

BANTREE AND ASSOCIATES CASE

Bantree and Associates is a software development firm which is a subsidiary of a telephone company. Bantree, formed nine years ago, has 104 employees of whom 67 are directly involved in software development work. A manager of software quality assurance directs a group of six people who perform various technical quality assurance activities. Also, a separate coordinator of quality management acts as the liaison on quality with the parent organization.

Quality of the software is generally viewed as quite good by customers. As with other software development organizations, the relative priority of meeting delivery schedules, cost, and quality is always an issue. The chief operating officer strongly believes that a primary emphasis on quality (through prevention of defects) will in the long run help to meet delivery schedules and cost budgets.

Upper management and middle management have received quality management training including definition of software quality, role of various types of quality teams, quality measurement, reward and recognition, process management, quality improvement techniques, and other topics. As a result, Bantree decided to try a cross-functional process team. The team was asked to address the recruiting of new software developers, both from a quality and recruiting time point of view. This attempt at a quality team was only partially successful. Some people believe that the obstacles to full success were (1) failure to fully explain the purpose of forming the team and (2) too broad a scope of the project assigned to the team.

Bantree follows a six-step software quality assurance model:

1. Assess and analyze current position
2. Establish a quality management process
3. Install and improve procedures for quality
4. Control quality in the software development process
5. Measure quality
6. Continuously monitor and improve quality

This model was initiated about two years ago.

The Software Quality Assurance Department has accumulated much data from functional verification tests and system verification tests near the end of the development process. Discussion abounds about the need for more intense design inspection, code inspection, and unit testing earlier in the process. These activities are not required nor are they monitored. Typical defects found are design defects and code defects with several

levels of severity for each. Data can be gathered by defect and by severity.

The parent company has a strategic planning process for all activities at the corporate and lower levels. The chief operating officer at Bantree would like to include quality in the next cycle of strategic planning which will start in two months. Although the COO is pleased with the final software quality and with the various activities in Software Quality Assurance, he believes that their approach to quality is too tactical, i.e., "not strategic enough."

What advice can you offer to the COO to help him integrate quality into the next cycle of overall strategic planning? Your advice should cover (1) the approach to enable key managers to have inputs on quality in strategic planning and (2) examples of quality-related elements that might be considered for the strategic plan.