

## **Sierra's Approach to Quality Assurance and Quality Control**

Quality assurance and configuration management are applied to each and every task to ensure delivery of technically sound products and proper tracking of materials and efforts. Sierra's management philosophy places a great deal of emphasis on these factors.

Our basic philosophy toward project quality assurance has always been to build the quality in from the beginning then utilize independent quality evaluation personnel to ensure that the right product was built and that it was built right. Certain methodologies contribute toward this goal:

- Develop, document, and understand requirements.
- Develop, document, and understand tailored project standards and procedures which are in conformance with company and customer standards and procedures.
- Utilize senior personnel experienced in sound professional and engineering practices to lead the effort.
- Utilize independent quality assurance personnel to monitor the process to ensure that company and customer standards and methodologies are followed throughout the effort.
- Maintain internal configuration control of the project products to ensure consistency.

Quality assurance procedures are required by each Project Manager such that quality concepts are built into all our products throughout their development cycle.

Contract deliverables are subject to Sierra's quality assurance procedures. The procedures begin when the Sierra Project Manager discusses the work with the client's action officer. This involves specifying the form and format of the expected deliverable products of the task assigned. This ensures that all parties understand exactly what is to be delivered.

Regular and frequent monitoring of task progress by the Project Manager is the heart of Sierra's QA process. Draft deliverables are reviewed and discussed with the client action officer; this is a vital part of the process given the complexity of interacting documents. Frequent monitoring ensures that the product is current.

Completion of a draft deliverable report represents a significant check-point, because the draft will be formally presented to the client under the Project Manager's signature. It is carefully reviewed at his level to ensure compliance with all applicable directives. At this and all subsequent levels of the quality assurance process, a formal oral and/or written feedback system becomes operative. This feedback loop is a vehicle by which draft material may be returned for rework. It is here that proofing, both technical and grammatical, of all deliverable documentation takes place. This checkpoint is concerned primarily with format rather than content. Each page is scrutinized for clarity of presentation, grammatical construction, and aesthetic quality.

All quality assurance reviews will be scheduled to ensure that they not interfere with the timely completion of a task. Subsequent to delivery of the draft, and dependent on the client's desires, a sit-down review of the draft is conducted with the client action officer, the team Task Leader, and Project Manager. It is during this review that both Sierra and client personnel assess the deliverable. Direction is then taken toward the final product. Submission of the final version of a deliverable is the capstone for all previous draft versions and the quality assurance procedures it represents that began with the delivery of the first draft.