Jazz Tunes for the .NET Developer



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About the Presenter

■ Sreerupa Sen, IBM Rational, Rational® Team Concert™ Client For Microsoft® **Visual Studio™ IDE**





Agenda

- What is the Rational[®] Team Concert™ Client For Microsoft[®] Visual Studio™ IDE?
- A quick tour of the Client
 - Source Control
 - Process Awareness
 - Work Item Improvements
 - **Build Integration**
 - Reports, Planning
 - Feeds, Notifications
 - ▶ CLM for the .NET developer
- Our top picks for 'coolness'
- Self-hosting, best practices
- Increased focus on enabling .NET developers
 - Sample Application for .NET developers
 - jazz.net
- Using ClearCase™, CearQuest™



What is RTC for Microsoft® Visual Studio™ IDE?

Team Collaboration for .NET Developers

- A Team Collaboration environment for .NET developers.
- Source control, work item tracking, build, process & collaboration services
- Links to test cases, requirements



A Visual Studio Client Integration

A First Class Integration with Microsoft Visual Studio

to enhance developer productivity





Innovative Software Engineering

Heterogeneity

- -A Common Team Collaboration Server infrastructure based on Jazz.
- -A Visual Studio Client for .NET developers
- -An Eclipse Client for Java developers
- -A Web Client for other stakeholders
- -Powered by Jazz





Vision

Brings the Jazz vision to .NET developers :

The value and experience that future Rational products can bring to software and systems delivery teams





Focus

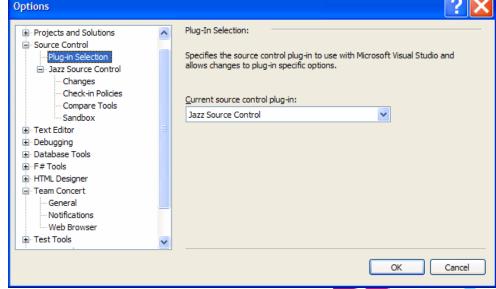
- Emphasis on Developer use cases
 - SCM
 - Work Items
 - Builds
 - Team and Process awareness
 - CLM
 - Reports, Planning
- Goals for 3.0, 3.0.1
 - Richer in-shell experience
 - Ease of use for the Visual Studio user
 - Better integration with the Jazz Platform
 - Greater team awareness
- Caters to heterogeneous teams in conjunction with RTC Eclipse and SCM CLI



RTC for Microsoft® Visual Studio™ IDE

- **Natively implemented in Visual Studio**
 - A first class integration into Visual Studio
- An extension of the Visual Studio IDE
 - Integrates into Editors, Properties View, Solution Explorer, Options pages, Toolbars, Menus, Tool Windows, Error View
 - Integrates into Visual Studio as a source control provider
- Supports Visual Studio 2010, 2008 and 2005
- Minimum requirement NET 3.5 SP1
- Follows Visual Studio international settings

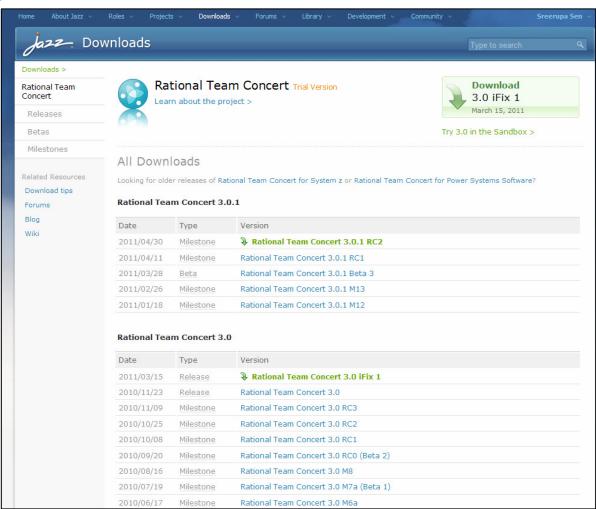






Installs and Downloads

- Installable via IBM **Installation Manager**
- Downloadable from jazz.net
 - https://iazz.net/downloads/ rational-team-concert/
 - ▶ 3.0.iFix1
 - 2.0.0.2 iFix6 (and other iFix releases), 2.0.0.2, 2.0.0.1, 2.0, 1.0.1.1 ...







