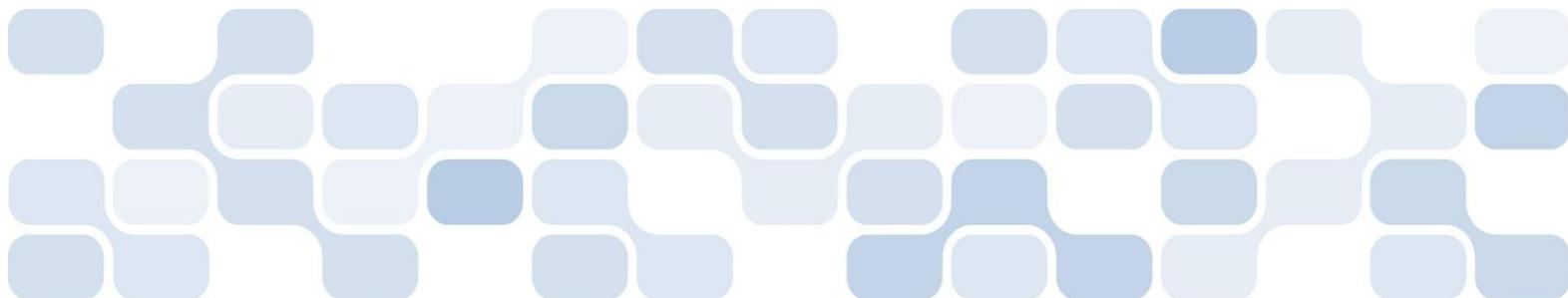


Use Familiar Tools with Visual Studio Team System 2008

White Paper

May 2008

For the latest information, please see www.microsoft.com/teamsystem



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INTRODUCTION

Microsoft® Visual Studio® Team System 2008 brings together development teams in a way that has never been done before—it enables entire development teams, including project managers, analysts and stakeholders to interact by sharing information stored in a central repository, the Team Foundation Server. Because of the Team Foundation Server, each member of a software development team can use the tools with which they're most familiar to do their jobs, all the while interacting seamlessly with other team members using different tools. For instance, developers will generally work in Visual Studio, a software development environment tailored to enhancing developer productivity. Project Managers, on the other hand, will often choose to use Microsoft Project® or Microsoft Excel® to do their jobs. And other stakeholders may choose to use a SharePoint® portal, or possibly Team System Web Access to contribute to the success of the project.

Because one of the goals of Team System is for non-developers to use the tool with little or no training, it includes add-ins to Excel and Project. Since these tools are familiar to project managers and stakeholders, they can rapidly achieve competency in working with Team System—no coding experience needed!

On top of the integration with Excel and Project, Team System also makes use of a team project SharePoint site that enables you to store documents and view reports. These documents can be linked to work items in Team System. So while a project managers' schedule is linked to work items in Team System, stakeholders can view the schedule without having to know anything about Team System!

Another new feature of Team System 2008 is the inclusion of Team System Web Access. This is a full-featured website that mimics the functionality of Team Explorer but requires no client-side components. Using this tool, users can work with Team Foundation Server with little or no training. For instance, users can create and track bugs quickly and easily, all inside of a Web browser!

