



Team Foundation Server 2013

Jason Chan

Developer Evangelist

Microsoft



Agenda

- TFS Overview
- Hardware & OS Requirements
- Application Lifecycle Management
 - **Project Management**
 - Work Item Management
 - Kankan Board view, Team Favorites, Email trigger
 - Team Project Portal
 - **Development**
 - Code Quality Tools – Storyboarding, Code Review, Code Lens, Code Analysis
 - Source Control Management
 - Feedback Client
 - **Reporting**
 - Overview
 - Built in reports

Server OS Requirements

- 64-bit versions of Windows Server 2008 R2 ¹ with SP1 (Standard, Enterprise or Datacenter editions)
- Windows Small Business Server 2011 ¹ with SP1 (Standard, Essentials, or Premium Add-on editions)
- 64-bit versions of Windows Server 2012 (Essentials, Standard or Datacenter editions)
- 64-bit RTM version of Windows Server 2012 R2 (Essentials, Standard or Datacenter editions)

SQL Server Requirements

Regardless of which option you choose, your instance of SQL Server must meet the following requirements:

Supported editions	<ul style="list-style-type: none">• The next version of SQL Server (Express,^{1 2} Standard,¹ and Enterprise editions)• SQL Server 2012 with SP1³ (Express,^{1 2} Standard,¹ or Enterprise Editions)
Required for Team Foundation Server	<ul style="list-style-type: none">• Database Engine Services• Full-Text and Semantic Extractions for Search
Required for reporting	<ul style="list-style-type: none">• Reporting Services – Native• Analysis Services
Collation settings	<ul style="list-style-type: none">• Must be accent sensitive• Must not be case sensitive• Must not be Binary• Must not be Binary - code point <p>For more information, see SQL Server Collation Requirements for Team Foundation Server.</p>
Authentication	Windows authentication
Service account	You can use a domain account or a built-in account.

<http://msdn.microsoft.com/en-us/library/dd631889.aspx>

TFS 2013 Hardware Recommendation

<u>Number of users</u>	<u>Configuration</u>	<u>CPU</u>	<u>Memory</u>	<u>Hard disk</u>
Fewer than 250 users	Single-server (Team Foundation Server and the Database Engine on the same server).	1 single core processor at 2.13 GHz	2 GB	1 disk at 7.2k rpm (125 GB)
250 to 500 users	Single-server.	1 dual core processor at 2.13 GHz	4 GB	1 disk at 10k rpm (300 GB)
500 to 2,200 users	Dual-server (Team Foundation Server and the Database Engine on different servers). This row is for Team Foundation Server.	1 dual core Intel Xeon processor at 2.13 GHz	4 GB	1 disk at 7.2k rpm (500 GB)
	This row is for the Database Engine with 500 to 2,200 users.	1 quad core Intel Xeon processor at 2.33 GHz	8 GB	SAS disk array at 10k rpm (2 TB)
2,200 to 3,600 users	Dual-server. This row is for Team Foundation Server.	1 quad core Intel Xeon processor at 2.13 GHz	8 GB	1 disk at 7.2k rpm (500 GB)
	This row is for the Database Engine with 2,200 to 3,600 users.	2 quad core Intel Xeon processors at 2.33 GHz	16 GB	SAS disk array at 10k rpm (3 TB)

<http://msdn.microsoft.com/en-us/library/dd578592.aspx>

Team Foundation Server 2013



Plan

- ✓ Agile Project Management
- ✓ Kanban Board
- ✓ Work item tagging
- ✓ Work item charting



Operate

- ✓ Visual Studio and System Center integration
- ✓ Performance events



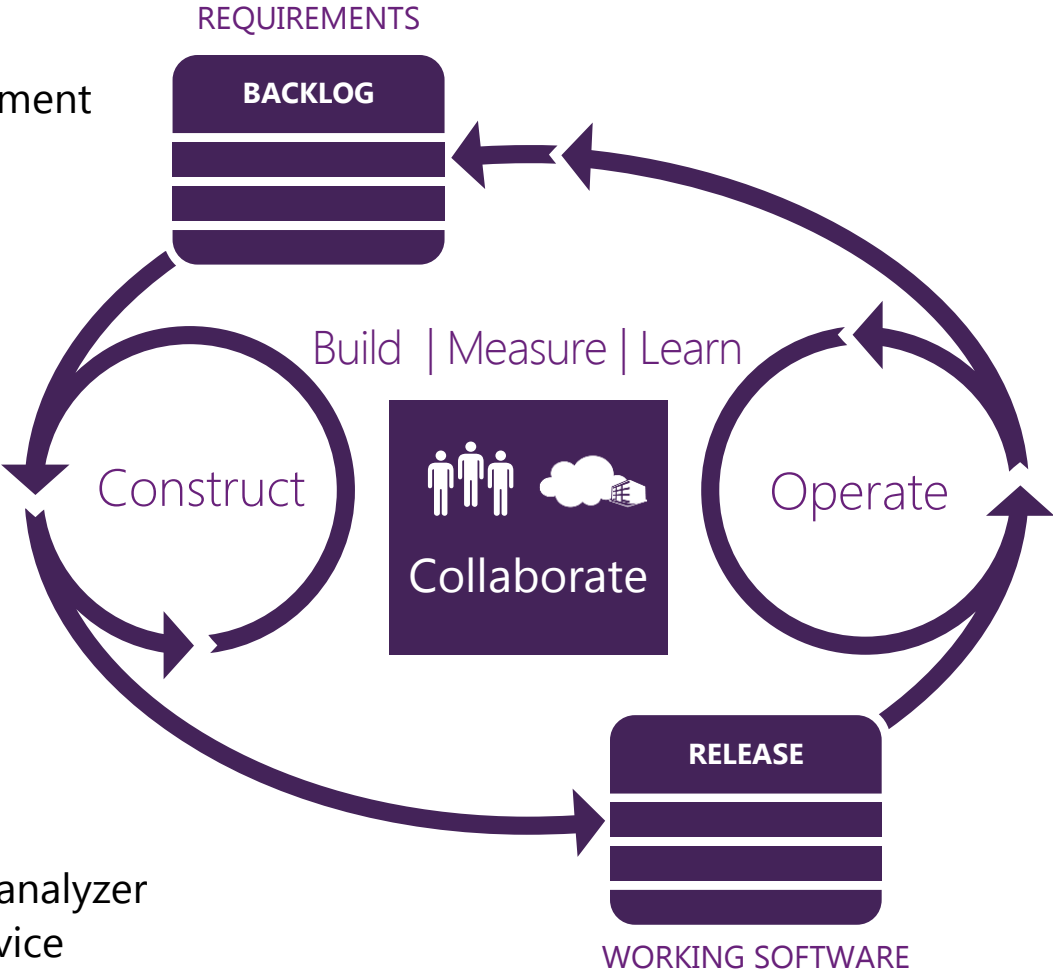
Develop

- ✓ Team Room
- ✓ Git
- ✓ CodeLens
- ✓ .NET memory dump analyzer
- ✓ Load testing as a service



Release

- ✓ Integrated release management
- ✓ Configuration-based deployments



Team foundation server 2013

- Tightly integrated with Visual Studio 2013
- Built on:
 - Windows SharePoint Foundation
 - SQL Server 2008/2012
 - SQL Server Reporting Services, Analysis Services

Team Foundation Server



Logical Application Tier

Web services for team project collections

Version Control

Build Service (ASP.NET worker process)

Lab Management

Work Item Tracking

Team Foundation Framework Services

VMM Administration

Administrative Tools

Application Web Services

Test Controller

Team Foundation Job Service

Core Framework Services

Supporting Framework Services

ASP.NET

Team Foundation VROOT

Internet Information Services

supported Windows operating system



Logical Data Tier

Configuration Database (TFS_Configuration)

Warehouse Database (TFS_Warehouse)

Analysis Database (TFS_Analysis)

Team Project Collection Databases

supported SQL Server

File System

supported Windows operating system

TFS Databases

Database Name and Description

TFS_Configuration This database stores the catalog of resources and the configuration information for Team Foundation Server. This database contains the operational stores for Team Foundation Server.

TFS_Warehouse This database stores the data for reports.

TFS_Analysis This multi-dimensional database stores the aggregated data from team project collections.

Databases for team project collections One database for each team project collection, containing data from all team projects in that collection.

Team Foundation Server 2013

- Full suite of integrated ALM capabilities
 - Work Item Tracking
 - Source Control
 - Feedback Support
 - Code Review
 - Collaboration/Knowledge Sharing
 - Project Tracking/Reporting
 - Project Dashboards
 - Build Management
 - Continuous Integration
 - Test Lab Management
 - Team Room
 - Code Lens

Conflicting Priorities



Changing requirements and shifting priorities

Poor communication, long delivery cycles, rework, context switching, and customer dissatisfaction



Backlog and task management tools

Streamlined tool for creating, prioritizing and managing user requirements and tasks

Demonstration & Labs

- Team Web Access
- Working with workitems
- Planning your Projects with team foundation server 2013

Team Web Access (TFS)

The screenshot displays the Team Web Access (TFS) interface. At the top, there are navigation tabs for HOME, WORK, SOURCE, and BUILD. A search bar for work items is located in the top right corner. Below the navigation, there are buttons to add new items: '+ Product Backlog Item', '+ Task', '+ Bug', and a 'more' dropdown menu. The main content area is divided into several sections:

- Sprint 3 (May 07 - May 18):** Shows a progress bar for 39 of 42 hours and a Burndown chart. Below this, it indicates 'Backlog items: 3 in progress'.
- TEAM FAVORITES:** A grid of seven tiles:
 - Dev: 11 recent changes
 - Nightly Fabrikam (Dev): Completed 16 hours ago, with a build definition chart.
 - Product Backlog: 9 work items
 - Sprint Backlog: 20 work items
 - Feedback: 2 work items
 - My Code Reviews: 1 work item
 - All Bugs: 3 work items
- ACTIVITIES:** A list of actions:
 - View backlog
 - View board
 - View work items
 - Request feedback
 - Go to project portal
 - View process guidance
 - View reports
 - Open new instance of Visual Studio
- MEMBERS (4):** A list of team members with their profile pictures:
 - Annie Herriman
 - Brian Keller
 - Cameron Skinner
 - Julia IlyianaA link 'Manage all members...' is provided below the list.
- ADMINISTRATION:** Two links:
 - Configure schedule and iterations...
 - Configure work areas...