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Source Control



Flexible Share

Distributed SCM



Jazz Properties

Rich History, Annotate



Scoping

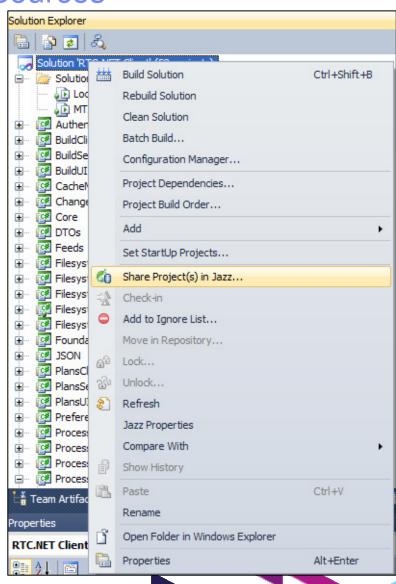
Miscellaneous





Flexible Mapping of Visual Studio Sources

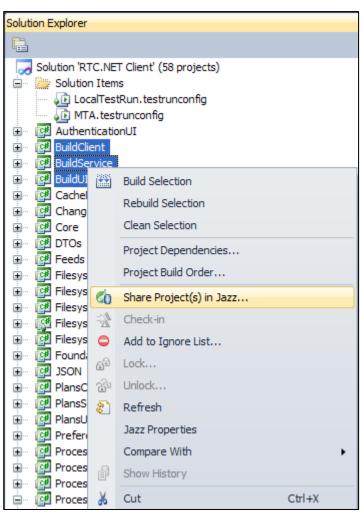
- You can organize your sources to have one or more Visual Studio solutions per functional module
 - Partitioned solutions
 - Solutions map to Jazz components
 - SCM bindings written into solution files and project files
 - Projects are 'homed' in one solution, may be included in many
 - Projects in a solution hierarchy are shared to the same Jazz component as the 'home' solution
 - Recommended approach
 - 'Share' via the Solution **Explorer**





Flexible Mapping of Visual Studio Sources

- You can organize your sources to have one or more projects per functional module
 - You don't need to check in a solution file
 - One or more projects map to a Jazz component
 - One or more projects 'shared' to a Jazz component
 - SCM bindings are written into project files
- You can share websites to Jazz components
 - Share via the Solution Explorer

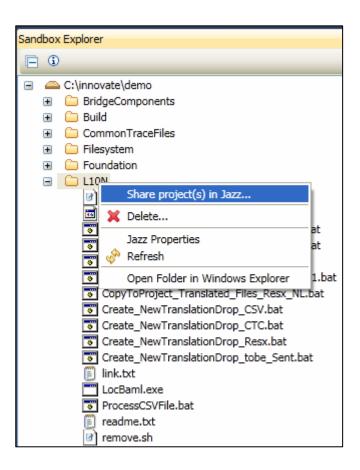






Flexible Mapping of Visual Studio Sources

- You can directly map folders to Jazz components
 - Documents folders
 - Design, test plans ...
 - Libraries that you use
 - Scripts
- Share via the Sandbox Explorer

