SmartBear SOFTWARE

White Paper

Obtaining ROI from an ALM Tool

This White Paper discusses how an Application Lifecycle Management (ALM) tool can quick obtain a return on investment (ROI) for companies that develop and maintain software.

Narrative

Companies that develop and maintain software can dramatically improve their processes, obtain higher quality, and quicken their software releases by using a tool that manages the Application Lifecycle Cycle (ALM). Most companies will obtain a return on investment (ROI) within about a year of purchasing an ALM tool.

This white paper discusses the types of process improvements that are available and how to quickly obtain a return on investment. This white paper focuses on:

- How to deliver software releases more quickly, cost effectively, and in a repeatable fashion
- How to deliver higher quality software releases that result in less production support
- How to improve team member collaboration, communication, morale, and skill sets
- How to obtain metrics that allow you to continually improve your software releases

Process Improvements

Improving your processes involves instituting development methodologies and using tools to drive these processes. From a process perspective, below are some best practices that should be considered when evaluating your current development process:

- **Create a Product Backlog** – As enhancement requests and new requirements arrive for your software products, it is wise to create a product backlog. The product backlog identifies all requested enhancements to your product line so that you can identify, prioritize, estimate and determine the marketability of each backlog item. Once a product backlog is approved, it will move to the requirements stage.
- **Create Solid Requirements** – Once requirements are identified, it is best to create well defined requirement documents that include screen shots and prototypes.
- **Improved Test Case Management** – Upon defining and approving a requirement, your QA team should a set of test cases for each requirement and have key individuals review the test cases to ensure they have traceability (test cases cover all features of the requirement), testability and depth.
- **Publish Test Cases before Coding Begins** – Before coding begins on a requirement, the QA team should have all test cases defined for the requirement. It is important to require that the programmer run the defined test cases before releasing the code for QA. This normally results in a 30% time savings in the QA cycle because re-work is minimized.

- **Daily Meetings** – It is wise to implement a daily meeting that lasts between 15 and 30 minutes and is done at the beginning of each day. The programming lead, test lead, project manager and product owner should attend the daily meeting. In the meeting, the team should discuss the estimated hours remaining on each requirement, time entry, and defect statistics. Ask each member what they did since the last meeting, what they will do before the next meeting and discuss any impediments they are encountering. This daily meeting provides immediate transparency to the development process and can reduce the project lifecycle by as much as 20%.

- **Require Daily Time Entry –** It is important that each team member enter their hours at the end of each day. For each task worked on, they will record hours worked and estimated hours remaining (this should automatically calculate percentage complete). This ensures that each person works optimally and reduces the time spent in the development lifecycle.

- **Implement a Support Ticket Management System –** A Support Ticket management system allows clients and internal staff to log support issues and enhancement requests. It should allow them to track the status of each ticket online and should be used to send surveys so that you can track how well your support team is providing customer support. This can dramatically improve your customer relationships.

- **Use Discussion Forums –** For each release of software that is produced, it is important to create a threaded discussion forum that allows team members to ask questions and get answers. These can be questions/answers about features, development status, code builds, etc. This will ensure all team members work in a collaborative way.

- **Implement Automated Testing –** You can dramatically reduce the hours needed to perform regression testing on each software release by creating automated test cases that are run upon each build. By doing this, you can reduce regression testing from days to minutes. You should analyze the result of each automated test run and launch test runs on demand.

Using an Application Lifecycle Management (ALM) Tool

Once your software process has been optimized, you should consider using an ALM tool to manage the process. This can dramatically improve communication and analytics. Software Planner (http://www.SoftwarePlanner.com) is an ALM tool that can manage this process. It can help in the following ways:

- **Project Management** – Using Software Planner, you can manage all software projects across all teams and obtain visibility and metrics across all your projects. You can track the status, hours logged, variances and percentage complete of all projects and individual tasks within

- each project. You can quickly identify slipping tasks and who is causing the slippage – so that you can give them help before it impacts others.

- **Quality Management** – Software Planner allows entering/tracking of requirements, enhancement requests, and product backlogs. By keeping these online, you can analyze the scope, size, status of your requirements, and plan future releases. Your quality assurance (QA) team can use it to create test cases for each requirement and quickly view traceability to ensure all requirements are fully tested. The QA team will collaborate with the programming staff by tracking the status and resolution of all defects that are found during testing.

- **Support Management** – Software Planner provides a support ticket management tool that allows clients and internal staff to log support issues and enhancement requests. It allows them to track the status of each ticket online and can be used to send surveys so that you can track how well your support team is providing customer support. You can trend support tickets over time to see if you are getting more or less support tickets over time.

- **Automated Test Integration** – Software Planner integrates with all the major automated testing tools including HP Quick Test Pro, HP Win Runner, Automated QA Test Complete, Rational Robot, and Rational Functional Test. By integrating automated testing into Software Planner, you can launch the tests from within Software Planner, create test sets, analyze the results (which tests passed or failed), and automatically send emails upon test completion. You can also trend these results using graphical dashboards.

- **Management Reporting** – Software Planner has a myriad of different reports that can aid in improving your processes. You can view dashboards that show the progress of each project underway, identify slipping tasks by assignee or project manager, trend test case progress over time (how many test cases are awaiting run vs. passed vs. failed), trend defects over time, and trend support tickets. You can also analyze current requirements, test cases, and defects. Reporting is key for obtaining the metrics for the daily meetings, to ascertain the progress of each release, and to document the metrics– allowing you to drive process improvement.

Return on Investment

You should see a return on investment within a year of implementing the new processes and tools. This will be achieved by:

- **Better Marketability** –Your software releases will more closely match what your clients need and will be more marketable, allowing you to capture better market share.

- **Higher quality releases** – Your software releases will have fewer bugs and require less customer support because they will be of higher quality.

