make strict assumptions in order to derive theoretical results, machine learning procedures take advantage of modern computing power and big data to find algorithms that work for specific problems. Using interfaces to R and PYTHON, Statgraphics is able to tap into the latest developments by experts in their respective fields.

All of this power and functionality in a software renowned for its ease of use. No learning curve required! Statgraphics walks you through each step with clear, intuitive guidance and help features. Make a resolution for the New Year...make your job easier and your business efficient. Resolve to be successful!

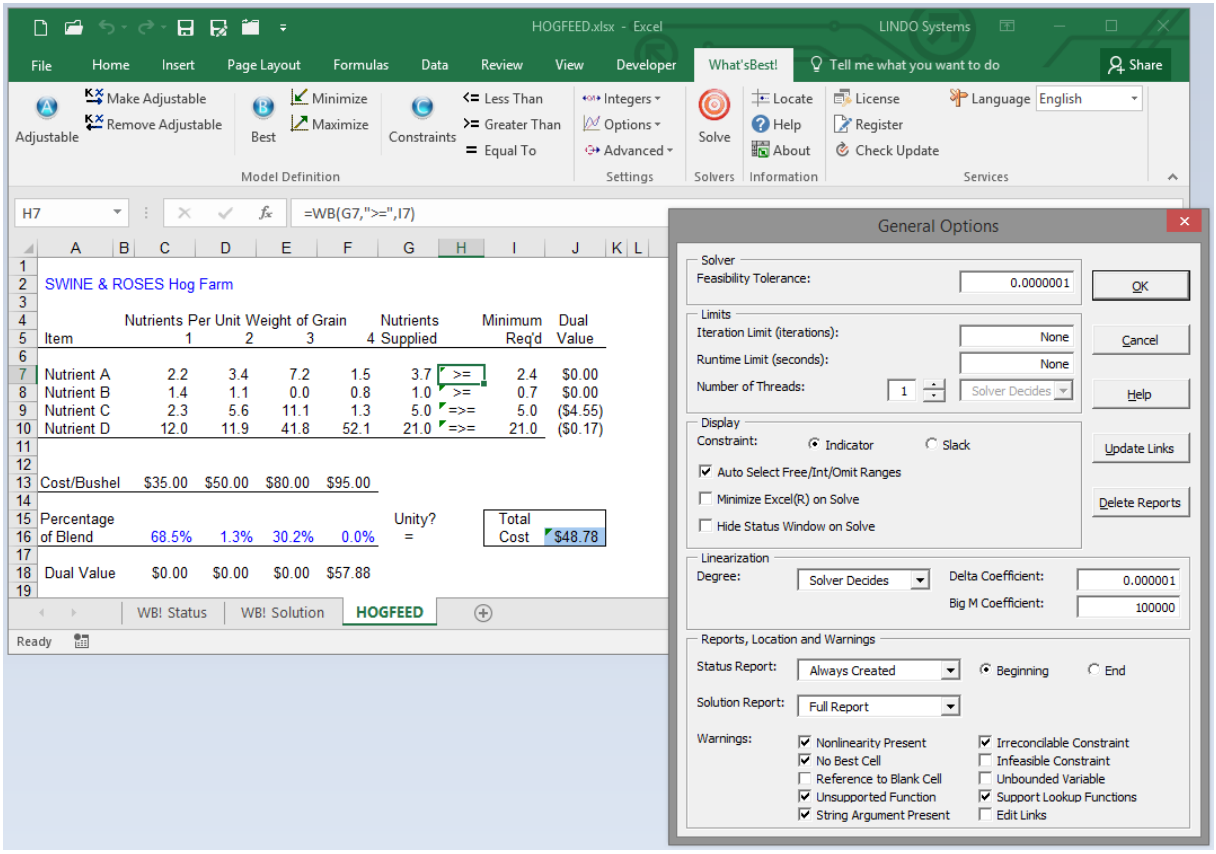
More information; https://smitconsult.nl/product/statgraphics/

LINDO SYSTEMS INC.

