



White paper

Standard Issue

Issue management: keeping track of bugs and issues

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Scoutwest, Inc.

Standard Issue

Issue management is a large ingredient in the product development recipe. If you develop even a small product you will soon realize that you will be required to juggle a staggering number of issues. As time passes and more people are involved in the development effort, you'll come to appreciate software tools that help manage the proliferation of issues. Standard Issue is such a product, and although the company that publishes this book also produces it, the product deserves mention here because of its product development merits.

Many companies keep track of their development issues a big spreadsheet or text document. When they encounter a new problem, bug, or enhancement request, they just add it to the end of the list. This approach inherently recognizes the first reason for issue management – human memory is bad. You simply can't remember everything you hear. Writing it down is your best recourse for reliable memory. Collaboration is another need inherently recognized by this approach. If Joe finds a bug, how can he communicate it to his colleagues? By writing it down. This approach works fine for one-man, or small operations where the product is limited, and the customers are few. When your operation is larger the spreadsheet approach quickly breaks down. It's hard to search, prioritize, and categorize issues. You'll have a pretty hard time performing what-if scenarios for proposed product releases. You won't be able to prevent people from sweeping things under the rug that they don't want to deal with, and you won't be able to use the list to guarantee quality for each issue. A spreadsheet is just a list; it doesn't address all the other things you need it to manage. For this you need a relational database.

Standard Issue is a project-based issue database. Users can enter new issues into the database, and assign them to a project and subsystem. In a product development company, each project normally represents a single product or major release. This first level of filtering can be used to keep all project related

issues separate. Issues are normally given a type such as “enhancement”, “defect”, “requirement”, etc. This allows users to document each kind of problem, requirement, defect, or issue they discover, and have that issue assigned to a product. This categorization is the basis for organizing issues. Proper organization is necessary for later retrieval and action. Everyone knows an unorganized list quickly becomes useless.

In a multi-user group environment, data sharing is necessary. Issues that affect your product are touched by many hands. People need to access issues, and update them with new information, and users need to be formally assigned to projects to do that. Only users who are active in a project may be assigned issues. Each user is given a role in the project that dictates the rights they have. Roles determine the actions that a user may take. For instance, certain managers may have extended rights that allow them to perform actions that other employees cannot, such as deferring or deleting issues. Users may perform one kind of role in one project, and perform a different role in another. This project-role flexibility allows users to wear different hats in each project they participate in. For instance, a manager in one project might be just a contributing resource or auditor in another. In this case, the roles for each project are different.

Actions are used to change issue status and ownership. Issue data may be changed by simply editing it, but assigning the issue to another user, or changing its status has farther reaching ramifications, and must be done using an action. This enables a strict workflow to be established, if desired. Each time an action is performed, the issue is moved along a predictable workflow path. Workflows are optional, but have several benefits. The biggest benefit is that they help guarantee quality. A process that requires each issue to be examined and reexamined for quality will produce better results than a process without these checks. Any process introduces administrative overhead and extra work, but a small amount of overhead can usually reduce work in the long run. Using an effective quality workflow process can result in less work and a more efficient

operation. Smaller operations can usually handle quality issues by verbally communicating them between team members. Larger groups, with more issues, have greater challenges in this area, and usually require more formal processes to maintain quality levels. Issue workflows facilitate those processes.

Managing projects by using isolated phases is a good practice. For instance, the first phase often involves interviewing customers and learning their needs in order to produce a product that will actually sell. The next phase may be user interface design, followed by architectural design, development, and formal quality assurance testing, and release. The issues discovered in each phase should be fully researched and documented before moving into the next phase. Issue management products facilitate phase containment by using issue type and version categorization. For instance, you can gather requirements for each planned release of a product, and perform early what-if analysis. This analysis can be used to make more informed decisions about putting features into each release. As you move forward with a planned release, you can promote issues from the requirements stage to design requirements. Design requirements may then be promoted to product features, and finally to items on a quality assurance check list. There is a natural migration from phase to phase, and moving issues through this process from start to finish is a good project management practice.

To get the greatest benefit from an issue management system you'll need to explore the ability to create custom fields, views, filters, and reports. These are the windows into the mass of data that show you the information you are interested in, while hiding all the rest.

About Us

Scoutwest, Inc. develops and publishes project management and time tracking products for consulting, manufacturing, government, and general business applications.

Thousands of small to large businesses, in dozens of countries worldwide, trust their mission critical business processes to Scoutwest products. Standard Time® and Standard Issue® work together to offer well-rounded project management solutions.

We specialize in packaged software for timesheets, project management, time tracking, defect tracking, and issue tracking. Standard Time is a web-based timesheet that also runs on Windows, Palm OS, and Pocket PC. It can be used for client billing and task management. Standard Issue is used for bug tracking and general issue tracking.

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