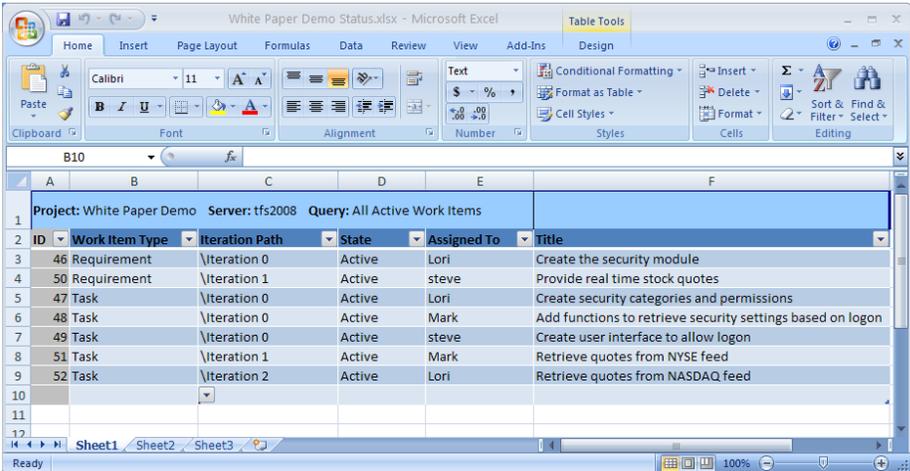
WORKS THE WAY YOU WORK

Unlike many tools with a steep learning curve, Team System enables people to work with tools they are already familiar with. There are many, many pieces to Team System but as a project manager or other interested person, you generally don't need to learn tools that you don't want to use. Virtually everybody knows how to use Excel and most project managers are familiar with Project. SharePoint has quickly become the collaboration tool of choice for teams so it is usually familiar to users as well. And browsing the Web is intuitive to nearly everyone in an organization. Knowing that you don't have to use Visual Studio makes the acceptance of Team System that much easier.

Using Microsoft Excel

Microsoft Excel is one of the most powerful data entry and data analysis tools on the market. Team System includes an Excel add-in that makes working with work items stored in Team Foundation Server simple for anyone familiar with Excel.

To demonstrate the integration of Team System with Excel, take a simple example of wanting to see the status of a series of work items that have been assigned to your development team. In a typical environment, you may have to search through your e-mail for status reports, or interrupt the members of your team for ad-hoc status reports. With Team System and Excel you simply open up Excel and query the items you wanted to check on. Figure 1 shows a list of active work items sorted by the iteration they are assigned.



ID	Work Item Type	Iteration Path	State	Assigned To	Title
46	Requirement	\Iteration 0	Active	Lori	Create the security module
50	Requirement	\Iteration 1	Active	steve	Provide real time stock quotes
47	Task	\Iteration 0	Active	Lori	Create security categories and permissions
48	Task	\Iteration 0	Active	Mark	Add functions to retrieve security settings based on logon
49	Task	\Iteration 0	Active	steve	Create user interface to allow logon
51	Task	\Iteration 1	Active	Mark	Retrieve quotes from NYSE feed
52	Task	\Iteration 2	Active	Lori	Retrieve quotes from NASDAQ feed

Figure 1. Microsoft Excel with active work items

Through Excel you can add new work items, update existing work items or create charts and graphs from the existing work items! This makes creating custom reports and charts simple and easy.

In addition to providing elementary status on current work items, Excel can provide a very simple interface for editing or creating large numbers of work items. One of the most powerful uses of Excel is the reassignment of work

items to another individual. After retrieving a series of work items, you can use the powerful sorting and filtering capabilities of Excel to group all of the work items assigned to a single individual in one place. You can then change the Assigned To field in one row using the convenient drop down list of all Team System users, and use the Excel copy feature to rapidly copy the value down to all desired work items. Push the Publish button and you've just reassigned all the work from one person to another in only a few seconds.

In addition to the basic integration for managing tasks and other work items, Excel provides access to advanced ad-hoc reporting functionality through its pivot table support. Because Team Foundation Server contains a robust data warehouse and associated multidimensional cube, you can quickly and easily use Excel to reach into that data and pull desired data into a pivot table.