LINDO and What'sBest!

What'sBest! is an add-in to Excel that allows you to build large scale optimization models in a free form layout within a spreadsheet. What'sBest! combines the proven power of Linear, Nonlinear (convex and nonconvex/Global), Quadratic, Quadratically Constrained, Second Order Cone, Semi-Definite, Stochastic, and Integer optimization with Microsoft Excel -- the most popular and flexible business modeling environment in use today. The recently released What'sBest is used by companies that seek maximal profit for a specific risk, or minimal waste for a specific level of production.

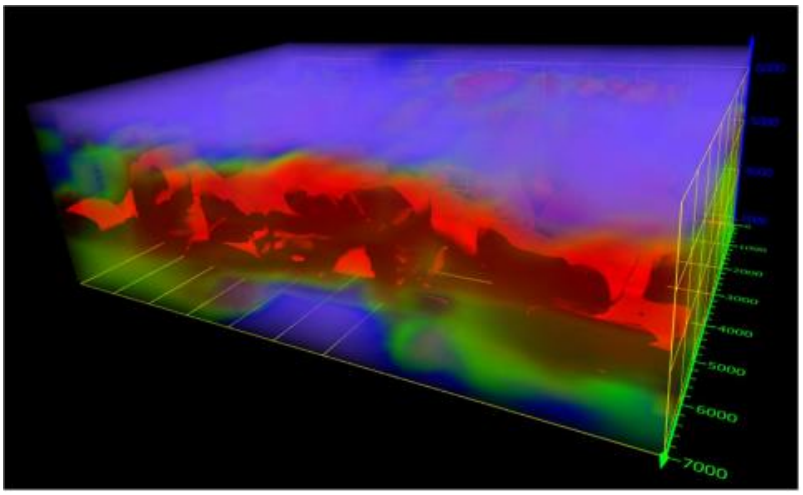
See more for enthusiastic and revealing examples how the What'sBest is used at lindo.com or on our website.



More information; https://smitconsult.nl/product/lindo/

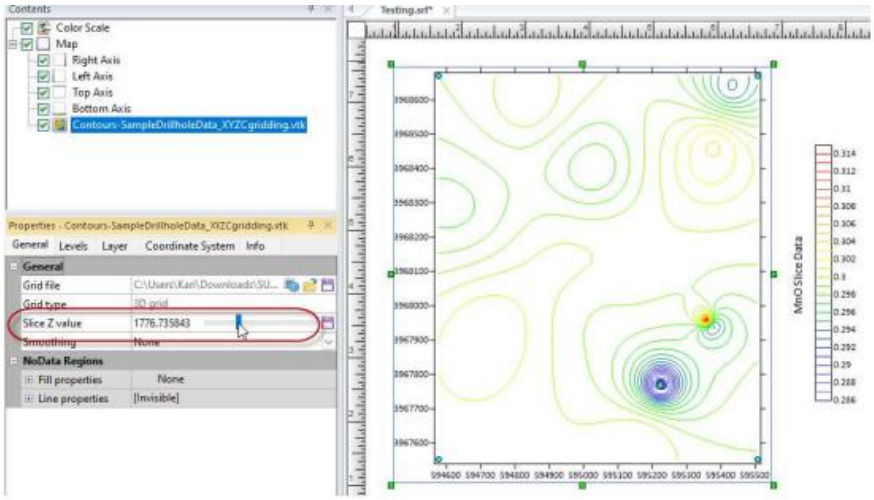
New is Surfer 25. There are several new features in the latest release! The top new features are listed Grid, Map and Visualize XYZC Data.

Grid true 3D XYZC data (e.g. soil or groundwater contamination concentration) and save the results to a 3D grid in VTK format. Create a map from the 3D grid, adjust the slice value displayed in the 2D map, and then visualize the entire 3D grid in the 3D view as a volume render. Add an isosurface (to define the surface at a particular C value) and color scales.



