

2.– 5. September 2013
in Nürnberg



Herbstcampus

Wissenstransfer
par excellence

Weltoffen

Einsatz des TFS 2012 in heterogenen .NET/Java-Umgebungen

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AIT GmbH & Co. KG

WELTOFFEN

EINSATZ DES TFS IN
HETEROGENEN UMGEBUNGEN
(.NET UND JAVA) - WIE MAN DEN
TEAM FOUNDATION SERVER IN
BEIDEN WELTEN NUTZEN KANN

AGENDA

- Motivation
- TFS Überblick
- TFS Architektur & Clients
- Planung
- Entwicklung
- Build
- Test
- Fazit



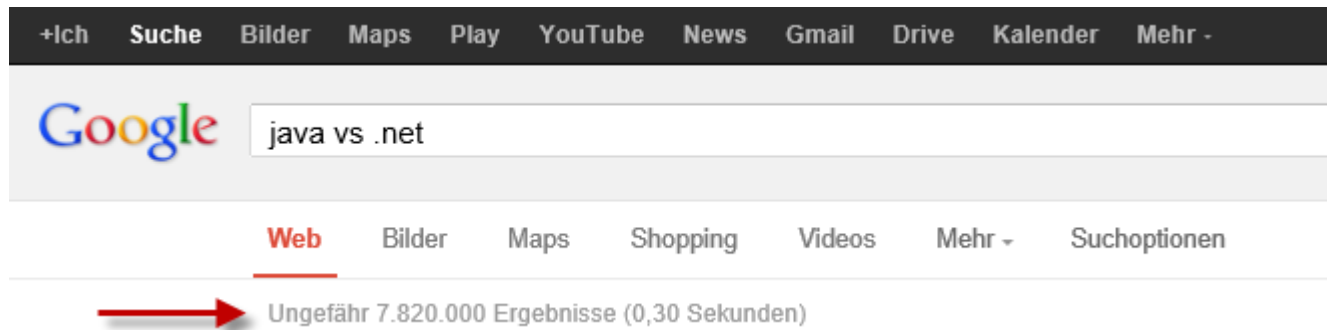
MOTIVATION

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MOTIVATION



- Beide haben ihre Vorteile
- Kein technischer Konflikt



MOTIVATION

- Wer ist betroffen?
 - Entwickler
 - Konfigurations- und Buildmanager
 - Tester
 - DevOps
 - Projektleiter



TFS ÜBERBLICK

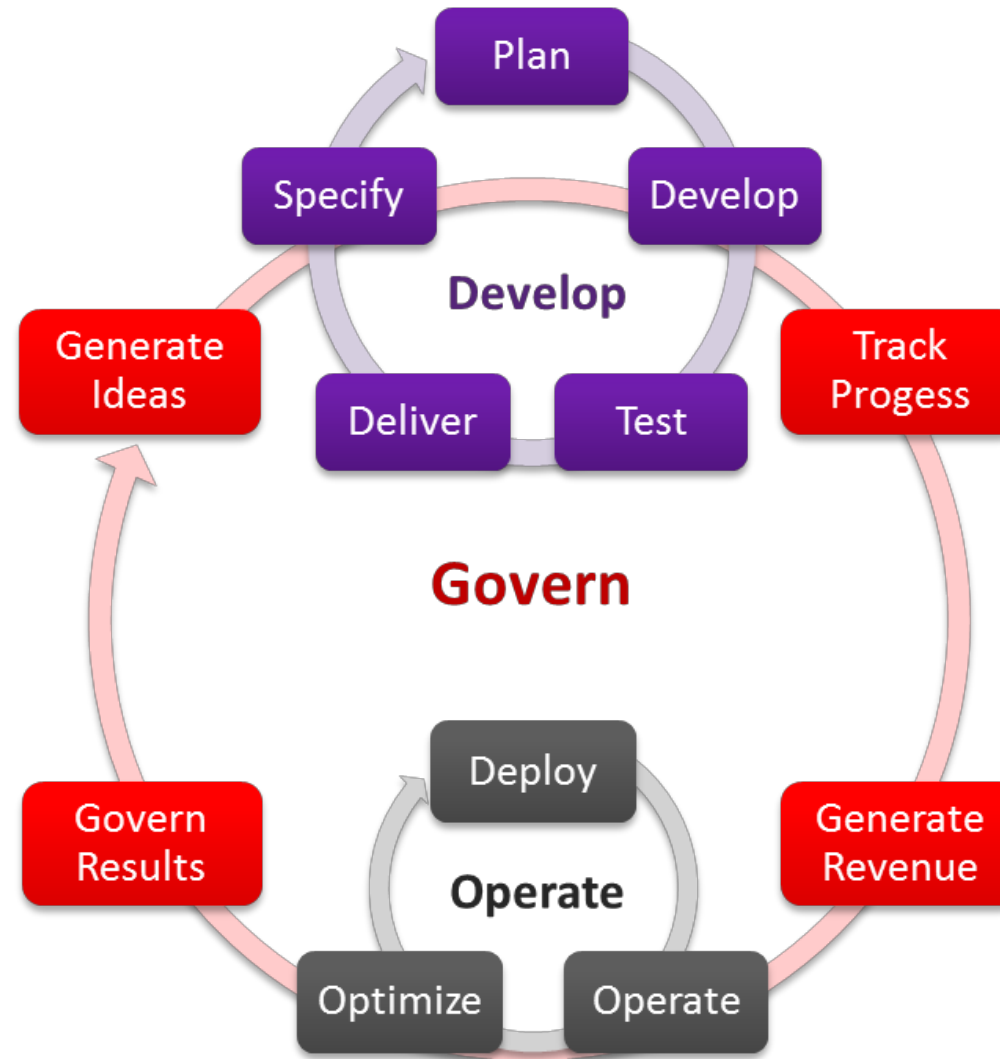
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APPLICATION LIFECYCLE MANAGEMENT



