

What is the difference between a Subgroup Level Control Test and a Sample Level Control Test?

- Introduction

WinSPC supports two different types of Control Tests: Subgroup Level Tests and Sample Level Tests. These two types of tests have different configuration options and are activated at different points in the data collection process.

In short, a Subgroup always consists of one or more Samples. To further understand the differences between a Sample and a Subgroup in WinSPC, please reference the following article:

<https://knowledgebase.winspc.com/questions/56>

Subgroup Level Tests

An active Subgroup Level Test is executed during data collection whenever a new subgroup is added to the chart. Subgroup Level Tests are represented by the icon in the administrator window. Some commonly used Subgroup Level Tests that are preconfigured inside WinSPC include the following*: 1 pt beyond control limits: This test is violated when a single subgroup of data falls either above the UCL (Upper Control Limit) or below the LCL (Lower Control Limit). 2/3 pts Zone A or beyond: This test is violated when two out of three consecutive subgroups of data falls inside Zone A or beyond on one side of the CL (center line). {PRI} increasing: This test is violated when six consecutive subgroups, each one larger than its predecessor, are plotted onto a chart.

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- Sample Level Tests

An active Sample Level Test is executed during data collection whenever a new sample or individual sample reading is entered into WinSPC. Sample Level Tests are represented by the icon in the Administrator Window. The 2 Sample Level Tests that are preconfigured inside WinSPC include*:

Out of engineering limits: The sample reading is outside of tolerance or specification limits dictated by the customer. Out of reasonable limits: The sample reading falls outside the reasonable limits.

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Trigger	Sample Level	Subgroup Level
Correct		
E-Mail		
File		
Log		
Message Box		
Poke DDE Item		
Prompt For Notes		

Prompt for Password		
Reject		
Serial Message		
Set OLE Auto Property		
Start External Program		
Write OPC Item		

Triggers

Both Sample Level and Subgroup Level tests can have reactions and/or responses to rule violations, called Triggers, such as sending an E-mail notifying someone of a violation.

Some trigger types are only available to Sample Level Tests while other trigger types are only available for Subgroup Level Tests. The following table lists which Triggers are available for either type of Test:

Control Test Templates

Both Sample Level and Subgroup Level Tests can be used in Control Test Templates to allow for easy management of your Control Tests and Triggers. For more information about Triggers and Control Test Templates, please reference Chapter 12 in the WinSPC Version 8 Administrator Training Manual, Pages 175-204.

Notes

*For a complete list of Control Tests that are preconfigured in a default installation of WinSPC, as well as their full descriptions and examples, please reference the following Knowledgebase article:

<https://knowledgebase.winspc.com/questions/315>

For information on configuring custom Sample Level Control Tests and custom Subgroup Level Control Tests, please reference Chapter 24 in the WinSPC Version 8 Administrator Training Manual, Pages 395-406. For a complete description of the different Zones in WinSPC, please reference Appendix I in the WinSPC Version 8 Administrator Training Manual, Pages 468-469.

<https://knowledgebase.winspc.com/questions/86/>