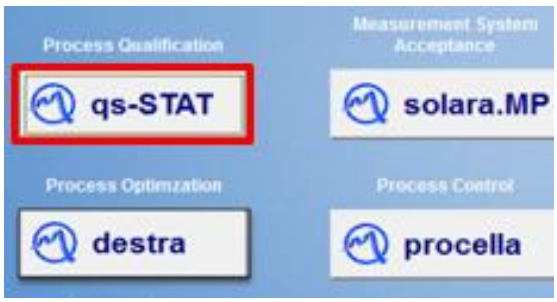
Statistical Process Control with Q-DAS qs-STAT

Statistical Process Control (SPC) is a quality control method that uses statistical methods. It is used to monitor and control the processes. Principal elements of SPC are control chart and process capability study.

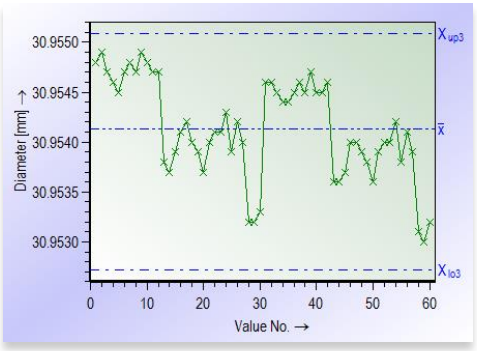


There are many software used for statistical processing of data. The most used so far is MINITAB.

In the last period, due to several customers in the automotive industry in Germany has developed and required the use of Q-DAS.

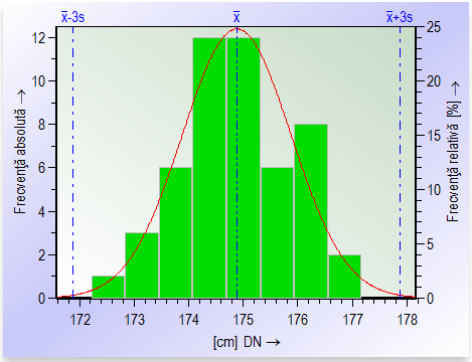
Version used for statistical process control is qs-STAT. With qs-STAT the user can engage in the evaluation and continuous improvement of processes based on recognized statistical evaluation methods and procedures as well as automotive industry norms or company guidelines.

qs-STAT is a complex software used for statistical evaluation of data which show the graphs in a comprehensible easy undestanding, clear view for effective data management that enables users to quickly identify weaknesses and improve critical processes.



With qs-STAT, user can view graphs, can choose the period of time to study the evolution of some parameters as he desired. Moreover, the user can trigger measures for process optimization directly from the graphs offered by qs-STAT.

The main tool of statistical process control is statistical control chart or control diagram. This diagram was used for the first time by Shewhard and is in fact the time evolution of the values of a sample. Information provided by this chart shows if the process is in statistical control or not. Qs-STAT presentation can be seen in the picture below.



Another graphical form used is histogram. It shows the position, shape and variation data and helps in changes visualization from processes.

The most important tool of SPC is the process capability. Process capability evaluation is done by calculating the capability index. Capability index calculation is actually comparing the customer specification with the performances of the analyzed process.

Qs-STAT calculate these indices and provides a suggestive graphics. See the below figures.