

Process Monitoring

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Process Monitoring

Chapter 2

Statistical Process Control



Process Monitoring

Chapter Description

- Aims
 - Analyze process performance using the SPC methodology.
- Expected Outcomes
 - Apply as well as analyze the univariate monitoring performance based on the progression of the means and range charts of SPC framework.
- Other related Information



Subtopics

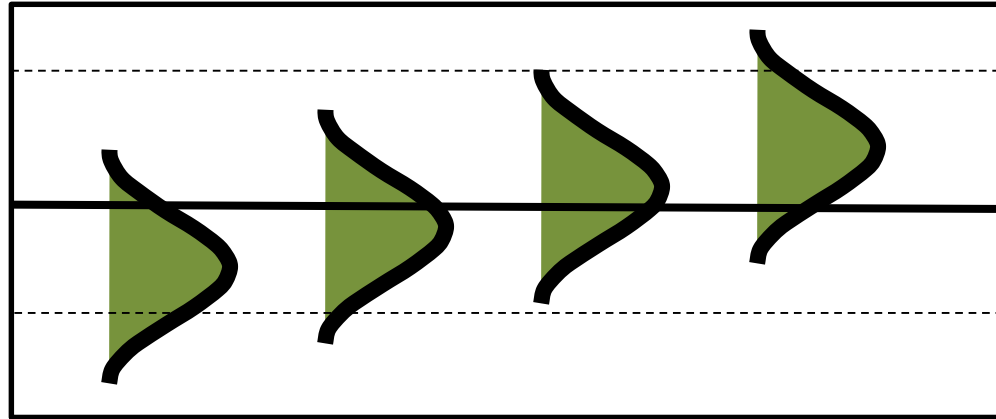
2.3 Process Shifting

2.4 Patterns



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2.3 Process Shifting

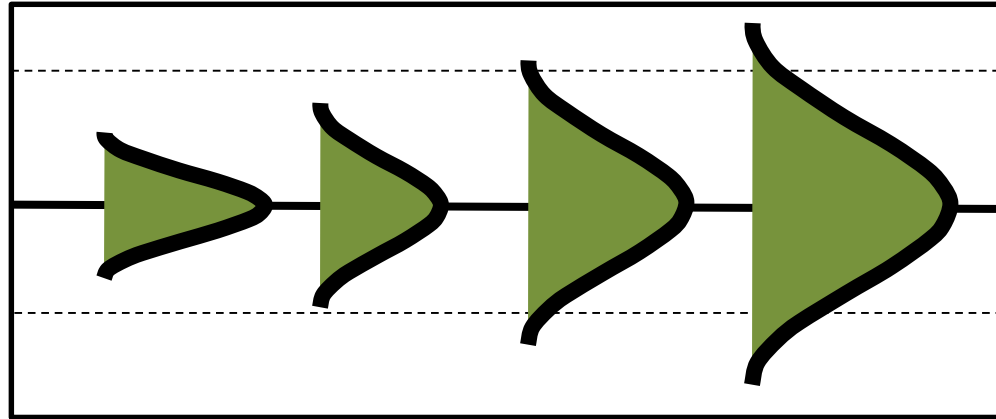


Sampling mean is shifting upward but range is consistent



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2.3 Process Shifting

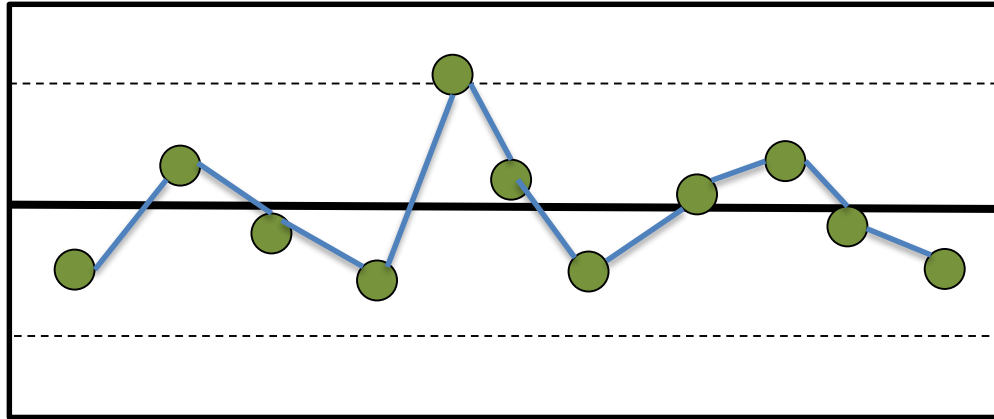


Sampling mean is constant but dispersion is increasing



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2.4 Patterns