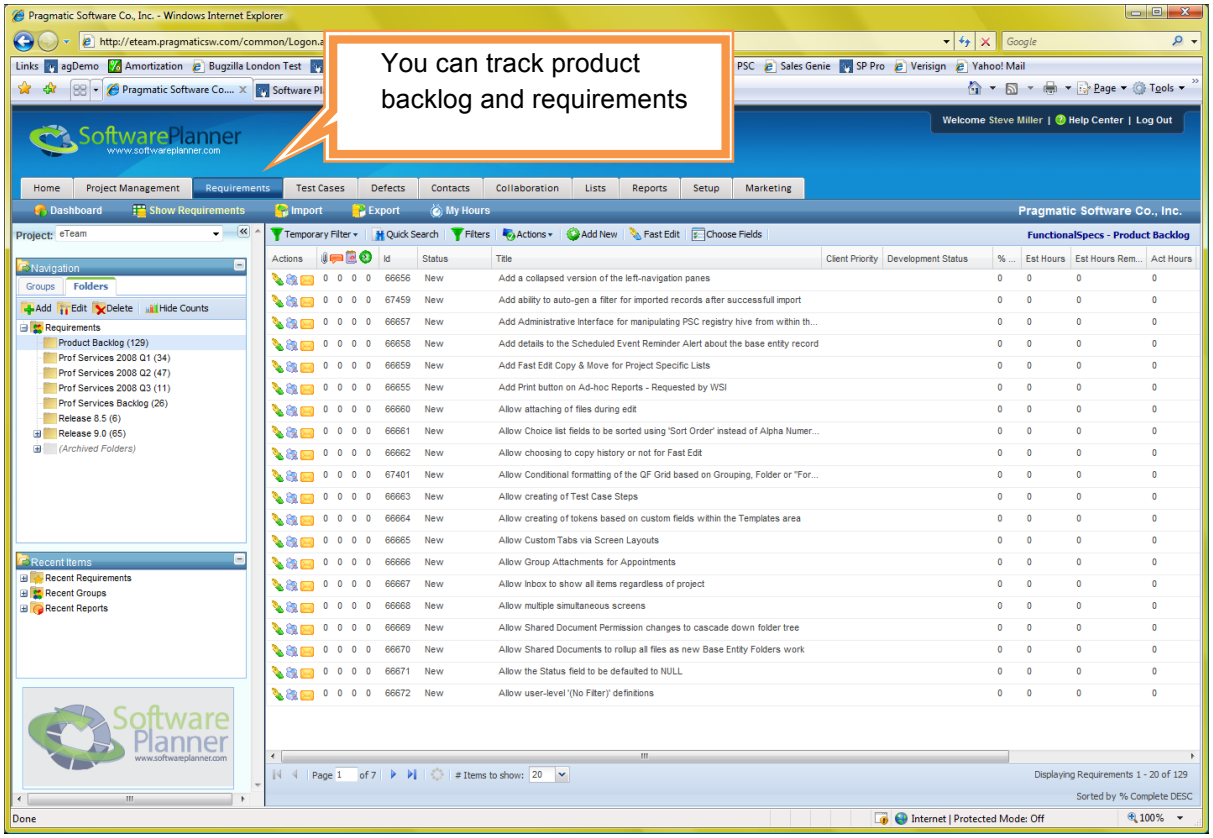
- **Happier Customers** – Your customers will be happier and more willing to serve as testimonials for future prospects.
- **Better Staff Retention** – By providing state-of-the-art project management and empowering team members to contribute at a higher level in software projects, your technical staff will be happier, feel more empowered, and will learn valuable skills that will continue to pay dividends over time.

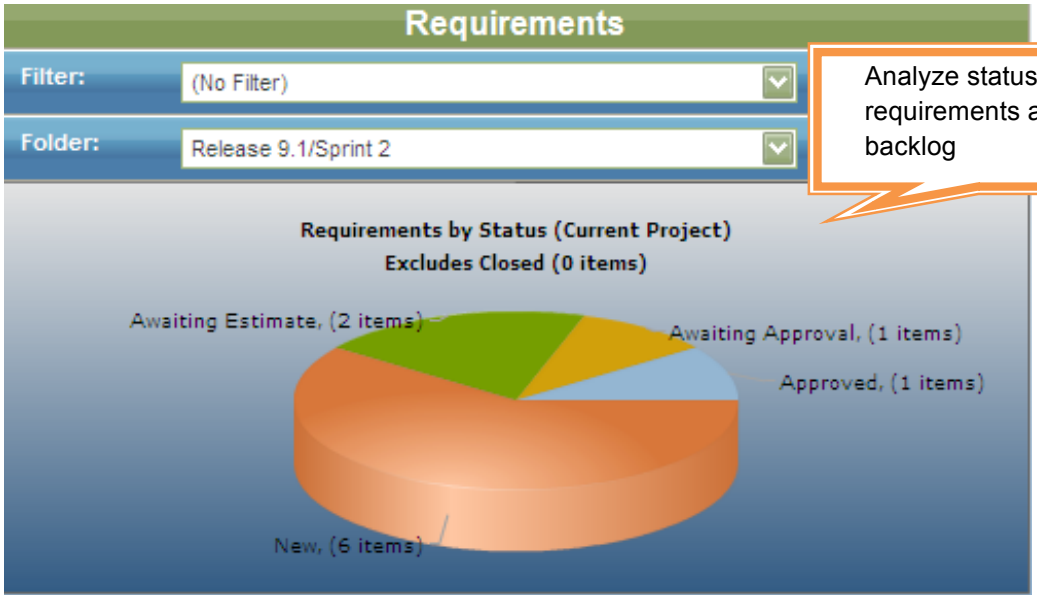
Software Planner Features

Software Planner provides many tools for helping you improve your software processes.