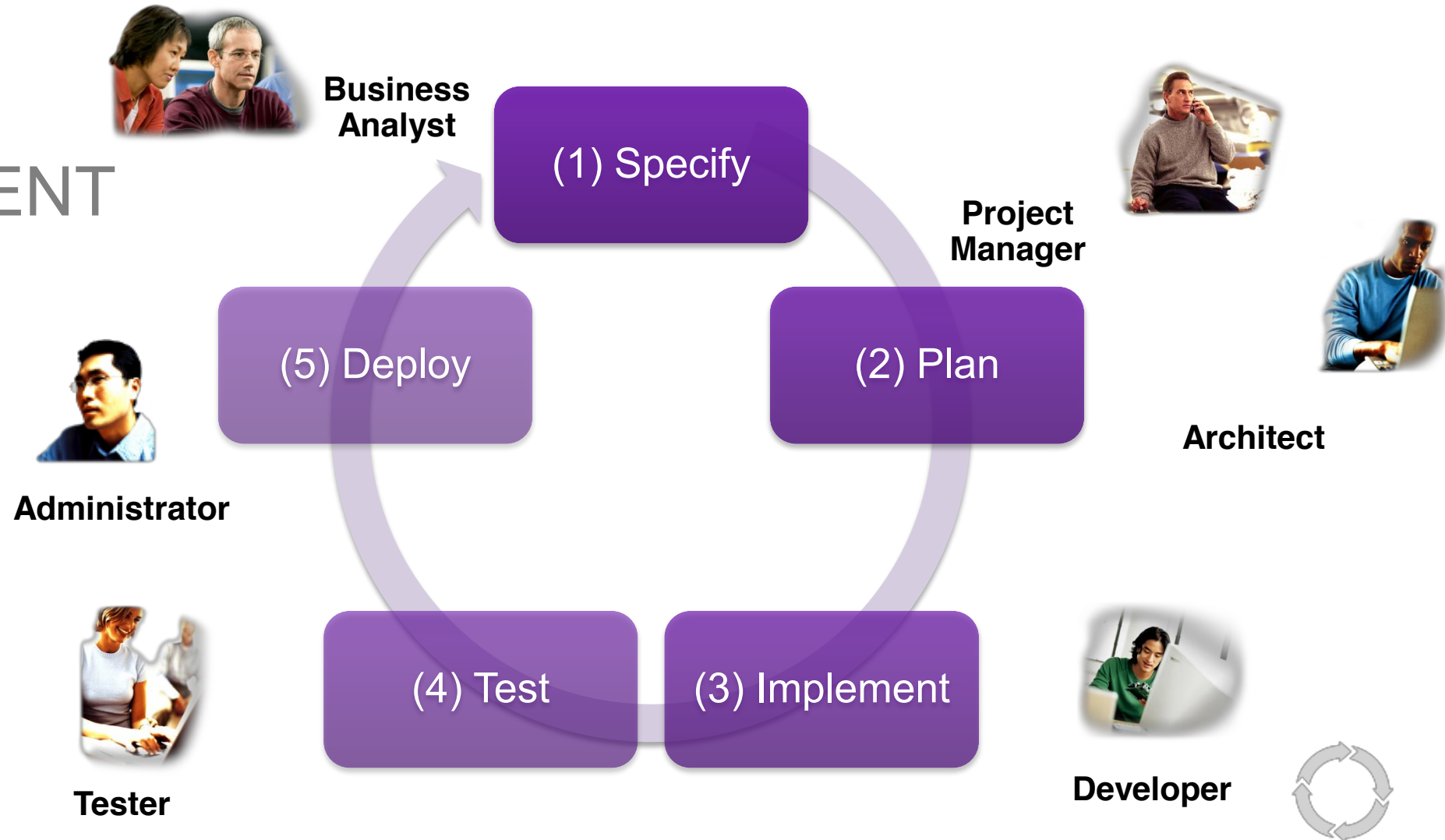
PROCESS OVERVIEW



APPLICATION LIFECYCLE MANAGEMENT



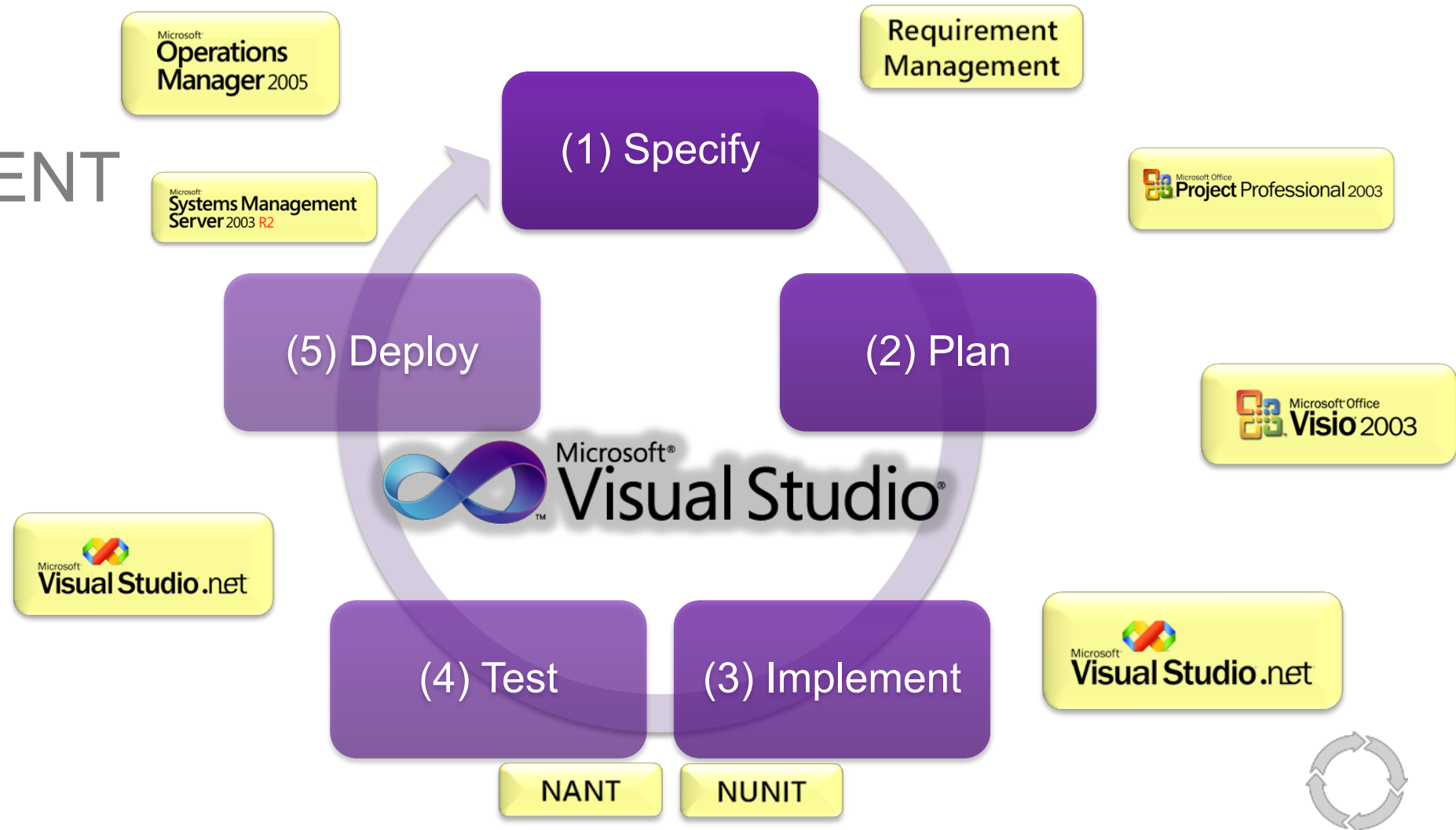
SOFTWARE DEVELOPMENT CYCLE



APPLICATION LIFECYCLE MANAGEMENT

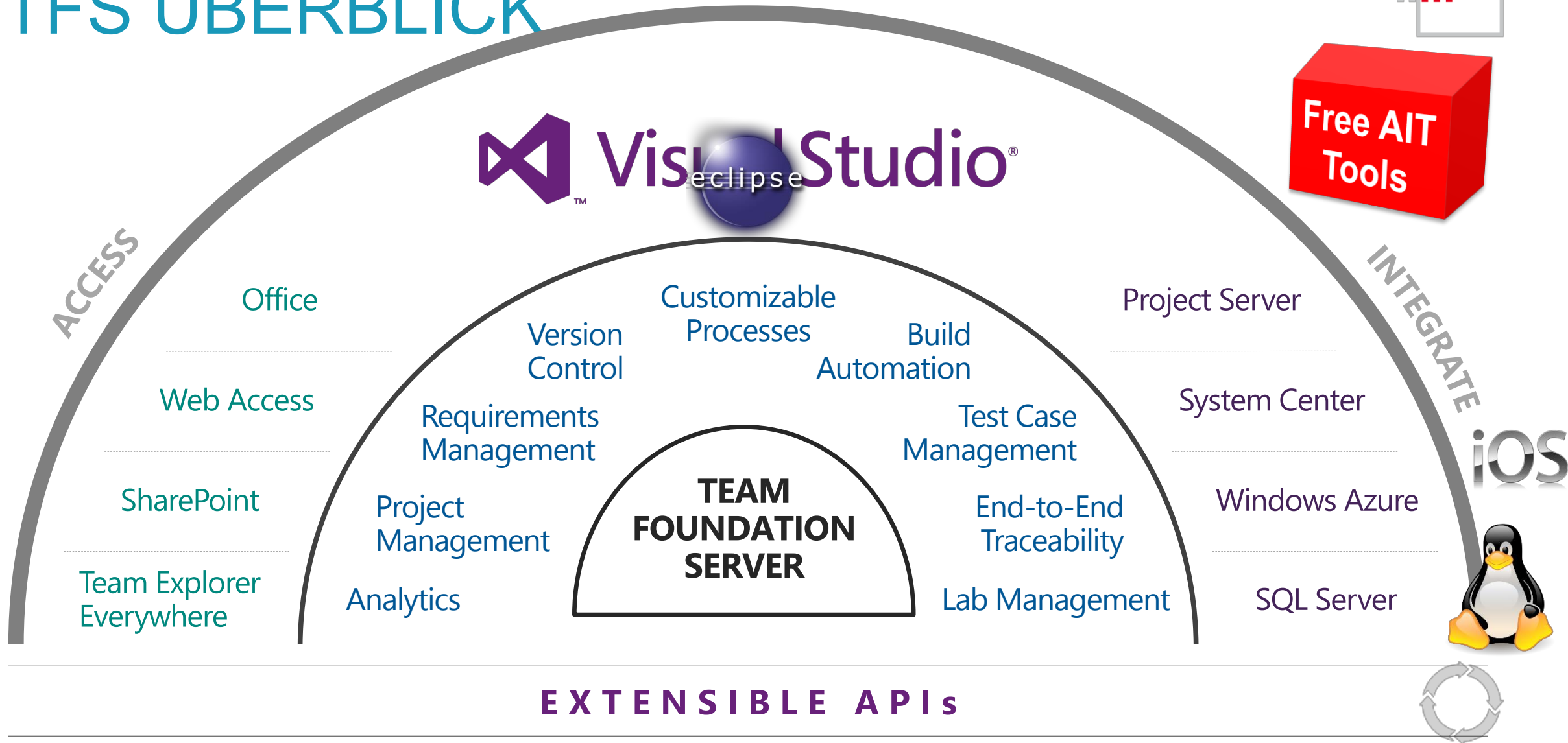


