# Quality Assurance *vs* Quality Control

**Quality Assurance** is *process* oriented and focuses on defect *prevention*.

**Quality control** is *product* oriented and focuses on defect *identification*.

|  | **Quality Assurance** | **Quality Control** | |
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| **Definition** | QA is a set of activities for ensuring quality in the processes by which products are developed. | QC is a set of activities for ensuring quality in products. The activities focus on identifying defects in the actual products produced. |
| **Focus on** | QA aims to prevent defects with a focus on the process used to make the product. It is a proactive quality process. | QC aims to identify (and correct) defects in the finished product. Quality control, therefore, is a reactive process. |
| **Goal** | The goal of QA is to improve development and test processes so that defects do not arise when the product is being developed. | The goal of QC is to identify defects after a product is developed and before it's released. |
| **How** | Establish a good quality management system and the assessment of its adequacy. Periodic conformance audits of the operations of the system. | Finding & eliminating sources of quality problems through tools & equipment so that customer's requirements are continually met. |
| **What** | Prevention of quality problems through planned and systematic activities including documentation. | The activities or techniques used to achieve and maintain the product quality, process and service. |
| **Responsibility** | Everyone on the team involved in developing the product is responsible for quality assurance. | Quality control is usually the responsibility of a specific team that tests the product for defects. |
| **Example** | Verification is an example of QA | Validation/Software Testing is an example of QC |
| **Statistical Techniques** | Statistical Tools & Techniques can be applied in both QA & QC. When they are applied to processes (process inputs & operational parameters), they are called Statistical Process Control (SPC); & it becomes the part of QA. | When statistical tools & techniques are applied to finished products (process outputs), they are called as Statistical Quality Control (SQC) & comes under QC. |
| **As a tool** | QA is a managerial tool | QC is a corrective tool |

## Differences between Quality Assurance and Quality Control

### Definitions of QA and QC

* + **Quality Assurance (QA)** refers to the process used to create the deliverables, and can be performed by a manager, client, or even a third-party reviewer. Examples of quality assurance include process checklists, project audits and methodology and standards development.
  + **Quality Control (QC)** refers to quality related activities associated with the creation of project deliverables. Quality control is used to verify that deliverables are of acceptable quality and that they are complete and correct. Examples of quality control activities include inspection, deliverable peer reviews and the testing process.
* Quality control is about adherence to requirements. Quality assurance is generic and does not concern the specific requirements of the product being developed.
* Quality assurance activities are determined before production work begins and these activities are performed while the product is being developed. In contrast, Quality control activities are performed **after** the product is developed.

Video about Quality Control and Quality Assurance

<http://www.youtube.com/watch?feature=player_embedded&v=iCgzbYi_Iw8>