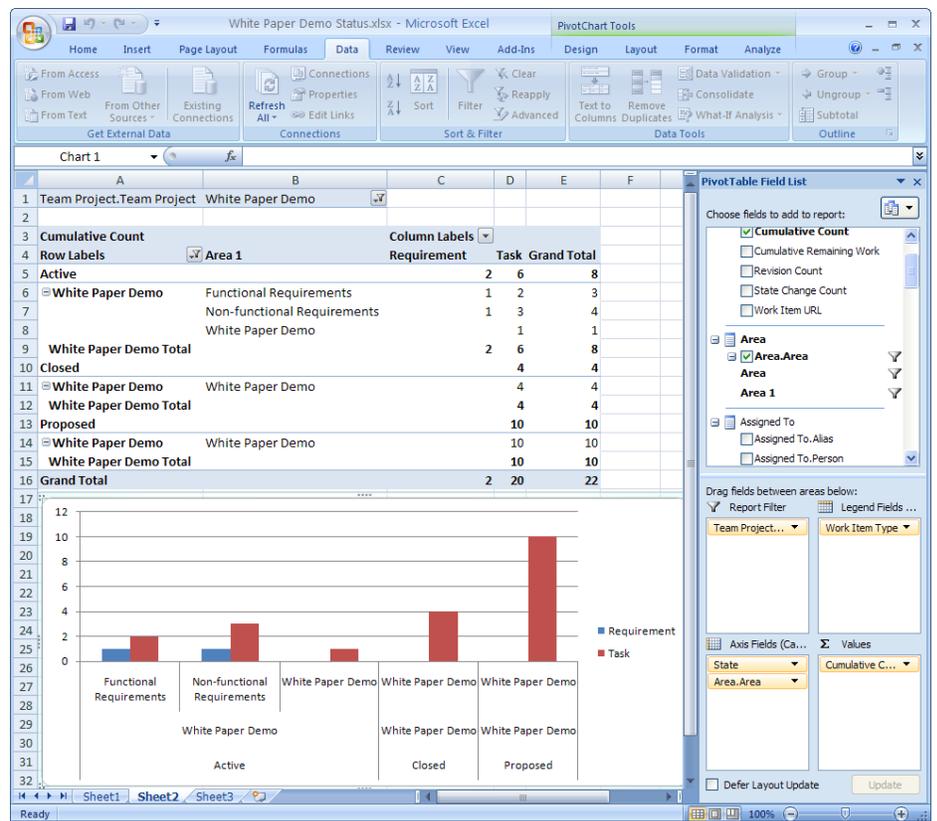


Figure 2. Excel pivot table reporting

Figure 2 shows both a pivot table and pivot chart displaying data associated with the current work items stored in Team Foundation Server. To create this report, all you need to do is connect to the Team Foundation Server cube, select the desired data from the Pivot Table Field List, and organize them according to rows, columns and data fields. In Figure 2, you can see the Cumulative Count of the current work items in each State, which in this case has only Requirements and Tasks. In addition, each State value is broken into the Area in which it is contained. Finally, looking closely, you can see

that the pivot table is filtered on the Team Project name, and only the work items for the White Paper Demo project.

As you can see, Excel is an excellent and familiar tool for working with Team System. It works easily for both for interacting with work items, and for ad-hoc advanced querying.

Using Microsoft Project

Microsoft Project provides the same simplicity of Excel but for project managers. You can import, categorize, allocate resource, schedule and perform other typical project management functions directly from within a familiar tool. Figure 3 shows the same work items as shown in Figure 1 but with precedents and durations to provide an accurate view of the project.

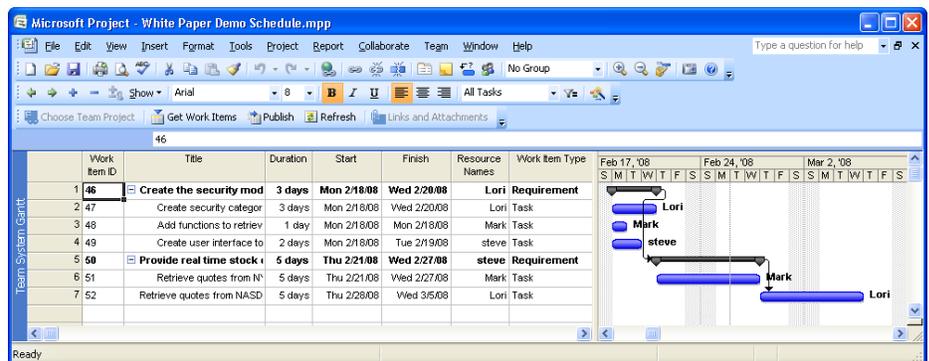


Figure 3. Microsoft Project with active work items

Team System provides many powerful reports and tools for managing a project; however, it doesn't try to replicate the functionality found in other tools. Since Microsoft Project is already a powerful project management tool with the features you would expect from an enterprise tool, Team System leverages those capabilities by providing links into Project. For instance, in the Gantt chart shown in Figure 2, you can graphically see the start and end dates for individual tasks. Using your mouse you can move or extend the bars in Gantt chart, automatically changing the start and end dates. Because this data is stored directly in Team Foundation Server, the start and end date changes are reflected in the task view the developers see inside of Visual Studio. As they continue work on tasks and update the remaining work field (again, inside Visual Studio so it's done without developers having to learn a new tool), the progress on these tasks is viewable inside of Microsoft Project, directly by the project manager.

Like Excel, Microsoft Project is a familiar tool that provides a powerful interface to Team System.