SOFTWARE DEVELOPMENT CYCLE

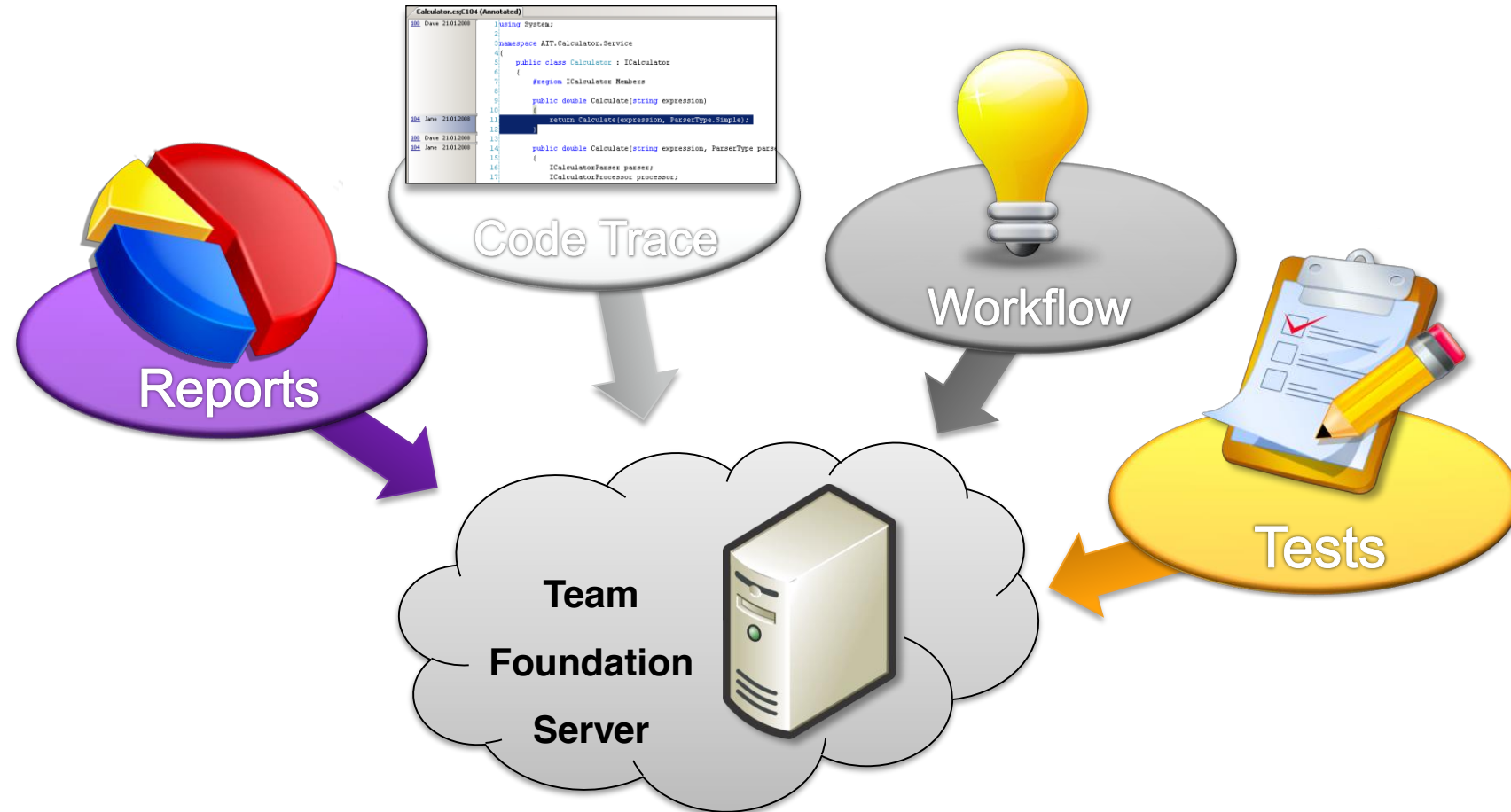


TFS ÜBERBLICK

DEVELOP

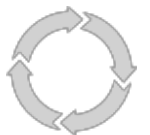


TFS ÜBERBLICK

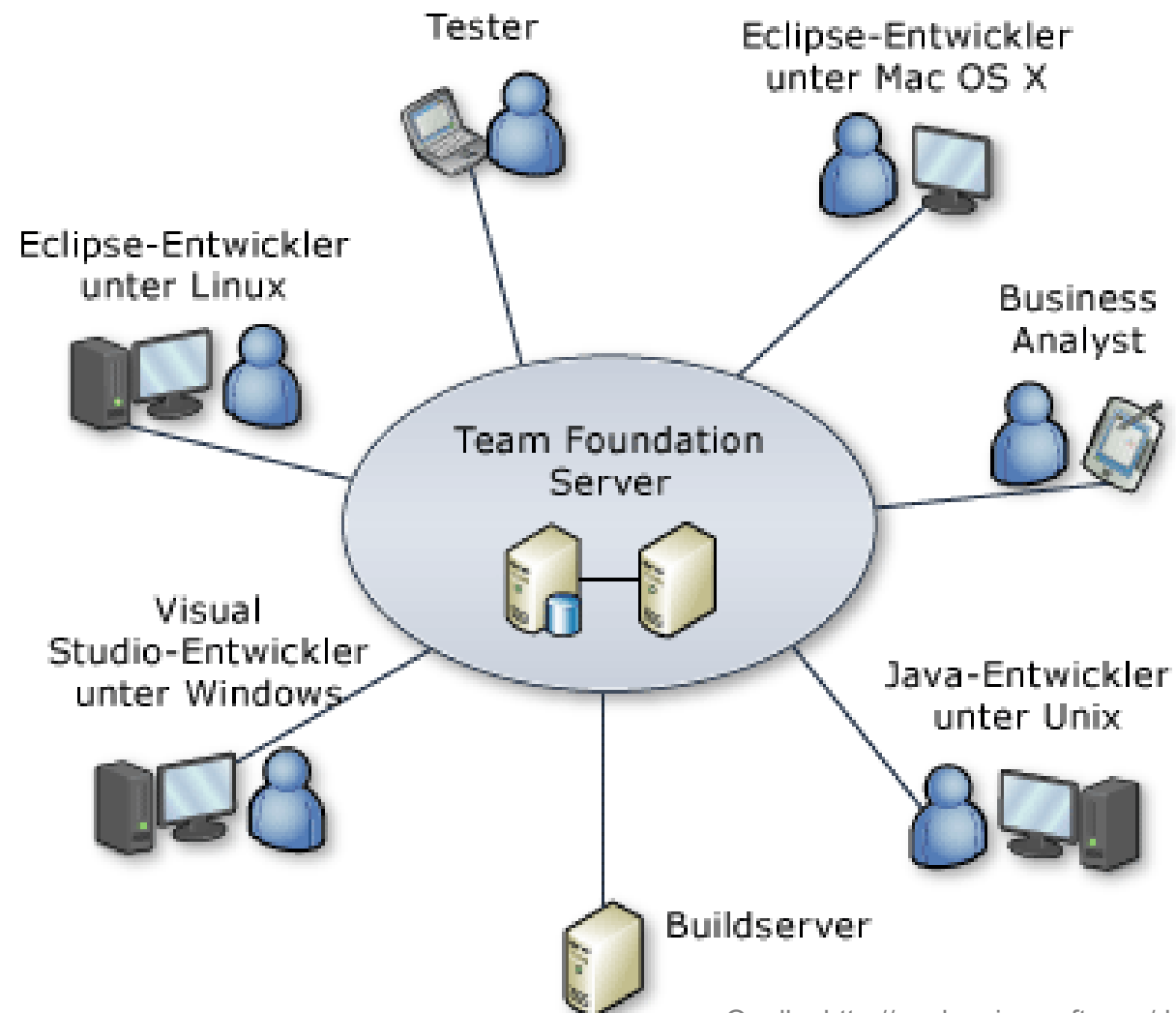


TFS ARCHITEKTUR & CLIENTS

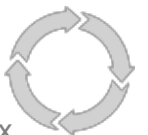
