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Sartorius launches SIMCAÂ® 16 for multivariate data analytics

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Saves time with functionality, modelling and data pre-processing



Sartorius Stedim Biotech (SSB), a leading international partner of the biopharmaceutical industry has announced the new SIMCA® 16 software for multivariate data analytics is available from its subsidiary Sartorius Stedim Data Analytics. The updated SIMCA® focuses on delivering a complete data analysis experience, from data organization through to data-driven decision making, supported by multivariate models for single and multiblock analysis.

The new SIMCA® 16 software has enhanced functionality features which will save time for expert users, as well as those new to multivariate data analysis. Usability improvements provide novices with an intuitive introduction to SIMCA® and existing users with superior plot interactivity and quick raw data visualization capabilities.

The new data analytics software also includes a wizard that adapts to users' modelling objectives (rather than focusing on which algorithm to use) and guides them through set-up, making the initial steps of creating each model easier. Additionally, its advanced data merging functionality saves time by eliminating the need to manually combine and align data in Excel.

To make pattern data in models easier to interpret and use, SIMCA® 16 comes with novel score space exploration and multivariate solver tools which help turn models into real-life factor combinations. In just one click, the score space exploration tool allows users to convert scatter plots into real factor settings to for example, detect which sample is missing in a stack of observations.

With the multivariate solver tool, scientists can determine optimum factor settings for desired process outputs such as Critical Quality Attributes and can also lock model parameters to a specific batch of raw material to find the process parameters for achieving consistent product quality and operational efficiency. Both tools make trouble shooting process data and performing deviation analysis simpler tasks.

To increase application and functional flexibility, SIMCA® 16 includes MOCA, a novel tool for analyzing more than two blocks of data and new Python plugin capability. MOCA provides a quick overview of an entire system, delivering invaluable information for continuing analysis, and is ideal for scientists such as systems biologists wanting to compare data from one system that has been obtained using different "omics" and other techniques.

The Python plugin functionality in SIMCA® 16 provides greater workflow flexibility by enabling users to create a file reader plugin which can read files like any other file format as they are being imported. This is especially useful when scientists need to transfer data from a new instrument with a non-standard export format or from text files where data is not configured correctly for SIMCA®, saving them time and effort with pre-processing and importing data.

"Developing and producing biotherapeutics generates a vast array of process data in different formats from a variety of equipment types. This data holds the key to improving performance but can be challenging to input, model and interpret," said Stefan Rännar, Product Manager at Sartorius Stedim Data Analytics. "We're pleased to introduce our new SIMCA® 16 because it offers elevated levels of control over data, model generation and decision making, enabling scientists to optimize resource use and cost efficiency, while more importantly, achieving consistency in their product quality," he added.

The use of SIMCA® is recognized by the EMA and US FDA for Real-Time Release testing and the SIMCA® 16 software have been developed and extensively tested and validated for use in a highly-regulated environment.