Interpolate and visualize 3D data, such as subsurface soil or groundwater contamination.

A 3D grid can be created either by gridding XYZC data in Surfer or in another software package. Supported 3D grid formats include VTK and HDF.



Display your 3D grid as a 2D map, and adjust the slice value using a slider.

For more information : https://smitconsult.nl/product/golden-software/

SMARTUQ®
Quantify Every Uncertainty.

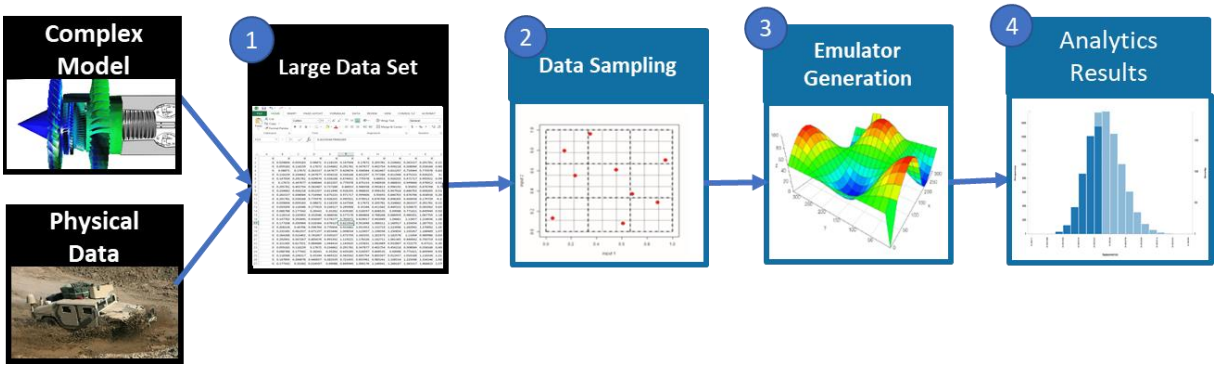
We are pleased to add the following product to our portfolio since May 2022.

SmartUQ is a powerful Machine Learning (ML) software tool optimally designed for science and engineering applications. By providing powerful tools and highly accurate ML models with user-friendly GUIs and APIs, SmartUQ makes it easy to perform predictive modelling, optimized sampling, uncertainty quantification, and model calibration. From Fortune 500 manufacturers to start-ups and engineering consulting firms, SmartUQ's best in class predictive modelling accuracy helps our customers go beyond analysis to bring uncertainty into the decision-making process.

Why SmartUQ: SmartUQ's combination of unique sampling capabilities, powerful machine learning tools, and easy to use analytics help our customers solve previously unsolvable problems.

Industries Served: Automotive, Aerospace & Defence, Turbomachinery, Heavy Equipment, Medical Device, Semiconductors, Energy, Oil & Gas, HVAC

Tools and Application Areas:
-Acceleration of simulation efforts, Uncertainty Analysis, Testing and evaluation planning;
-Optimization under uncertainty, Robust design, Model calibration and validation;
-Embedded models, virtual sensors, Root cause analysis, Manufacturing analytics;
-Digital twin analytics, Predictive Maintenance, Quality Control, Process Optimization.