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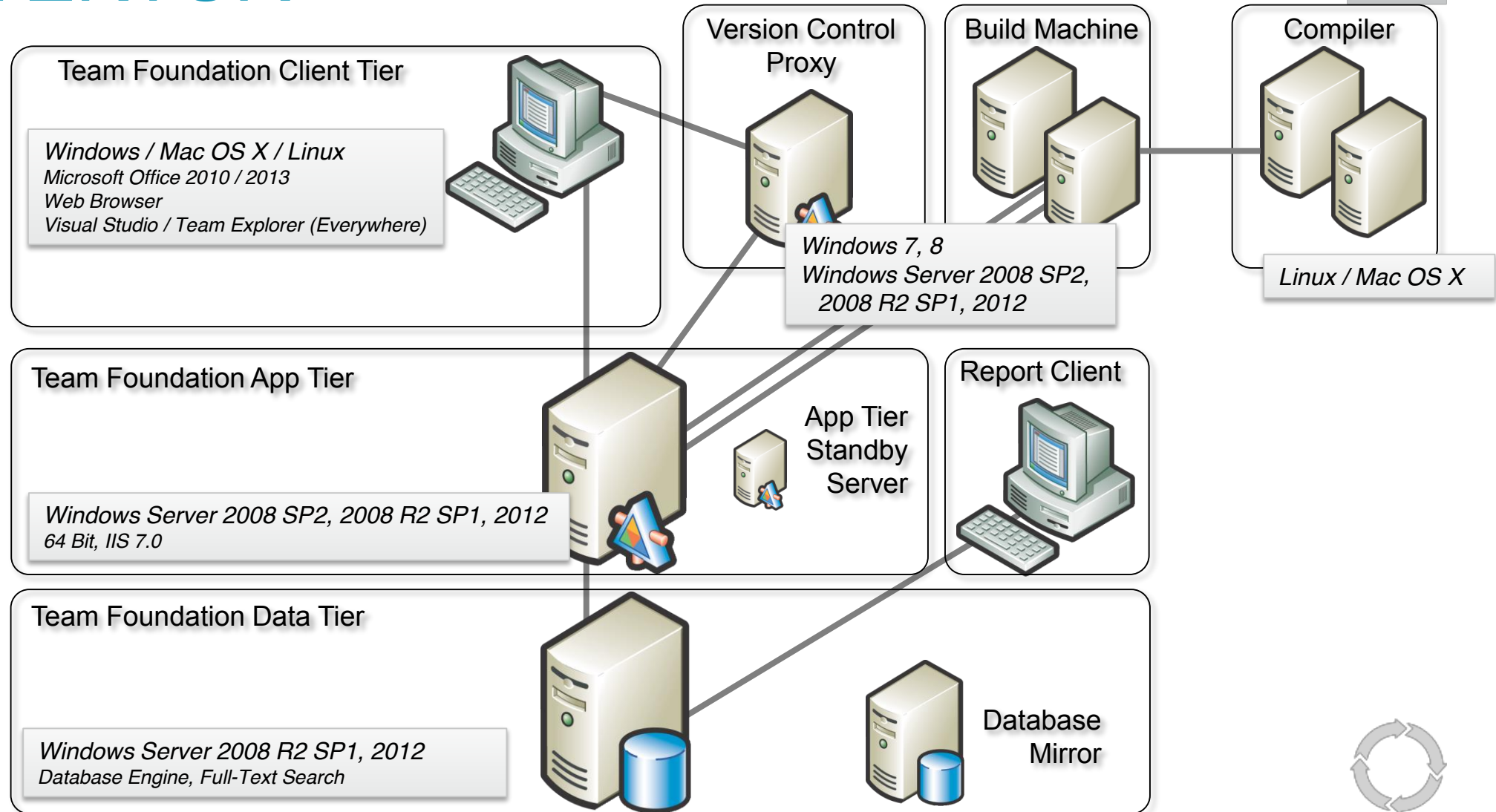
ARCHITEKTUR



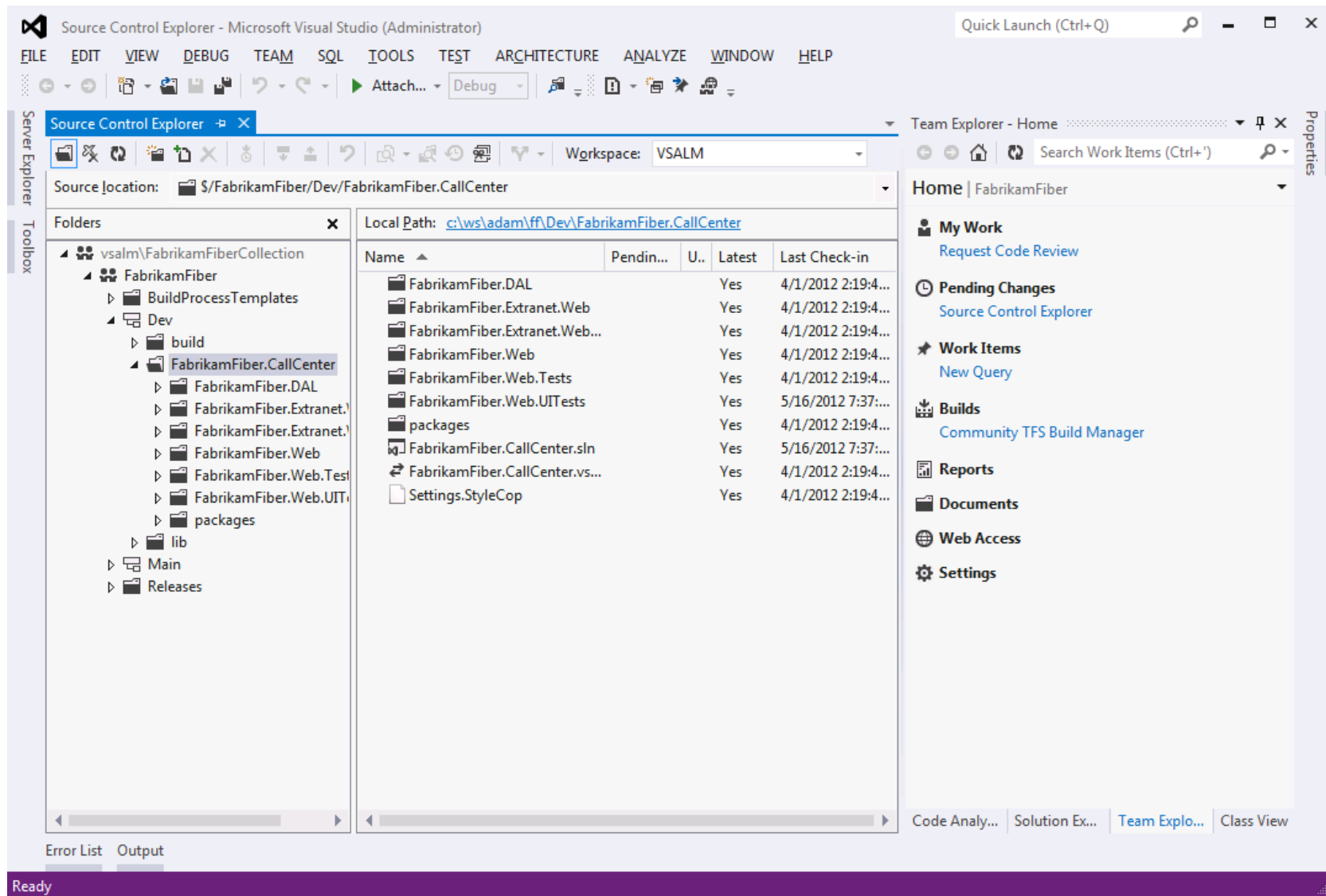
Quelle: <http://msdn.microsoft.com/de-de/library/vstudio/gg413285.aspx>