USING THE WEB

It seems like almost everything is moving to the Web these days. Because of that, users are very familiar with browsers such as Internet Explorer and the behavior of applications within a browser. Browsers also enable users to run applications with nothing installed on their local machine, which increases the number of people who have access to Team System data. Team System provides this ubiquitous access via Windows SharePoint Services 3.0 (WSS) and Team System Web Access.

From a team perspective this access does not isolate developers from these changes. That is, changes made in either of these environments are reflected within Visual Studio so the developers are never working with stale information. Likewise, any data that developers enter is available through these Web interfaces, which increased the communication between all members of the team.

Windows SharePoint Services

When it comes to collaboration tools, SharePoint is the standard. It enables for easy document management, sharing and real time collaboration. Users are familiar with it and it requires no training for them to upload, view and edit documents stored on SharePoint. Team System 2008 also enables you to use Microsoft Office SharePoint Server 2007 (MOSS), which provides advanced features.

In addition to document management, SharePoint is also linked to SQL Server Reporting Services (SSRS), which enables users to view Team System reports without having to use SSRS at all! Figure 4 shows the main page for the SharePoint team site.

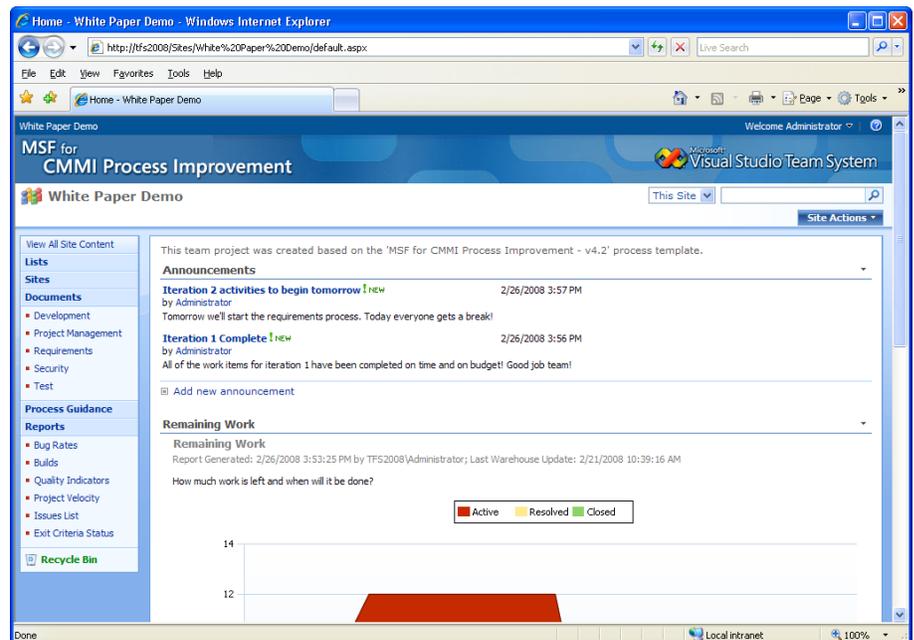


Figure 4 – SharePoint team site

In addition to the integration with Team Foundation Server, users also gain the benefits of SharePoint's native features. Users can be alerted when documents change (such as requirements or project schedules) and create approval workflows for documents such as requirements, functional specifications or test cases! Developers can create custom workflows using Visual Studio, which provides a lot of flexibility in working with requirements, user notes, and other items that may be external to Team System. This ensures that team members always know when documents change and always get the latest version.

Team System Web Access

Team System Web Access provides benefits for the entire team. Team System Web Access enables you to view, edit and create work items, view reports, documents stored on the SharePoint site and the ability to view source code. This tool mimics the functionality of Team Explorer but doesn't require Visual Studio. Figure 5 shows the administrator browsing the All Active Work Items query.