More information : https://smitconsult.nl/product/smartuq/

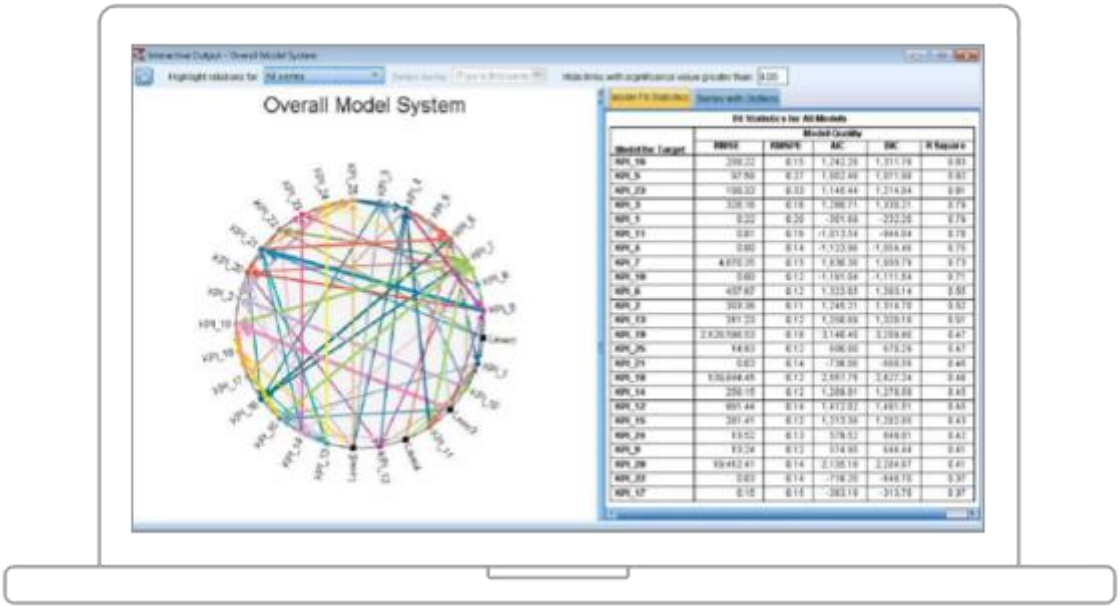
IBM SPSS STATISTICS

IBM® SPSS® Statistics software delivers a powerful set of statistical features that enable your organization to make the most of the valuable information your data provides. By digging deeper into your data, you can discover information to improve decision making— ultimately expanding markets, improving research outcomes, ensuring regulatory compliance to name a few.

IBM SPSS Statistics features robust and sophisticated functionality and procedures that address the entire analytics lifecycle:
– Addresses all facets of the analytical process from data preparation and management to analysis
– Provides automated methods to identify anomalies and statistical transformations
– Delivers tables and visualizations to communicate results effectively
– Classifies cases into groups and predicts a target variables based on predictor variables
– Enables accurate modelling of linear and non-linear relationships

IBM SPSS is the most used product for statistical data analyses. And it is still the best product. IBM SPSS is easy to learn and easy to use. I, Jan Smit, used the product in 1983 for the first time at the University of Amsterdam, Economic Faculty. And I supported and promoted the product when working for SPSS Inc, SPSS Benelux BV, and SPSS Europe BV in the early days of SPSS in Europe.

IBM SPSS Statistics is one of the most used and best awarded product for statistical analyses.



