

Statistical process control for production in flow

SPC SOLUTION AS THE FOUNDATION FOR PROCESS OPTIMIZATION

Three aspects constitute the focus of every production company: producing sustainably, meeting the quality requirements of the customers all the while, and keeping costs low or even reducing them. These are three aspects that are difficult to achieve to the same extent at an optimized level. But it is not an impossible endeavor. A solution for statistical process control (SPC) based on statistical methods offers all parameters to produce as uniformly and reliably as possible and to reduce process deviations.

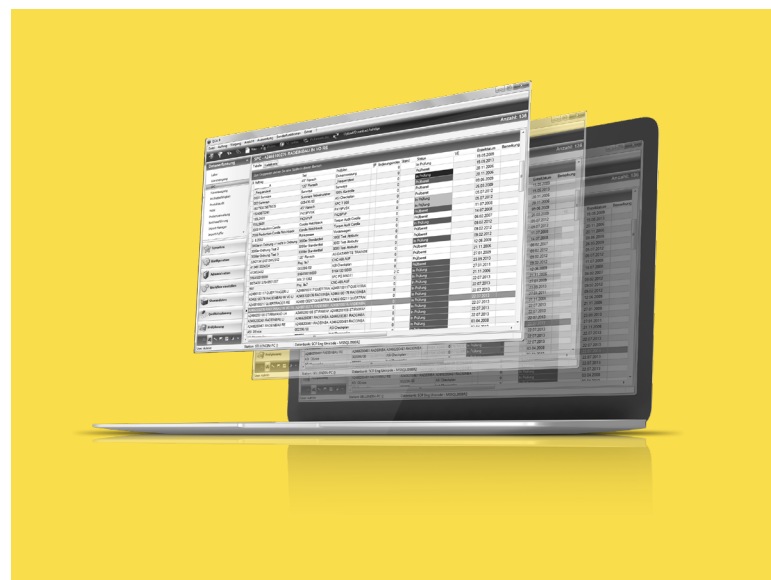
SPC has been considered an effective method for process assessment for many years. It shows the current product quality in real time and ensures that it is met. Errors are therefore immediately visible, so that countermeasures can be taken at an early stage. Our solution module for SPC offers statistical process control for industry 4.0: digital, integrated and state-of-the-art for production in flow.

Quality inspection as the cornerstone of quality management

The SPC solution of our product provider QDA SOLUTIONS is only one module of a comprehensive software solution for quality management. Quality control is therefore possible over the entire production life cycle by taking different measurement parameters as a basis. Individual upper and lower limits and action limits can be set for each measured value. By prioritizing and configuring the measurement parameters individually, our solution enables the highest degree of individuality: decide for yourself how often you want to measure which part and how you evaluate and weight your characteristics.

Throughout the entire measurement value recording process, the quality of the measured value can be read off immediately on the basis of setpoint-oriented (e.g. Shewhart) and tolerance-oriented (e.g. acceptance control charts, PreControl) quality control charts or on the basis of process capability values – such as Cpk or Cp. Spreads,

mean values and the distribution diagrams complete the analysis picture. Tendencies can thus be easily recognized and possible tolerance violations can be avoided at an early stage. With the help of our process interventions such as the troubleshooting guide (TSG) and the action code, errors can be identified and causes can be determined and avoided in the future through countermeasures.



Maximum efficiency through traceability and transparency

Traceability and transparency are key factors in SPC. Only when the precise details of who measured what and when are stored, can detailed evaluations be created afterwards for an even closer look at your production line. Based on these values, measures can be initiated and documented, and mistakes learned from.


Thanks to the various analysis options, SPC plays an important role in the continuous improvement of product quality and productivity (CIP) as well as for preventive quality assurance, taking into account the cost-benefit factor.

Modular solution structure for your quality management


Our software solution for quality management can be built up in a modular fashion: you only have one infrastructure, regardless of the number of modules used. The integrated software architecture offers interfaces to PLM, CMM, ERP and MES systems. Thanks to Unicode, our solution supports multiple languages and is therefore optimal for worldwide use. The software is also based on databases, compatible with MSSQL, Oracle and PostgreSQL, and "Citrix-ready".


Our software provides integrated application security through user role definition and management. Active directory support provides seamless integration with the existing active directory as well as QDA role synchronization with AD groups, and users can be managed across the company. Support for PKI cards is guaranteed, as well as the secure encryption of data by the SSL/TSL standard. Security standards such as password encryption according to the AES-256 standard, are also observed.

THE ADVANTAGES OF OUR SPC SOLUTION AT A GLANCE


 Ensures conformity to industrial standards


 Supports FDA 21 CFR Part 11

 Measure and escalation management

 Interfaces to all measuring systems from calipers to coordinate measuring machines and machine controls

 ERP / MES integration

 Ensures complete traceability through process and production data

 Nest-oriented recording of results

 Cross-product evaluation

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