Analyzing Requirements and Product Backlog

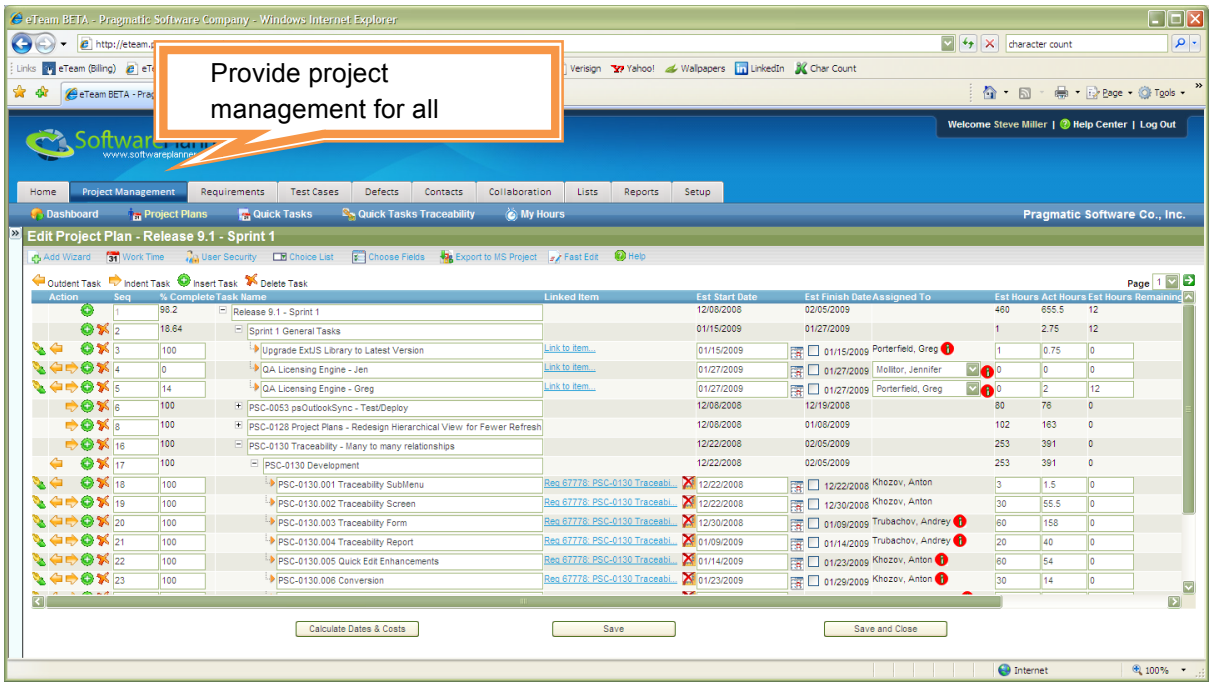
You will able to track product backlog and detailed requirements.

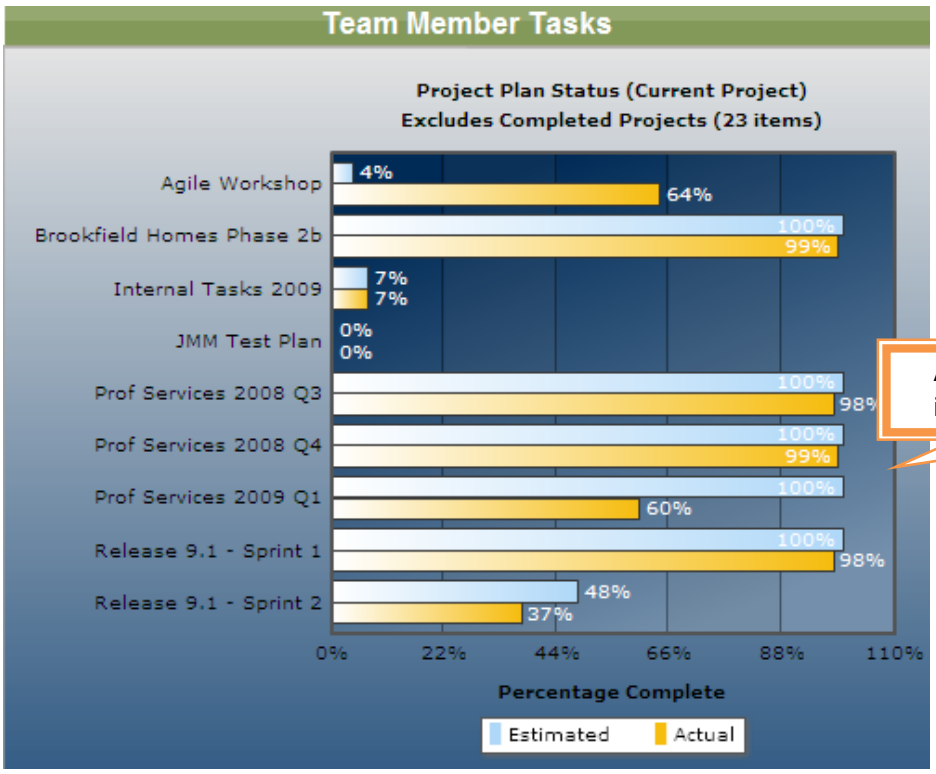




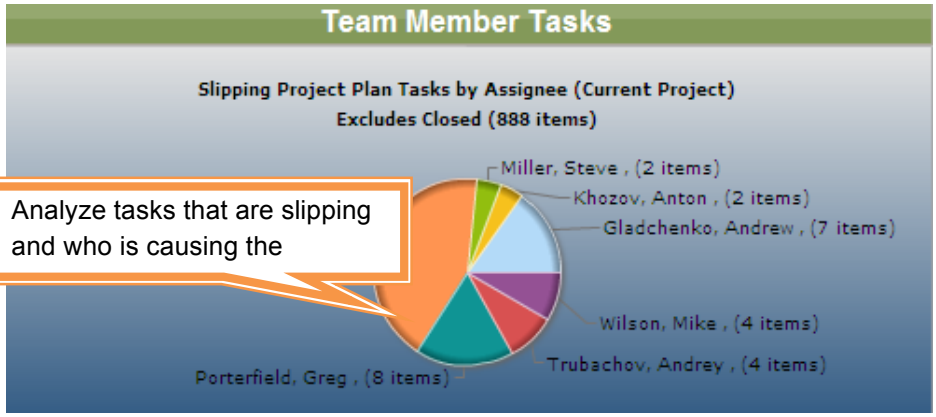
Project Management

You can manage all software projects across all teams and obtain visibility and metrics across all your projects. You can track the status, hours logged, variances and percentage complete of all projects and individual tasks within each project. You can quickly identify slipping tasks and who is causing the slippage – so that you can give them help before it impacts others.

