Reviews, Inspections, and Walkthroughs

Terms to know:
Review
Work product
Inspection
Desk-check
Checklist
Walkthrough
Disposition

In a *review* (also called a *technical review*), a work product is examined for defects by individuals other than the person who produced it. A *work product* is any important deliverable created during the requirements, design, coding, or testing phase of software development. Examples of work products are project charters, phase plans, requirements models, requirements and design specifications, user interface prototypes, source code, architectural models, user documentation, and test scripts.

Research shows that reviews are one of the best ways to ensure quality requirements, giving you as high as a 10 to 1 return on investment. Reviews help you to discover defects and to ensure product compliance to specifications, standards or regulations.

Reviews can be formal or informal. In informal reviews, roles are not defined and the process is ad hoc. The least formal reviews include hallway conversations, pair programming, and simply passing a product around. More formal reviews are planned and defined ahead of time, and their outcomes are used to improve development processes. Reviews can be conducted by individuals or groups.

An *inspection* is the most formal type of group review. Roles (producer, moderator, reader and reviewer, and recorder) are well defined, and the inspection process is prescribed and systematic. For example, reviewers might first attend an orientation meeting, after which they individually *desk-check* the product (carefully examine it on their own). At the inspection meeting itself, someone other than the producer of the work product runs the meeting. During the meeting, participants use a checklist (discussed shortly) to review the product one portion at a time. Issues and defects are recorded, and a product disposition is determined. When the product needs rework, another inspection might be needed to verify the changes.

Review participants often use a *checklist,* a series of questions or statements that defines specific quality criteria. You can develop different checklists for different work products. Moreover, you can tailor your review process to look for certain checklist items, or assign different people to focus on different checklist items.

In a typical review, participants have desk-checked the product ahead of time and the group informally discusses issues, problems, and questions about the product. Checklists

usually aren't used, and the process may not include systematically examining the product portion by portion.

In a *walkthrough,* the producer describes the product and asks for comments from the participants. These gatherings generally serve to inform participants about the product rather than correct it.

I recommend that you conclude any type of review by defining a *disposition* of the product (e.g., "accepted as is," "accepted with minor revisions," "rejected"). To do that, poll the participants for their degree of acceptance of the product. A disposition decision gives the team members valuable information about where they stand in completing the requirements, and it also indicates whether you need to adjust the requirements process itself.