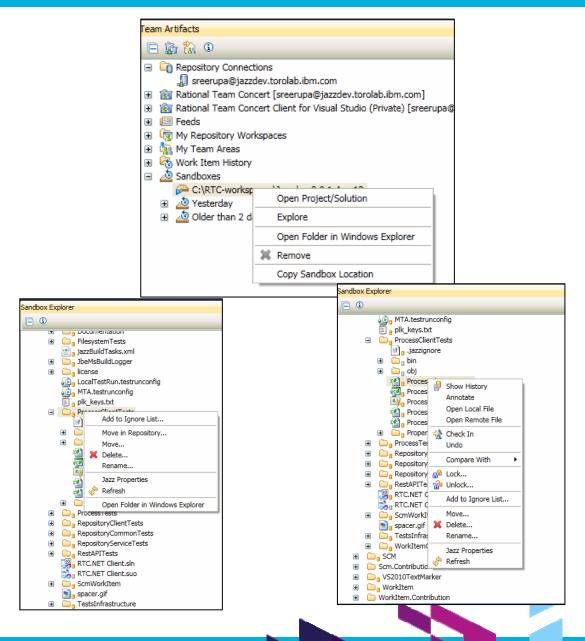






Sandbox Explorer

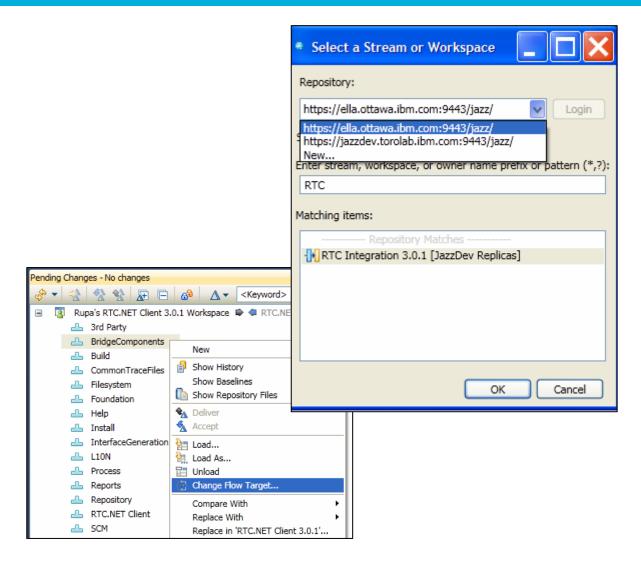
- Lets you work with and source control files and folders outside of a solution hierarchy
- Rich set of source control options
- Move and Rename preserve history
 - Within the sandbox
 - Across components
- Easily switch between sandboxes via the Sandbox History in the **Team Artifacts Navigator**





Distributed SCM

- You can flow your changes across repositories
 - Deliver, Accept
 - Components are cloned across repositories
 - Change sets are replicated

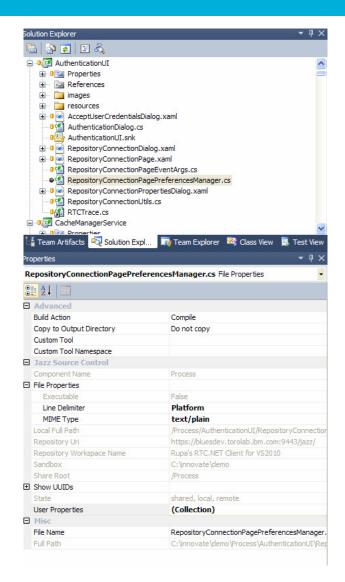






Jazz Properties

- You can view RTC/Jazz specific properties in the Properties View for a file.
- Edit RTC/Jazz specific **Properties**
- Add custom properties
- Version and compare properties