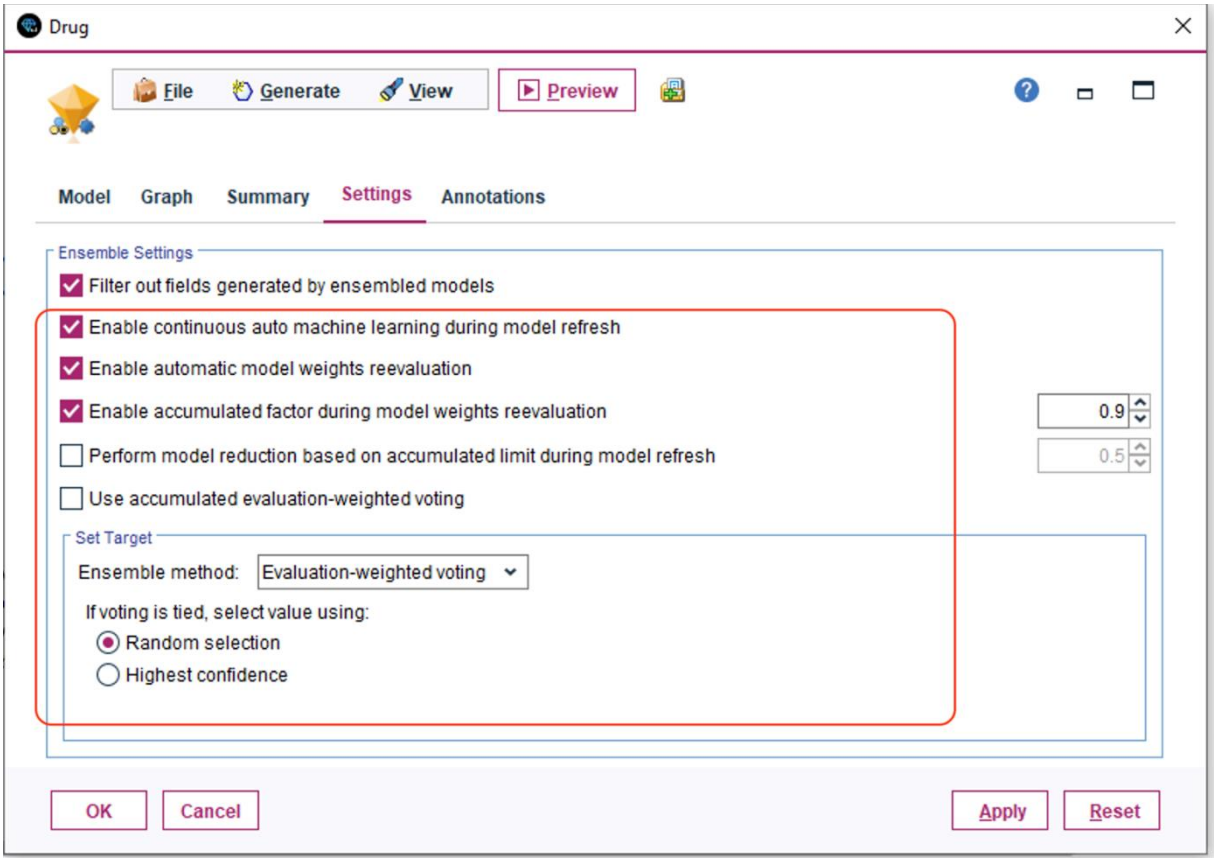
More information; https://smitconsult.nl/product/ibm-spss-statistics/

IBM SPSS Modeler

We see IBM SPSS Modeler as the product for models, models that are grabbed from algorithms,. IBM SPSS Modeler actually deliver a model or make best predictions on new data. SPSS Modeler is a leading visual data science and machine learning (ML) solution designed to help enterprises accelerate time to value by speeding up operational tasks for data scientists. Organizations worldwide use it for data preparation and discovery, predictive analytics, model management and deployment, and ML to monetize data assets.

IBM SPSS Modeler now takes advantage of open source-based innovation, including R or Python.
IBM SPSS Modeler empowers data scientists of all skills — programmatic and visual.
IBM SPSS Modeler explores a hybrid approach — on premises and in the public or private cloud.

We are very pleased with the product. As Python programs can be used within IBM SPSS Modelers a list of algorithms are added, the latest in the field of classification and prediction.



SPSS Modeler contains the algorithm XGBoost, which is currently the most used in classification and prediction. Contact us for more info.

