



HEXAGON

Consider process interventions in QCC

General Settings

FAQ
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1 Consider process interventions in QCC - functionality

If quality control charts (QCC) are used in the case of statistical process control (SPC), the use of data sets with moving subgroups leads to overcontrol. When using characteristics with a moving subgroup type, one measured value is used in many (at least two) subgroups. To avoid overregulation, the option "Consider process interventions in QCC" was created. When the option is activated, the QCC is interrupted and is only recalculated after the moving subgroup size has been refilled.

1.1 Consider process interventions in QCC - requirement and configuration

The following configuration is mandatory for calculating or displaying moving averages after a process intervention in the quality control chart.

- Activation of the option "Consider process interventions in QCC".

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- The option "Process intervention" is set in the corresponding catalogues in the procella application.

It is necessary that the events, measures or causes which effectively cause the process event are defined as such

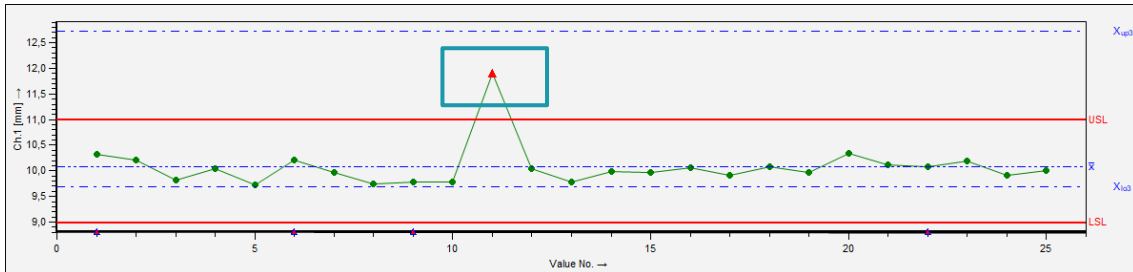
Catalogue						
Events Catalogue						
cons. no.	Number	Description	Remark	obsolete	Process intervention	
1	E1001	Tool Breakage		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2	E1002	Tool Wear		<input type="checkbox"/>	<input type="checkbox"/>	
3	E1003	Scheduled Tool Change		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4	E1004	Machine Adjustment		<input type="checkbox"/>	<input type="checkbox"/>	
5	E1005	Shift Change		<input type="checkbox"/>	<input type="checkbox"/>	



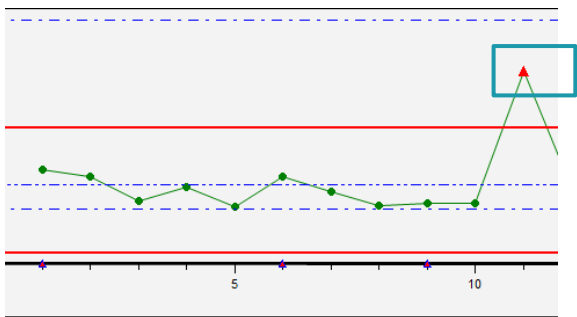
The option "Consider process interventions in QCC" is only used for characteristics with a moving subgroup type.

1.2 Consider process interventions in QCC - example

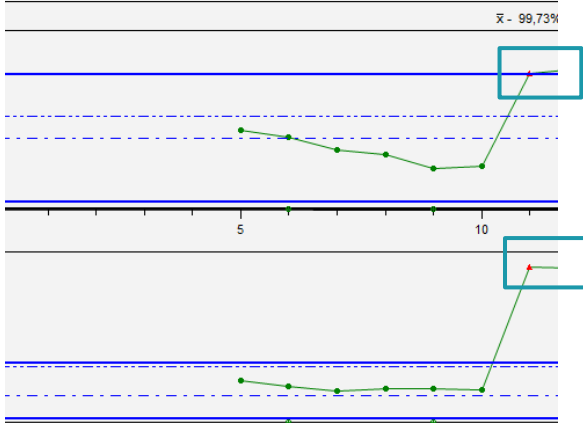
In the following, there is a characteristic with the defined subgroup type "moving" and the subgroup size "5". A single measured value is very far out of tolerance.



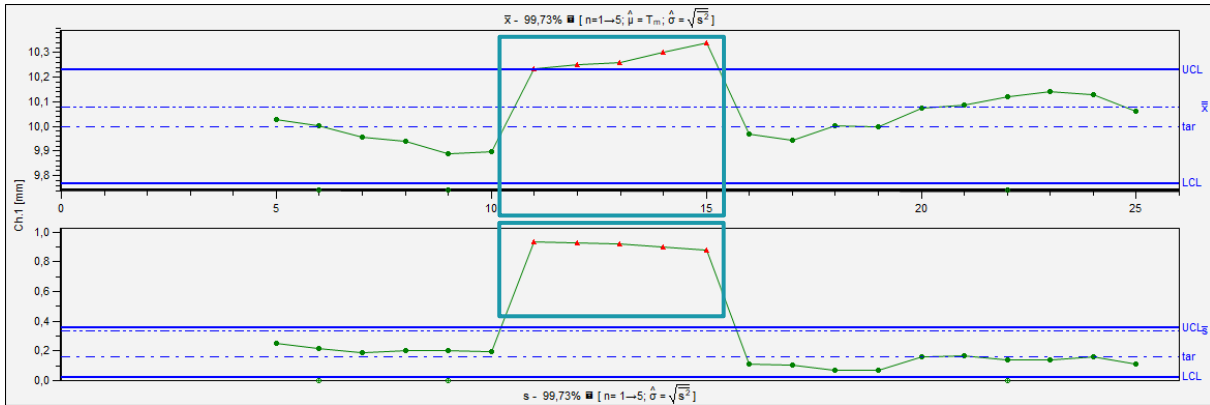
This measured value triggers an alarm in the QCC in addition to the alarm for a measured value outside the tolerance.



QCC - Design 1



After the correction of the process, the process intervention, the measured values are back at normal location. However, since the moving range is used, this high measured value is still part of the next four subgroups. Without the activated option "Consider process interventions in QCC", the input of four more events or causes is necessary in this case, despite control and process intervention. The QCC alarms for location and variation are output for each of the five test objects.



There is a risk of overregulation by the user here!

If catalogue entries are configured with the option "Process intervention" and the option "Consider process interventions in QCC" is active, the application behaves as follows.

If an event, measure, or cause is entered that is defined as a process intervention, the calculation of the QCC is interrupted until the complete subgroup is entered. Only after the input of the next five measured values for the next moving subgroup are the QCC parameters for the location and variation determined, marked and, if necessary, alarmed.

