

QRA Fast Facts: Track

Effective Issue Tracking Improves Software Quality

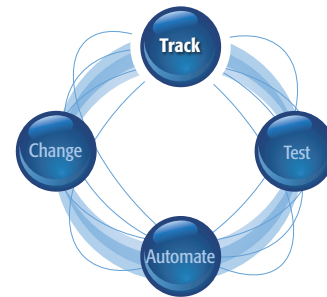
Despite the maturity of the software industry, many companies still overlook the value of electronic issue management.

Survey Results

Seapine Software recently released the quality-ready assessment (QRA). The QRA is a high-level evaluation tool that helps development organizations measure the state of their quality readiness in four key competency areas. Those areas include tracking, testing, change, and automation. To date, nearly 1,000 individuals have completed the survey.

Results indicate that 20 percent of organizations have limited or no ability to trace development artifacts. Only 14 percent of companies have tracking that includes item linking and automated change notifications.

Working without these capabilities is like manually comparing two printed versions of a design document. You might be able to find the changes, but it is not efficient. Also, you will never know when the author puts a new version on the server without checking repeatedly.



Issue Management

- 20% of organizations have limited ability to trace development artifacts.
- 19% of organizations do not track project data electronically.
- 34% of companies completed their application development on time and on budget less than 75% of the time.

How organizations track artifacts

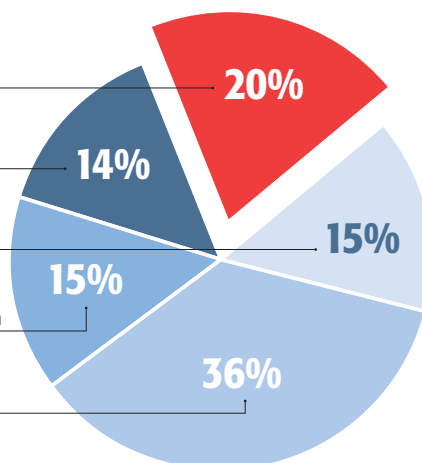
Limited or no ability to trace artifacts

Complete linking and automatic notification

No linking between artifacts

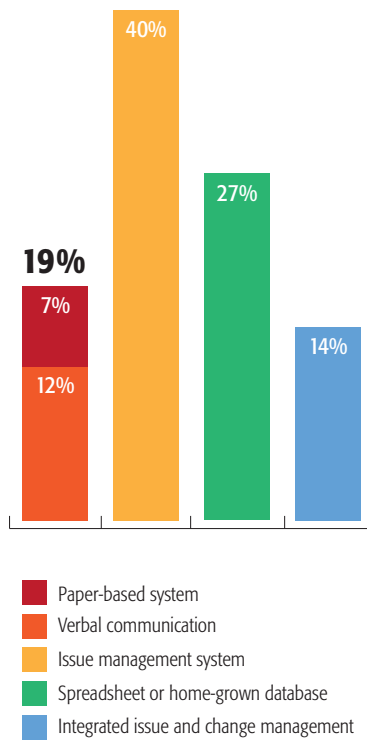
Complete linking with no automatic notification

Some linking between artifacts



Tracking issues and tasks through real-time notification and reporting increases productivity.

Nearly 20% of organizations do not track project data electronically



Seapine Analysis

Software development is a data-driven industry. Yet a large number of development companies still do not use electronic issue management. Without easy access to defects, issues, and tasks, organizations must guess about the state of a project.

Often organizations become too intent on the task at hand. They do not take the time to collect information about their development and testing actions.

Low-Tech Solutions Are Still Prevalent

When asked about tracking, 54 percent of organizations said they use some type of issue management solution. This number jumps to 81 percent if we include spreadsheets or home-grown databases.

While these results are encouraging, 12 percent of organizations indicated that they verbally communicate tasks and defects. Another 7 percent said they use paper-based systems. This means 19 percent of organizations do not track project data electronically.

Lack of Electronic Tracking Increases Risk

Organizations with no issue tracking system or paper-based tracking assume greater risk. They are unable to quickly determine vital information such as:

- Which activities are in progress
- The severity of open defects
- The number of issues that must be resolved prior to release

They incur higher costs because of the time wasted searching for information. They may also have difficulty meeting mandatory requirements and compliance regulations.

Creating collaborative processes leads to greater software quality.

Lack of Electronic Tracking Increases Costs

Inadequate tracking impacts an organization's ability to meet release dates. Thirty-four percent of companies completed their application development on time and on budget less than 75 percent of the time. If these organizations release once a year, that means they are only on time and on budget once every four years.

Ineffective deadline management causes cost overruns and delayed revenues, which no organization can sustain long term.

Integration is the Missing Piece

While 81 percent of software development organizations use some type of electronic tracking mechanism, only 15 percent have integrated change and issue management. Organizations with this type of integration can see how changes in different parts of the code affect the number of issues.

As a result, these companies have a better understanding of their code base and development process. They can meet deadlines because their estimates are based on historical data.

Ultimately, integrated change and issue management reduces risk and unnecessary work.

How often does your organization complete development on time and on budget?

Always	4.5%
95%-99% of the time	7.3%
90%-94% of the time	9.6%
75%-89% of the time	22.0%
Less than 75% of the time	34.2%
Never	7.3%
Don't Know	15.3%

Recommended Actions

Many development organizations still use inadequate, home-grown tracking solutions. They overlook the fact that internal solutions often carry hidden costs. The effort of developing and administering these solutions overloads their already scarce resources.

With a packaged solution, organizations can shift resources to revenue-producing development. In addition, many organizations with electronic tracking still lack integration. Integration of change and issue management streamlines processes and provides a better understanding of the code.

Developer

Evaluate your current tracking abilities

Is the status of current tasks, defects, and bug fixes available to everyone on your team?

If you spend time searching in multiple locations for status, discuss other tracking options with your team lead or manager.

Estimate the time you spend tracking tasks

For a week, record the amount of time you spend on the following administrative tasks:

- Checking or reporting on status
- Moving items through the development process
- Entering defects
- Gathering task information from other team members

If you are spending more than a few minutes a day managing task information manually, discuss tracking options with your team lead or manager.

Team Lead

Evaluate your current tracking abilities

Can you determine the project status and your team members' workload without leaving your desk or picking up the phone? If you cannot, you need a new tracking solution.

Automate tasks

Do not manually assign defects or tasks. Instead, create automation rules that move tasks through the process without manual intervention. For example, a new severity level 1 defect is automatically assigned to a support engineer. Cosmetic defects are assigned to the team lead for review.

Integrate change management and issue tracking

Being able to determine which areas of code produce the highest number of defects greatly improves resource allocation.

Executive

Evaluate your compliance risks

Look at your process data through the eyes of an external auditor. Can you trace and justify the reasons for every change? Even if you are not in a regulated industry, this information can reduce risk in the event of a significant issue with your software.

Consider your current reporting capabilities

Using only the data you can readily access, determine how effectively you can estimate deadlines, evaluate workloads, and assess test coverage.

Check for process gaps

Where are your process bottlenecks? Chances are most bottlenecks occur when tasks change owners. Implement a system that includes automatic notifications and activities to overcome these delays.

About Seapine Software

With over 8,500 customers worldwide, Seapine Software is the leading provider of quality-centric application lifecycle management solutions. Headquartered in Mason, Ohio, and with offices in Europe and Asia-Pacific, Seapine solutions help companies reliably and efficiently develop quality software applications. Seapine's products support best practices, integrate into all popular development environments, and run on Microsoft Windows®, Linux®, Sun Solaris®, and Apple Macintosh® platforms.

Contact

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