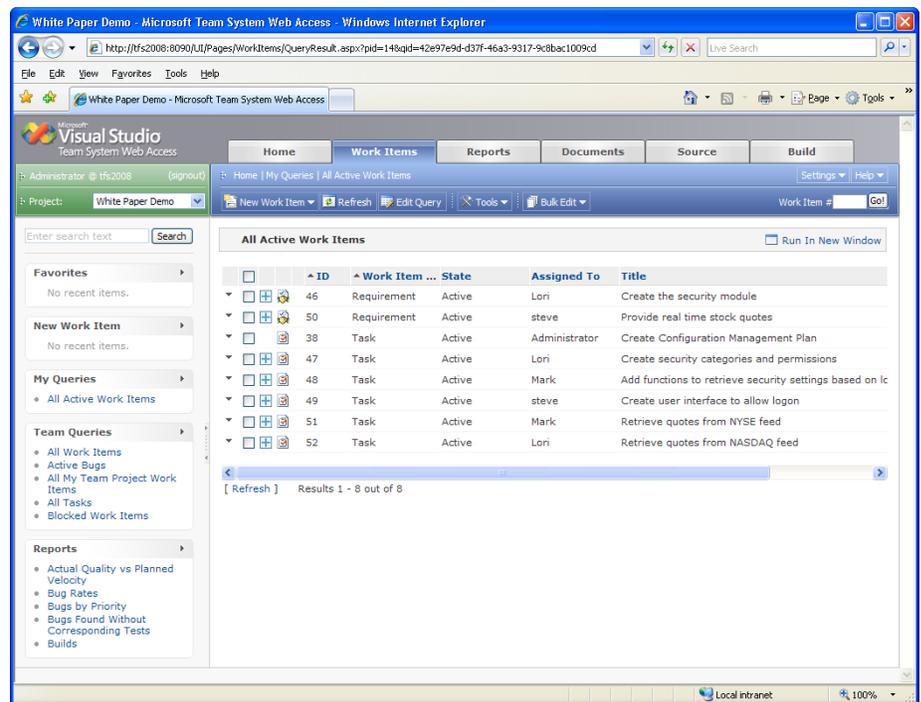


Figure 5. Team System Web Access

This interface provides an easy to use view of a team project, including all work items, reports and documents. As an example, users could easily log onto Team System Web Access to create a new bug based on an issue they found while using the application in production. Figure 6 shows a user adding just such an item!

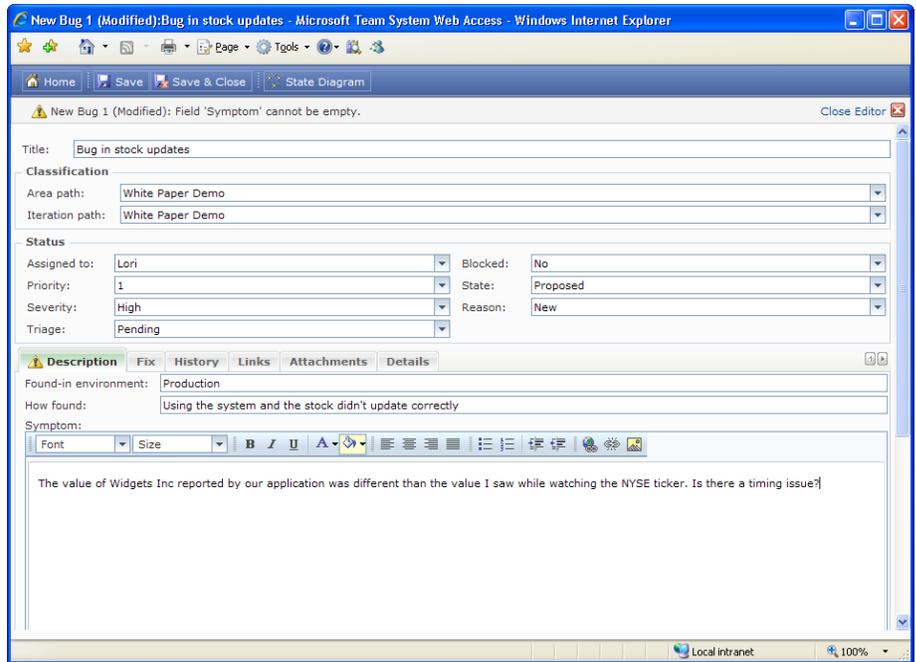


Figure 6. Entering a bug via Team System Web Access

This is especially advantageous because of a licensing change introduced with Team Foundation Server 2008. Now, anybody can enter a bug and track that item to resolution without having a license for Team Foundation Server! This enables users to have greater interaction with, and more timely feedback from, the development team.

CONCLUSION

Team System is a powerful tool that provides insights into the development process and enables efficient, up-to-the-minute communication. However, for all of its power, it provides a level of flexibility which is largely unseen in many enterprise tools. For the non-developer, learning how to leverage Team System to provide information that is important to them is as easy as using tools they already know. This enables quick implementation, adoption, and visible benefits in the shortest time possible.

ABOUT THE AUTHOR

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