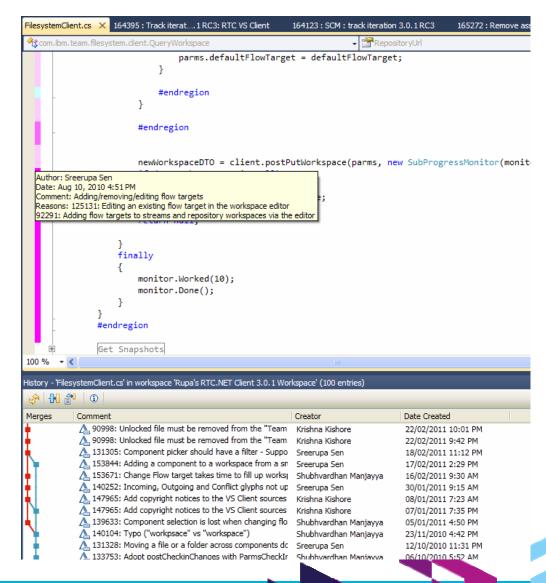






Rich History View, Annotate

- Annotate lets you figure out who modified a particular line in a source file.
 - ▶ Who do we 'blame'? ☺
- You can navigate to the corresponding change set in the History View

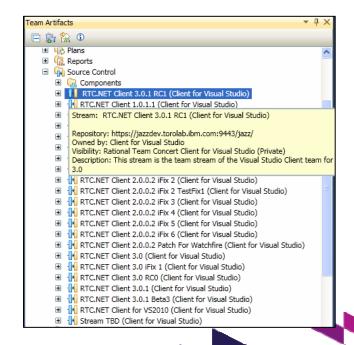




Scoping – Team Private Artifacts

- Restrict streams and components to be visible to the members of a Team Area
 - Team Private.
- Workspaces and contributor owned components will be created with a default visibility of 'Private'.
- Rich tool tips on the SCM artifacts provide information on ownership and visibility







Miscellaneous

- Native stream/workspace editor
- **External Compare Editors**
- Flexible loading
- **Component Administration**
 - Locating change sets





Work Items



- Rich text toolbar
- Better support for custom presentations
- Support for Time lines

Usability improvements in the Work Items View

Work Item History

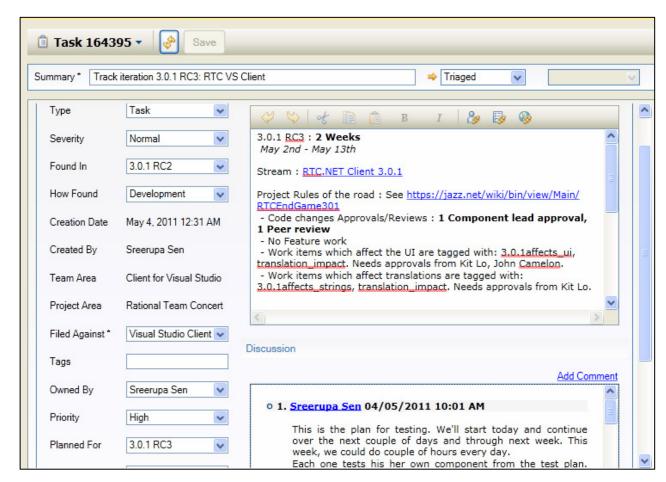
Current Work





Work Items Editor

- Process aware native editor
 - Rich text tool bar
 - User links, external links

