Quality Management

Artech considers quality to be a strong focus area in the entire Project Management process. Artech puts forth a plan and an acceptable checks-and-balances process to assure quality deliverables, subject to client approval. Artech's quality management process has been optimized to provide effective quality control with the least amount of project overhead. Artech's internal quality processes are defined by our SEPG (Software Engineering Process Group) as per SEI-CMM standards. These processes are reviewed and checked by our Quality Manager who ensures that all processes adopted for a project have been adhered to.

The three main components of our quality process are
- Quality Control
- Quality Assurance
- Quality Planning

While Quality Control deals with the day to day activities of quality checks, team review, peer review, structured walk-through, etc. its results are reviewed by the Quality Assuance (QA) to verify adherence to project plan, quality plan, and quality Audit. The quality assurance manager reviews all QA activities, including peer review comments, design review steps, test plan implementation steps, risk mitigation steps at regular intervals and reports to the senior management. The QA manager will work with the client to establish required control activities, and will recommend required quality analysis. Our processes are flexible enough to accommodate specific client requirements. Some of our preliminary planning includes planning for quality assurance and setup of quality control checks. The scope and project objectives along with internal standards defined by the SEPG form a guiding framework for the quality plan. The quality plan consists of standards definition, metrics guidelines and deliverable checklists. The quality plan identifies all quality control mechanisms and desired results.

Over a period of time across several projects Artech has implemented various quality standards, some defined by the client, others defined internally in conjunction with industry standards. We have learnt that there is no one perfect model. The control mechanism is thus kept flexible for review and revision. The process provides feedback information on quality trends to help quality managers and project managers review and revisit the quality planning documents, in case any modifications are required to the quality control process.

A diagrammatic representation of our quality process is shown below:
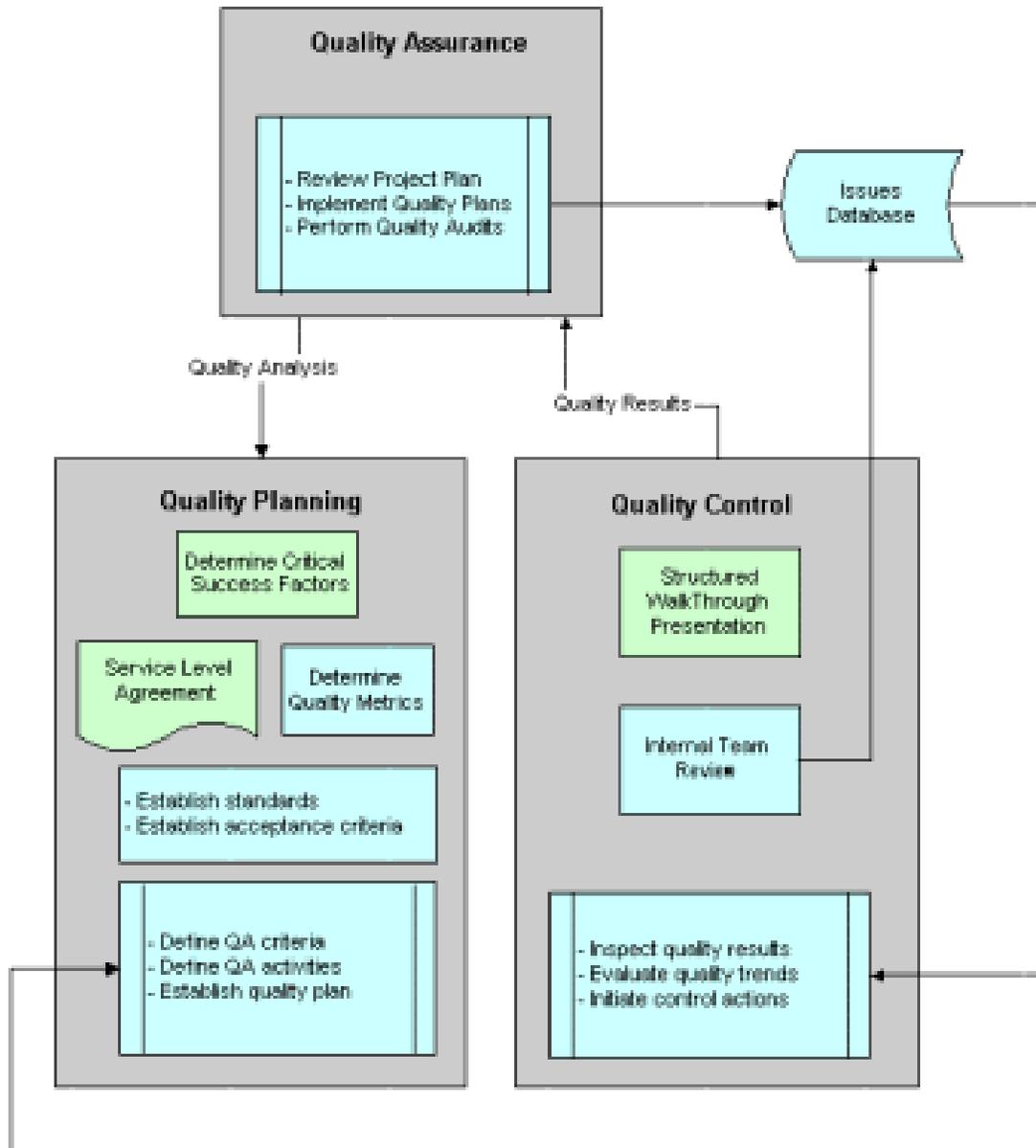
The diagram above reflects the principles mentioned earlier. The quality planning takes into account not only the internal pre-defined quality requirements but also project specific quality requirements that emanate from service level agreements and the critical success factors for the project. The quality metrics, standards and acceptance criteria for various deliverables are defined based on these factors. The quality control steps that are shown ensure that the quality plan is being followed. The quality control process includes peer reviews, team leader/manager reviews, structured walk-through/presentation, quality assurance review and delivery sign-off. Any discrepancies noticed in the quality results will result in corrective actions in the development process as well as the quality control process.

The quality control process is explained in detail to individual team members who are each responsible for their own deliverable. At the request of the client, Artech provides a totally different team to support testing and the quality process, independent of the development team.