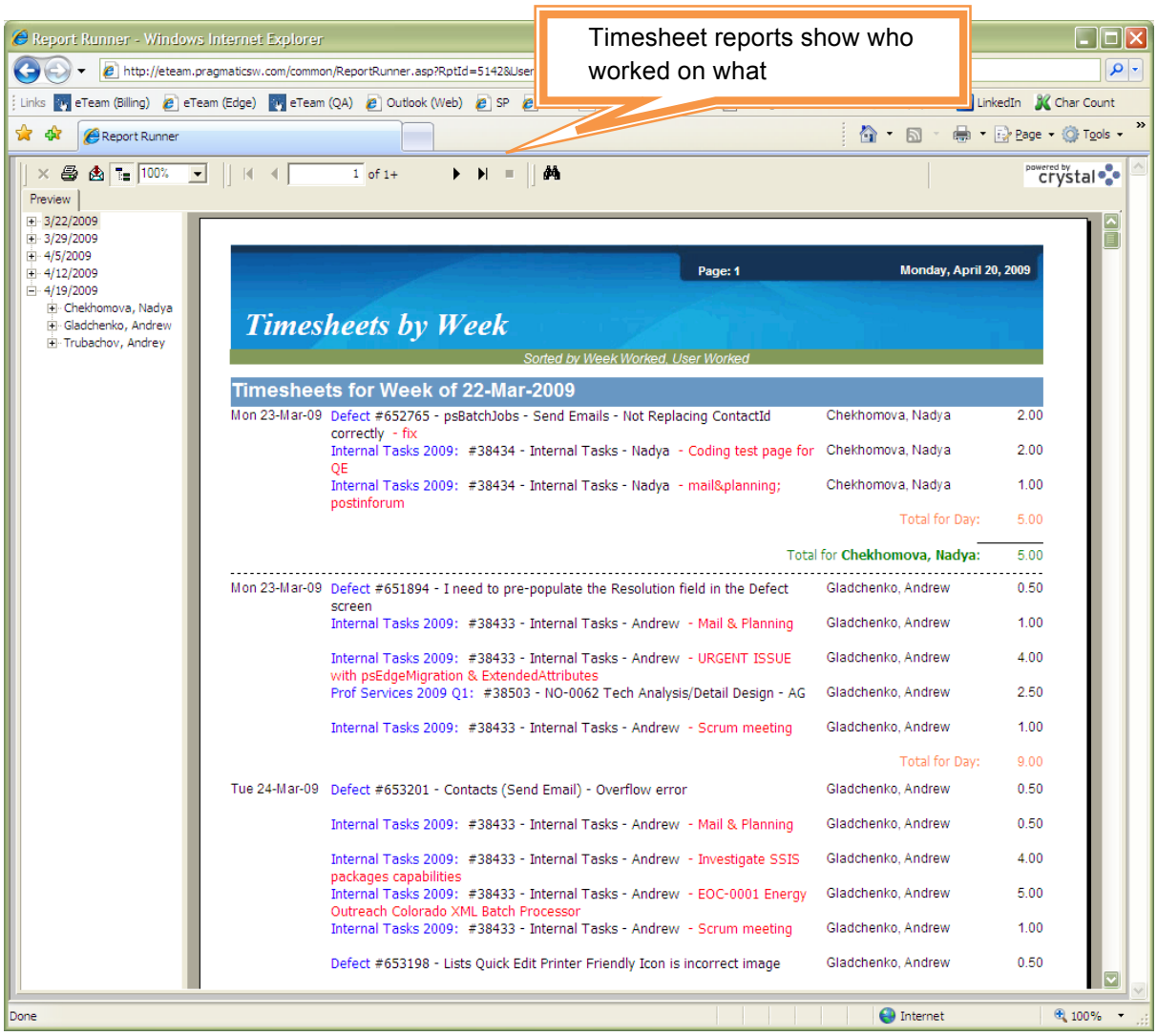


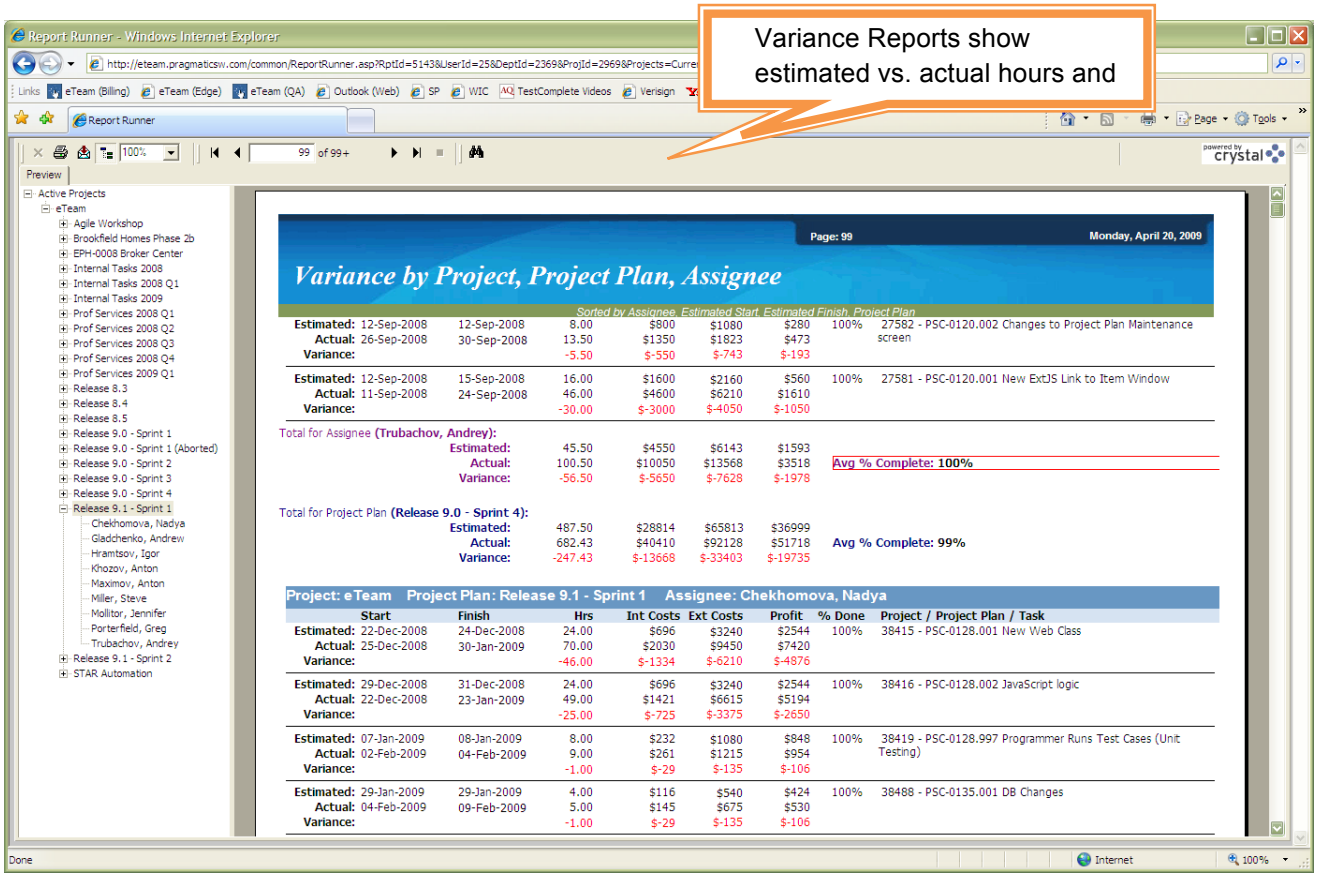


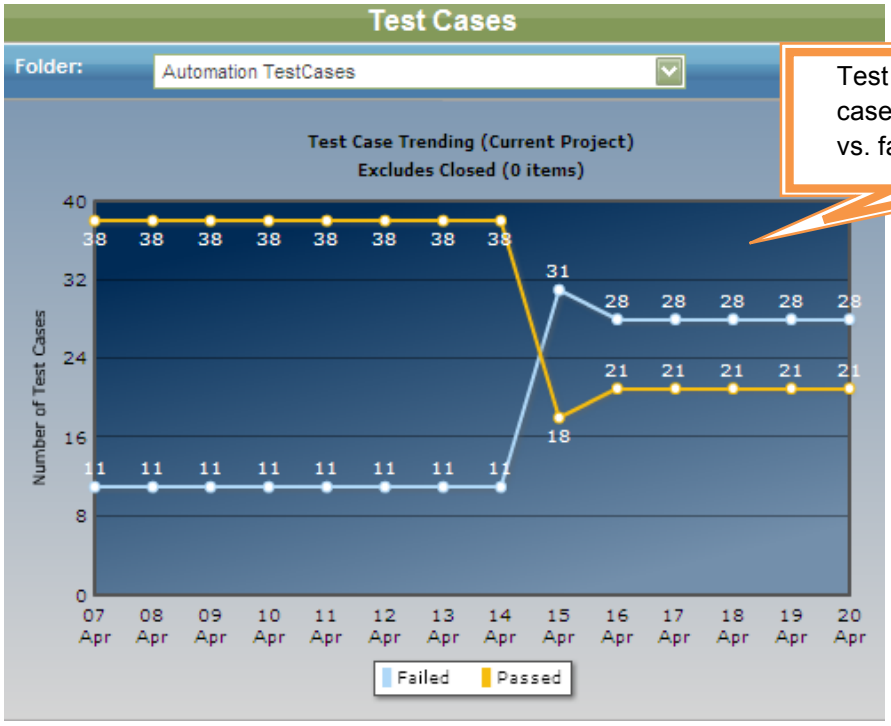
Analyze all projects at a glance, including professional services.



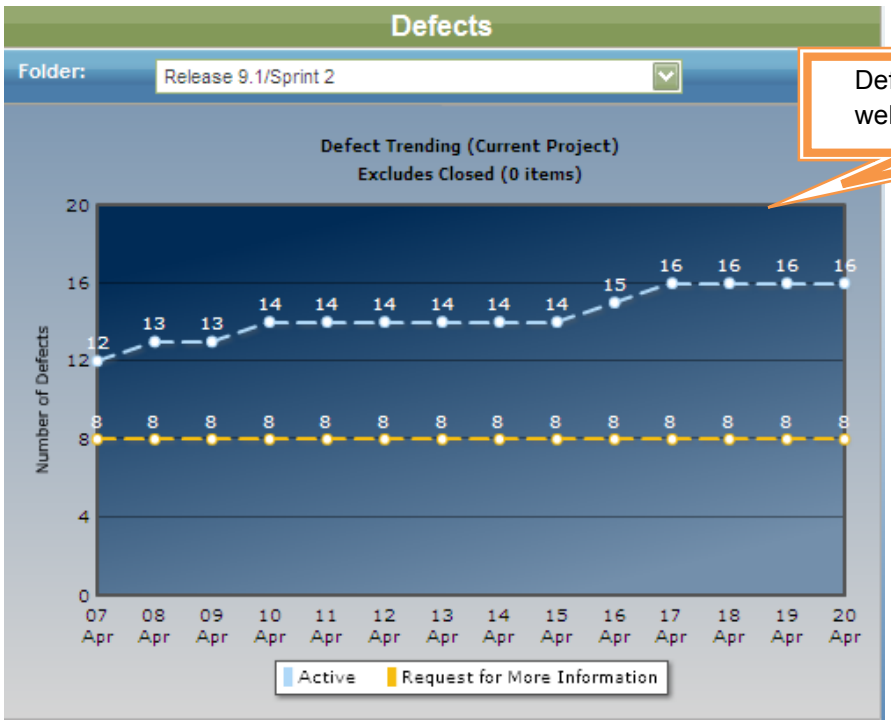
Analyze tasks that are slipping and who is causing the


Timesheet reports show who worked on what
Report Runner - Windows Internet Explorer
Timesheets by Week
Sorted by Week Worked, User Worked
Timesheets for Week of 22-Mar-2009


Variance Reports show estimated vs. actual hours and
Report Runner - Windows Internet Explorer
Variance by Project, Project Plan, Assignee
Sorted by Assignee, Estimated Start, Estimated Finish, Project Plan
Page: 99
Monday, April 20, 2009
Project: eTeam Project Plan: Release 9.1 - Sprint 1 Assignee: Chekhomova, Nadya