ARCHITEKTUR



CLIENTS – VISUAL STUDIO

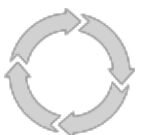
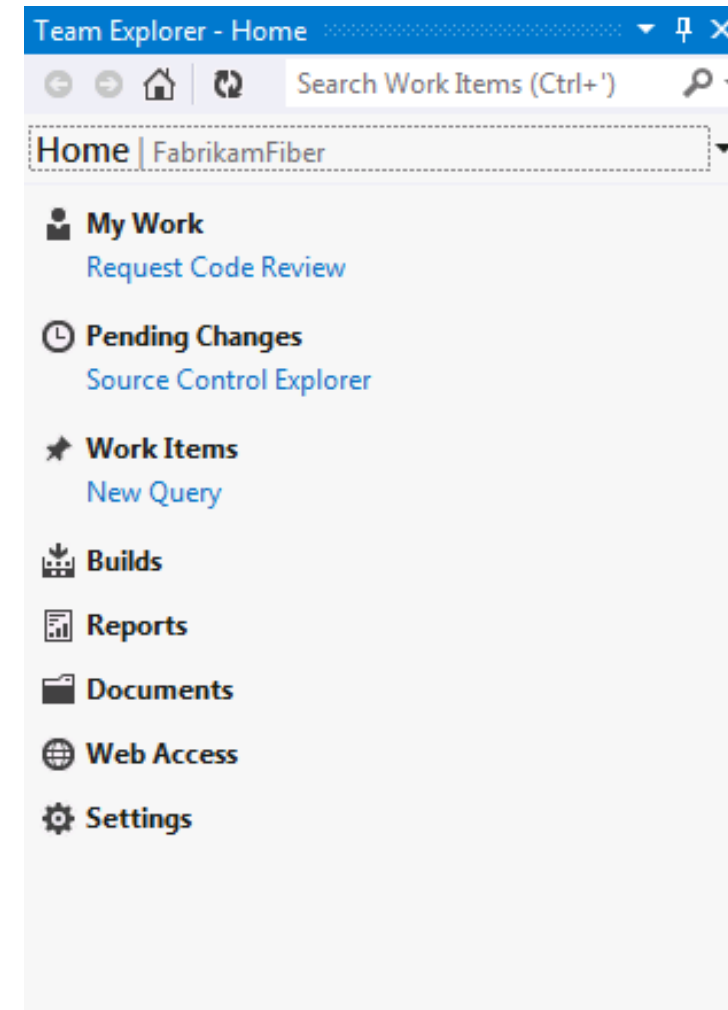
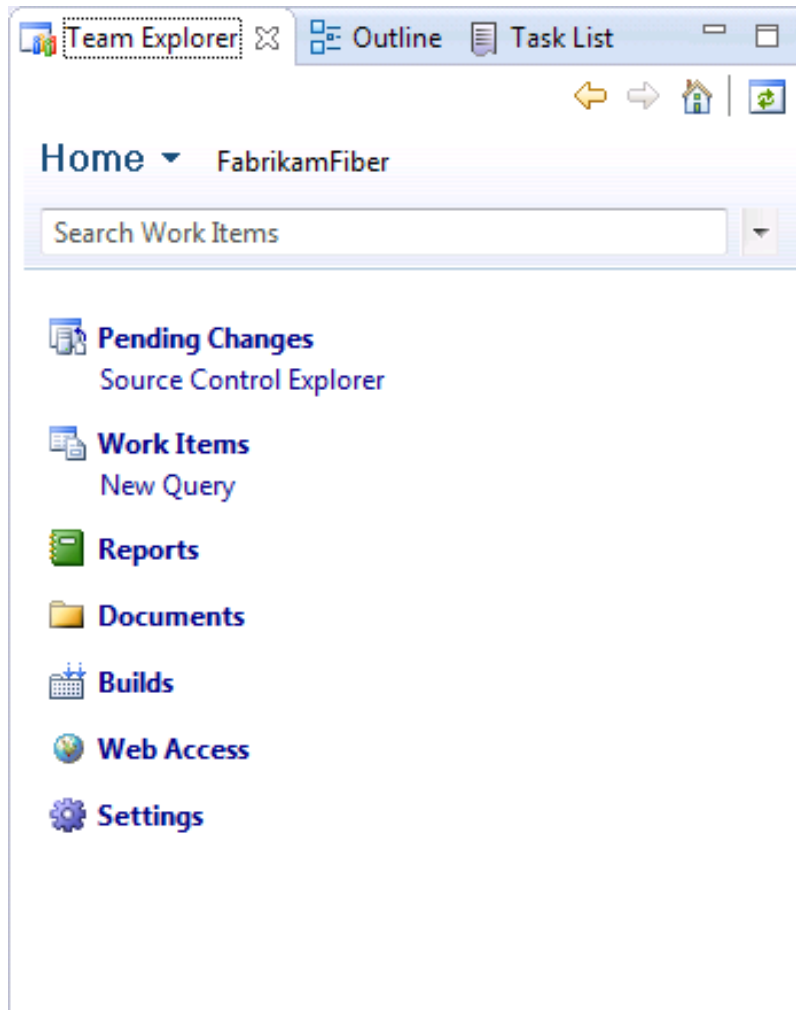


CLIENTS – TEE

- Plugin for Eclipse
- Originally developed by Teamprise
- Acquired by Microsoft
- Provides Team Explorer Functionality for Eclipse based IDEs
- Examples of Functionality
 - Checkin / Checkout / Shelvesets / Checkin Policies
 - Work Items (incl. Hierarchies)
 - Build Process Management (Ant / Maven)



ECLIPSE VS. VISUAL STUDIO



ECLIPSE VS. VISUAL STUDIO



Product Backlog [Results] x

Query results: 9 items found (9 top level, 0 linked items, 0 currently selected)

ID	Work It...	Backlog P...	Title	Assigned ...	State
64	Product B...	6	Service rep can view service ticket details from the dashboard	Brian Keller	New
65	Product B...	13	Technician can check on parts orders on Windows Phone.	Brian Keller	New
66	Product B...	26	Technician can look for closest hardware store from Windows Phone.	Brian Keller	New
67	Product B...	51	Technician can submit invoices on Windows Phone.	Brian Keller	New
68	Product B...	102	Customer can view service invoices online.	Brian Keller	New
69	Product B...	203	Customer can pay invoices online.	Brian Keller	New
70	Product B...	406	Customer can opt-in/opt-out of paper billing.	Brian Keller	New
71	Bug		Build Failure in Build: Nightly Fabrikam (Dev)_20120515.5	Julia Ilyiana	New
72	Bug		Build Failure in Build: Nightly Fabrikam (Dev)_20120515.6	Julia Ilyiana	New

Team Explorer x Outline x Task List x

Work Items ▾ FabrikamFiber

Search Work Items

New Work Item ▾ | New Query

▼ My Favorites
Right click a query to add to favorites.

▼ Queries

- My Queries
- Shared Queries
 - Current Sprint
 - All Bugs
 - Feedback
 - My Code Reviews
 - Product Backlog

Product Backlog [Results] x Start Page Source Control Explorer

Save Results Save Query x Open in Microsoft Office Edit Query Column Options

Query Results: 9 items found (9 top level, 0 linked items, 1 currently selected).

ID	Work It...	Backlog Priority	Title	Assigned ...	State	Effort
64	Product Ba...	6	Service rep can view service ticket details from the dashboard	Brian Keller	New	8
65	Product Ba...	13	Technician can check on parts orders on Windows Phone.	Brian Keller	New	3
66	Product Ba...	26	Technician can look for closest hardware store from Windows Phone.	Brian Keller	New	3
67	Product Ba...	51	Technician can submit invoices on Windows Phone.	Brian Keller	New	16
68	Product Ba...	102	Customer can view service invoices online.	Brian Keller	New	4
69	Product Ba...	203	Customer can pay invoices online.	Brian Keller	New	24
70	Product Ba...	406	Customer can opt-in/opt-out of paper billing.	Brian Keller	New	8
71	Bug		Build Failure in Build: Nightly Fabrikam (Dev)_20120515.5	Julia Ilyiana	New	
72	Bug		Build Failure in Build: Nightly Fabrikam (Dev)_20120515.6	Julia Ilyiana	New	

Team Explorer - Work Items x

Search Work Items (Ctrl+) x

Work Items | FabrikamFiber

New Work Item ▾ | New Query

▲ My Favorites
Drag queries here to add them to your favorites.

▲ Queries

- My Queries
- Shared Queries
 - Current Sprint
 - All Bugs
 - Feedback
 - My Code Reviews
 - Product Backlog



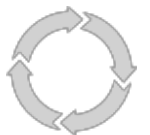
WEITERE CLIENTS

- Command Line (tf.exe, ...)
- Power Tools (tfpt.exe)
- Team Foundation Sidekicks
- Web Access
- Microsoft Test Manager
- Weitere IDEs (Visual Studio 20XX; Legacy Support, ...)
- Microsoft Office (MS Excel, MS Project, AIT WordToTFS, ...)
- Phone Apps
- ...



PLANUNG

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PLANUNG

- Seit TFS 2012 Fokus auf Web Access
 - → Technologieunabhängig
- Basierend auf *Work Items*
 - Business Object, in der TFS Datenbank gespeichert
 - Anpassbar, eigener Lebenszyklus
 - Beispiele
 - User Story
 - Requirement
 - Bug
 - Task
 - ...



PLANUNG - EINSTIEG



Visual Studio Team Foundation Server 2013 Preview / FabrikamFiber ▾ Julia Ilyiana | ⚙️ ?

HOME CODE WORK BUILD TEST Search work items 🔍 ▾

Overview

+ Product Backlog Item + Task + Bug more ▾

Iteration 3
July 1 - July 12

49 of 56 h

Backlog items: 4 not started, 4 in progress

Burndown

Team favorites

Dev 2 recent changes	Nightly Fabrikam (Dev) Partially succeeded an hour ago build definition	Product Backlog 4 work items
Sprint Backlog 33 work items	Feedback 0 work items	My Code Reviews 0 work items
	All Bugs 1 work items	

Activities

- [View backlog](#)
- [View task board](#)
- [View work items](#)
- [Request feedback](#)
- [Go to project portal](#)
- [View process guidance](#)
- [Open new instance of Visual Studio](#)

Members (5)