Project Management

Sprint 3 May 07 - May 18
3 work days remaining

[contents](#) [capacity](#) work details on

| [Create Backlog Query](#) | [Column Options](#)

	Effort	Title	State
	8	Customer should see weather-related outages on portal.	Approved
	10	▶ Technician can see service tickets on Windows Phone.	Done
	8	▶ Technician can report busy/late on Windows Phone.	Done
	8	▸ Technician can send GPS location from Windows Phone.	Committed
		Review new feature with technician early adopters.	In Progress
		Create UI for new feature.	Done
		Write code to get GPS location and resolve to address.	In Progress
		Design implementation of feature.	In Progress
	5	▸ Customers with Canadian addresses not displaying properly.	Committed
		Fix UI to display Canadian addresses.	In Progress
		Update stored procedures to return Canadian addresses.	To Do
	10	▸ Technician can edit customer contact details on Windows Phone.	Committed
		Review implementation with privacy policy team.	To Do
		Create UI for looking up customer details.	To Do
		Design implementation of feature.	To Do

Work ▼

Team (39 of 42 h)

Work By: Activity ▼

Unassigned (39 of 42 h)

Work By: Assigned To ▼

Annie Herriman (6 of 9 h)

Brian Keller (12 of 12 h)

Cameron Skinner (15 of 15 h)

Julia Ilyiana (6 of 6 h)

Board view by Task

	TO DO 3 h	IN PROGRESS 15 h	DONE
Customer should see weather-related outages on portal. + 2 h		<div>Consume OData feed for weather alerts 1 Cameron Skinner</div> <div>Create UI for alerts 1 Annie Herriman</div>	
Technician can see service tickets on Windows Phone. +			<div>Review application design with technicians. Julia Ilyiana</div> <div>Design application workflow. Brian Keller</div> <div>Create Windows Phone 7 app. Cameron Skinner</div> <div>Submit application to Marketplace. Annie Herriman</div>
Technician can report busy/late on Windows Phone. +			<div>Review feature with technician early adopters. Julia Ilyiana</div> <div>Implement feature in app and wire up to back-end database. Cameron Skinner</div> <div>Create UI for feature. Annie Herriman</div> <div>Design implementation of feature. Brian Keller</div>

Team member view

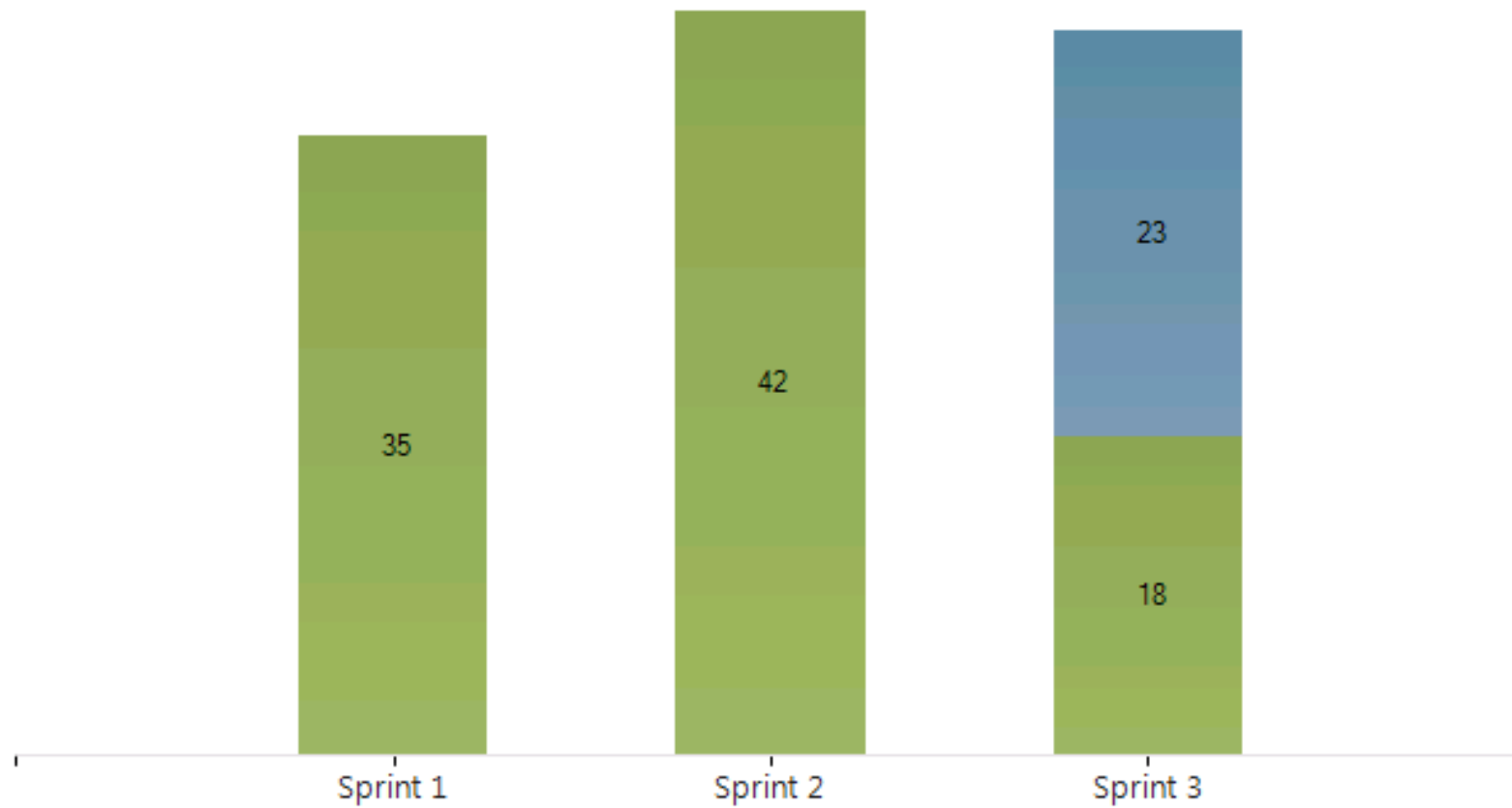
Sprint 3

backlog items **team members**

	TO DO 3 h	IN PROGRESS 13 h
▲ Annie Herriman 2 h		<div data-bbox="1454 582 1768 772">Create UI for alerts 1 Annie Herriman</div> <div data-bbox="1791 582 2089 772">Fix UI to display Canadian addresses. 1 Annie Herriman</div>
▲ Brian Keller 5 h		<div data-bbox="1454 1062 1768 1252">Design implementation of feature. 5 Brian Keller</div>

Velocity Chart

VELOCITY



Forecasting

Forecasting based on velocity of **10**

Forecast	Order	Title	State	Effort
▼ Sprint 4	1	Customer should see weather-related outages on portal.	Approved	8
	2	Service rep can view service ticket details from the dashboard	New	8
Sprint 5	3	Technician can check on parts orders on Windows Phone.	New	3
Sprint 6	4	Technician can look for closest hardware store from Windows Phone.	New	3
	5	Technician can submit invoices on Windows Phone.	New	16
	6	Customer can view service invoices online.	New	4
	7	Customer can pay invoices online.	New	24
	8	Customer can opt-in/opt-out of paper billing.	New	8

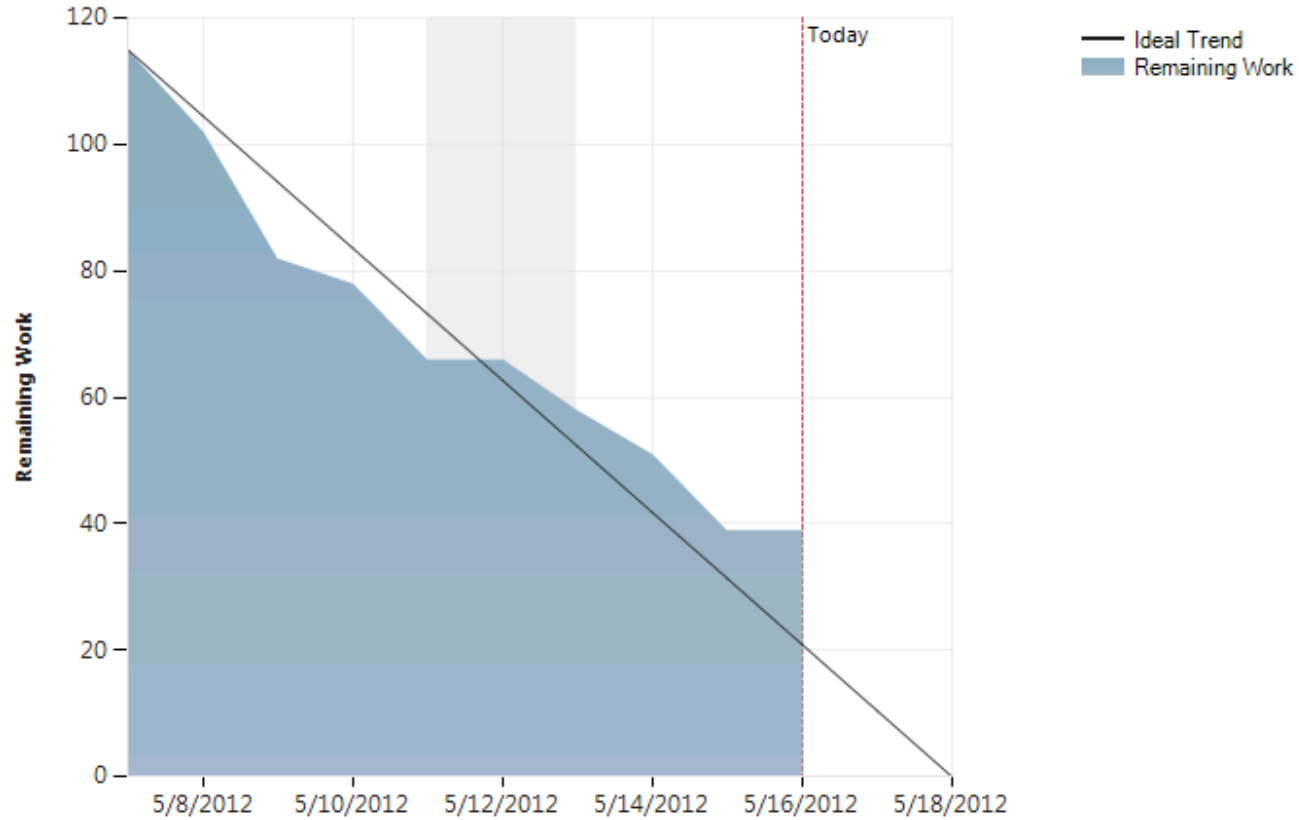
Forecasting (Cont'd)

Forecasting based on velocity of 35

Forecast	Order	Title	State	Effort
▼	1	Customer should see weather-related outages on portal.	Approved	8
	2	Service rep can view service ticket details from the dashboard	New	8
	3	Technician can check on parts orders on Windows Phone.	New	3
Sprint 4	4	Technician can look for closest hardware store from Windows Phone.	New	3
	5	Technician can submit invoices on Windows Phone.	New	16
	6	Customer can view service invoices online.	New	4
Sprint 5	7	Customer can pay invoices online.	New	24
Sprint 6	8	Customer can opt-in/opt-out of paper billing.	New	8

Burndown Chart

BURNDOWN FOR: SPRINT 3



The developer features

- Team Explorer
- Work Item Tracking
- Source Control Explorer
- Storyboarding, Code Review, Feedback
- Code Lens, Code Metrics

General

Trigger

Workspace

Build Defaults

Process

Retention Policy

Select one of the following check-in triggers:

- Manual - Check-ins do not trigger a new build
- Continuous Integration - Build each check-in
- Rolling builds - accumulate check-ins until the prior build finishes
- Build no more often than every minutes.
- Gated Check-in - accept check-ins only if the submitted changes merge and build successfully
- Merge and build up to submissions.
- Schedule - build every week on the following days
- Monday Tuesday Wednesday Thursday
- Friday Saturday Sunday

Queue the build on the build controller at:

Pacific Standard Time (GMT -08:00)

- Build even if nothing has changed since the previous build

Misunderstood Requirements



Requirements don't reflect customer intent

Rework, long delivery cycles and frustration



Storyboarding tool

Graphical mockups in new PowerPoint add-on reduce misunderstandings and clarify intent



Feedback Client

Stand-alone tool provides comprehensive feedback on any artifact, including story boards, directly to the development team

Requirement Gathering

FF Storyboard - Start - Microsoft PowerPoint

File Home Insert Design Transitions Animations Slide Show Review View **Storyboarding**

New Slide Slides Create Layout Edit Layout Add Shapes Layouts Update My Shape Import Shapes Export My Shapes Shapes Add to My Shapes Picture Screenshot Shapes Hyperlink Insert Text Arrange Storyboard Links Team Storyboarding Help Help

Slides Outline

- 1
- 2
- 3
- 4
- 5
- 6

Create

//intranet.fabrikam.com/Customer/Create

FABRIKAM FIBER
Support

Dashboard Tickets Customers Employees Reports

Profile Create

Drew Robbins

Alerts: 5
Tickets: 3

[My Tickets](#)
[My Profile](#)
[Schedule](#)