Test Case trending shows test cases awaiting run vs. passed vs. failed



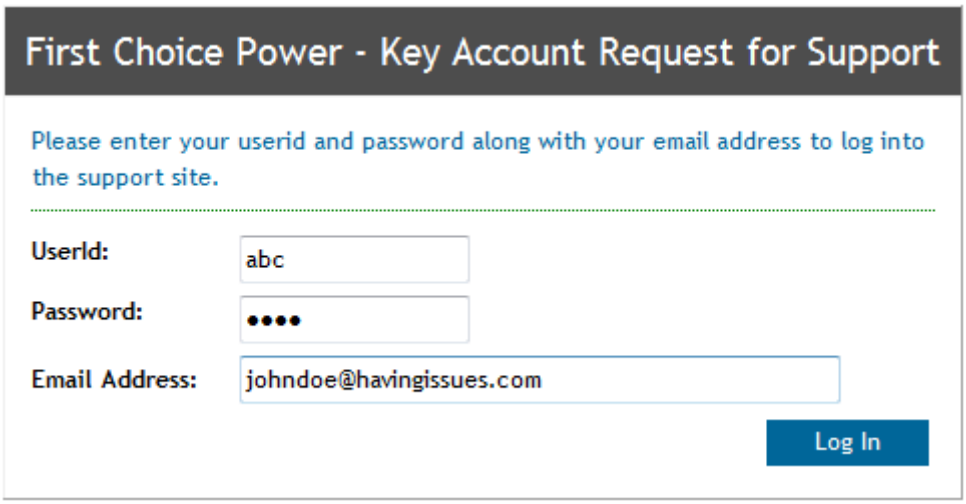
Defect Trending shows how well your testing effort is

Support Management

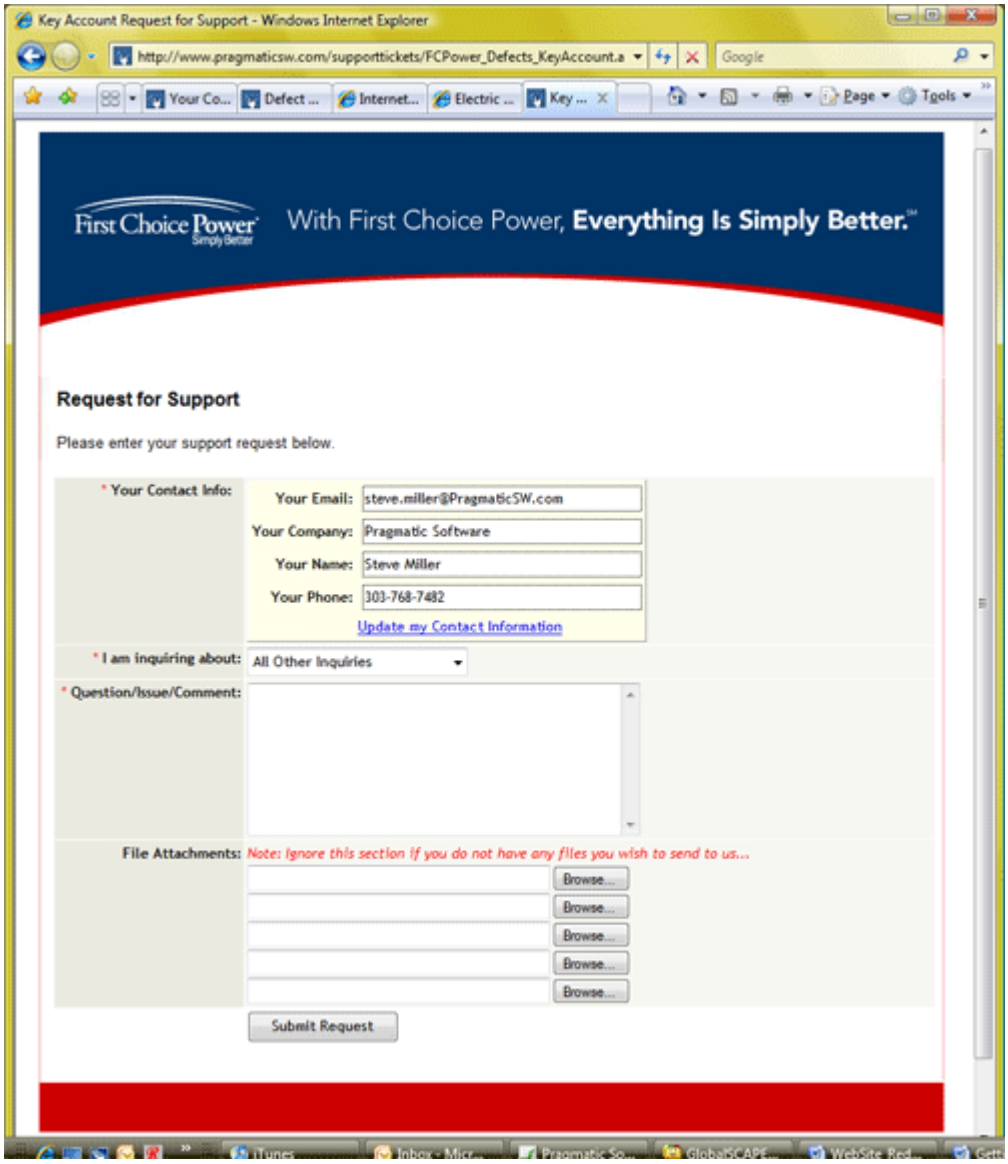
Software Planner provides a support ticket management tool that allows clients and internal staff to log support issues and enhancement requests. It allows them to track the status of each ticket online and can be used to send surveys so that you can track how well your support team is providing customer support. You can trend support tickets over time to see if you are getting more or less support tickets over time.