- Adam Barr
- Annie Herriman
- Brian Harry
- Brian Keller
- Julia Ilyiana

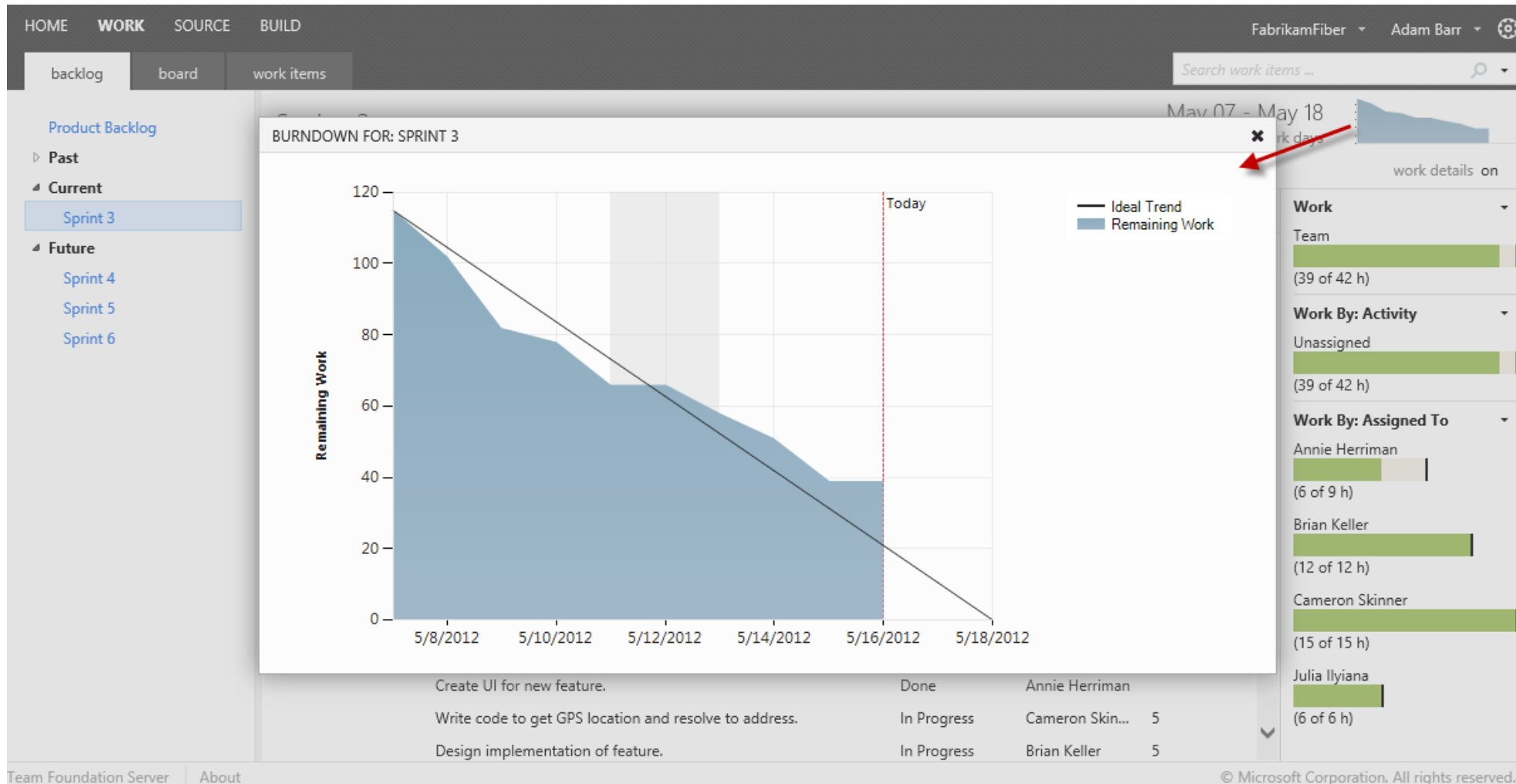
[Manage all members...](#)

Administration

[Configure schedule and iterations...](#)



BACKLOG



TASK BOARD



HOME WORK SOURCE BUILD FabrikamFiber Adam Barr

backlog board work items Search work items ...

Sprint 3 May 07 - May 18 9 work days

backlog items team members person All

Technician can report busy/late on Windows Phone. +			Review feature with technician early adopters. Julia Ilyiana Implement feature in app and wire up to back-end database. Cameron Skinner Create UI for feature. Annie Herriman Design implementation of feature. Brian Keller
Technician can send GPS location from Windows Phone. + 12 h		Review new feature with technician early adopters. 2 Julia Ilyiana Write code to get GPS location and resolve to address. 5 Cameron Skinner Design implementation of feature. 5 Brian Keller	Create UI for new feature. Annie Herriman
Customers with Canadian addresses not displaying properly. + 4 h	Update stored procedures to return Canadian addresses. 3 Cameron Skinner	Fix UI to display Canadian addresses. 1 Annie Herriman	
Technician can edit customer contact details on Windows Phone. + 23 h	Review implementation with privacy policy team. 4 Julia Ilyiana Design implementation of feature. 7 Brian Keller	Create UI for looking up customer details. 5 Annie Herriman Create database tables and sprocs to look up customers. 7 Cameron Skinner	

Team Foundation Server | About © Microsoft Corporation. All rights reserved.



ENTWICKLUNG

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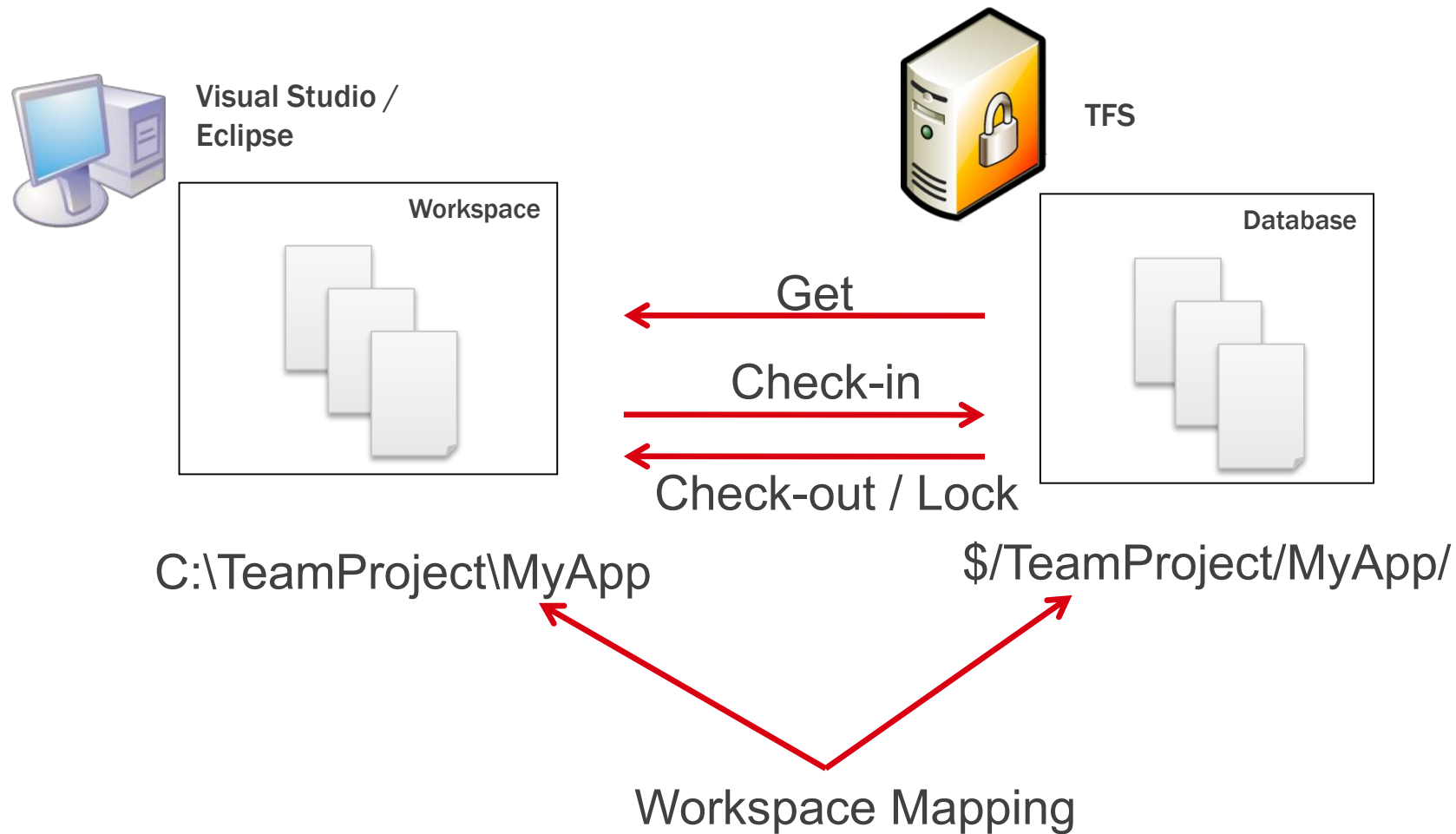


SOURCE CONTROL - KONZEPTE

- Workspaces
- Changesets
- History / Labels
- Policies
- Shelvesets
- Branches

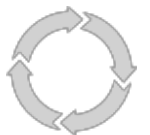


WORKSPACES



BUILD

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BUILD INFRASTRUCTURE



SINGLE MACHINE CONFIGURATION (DEMO)