Customer

First Name

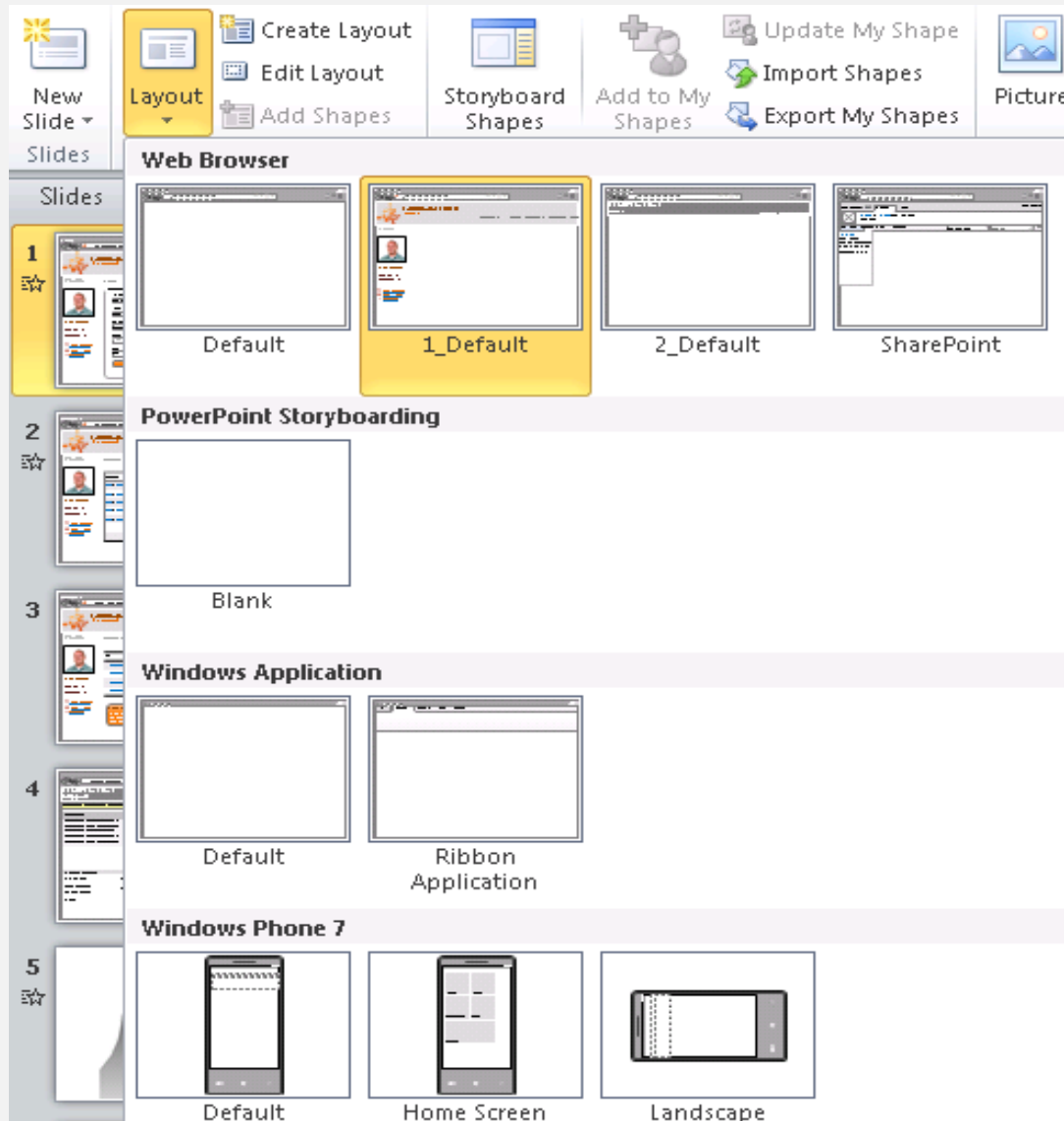
Last Name

Street

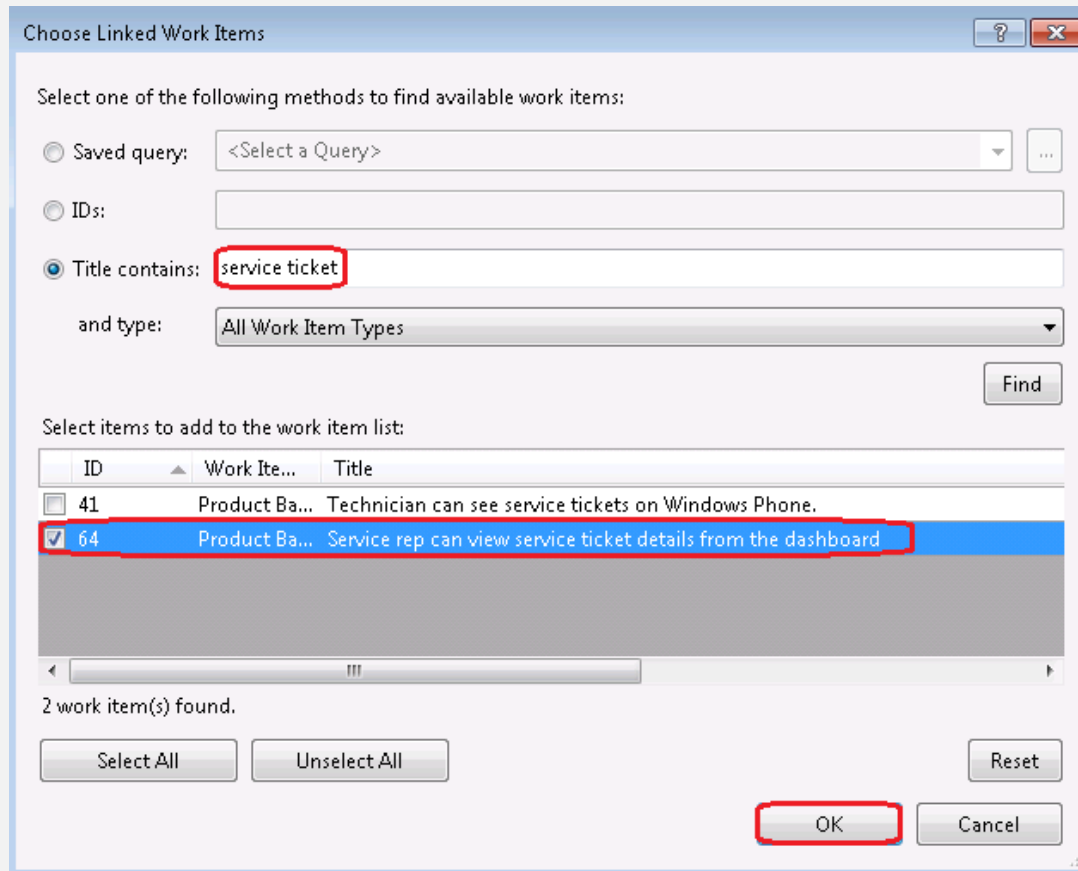
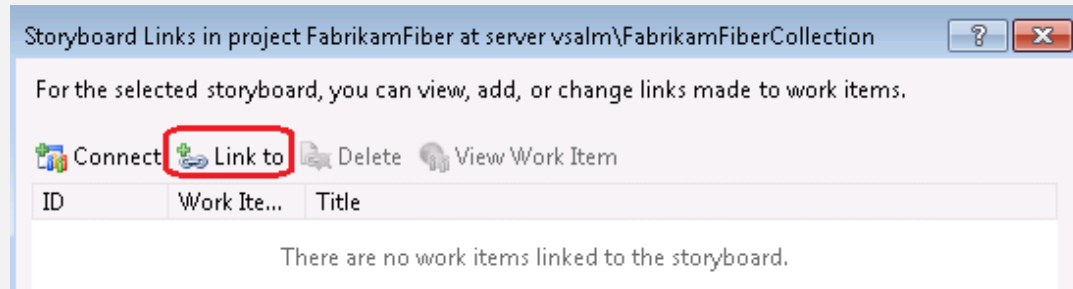
City

Zip

Create Own Shapes & Layout



Link back to Work Item



Unmet User Expectations



Problem

Delivered code fails to satisfy users

Failure to meet user needs, rework, long delivery cycles and customer dissatisfaction



Solution

Exploratory testing

Ad-hoc exploratory tests help uncover usability and consistency issues, and result in actionable bugs and reusable test cases



Solution

Feedback Client

Stand-alone tool provides comprehensive feedback in-progress work, directly from users to the development team

Request / Provide feedback

Team Foundation Server 2012 / FabrikamFiber Annie Herriman Help

HOME WORK SOURCE BUILD Search work items

overview

+ Product Backlog Item + Task + Bug more

Sprint 3
May 07 - May 18
39 of 42 h
Backlog items: 3 in progress

Burndown

TEAM FAVORITES

ACTIVITIES

- View backlog
- View board
- View work items
- Request feedback
- Go to project portal
- View process guidance
- View reports
- Open new instance of Visual Studio

REQUEST FEEDBACK

Request stakeholders to provide feedback on an application that your team has built or plans to build.

1 Select Stakeholders
The people you select will receive an email request that includes a link to launch Microsoft Feedback Client, the tool stakeholders use to provide feedback.

Brian Keller x

Display Name or Domain\Username browse check name

2 Tell Stakeholders How to Access the Application
Microsoft Feedback Client will display a link to launch the specified application and your exact instructions, which might include login credentials, specific navigations steps to follow, or general context of the application to review.

Web Application Remote Machine Client Application

http://intranet.fabrikam.com

Please use IE9 or higher

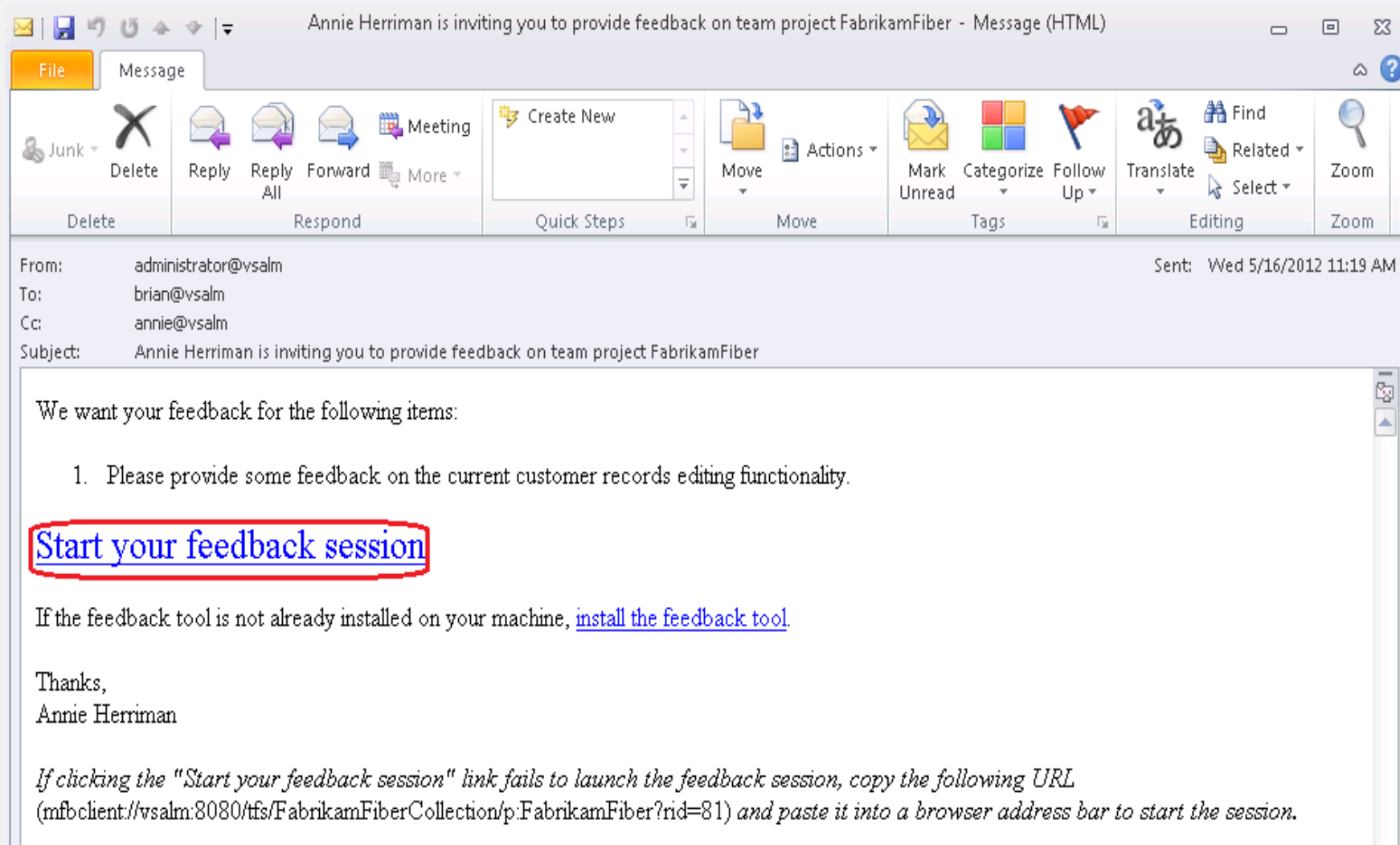
3 Tell Stakeholders How to Focus Their Feedback
Scope the feedback request to only the areas of the product you care about. You can request feedback on one to five items.