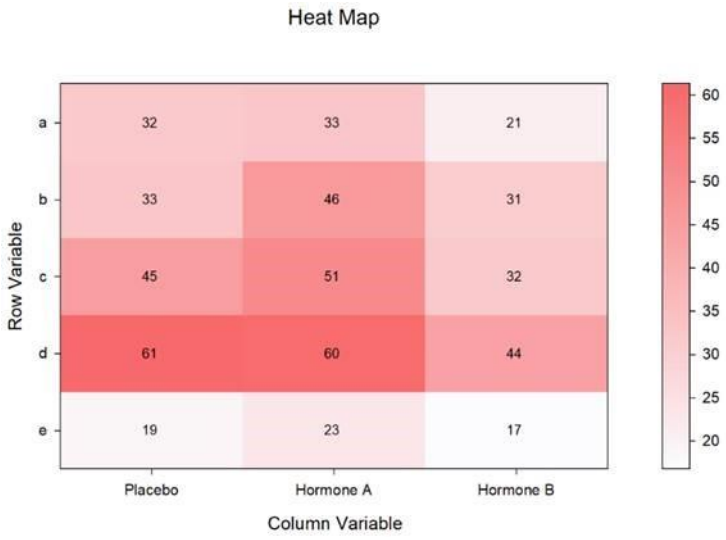
More information; https://smitconsult.nl/product/ibm-spss-modeler/

SigmaPlot

SigmaPlot is the best product for displaying exact graphs. SigmaPlot is designed specifically to meet the needs of scientists, professional researchers and engineers.

The developers site is https://systatsoftware.com . Use https://systatsoftware.com/download-form-sigmaplot/ to download the SigmaPlot.

Version 15 of SigmaPlot is a stable new version. We are much pleased that Inpixon has taken over the development of this graph product. New plans are made for future developments.



SigmaPlot helps you quickly create exact graphs. With the new Graph Properties user interface, you can select the property category in the tree on the left and then change properties on the right. The change is immediately graphed and if you move your cursor off the panel then it becomes transparent and you can see the effect of your changes without leaving the panel.

SigmaPlot is used by many institutes that rely on graphing both the structure of the data, and specific details of the data that proves to have specific treatments or further investigations. SigmaPlot is widely used when using graphs in scientific papers.
The product is now developed by Inpixon Inc. We do have high expectations with this new company and people that work hard to release new versions.
More information; https://smitconsult.nl/product/sigmaplot/

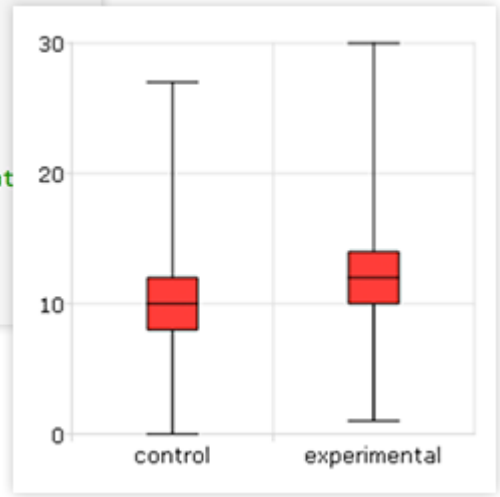
GAUSS from Aptech

GAUSS 23 brings many substantial new features that will save you hours of time and frustration with everyday tasks like: Data exploration, Data cleaning and management and Graphics. GAUSS is an easy-to-use data analysis and visualization environment based on the powerful, fast and efficient GAUSS Matrix Programming Language.
See for an example below

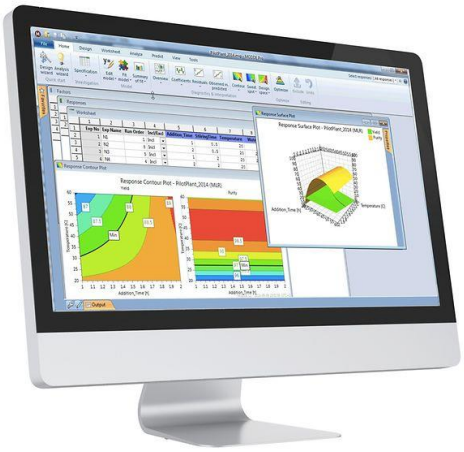
```
//Create two columns of random data
nobs = 1e5;
y_1 = rndPoisson(nobs, 1, 10);
y_2 = rndPoisson(nobs, 1, 12);

//Create a 2x1 string array, using the
//horizontal string concatenation operat
labels = "control" $| "experimental";

//Draw the two boxes
plotBox(labels, y_1~y_2);
```