You can add a support link from your website, allowing clients to enter support tickets. You can either force them to log in (for extended support) or not require a login. Below is how they have implemented this for one of their other clients (First Choice Power):

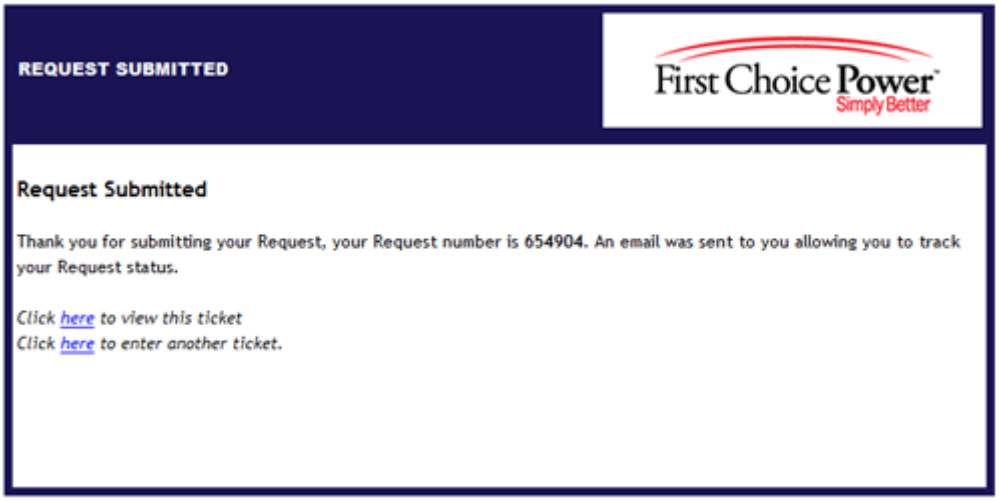
Clients go to the First Choice Power website and click the **Support** link, and then they log in:



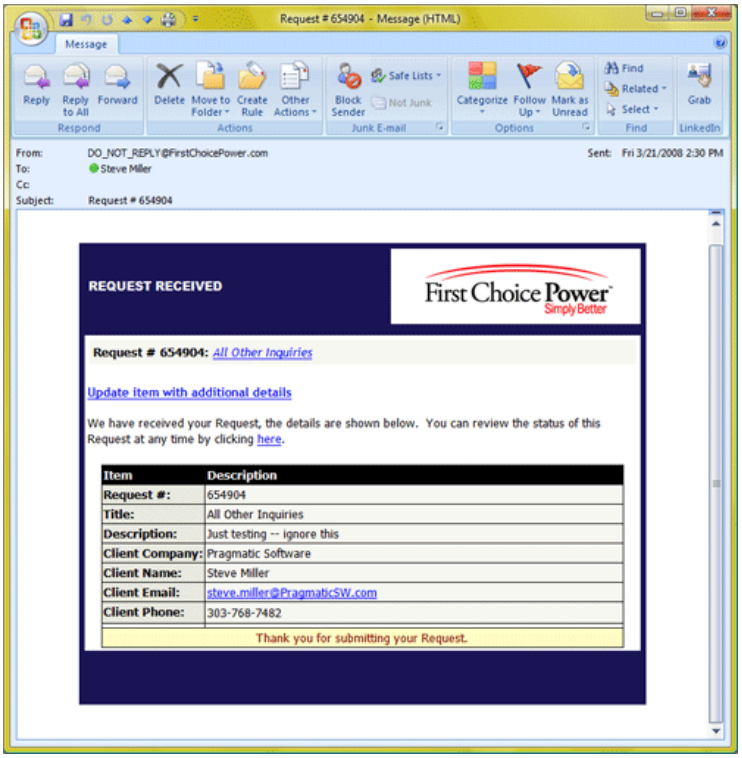
Once logged in, they see a branded support page (it will be branded to your company):



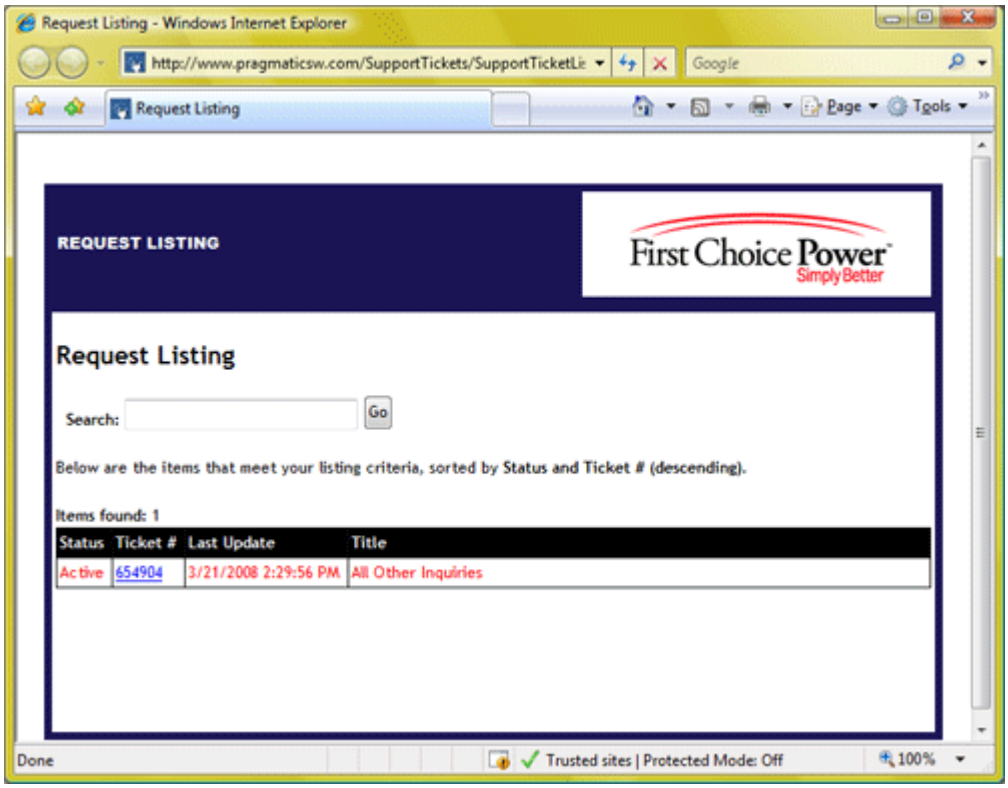
Once the ticket is added, it shows the client the ticket number:



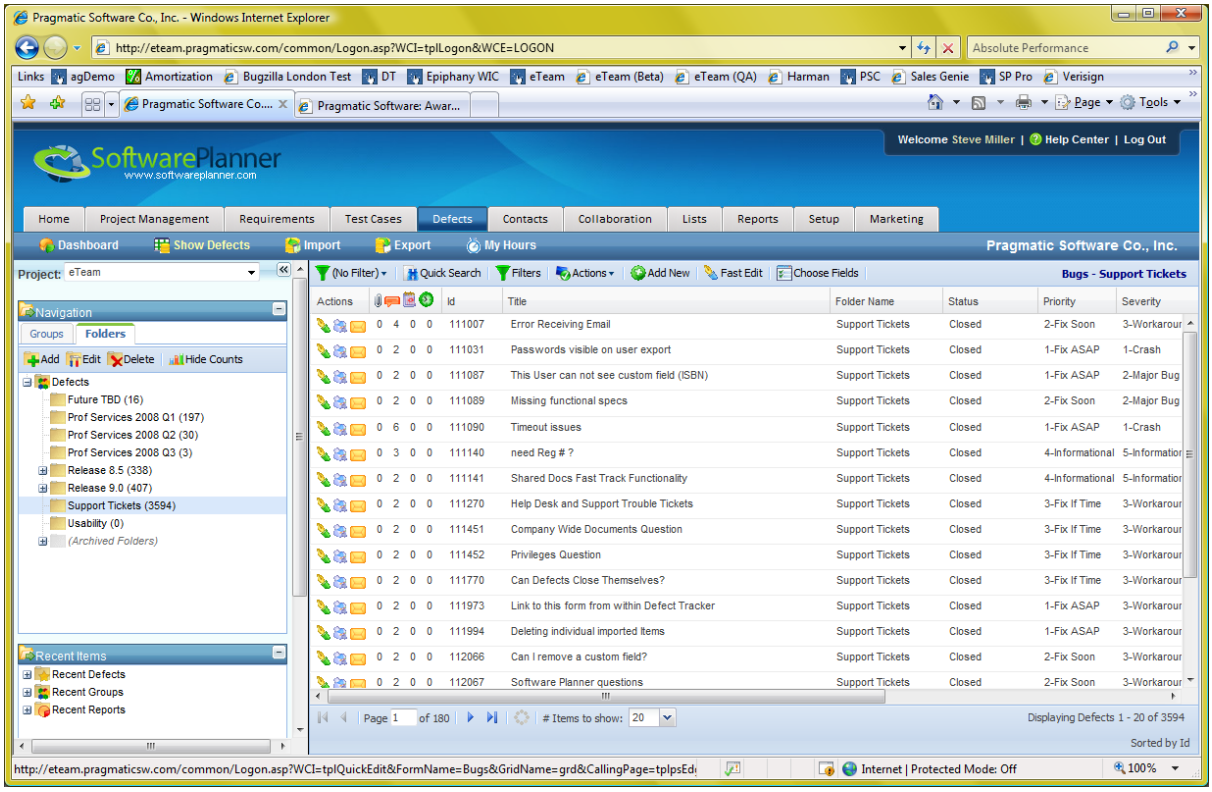
The client and your support team are notified via email of the ticket:



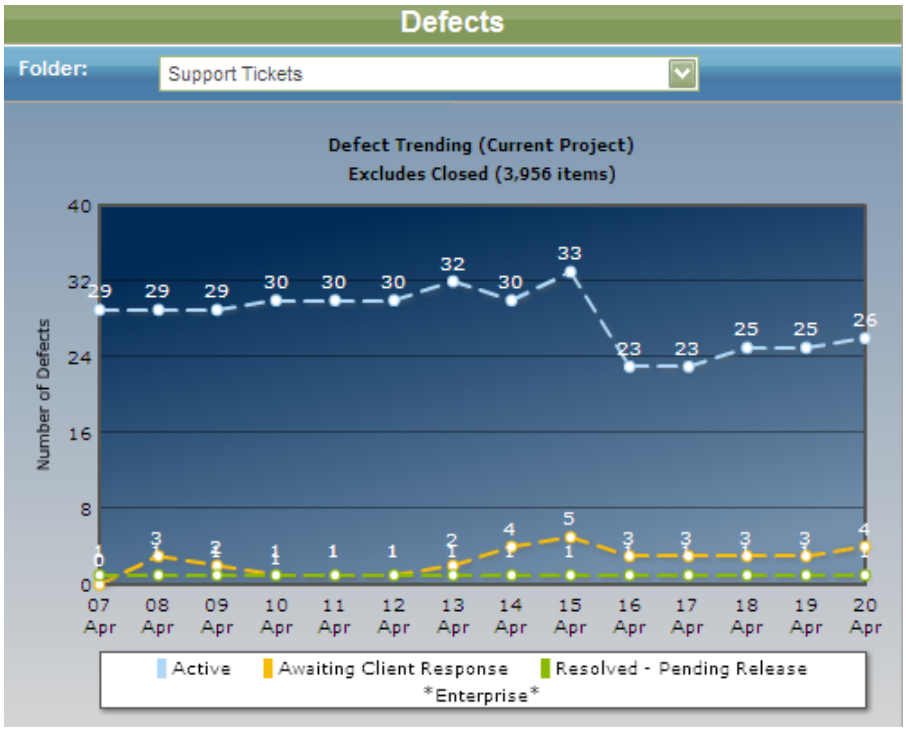
The client can check the status of their ticket online at any time:



The ticket flows inside of Software Planner, allowing you to analyze and track the tickets:



You will also be able to analyze tickets over time:



Automated Test Integration

Software Planner integrates with our awarding winning Test Automation tool, **TestComplete** (http://www.testcomplete.com). By integrating automated testing into Software Planner, you can launch the tests from within Software Planner, analyze the results (which tests passed or failed), create test sets, and automatically send emails upon test completion. You can also trend these results using graphical dashboards and scheduler tests to run unattended. For more information on the integration view the User's Guide at http://www.softwareplanner.com/UsersGuide_TC.pdf.

Learn More

If you wish to learn more about Software Planner, request a free a trial, or receive a personalized demo of the product, contact **SmartBear Software** at +1 303-768-7480. You can also learn more at http://www.SoftwarePlanner.com.

About SmartBear Software

SmartBear Software provides enterprise-class yet affordable tools for development teams that care about software quality and performance. Our collaboration, performance profiling, and testing tools help more than 100,000 developers and testers build some of the best software applications and websites in the world. Our users can be found in small businesses, Fortune 100 companies, and government agencies.

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