Item: 1 Please provide some feedback on the current customer records editing functionality.

Go to intranet portal, click on Customer link, then Edit link for any customer.

Back Preview Send

Request sent by email



Feedback Client

The screenshot shows the 'Start' screen of the Feedback Client. At the top, there are three navigation buttons: 'Start' (highlighted in blue), 'Provide', and 'Submit'. Below the navigation bar, the text reads: 'LAUNCH Follow the instructions below to launch the application to provide feedback on.' Under the 'APPLICATION' section, the URL 'http://intranet.fabrikam.com' is displayed and circled in red. The 'INSTRUCTIONS' section contains the text 'Please use IE9 or higher.' At the bottom, there is a 'Next' button and the instruction 'Click Next after you have launched the application.'

The screenshot shows the 'Provide' screen of the Feedback Client. At the top, the navigation buttons are 'Start', 'Provide' (highlighted in blue), and 'Submit'. Below the navigation bar, it says 'ITEM: 1'. The main text reads: 'Please provide some feedback on the current customer records editing functionality. Go to intranet portal, click on Customer link, then Edit link for any customer.' Below this is a toolbar with options: 'Screen with Voice', 'Voice only', 'Screen only', 'Screenshot', and 'Attach file'. The 'Record' and 'Attach' buttons are visible. Below the toolbar, it says 'Not recording' and 'Stop'. A text input field contains the feedback: 'We need to provide a way to update customer phone numbers.', which is circled in red. Below the input field is a star rating system with five stars. At the bottom, there are 'Previous' and 'Next' buttons.

Providing Feedback

The screenshot shows a feedback form titled 'Provide'. At the top, there are navigation buttons: 'Start', 'Provide' (highlighted in blue), and 'Submit'. Below the navigation, it says 'ITEM: 1'. The main text asks the user to provide feedback on current customer records editing functionality and provides instructions: 'Go to intranet portal, click on Customer link, then Edit link for any customer.' Below this is a toolbar with icons for 'Screen with Voice', 'Voice only', 'Screenshot', and 'Attach file'. A 'Record' button is also visible. Below the toolbar, it says 'Not recording' and 'Stop'. A text input field contains the text 'We need to provide a way to update customer phone numbers.', which is highlighted with a red box. Below the input field is a star rating system with five stars. At the bottom, there are 'Previous' and 'Next' buttons.

The screenshot shows the 'Submit' step of the feedback process. At the top, there are navigation buttons: 'Start', 'Provide', and 'Submit' (highlighted in blue). Below the navigation, it says 'THANK YOU' and 'We appreciate the time you took to provide us feedback.' Below this is a green checkmark icon followed by the text: 'Please provide some feedback on the current customer records editing functionality. We need to provide a way to update customer phone numbers.' Below this text is a star rating system with five stars, where the first four are filled and the fifth is empty. Below the stars is a 'review feedback' link. Below this is the text: 'Your feedback will be saved to: Server: vsalm\FabrikamFiberCollection Project: FabrikamFiber'. At the bottom, there are 'Previous' and 'Submit and Close' buttons, with the latter highlighted with a red box.

New Feedback

FabrikamFiber

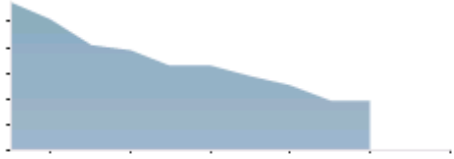
+ Product Backlog Item + Task + Bug more ▾

Sprint 3
May 07 - May 18

39 of 42 h

Backlog items: 3 in progress

Burndown



TEAM FAVORITES

Dev 7 recent changes	Nightly Fabrikam (Dev) Completed 12 hours ago ✓ build definition	Product Backlog 9 work items	
Sprint Backlog 20 work items	Feedback 3 work items	My Code Reviews 1 work items	All Bugs 3 work items

Reviewing User Feedback

Feedback 3 work items (1 selected)

results editor work item pane bottom

Column Options

ID	Title	State	Created By	Rating
75	Feedback Response from Cameron Skinner for Does the UI look customer ready?	Active	Cameron S...	2 - Fair
76	Feedback Response from Cameron Skinner for Does the Solution Center provide...	Active	Cameron S...	3 - Good
81	Feedback Response from Annie Herriman for Please provide some feedback on th...	Active	Annie Herr...	4 - Very G...

Feedback Response 82: Feedback Response from Annie Herriman for Please provide some feedback on the curre...

Feedback Response from Annie Herriman for Please provide some feedback on the current customer records

NOTES | STORIES | SYSTEM INFO | ALL LINKS | ATTACHMENTS | HISTORY

Stakeholder Comments

B / U | [List] | [Link] | [Image] | [Close] | [Send]

We need to provide a way to update customer phone numbers.

Customer

First Name:

Last Name:

Street:

City:

State:

Zip:

STATUS

Created By: Annie Herriman

Assigned To: Annie Herriman

State: Active

Rating: 4 - Very Good

CLASSIFICATION

Area: FabrikamFiber

Iteration: FabrikamFiber\Release 1\Sprint 3

Code Review

Peter requests a code review

Team Explorer - My Work | TestScrum

Request Review | Finish | Actions

23 - Fix paid invoice flagged as not paid

2 edit(s) | View Changes

New Code Review | TestScrum

2 edit(s) | View Changes

Select one or more reviewers to review your changes and enter a comment for them if appropriate

Add Recent Reviewers

- Adam Barr (Fabrikam)
- Julia Ilyina (Fabrikam)

Enter the name of a reviewer <0>

Add Reviewer | Press Enter to add th

Code Review for Task 23: Fix paid invoice flagged as not paid

TestScrum

EqualTo now allows for rounding

Submit Request Cancel

Adam declines the code review request

My Work | TestScrum

Code Review | TestScrum

Code Review for Task 23: Fix paid invoice flagged as not paid Requested by Peter Waxman (Fabrikam).

Send Comments Send & Finish | View Shelveset |

Actions

You can **Accept** or **Decline** to let the requestor know whether you will do the code review.

Too busy, sorry. Julia can cover this

Decline Cancel

Reviewers (2)

Add Reviewer

- Adam Barr (Fabrikam) - Requested
- Julia Ilyina (Fabrikam) - Accepted

In Progress Work

Suspend Request Review | Finish | Actions

Drag a work item here to get started.

Suspended Work

Resume | Merge with In Progress

No suspended work.

Available Work Items

Start | New | Open Query | All Iterations

No work items.

Code Reviews (1)

My Code Reviews & Requests | Open Query

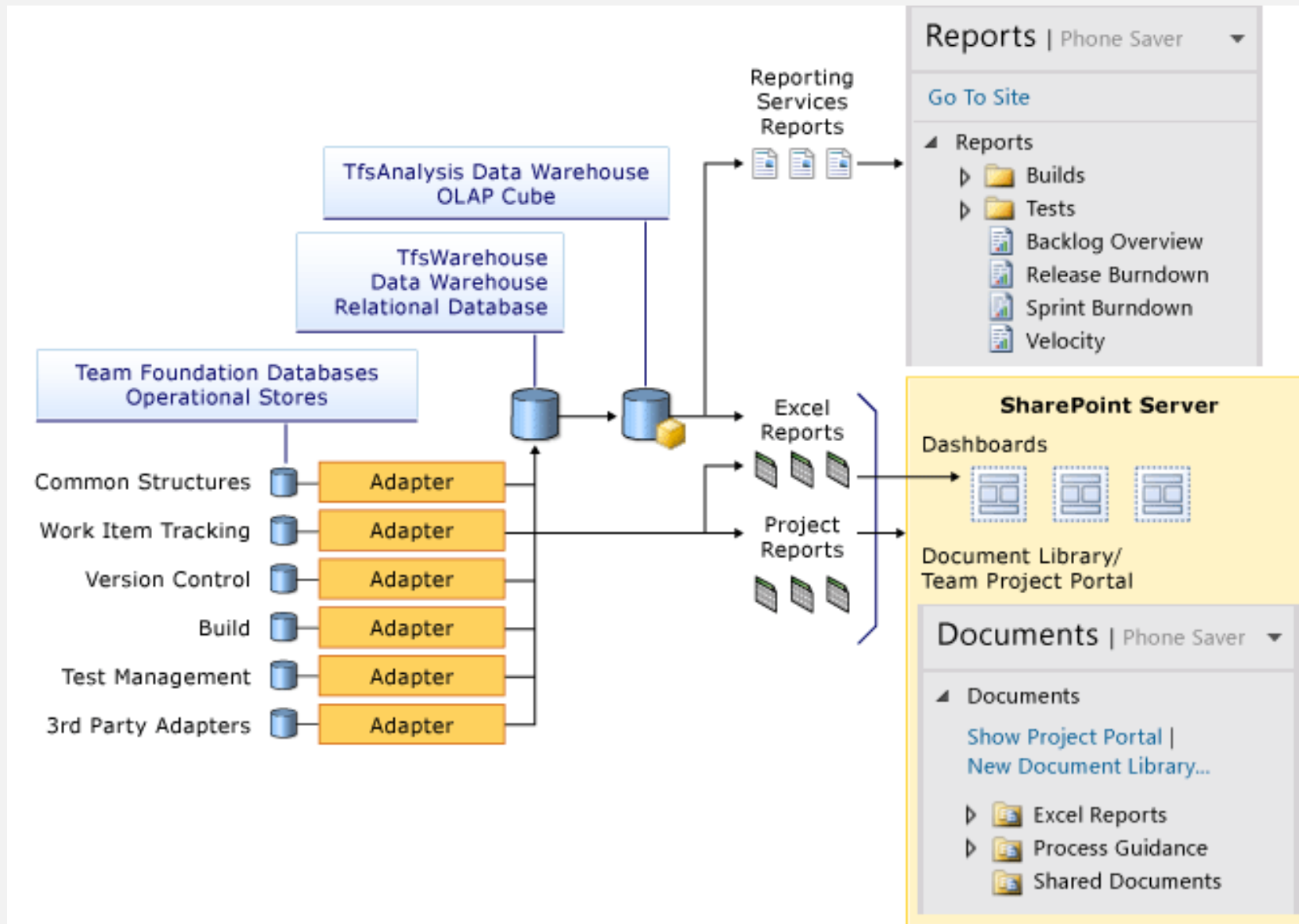
Peter Waxman (Fabrikam): 14 - Code review for...