Use GAUSS when econometric analyses are done in a fast and easy way. GAUSS is the most powerful product to use for many researchers. See for GAUSS 23 : https://www.aptech.com/blog/gauss23/
More information; https://smitconsult.nl/product/gauss/



UMETRICS from Sartorius

The Umetrics® Suite of data analytics software gives you access to powerful yet easy-to-use tools to optimize your manufacturing processes and bring quality products to market faster.

Use the data analytics software to develop robust, high-quality products, continually improve processes and maintain control during manufacturing. These tools support regulatory compliance, enable digital transformation and facilitate quality by design.

Empower Your Teams With SIMCA® - the Only Multivariate Tool.... Apply the Power of MVDA to Multi-Omics “Big Data” and Spectral Analysis.
Adoption of data-intensive analytical approaches such as the use of spectroscopy and multi-omics “big data” in the pharmaceutical industry and elsewhere presents significant challenges when it comes to analysis and interpretation. SIMCA® Omics and Spectroscopy skins are designed to streamline analysis and use of advanced analytics such as OPLS and O2PLS so that you get reliable and actionable results more quickly and easily.

Expect More, Deliver More – with MODDE®
MODDE® does a lot more than ordinary DOE software. Its built-in guidance and quality measures ensure users make the best experimental choices, so you get the most relevant and effective outcomes. MODDE® is designed to help experimentalists get DOE right from the start.

See for some example: **Transforming Upstream Bioprocessing in the Digital Era** :
https://www.sartorius.com/en/knowledge/science-snippets/transforming-upstream-bioprocessing-in-the-digital-era-1052530

SIMCA and MODDE are used mainly by analysts in Chemometrics that rely on structures within or between data sets.

More information; https://smitconsult.nl/producten/

Deep Learning and Predictive Modelling

Predictive modelling uses statistics to predict outcomes. Most often the event one wants to predict a category, but predictive modelling can be applied to any type of unknown event or an estimate for a object. For example, predictive models are used to estimate the price for an object.

Basically, in case of a binary categorisation, the prediction is made from models on data which contains factors that depend on the categorical variable, and where the resulting model is tested on a part of the data that is left out in the analyses.

The goal of predictive modelling is to create models that make good predictions on new data.
We don't have access to this new data at the time of training, so we must use statistical methods to estimate the performance of a model on new data. This class of methods is called resampling methods, as they are resampling your available training data. A model is good for prediction if the difference between the real observed value does not differs much from the prediction of the resulting model. Several objectives have to be met.

The products that are part in Deep Learning and Predictive Modelling are Python programming together with SciKit Learn algorithms. Note that IBM SPSS Modeler support Python programs and is currently the best predictive modelling, that is easy to use and direct available.

Subjects are :
1. Data Preparation. Evaluating model predictions, estimating model skill and developing a baseline for model performance.
2. Linear Algorithms. Linear machine learning algorithms such as linear regression, multivariate linear regression, logistic regression and the Perceptron algorithm.
3. Nonlinear Algorithms. Nonlinear machine learning algorithms such as Naive Bayes, k-Nearest Neighbours, Learning Vector Quantization, Backpropagation and Decision Trees.
4. Ensemble Algorithms. Ensemble machine learning algorithms such as Bootstrap Aggregation, Random Forest and Stacked Generalization.

A course on Deep Learning and Predictive Modelling that is included with well documented training material can be given.
We are able to assist in **consultancy**, where statistics plays a prominent role. We have experience in analysing in markets of metals and food products.

More information; https://smitconsult.nl/consultancy/