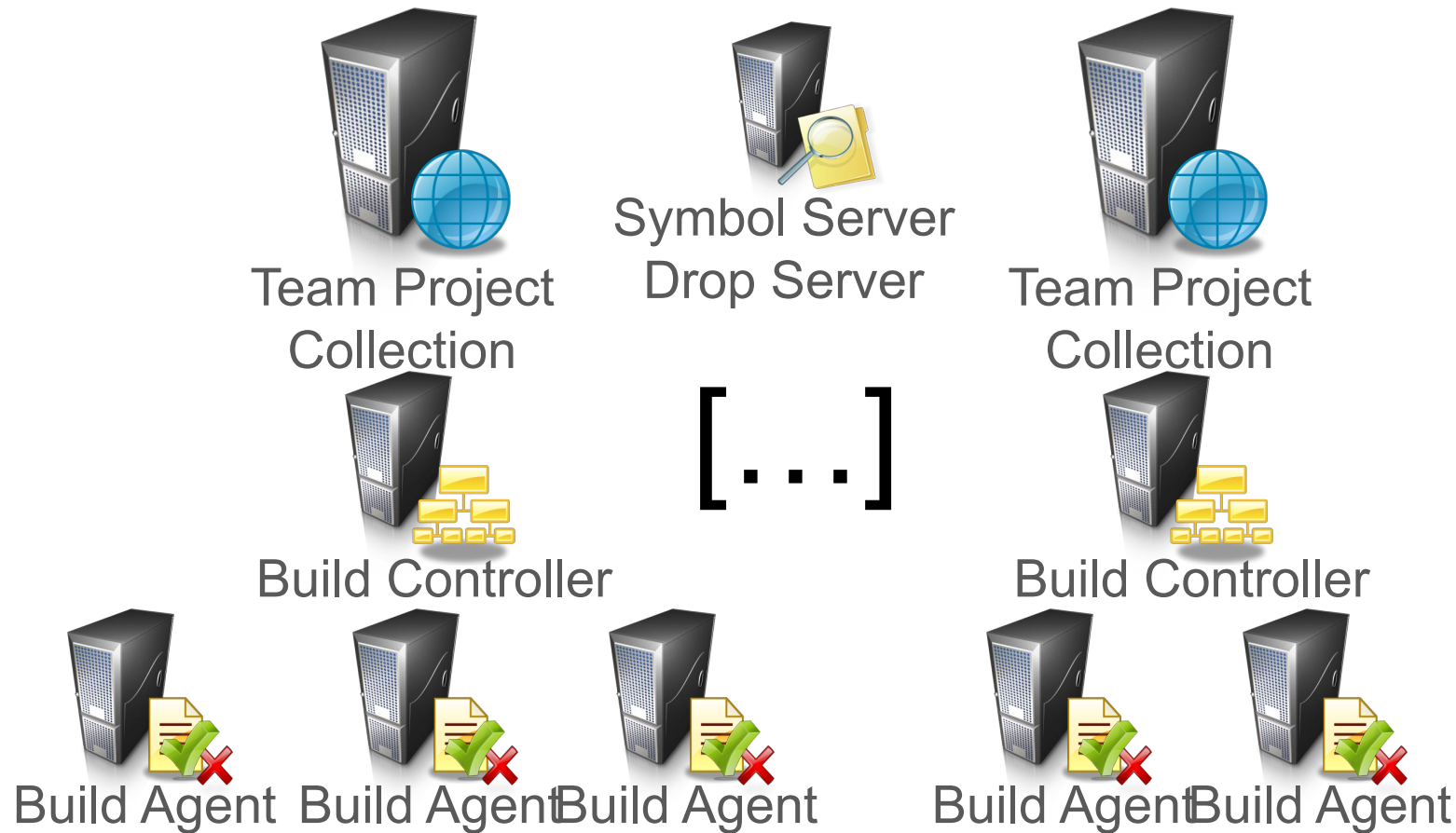
Team Project
Collection
Build Controller
Build Agent(s)