Manager Perspective

- Team Web Access
- Team Project Portal
- Excel & Project Integration
- Reporting
- Team Room

TFS Reporting

TFS Reporting

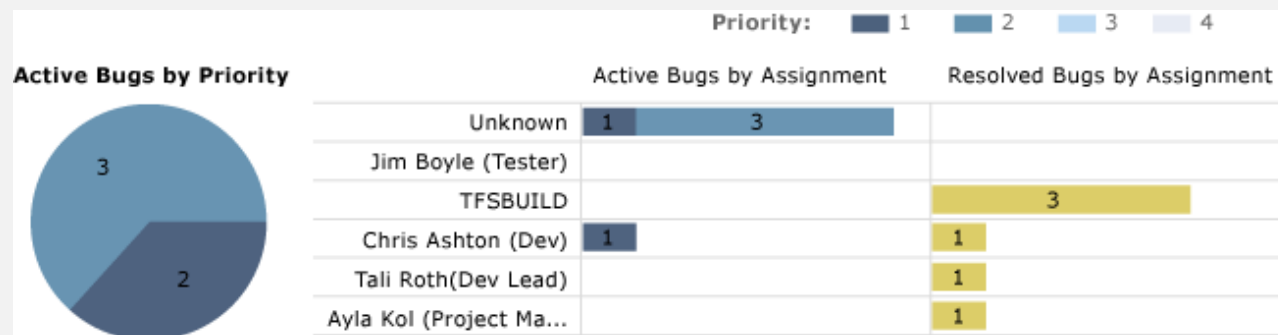
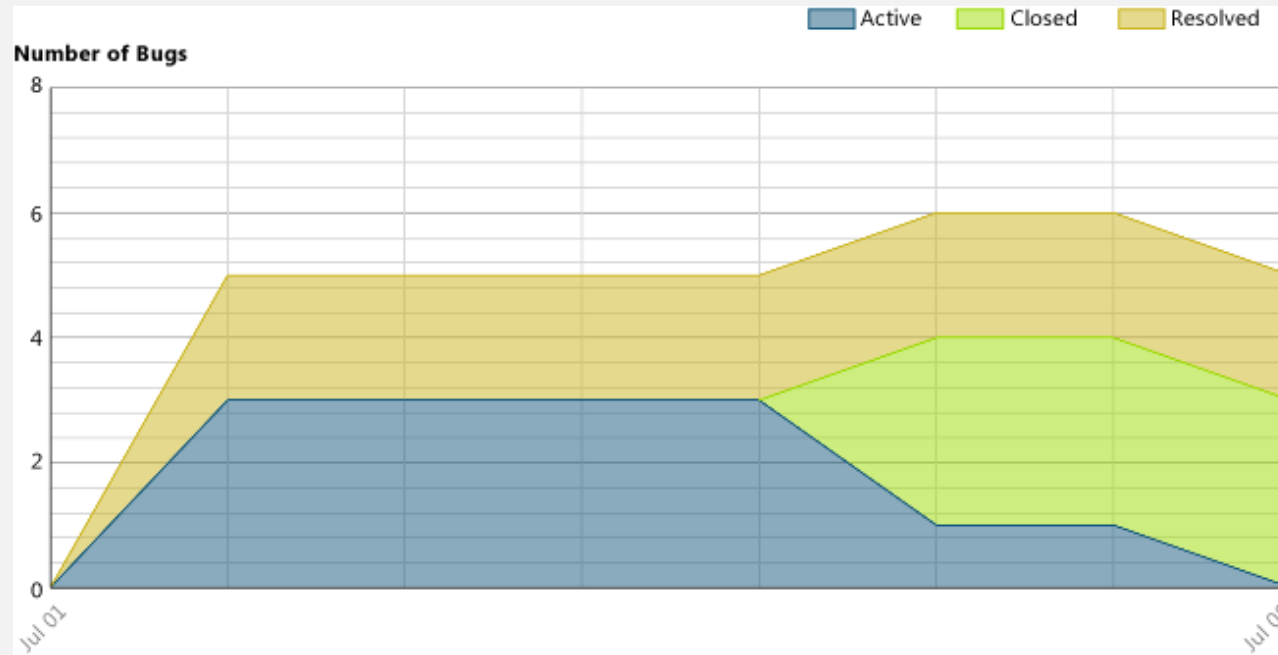


Tasks	Report names and related topics
<p>Monitor bug activity, reactivations, and trends. You can use bug reports to track the bugs that the team is finding and the progress that the team is making toward fixing them.</p>	<ul style="list-style-type: none"> • Bug Status Report • Bug Trends Report • Reactivations Report
<p>Monitor build activity, success, and trends. You can use build reports to track the quality and success of your team's builds over time.</p>	<ul style="list-style-type: none"> • Build Quality Indicators Report • Build Success Over Time Report • Build Summary Report
<p>Track project health, team burn rate, and story and task completion. You can use the Requirements Progress report to review the level of effort that the team has spent on each user story that the team is implementing. By using this report, you can quickly determine whether any work was recently completed on each story and what work is remaining. You can use the Requirements Overview report to help you track how far each user story has been implemented and tested. You can review this report daily or weekly to monitor the progress of the team during an iteration.</p>	<ul style="list-style-type: none"> • Burndown and Burn Rate Report (CMMI) • Remaining Work Report • Status on All Iterations Report • Requirements Progress Report (CMMI) • Requirements Overview Report (CMMI)
<p>Determine added work. You can use the Unplanned Work report to determine how much work the team added to an iteration after it started.</p>	<ul style="list-style-type: none"> • Unplanned Work
<p>Monitor testing activity. You can use the test reports to track the team's progress toward developing Test Cases and to determine how well they cover the Requirements.</p>	<ul style="list-style-type: none"> • Test Case Readiness Report • Test Plan Progress Report

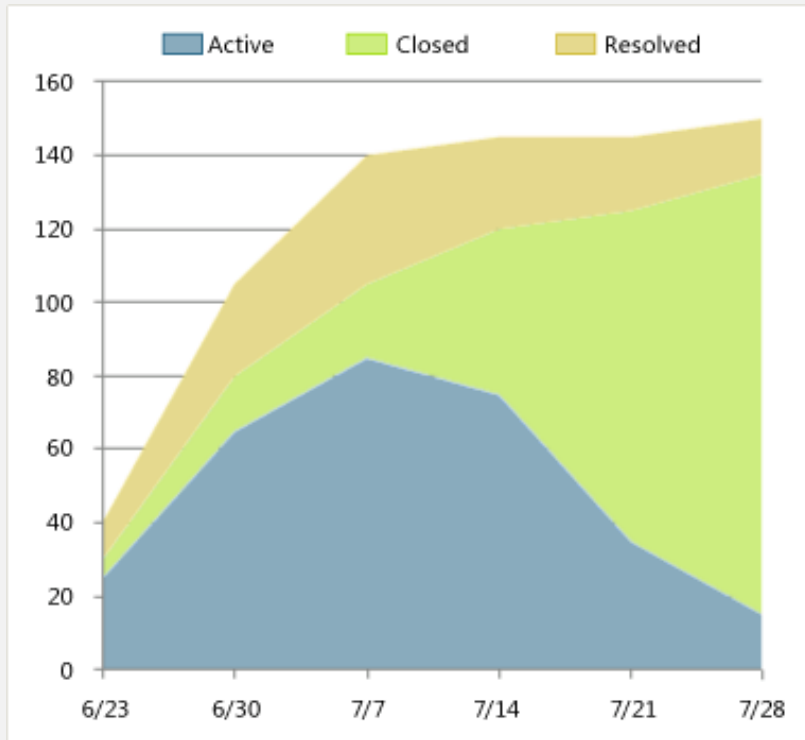
Monitor bug activity, reactivations, and trends

- Is the team fixing bugs quickly enough to finish on time?
- Is the team fixing high priority bugs first?
- What is the distribution of bugs by priority and severity?
- How many bugs are assigned to each team member?

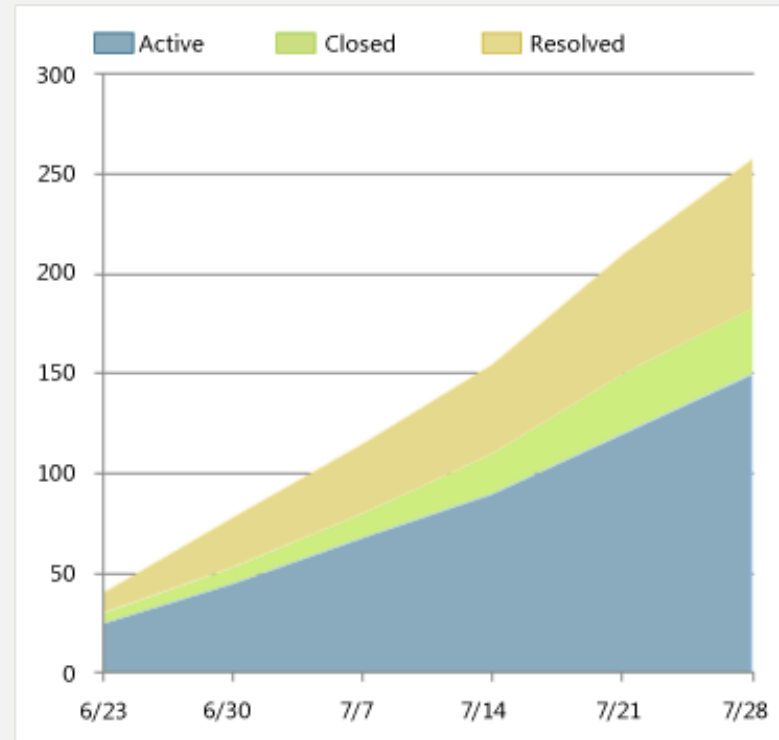
Bug Status Report



Information	Description
Number of Bugs	A visual representation of the cumulative count of all bugs, grouped by their state.
Active Bugs by Priority/Severity	A pie chart that depicts the number of bugs that are still active, grouped by priority or severity.
Active Bugs by Assignment	A horizontal bar chart with the total count of bugs that each team member has assigned to them in the active state, grouped by priority or severity.
Resolved Bugs by Assignment	A horizontal bar chart with the total count of bugs that each team member has assigned to them in the resolved state, grouped by priority or severity.



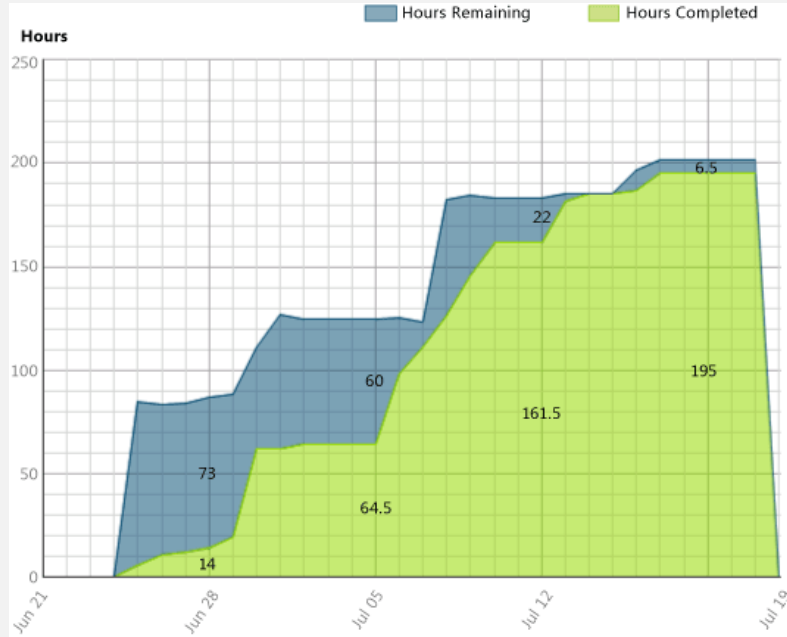
Healthy



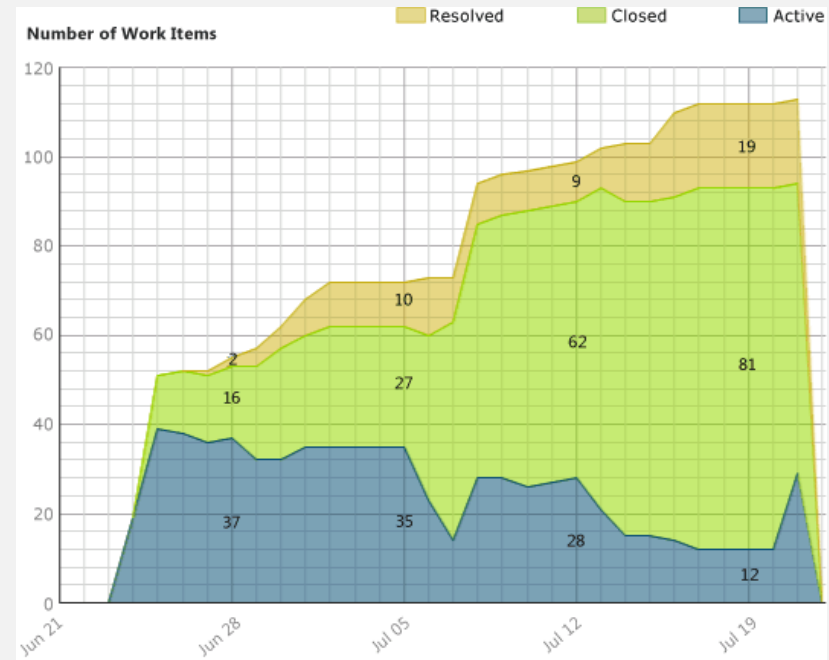
Unhealthy

Track project health, task

- What is the cumulative flow of work?
- Is the team likely to finish the iteration on time?
- Is the amount of work or number of work items in the iteration growing?
- Does the team have too much work in progress?
- How is the team doing in estimating work for the iteration?

