

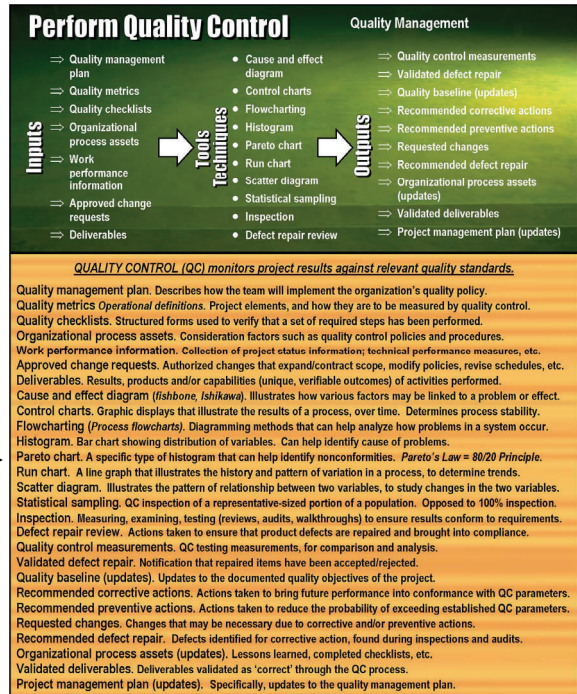
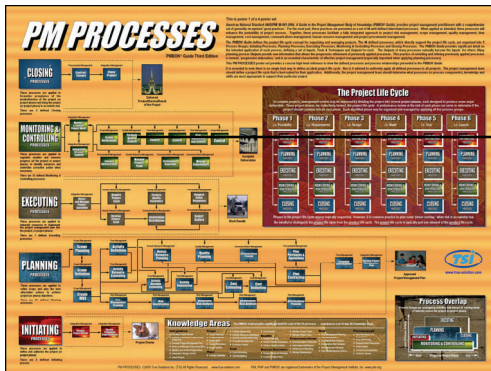


Applying the Perform Quality Control Process

Perform Quality Control (QC) is the process of monitoring specific project results to ensure they comply with the project's quality standards. Like quality assurance (QA), QC should be applied across the entire project life cycle. The QC process is also intended to identify ways to eliminate quality problems. Process improvement is a natural output of the QC process.

Quality control monitors both product-related deliverables (work packages) and project management deliverables (cost/schedule/scope performance).

To effectively manage the QC aspects of a project, the project manager and project team should have a practical understanding of basic statistical quality control. Accordingly, this discussion includes a QC primer.



Perform Quality Control Must Know Concepts

1. "Perform Quality Control is the process of monitoring specific project results to ensure they comply with the project's quality standards."
2. "The primary deliverable (Output) of the Perform Quality Control process is validated deliverables."
3. "Perform Quality control monitors both product-related deliverables (work packages) and project management deliverables (cost/schedule/scope performance)."
4. "Prevention = keeping errors out of the process. Inspection = keeping errors out of the hands of the customer."
5. "Attribute Sampling = results are determined as compliant or not compliant; go/no-go. Variables Sampling = results are measured on a continuous scale indicating degree of conformity."
6. "Special Causes = unusual events. Random Causes = normal process variation."
7. "Tolerances = results are acceptable if within tolerance ranges. Control Limits = result is in-control if it is within specified control limits."
8. "Statistical sampling is used as a QC technique to test a sample number of items from a larger population of items (opposed to testing every item). Statistical sampling can be effective and it can reduce overall QC costs."
9. "A Pareto diagram is a histogram, applied as a QC analysis tool to help illustrate the frequency of occurrences by category of causes. Pareto's Law (the 80/20 principle) suggests that 80% of problems are caused by 20% of all possible causes. Pareto diagrams typically identify the root causes of quality problems, allowing the project team to focus their corrective actions on the small number of areas causing the largest number of problems."
10. "Standard deviation (sigma) is a measure indicating the distance from the mean (average). 1 sigma = 1 standard deviation = ± 68.26%. 2 sigma = 2 standard deviations = ± 95.46%. 3 sigma = 3 standard deviations = ± 99.73%. 6 sigma = 6 standard deviations = ± 99.99%."
11. "Control Charts are graphic displays of process results over time. They are used to monitor a process, to verify its continued stability. Control charts are used to monitor the results of any process, including project management processes."
12. "Scatter Diagrams, Run Charts, Flowcharts, Cause and Effect Diagrams and Histograms are commonly used quality control tools."