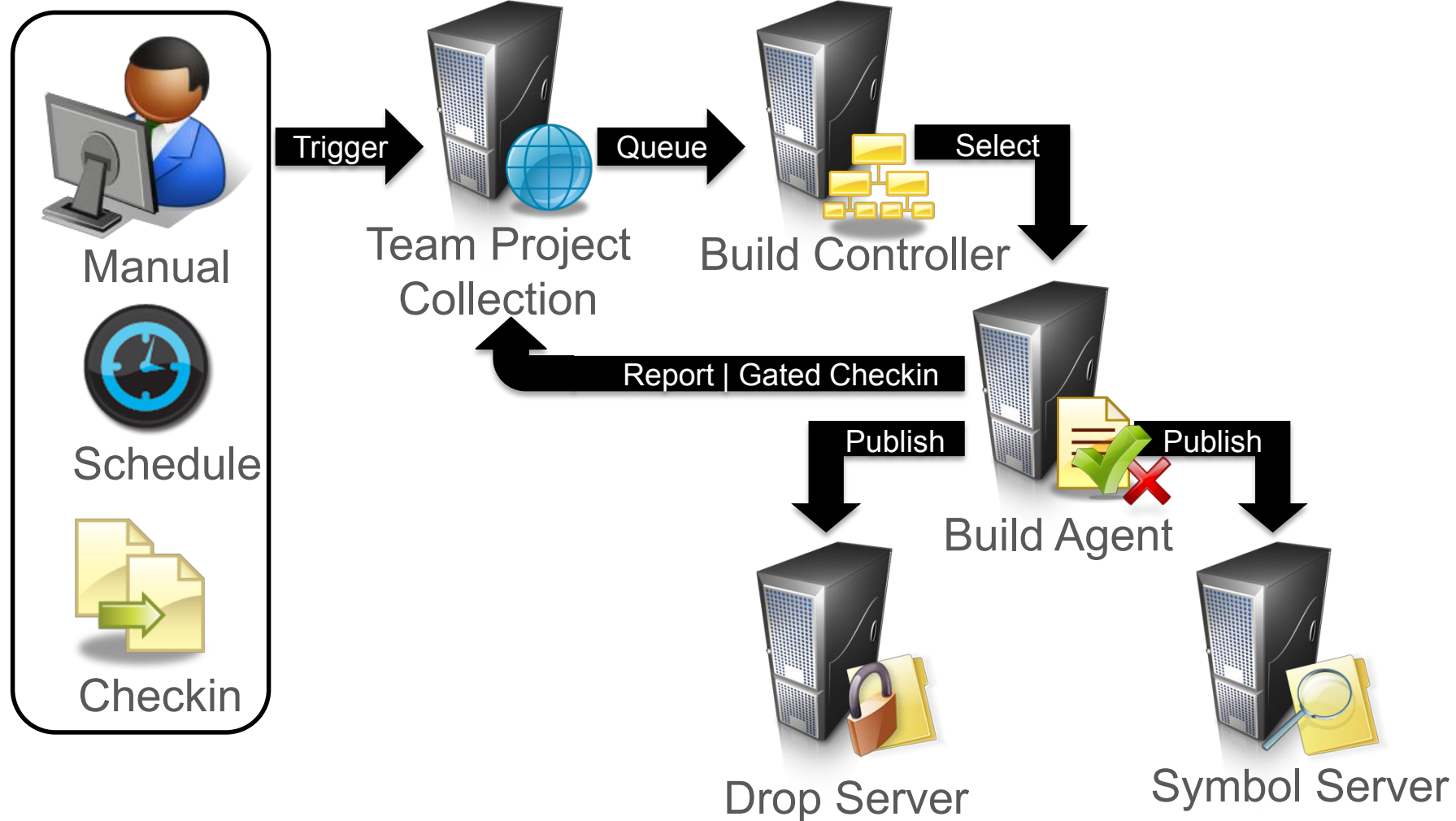
BUILD INFRASTRUCTURE



FARM CONFIGURATION



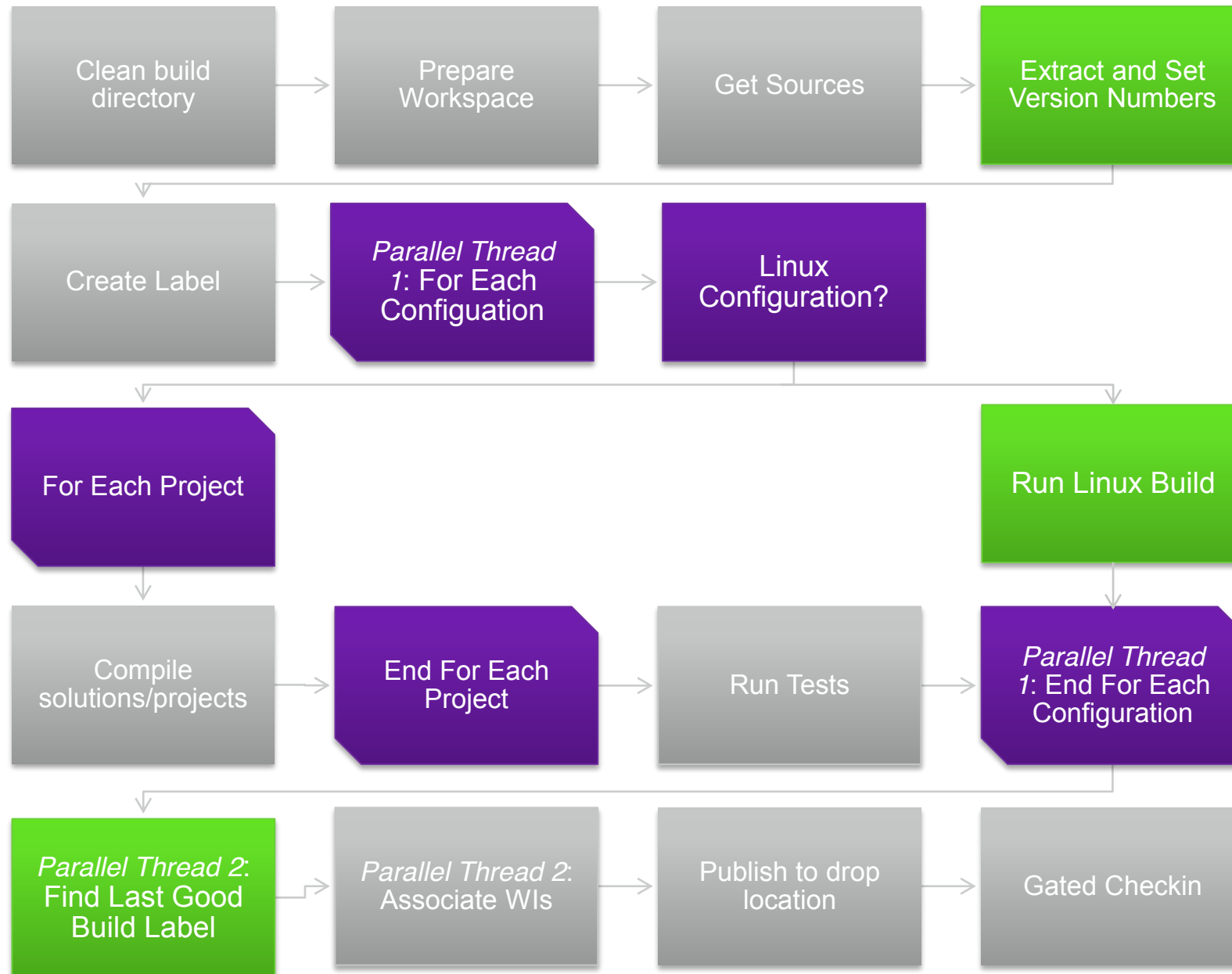
BUILD AUSFÜHRUNG



BUILD WORKFLOW

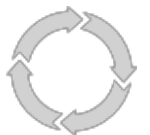


LINUX



TEST

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TEST TOOLS

- Testplanung – Work Item Basiert
 - Microsoft Test Manager (Windows Client)
- Testausführung
 - Microsoft Test Manager (Windows Client)
 - Web Test Runner (Plattformübergreifend)



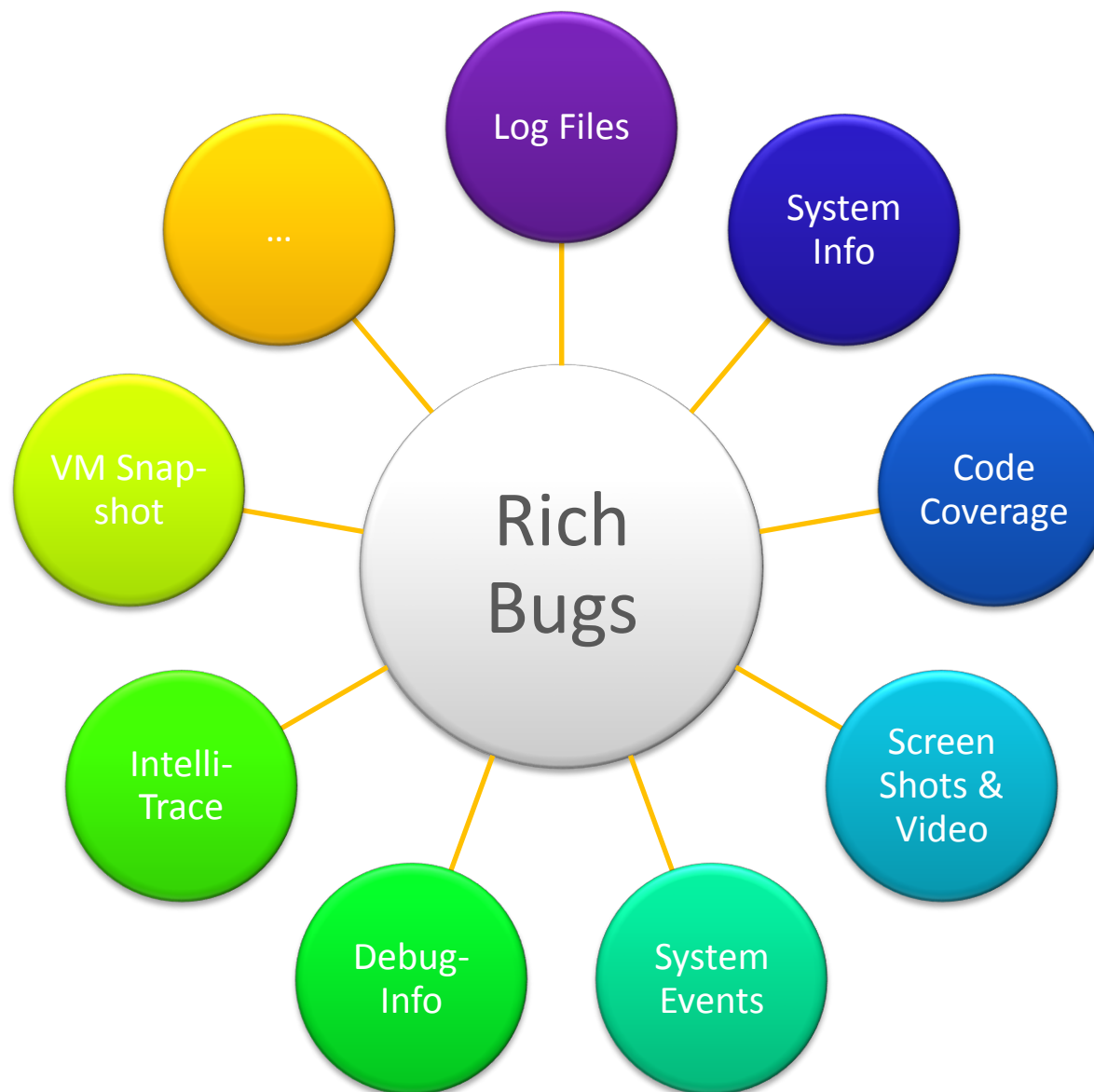
RICH BUGS

ADDITIONAL INFO

- Automatic
- Transparent
- Reliable

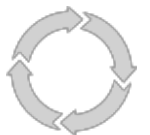
WITHOUT ADDITIONAL
EFFORTS FOR
TESTERS!

- Record / Playback
nur für .NET Anwendungen!



FAZIT

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ZUSAMMENFASSUNG

- Windows Systeme erforderlich
- Serveradministration unter Windows
- Web Tools (Planung, Testausführung, Reports, ...) plattformübergreifend
- Mehrere IDEs auf verschiedenen Betriebssystemen unterstützt (Visual Studio, Eclipse, ...)
- Größter Anpassungsbedarf im Build Management



AUSBLICK



- TFS 2013
 - Git Support on Premise
 - Integration InRelease für Deployment
 - Erweiterte Planungsfeatures
- → Features weitgehend einsetzbar für mehrere Zielplattformen



WEITERE RESSOURCEN



- Brian Harry's Blog: <http://blogs.msdn.com/b/bharry/archive/2013/07/04/team-explorer-everywhere-2012-update-available.aspx>
- Community TFS Build Extensions: <http://tfsbuildextensions.codeplex.com/>
- Microsoft Visual Studio Team Foundation Server 2012 Build Extensions: <http://visualstudiogallery.msdn.microsoft.com/45b4e378-5b81-4186-9b7f-21cc5c2f743d>
- Setting up an Ant or Maven build in TFS: <http://msdn.microsoft.com/de-de/library/jj155784.aspx>
- Visual Studio Team Foundation Server Team Project and Collection Guidance: <http://msdn.microsoft.com/magazine/gg983486.aspx>
- [Team Foundation Build Customization Guide](#)
- Supported Configurations and Platforms for Coded UI Tests and Action Recordings: <http://msdn.microsoft.com/en-us/library/dd380742.aspx>



WIR SUCHEN VERSTÄRKUNG!



WIR SUCHEN

- Entwickler
- Berater



WIR UNTERSTÜTZEN SIE



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BERATUNG

Agile ALM und TFS
.NET und Architektur



ENTWICKLUNG

Dienstleister für individuelle
Lösungen mit .NET und Azure



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