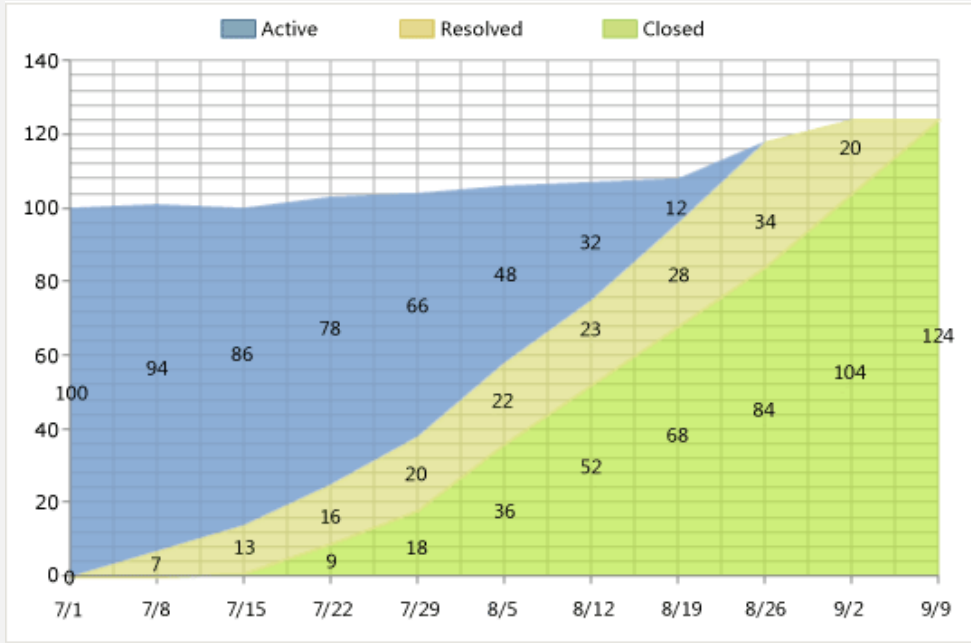


Hours of work

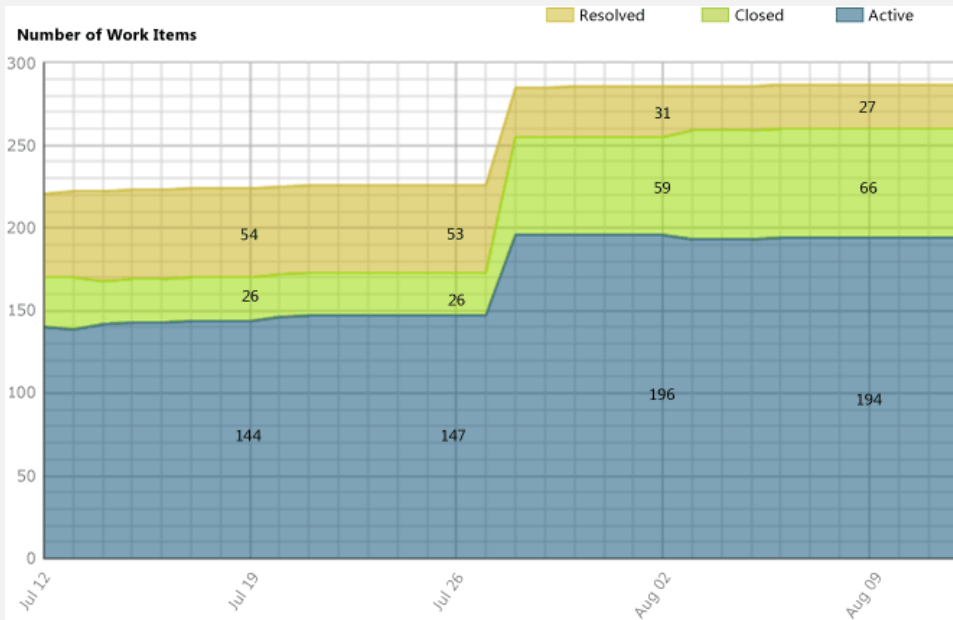


Of Work Items

Hours	Number of Work Items
<ul style="list-style-type: none">• Hours Remaining: The cumulative value of all remaining hours for all tasks.• Hours Completed: The cumulative value of all completed hours for all tasks.	<ul style="list-style-type: none">• Active: The cumulative value of all stories, tasks, and bugs that are in the Active (blue) state.• Resolved: The cumulative value of all stories or bugs and that are in the Resolved (gold) state.• Closed: The cumulative value of all stories, tasks, and bugs in the Closed (green) state.

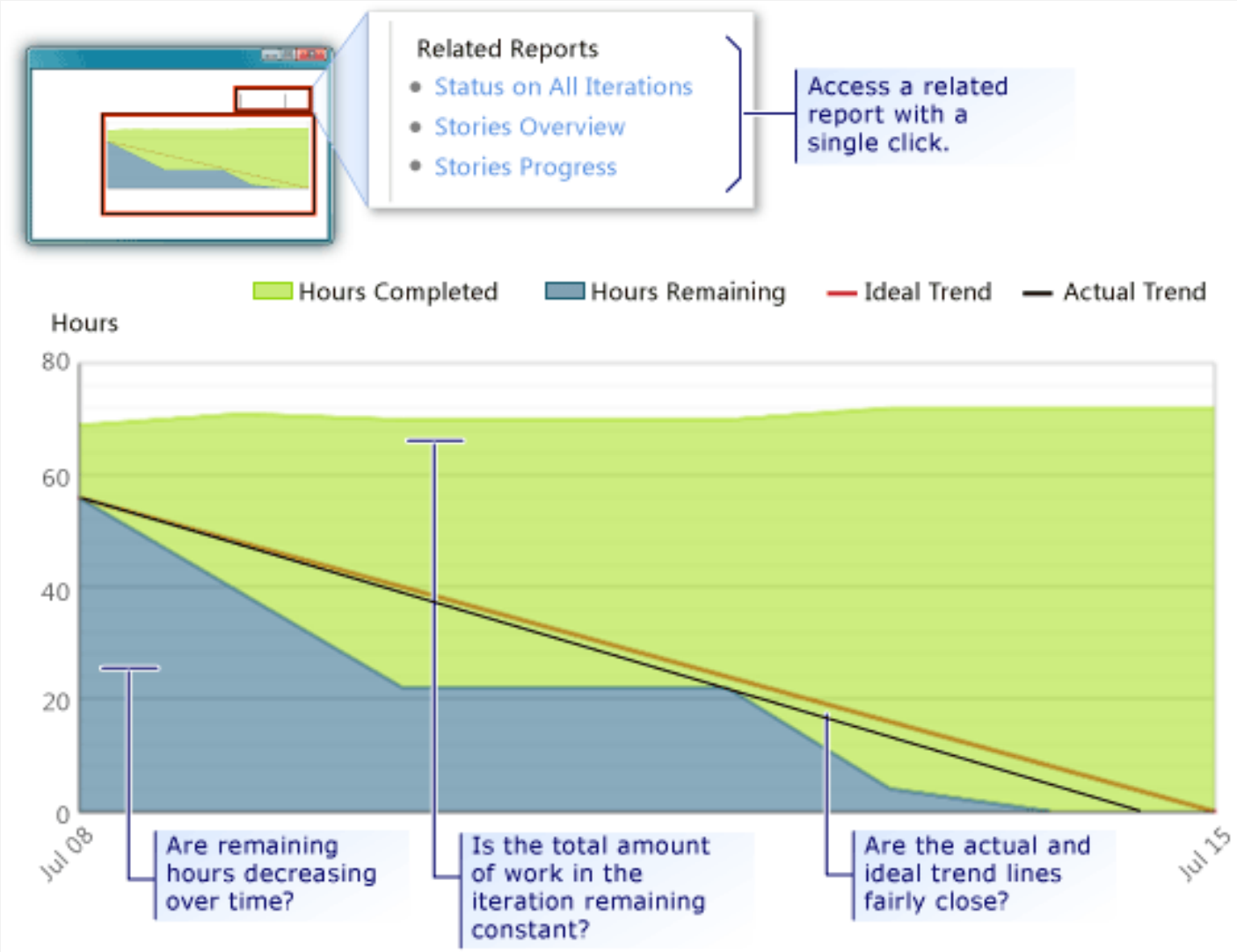


Healthy



Unhealthy

Burn down rate



Build reports

- What is the status of all builds over time?
- Which builds succeeded?
- Which builds have a significant number of changes to the code?
- How much of the code was executed by the tests?
- Which builds are ready to install?

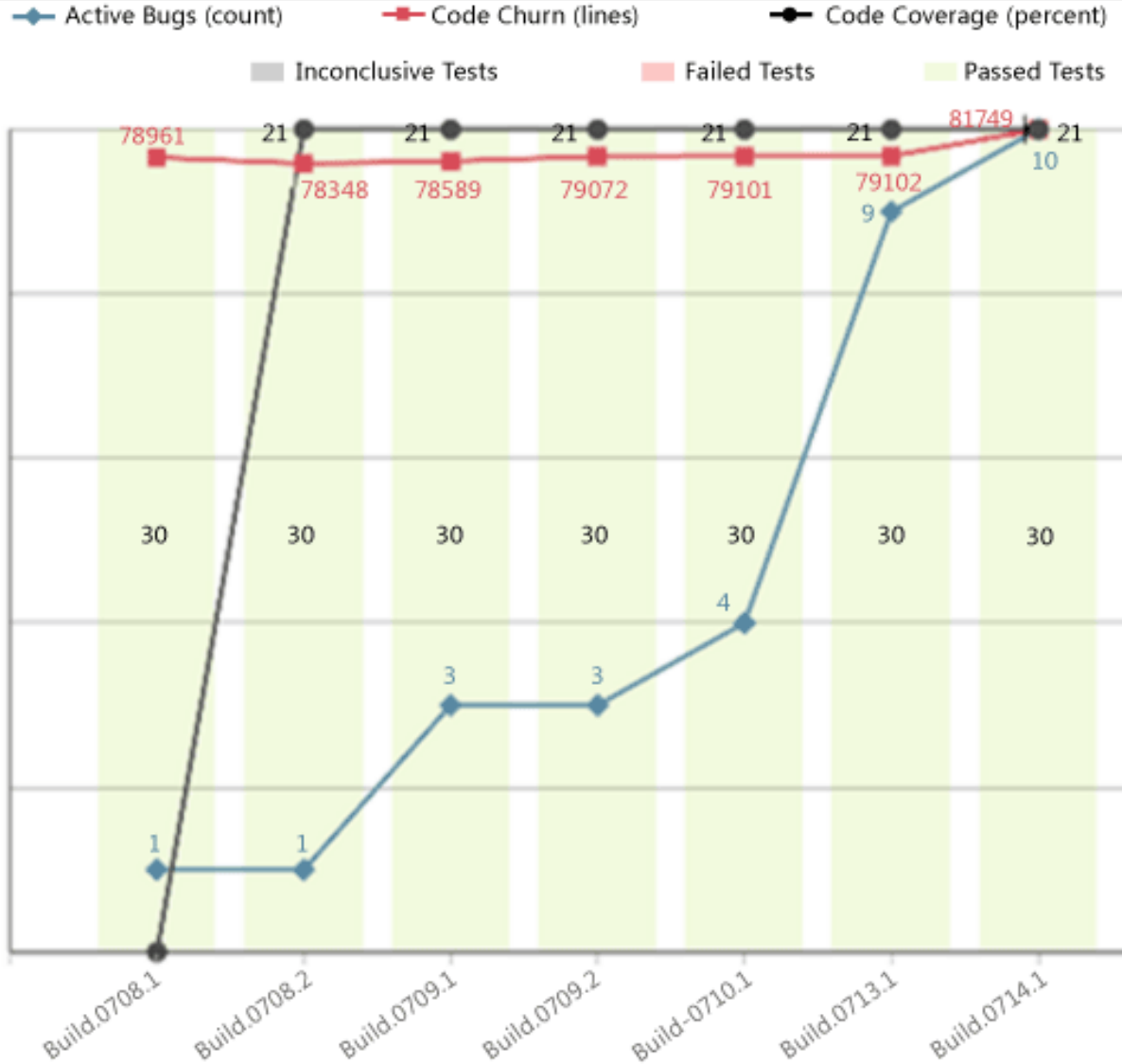
■ Passed ■ Covered
■ Failed ■ Not Covered ■ Code Churn