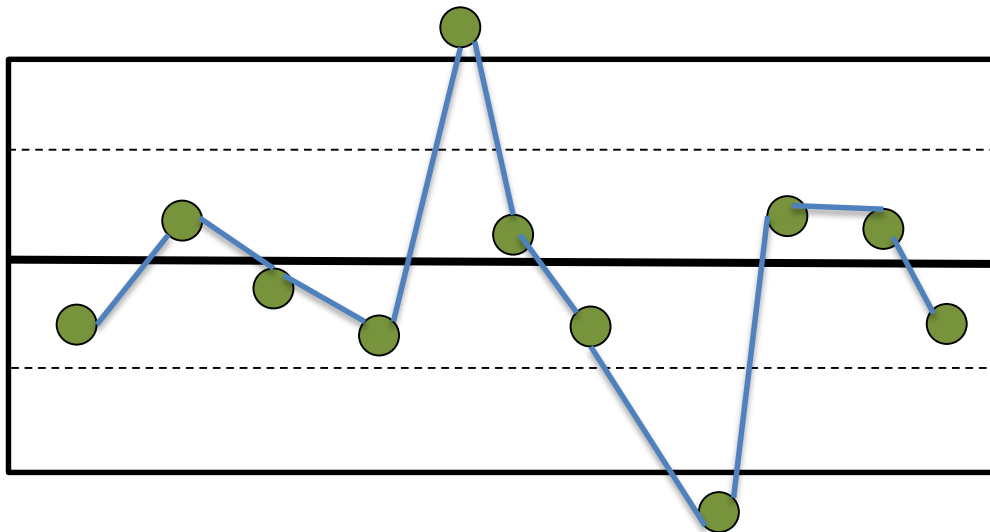


Normal behavior. Process is “in control.”



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2.4 Patterns

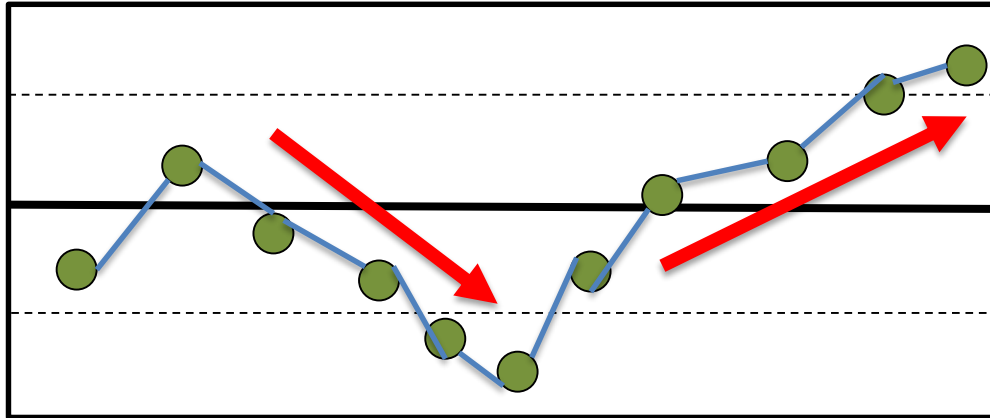


One plot out of above (or below) the 99% limit.
Investigate for root cause. Process is not necessary “out of control.”



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2.4 Patterns

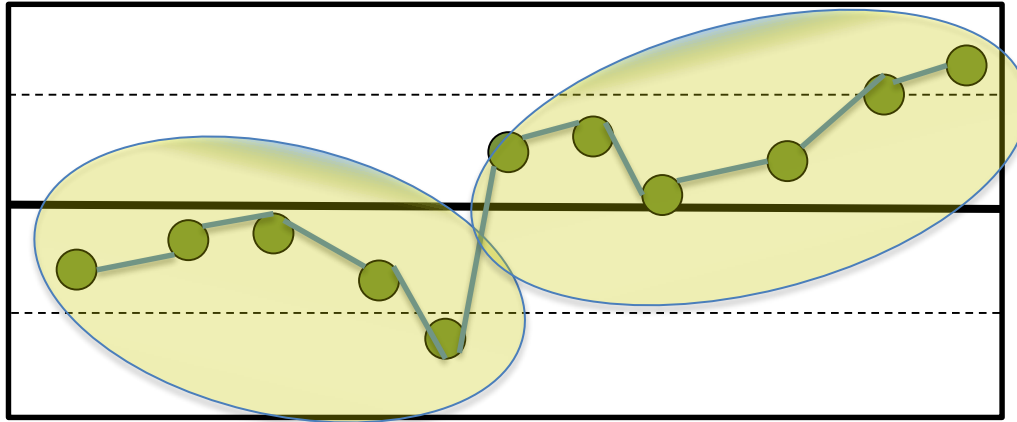


Trends in either direction for at least 5 plots successively. Investigate for the root cause.



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2.4 Patterns



Run of 5 above (or below) of the central line.
Investigate for the root cause.



References

- http://www.statit.com/statitcustomqc/StatitCustomQC_Overview.pdf
- https://www.aidt.edu/course_documents/Manufacturing_Skills/SPC/Intro_to_SPC.pdf



Authors Information

Credit to the authors:



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