Date	BuildName	Platform	Configuration	Progress	Build Quality
7/15/2009 12:32 PM	Code Coverage_20090715.1	Mixed Platforms	Debug	Partially Succeeded	
7/15/2009 9:52 AM	Main NightBuild_20090715.3	Mixed Platforms	Debug	Succeeded	
7/15/2009 3:00 AM	Storefront I3Nightly_20090715.1	Mixed Platforms	Debug	Succeeded	
7/15/2009 2:00 AM	Main Night Build_20090715.1	Mixed Platforms	Debug	Failed	

% Tests Passed	% Code Coverage	Code Churn (lines)
100 %	11 %	
100 %		
100 %		2646
100 %	21%	81748

Quality indicator	Description
Build Progress	<p>Specifies the status of the build. A build can be in one of the following states:</p> <ul style="list-style-type: none"> • Failed. The build failed to compile or tests failed to pass. • Partially Succeeded. Only some portions of the build successfully compiled. • Stopped. The build was manually stopped. • Succeeded. The build successfully compiled, and tests ran.
Build Quality	<p>Specifies a manually assigned assessment of the quality of the build. You can add or remove the build qualities that are defined for your team project. For more information, see Add or Remove Build Quality Values. The column is empty if the build quality has not been rated.</p>
% Tests Passed	<p>Displays a horizontal stacked bar chart that lists the percentage of tests that passed superimposed on a green bar. The remaining bar segment is red, which indicates the percentage of tests that failed. The total length of the chart always equals the width of the column.</p>
% Code Coverage	<p>Displays a horizontal stacked bar chart that lists the percentage of code that was covered superimposed on a green bar. The remaining bar segment is light blue, which indicates the percentage of code that was not tested in the build. The total length of the chart always equals the width of the column.</p>
% Code Churn (lines)	<p>Displays a horizontal bar chart that lists the percentage of code churn superimposed on a gray bar. The code churn is calculated by determining the number of lines of code that the team has added, deleted, or modified divided by the total number of lines in the build. The bar length is proportionate to the percentage figure, scaled across the report so that the maximum amount of code churn across all builds equals the width of the column.</p>

Build Quality Report

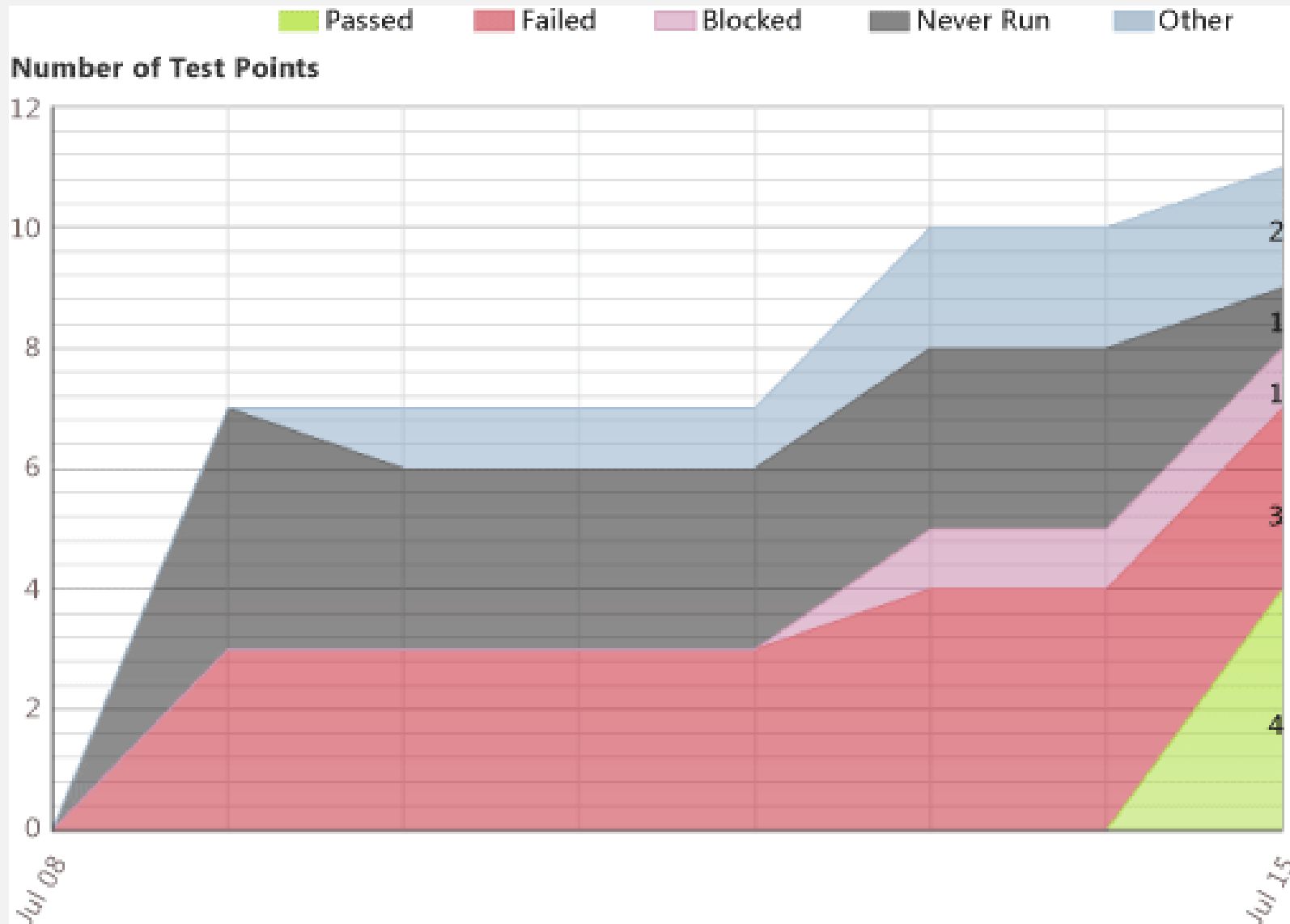


Quality indicator	Description
Active Bugs (count)	<p>Line chart that depicts the number of bugs that were active at the time of the build.</p> <div data-bbox="631 322 2163 501" style="border: 1px solid #ccc; padding: 5px;"> <p> Note</p> <p>Bugs are not explicitly associated with builds. Some of the bugs counted might not affect the builds that appear in the chart. You can use the Area parameter to filter bugs by product area. This technique might show bugs that are most likely to affect the builds in the report.</p> </div>
Code Churn (lines)	<p>Line chart that depicts the number of lines of code that the team added, removed, and changed in the checkins before the build. The code churn is calculated by determining the number of lines of code that have been added, deleted, or modified to the build divided by the total lines in the build.</p>
Code Coverage (percent)	<p>Line chart that depicts the percentage of code that the tests cover.</p>
Inconclusive Tests	<p>Gray portion of the stacked bar chart, which indicates the number of tests that did not succeed or were paused. If the build did not succeed, the tests are either not counted or counted as inconclusive.</p>
Failed Tests	<p>Red portion of the stacked bar chart, which indicates the number of tests that failed for the build.</p>
Passed Tests	<p>Green portion of the stacked bar chart, which indicates the number of tests that passed for the build.</p>

Test Reports

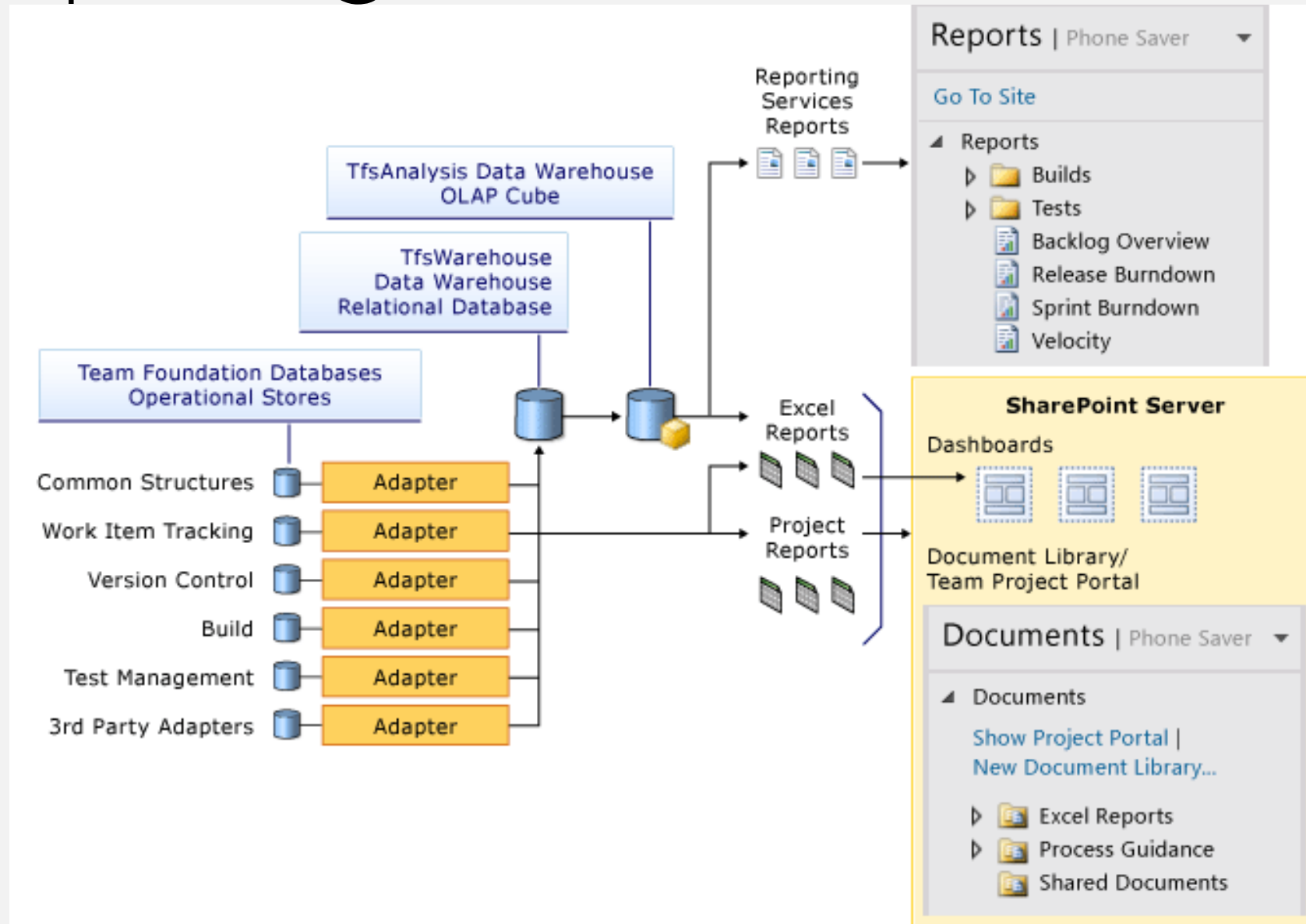
- How much testing has the team completed?
- Is the team likely to finish the testing on time?
- How many tests are left to be run?
- How many tests are passing?
- How many tests are failing?
- How many tests are blocked?

Test Plan Progress



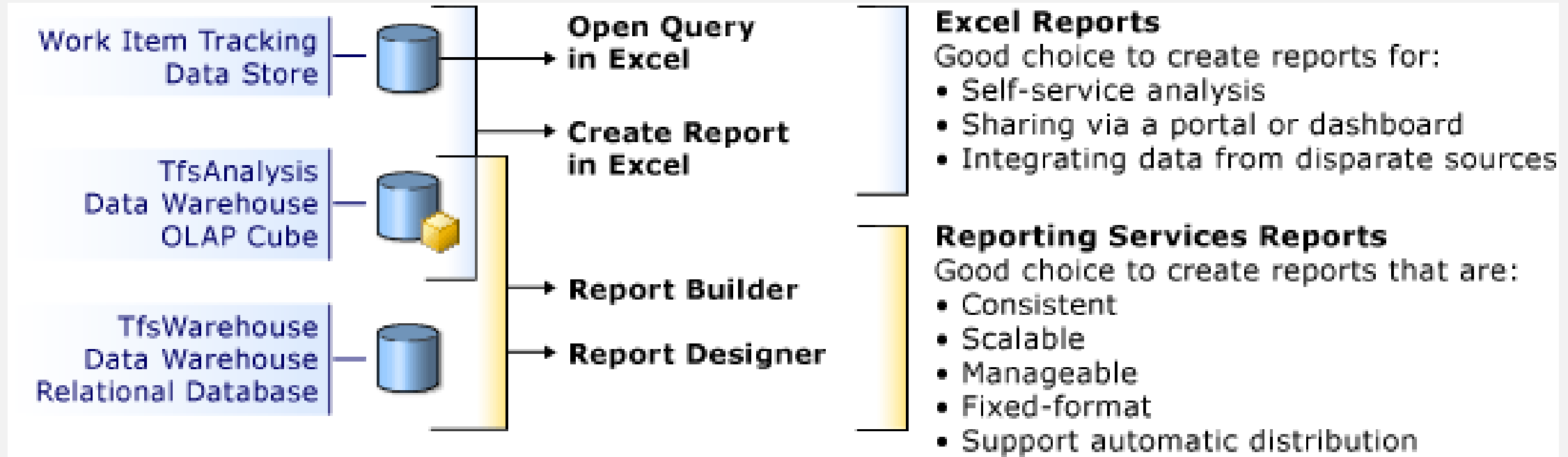
Test result	Description
Passed	Number of test cases that passed.
Failed	Number of test cases that failed.
Inconclusive	Number of test cases that ran and were assigned a status of Inconclusive.
Blocked	Number of test cases that are currently blocked from running.
Never Run	Number of test cases that have never been run.
Other	Number of test cases that were run and assigned one of the following states: Aborted, Not Executed, PassedButRunAborted, NotRunnable, Disconnected, Timeout, Pending, In Progress, or Inconclusive.

Reporting in TFS



- [-] Databases
 - [-] Tfs_Analysis
 - [-] Data Sources
 - Tfs_AnalysisDataSource
 - [-] Data Source Views
 - Tfs_AnalysisDataSourceView
 - [-] Cubes
 - [-] Team System
 - [-] Measure Groups
 - + Build Changeset
 - + Build Coverage
 - + Build Details
 - + Build Project
 - + Code Churn
 - + Current Work Item
 - + Linked Current Work Item
 - + Linked Current Work Item Test Case
 - + Run Coverage
 - + Test
 - + Work Item
 - + Work Item Changeset
 - + Work Item To Category
 - + Work Item To Tree
 - + Work Item With Result
 - + Dimensions
 - + Mining Structures
 - + Roles
 - + Assemblies

Reporting Tools



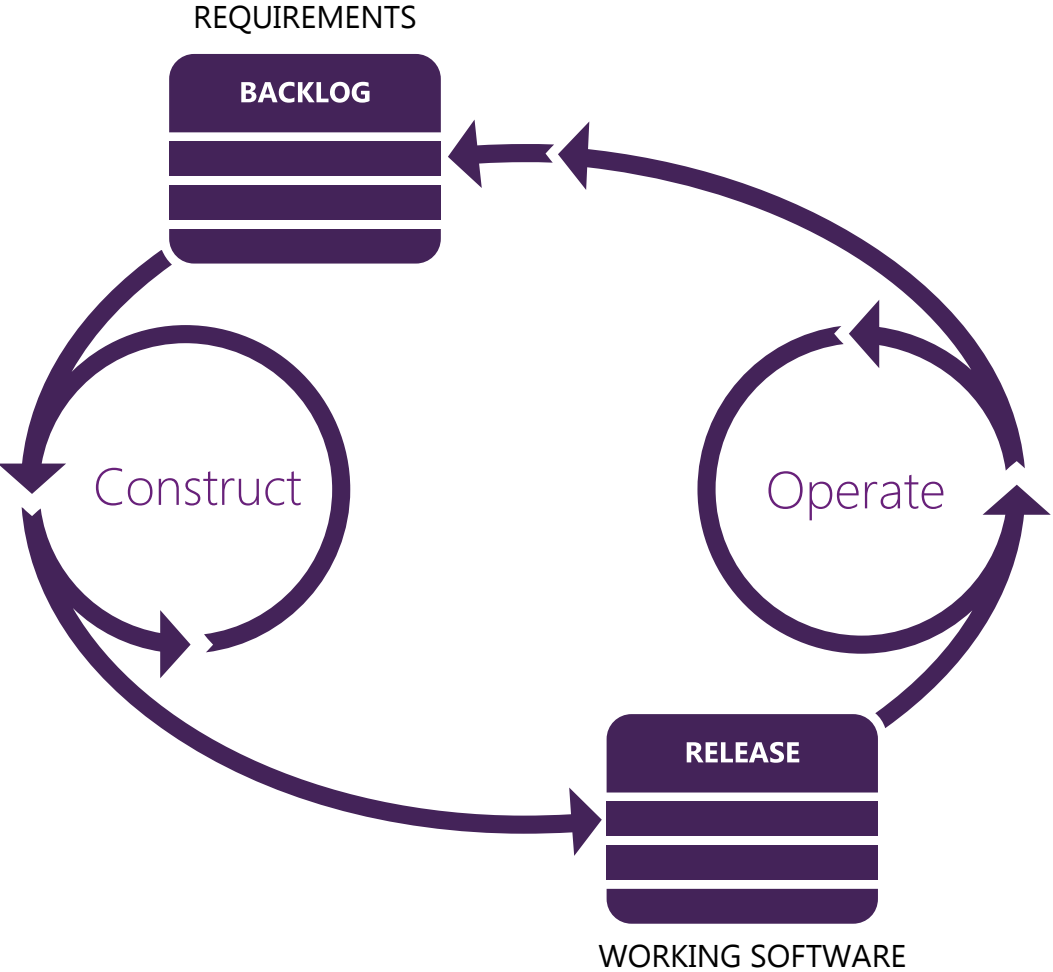
Built in SSRS reports

- Demo

Operation



Continuous value Solutions



Plan



Develop



Release



Operate

- ✓ Team Foundation Server and System Center integration
- ✓ IntelliTrace in production for actionable diagnostics

Intellitrace

The image illustrates the workflow of using IntelliTrace for production issue resolution. It shows a web application with an error, the resulting IntelliTrace file, the code that caused the error, and the state of the application at the time of the error.

Web Application Error: A red box highlights the message: "There was an error while retrieving data from the server".

File Explorer: Shows the file `w3wp_0000126c_120516_091605` (IntelliTrace File, 29,440 KB) located in `LogFileLocation`.

Code Editor: Shows the `GetServiceTicket` method in `ServiceTicketsController.cs`. The code snippet is highlighted in orange:

```
var ticketViewModel = new  
{  
    id = serviceTicket.ID,  
    status = serviceTicket.Status.ToString(),  
    title = serviceTicket.Title,  
    opened = serviceTicket.Opened,  
    assignedTo = serviceTicket.AssignedTo.FullName,  
    expectedListTime = this.CalculateListTime(serviceTicket),  
    isClosed = serviceTicket.Status.ToString() == "Closed";  
};
```

Locals Window: Shows the state of the `ServiceTicket` object at the time of the error:

Name	Value	Type
ID	ServiceTicket.ID() = 3	
Status	ServiceTicket.Status() = Open	
Title	ServiceTicket.Title() = "FabFiber is the worst EVER!!!"	
Opened	ServiceTicket.Opened() = 4/17/2012 1:26:19 AM	
AssignedTo	ServiceTicket.AssignedTo() = null	
Thrown:	"Object reference Exception Message = "Object reference not set to an instance of"	

Benefits

Live trace and log capability on production issues

Intellitrace – Performance Alert (New in VS2013)

Performance Event ID 38 - Windows Internet Explorer

Actions Tools Help

Event properties Similar events Related events Distributed chains Performance counters

Event class: .NET Performance Event Event Date: 2011/6/9 下午 07:52:30
Component: System.Web.dll Build: 2.0.0.0
Source: PetShop4 Computer: contoso3.local\SCCMPOC
Status: New Aspect: Performance

Slowest Nodes

- 2606 / 1203 ms ASP page : /PetShop4/Products.aspx
- 453 / 453 ms PetShop.DBUtility.SqlHelper.PrepareCommand()
- 290 / 290 ms PetShop.CacheDependencyFactory.DependencyAccess.LoadInstance()

Stack

Expand all Execution Tree View Resource Group View

- 2606 ms ASP page : /PetShop4/Products.aspx
 - 1251 ms PetShop.Web.Products.Page_Load()
 - 1247 ms PetShop.Web.WebUtility.GetCategoryName()
 - 928 ms PetShop.BLL.Category.GetCategory()
 - 896 ms PetShop.SQLServerDAL.Category.GetCategory()
 - 763 ms PetShop.DBUtility.SqlHelper.ExecuteReader()
 - 453 ms PetShop.DBUtility.SqlHelper.PrepareCommand()
 - 153 ms SQL : SELECT CategoryId, Name, Descn FROM Category WHERE CategoryId = @CategoryId
System.Data.SqlClient.SqlCommand.ExecuteReader(System.Data.CommandBehavior cmdBehavior, System.Data.SqlClient.RunBehavior runBehavior, boolean returnStream)

Variables(4)		
Name	Value	Structure
database	MSPetShop4	
dataSource	SCCMPOC	
parameters		class
cmdText	SELECT CategoryId, Name, Descn FROM Category WHERE CategoryId = @CategoryId	

- 294 ms PetShop.CacheDependencyFactory.DependencyFacade.GetCategoryDependency()
 - 291 ms PetShop.CacheDependencyFactory.DependencyAccess.CreateCategoryDependency()
 - 290 ms PetShop.CacheDependencyFactory.DependencyAccess.LoadInstance()
- 152 ms PetShop.Web.NavigationControl.Page_Load()
 - 125 ms PetShop.Web.NavigationControl.BindCategories()

Collection Notes

Performance Event ID 38 近端內部網路 | 受保護模式: 關閉 100%

Summary



MSDN Benefits

- Unlimited Servers and Tools for Testing
 - Windows Server, SQL Server – All Editions (i.e.: SQL Enterprise)
 - SharePoint Server, Dynamics, BizTalk (Premium & Ultimate)
- Access to Latest & Legacy Software downloads (Visual Studio 2013, Visual SourceSafe, VB6)
- Concurrent Use (VS2013, VS2008, VB6)
- Office 2013 Professional Plus (Premium & Ultimate)
- Technical Support Incidents
- Online Courses, MSDN Magazines, Windows Store Developer Accounts, O365 developer account (Premium & Ultimate), etc...
- Team Foundation Server (Pro, Test Pro, Prem, Ultimate), 1 Server License and 1 Client CAL

The new era of Cloud Development

 Visual Studio

 Windows Azure

msdn



MSDN Azure credits

\$50/month
for Visual Studio
Professional / Test Professional

\$100/month
for Visual Studio
Premium / MSDN Platforms

\$150/month
for Visual Studio Ultimate



3 VMs for 16 hours a day



80 VMs for 20 hour load test



Up to 500 web sites plus SQL DB