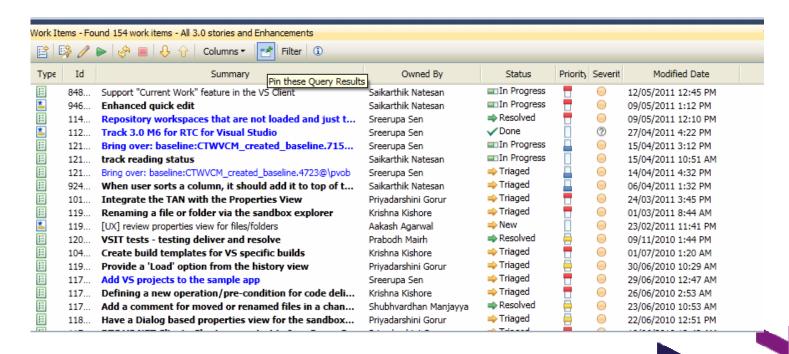






Work Items View: Usability Improvements

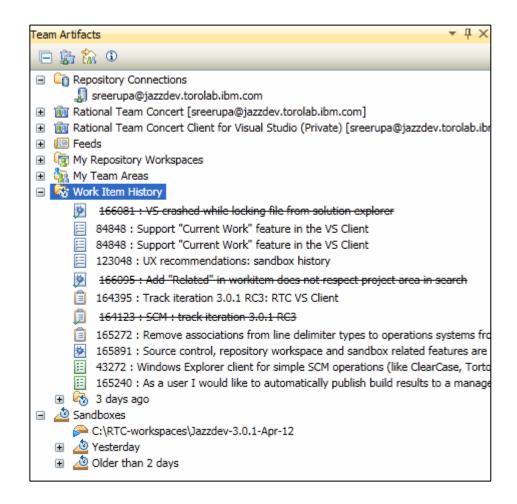
- You can pin the results of a query
 - Subsequent guery executions will display results in another instance of the view
 - No need to rerun queries when you switch between them
- Multi-level filtering of query results
- Pinning and filters combine to powerfully improve efficiency





Work Item History

- Work items are listed in the Team Artifacts Navigator in the order vou accessed them
 - You no longer need to remember work items of interest to you, the RTC Client for Visual Studio will remember them instead.

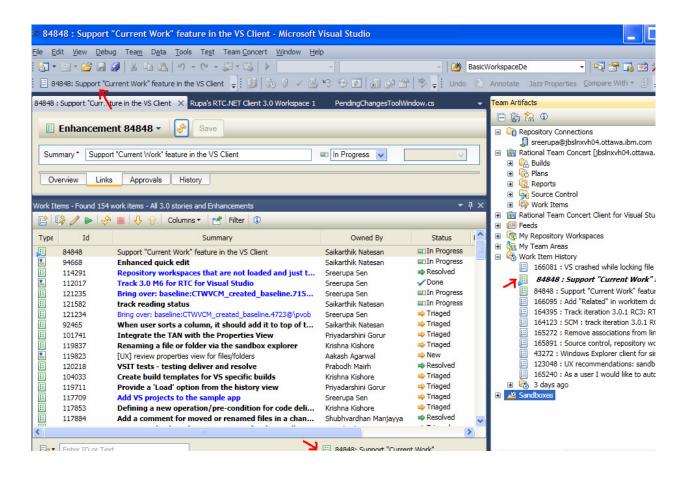






Current Work

- "Active" work item for your Visual Studio session.
- Your current change set will be associated automatically with this work item







Builds

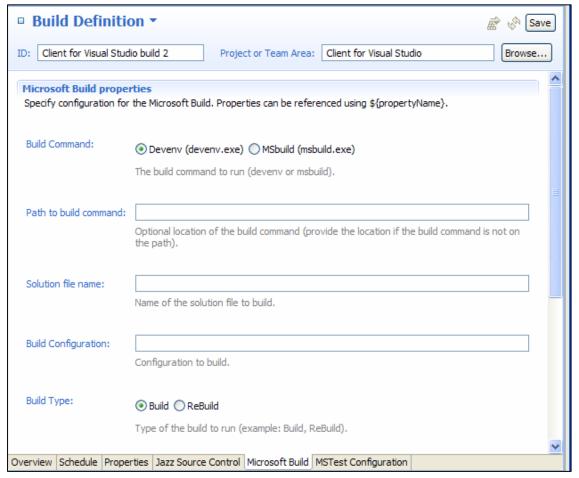
Microsoft Build Template Native build results editor Filterable build view





Build Template

- Jazz builds for Microsoft Visual Studio users
 - Simplifies configuration of builds using Microsoft build technology.
 - deveenv.exe or msbuild
 - MStest or nunits
 - The compilation log and test results are published back to the build result.

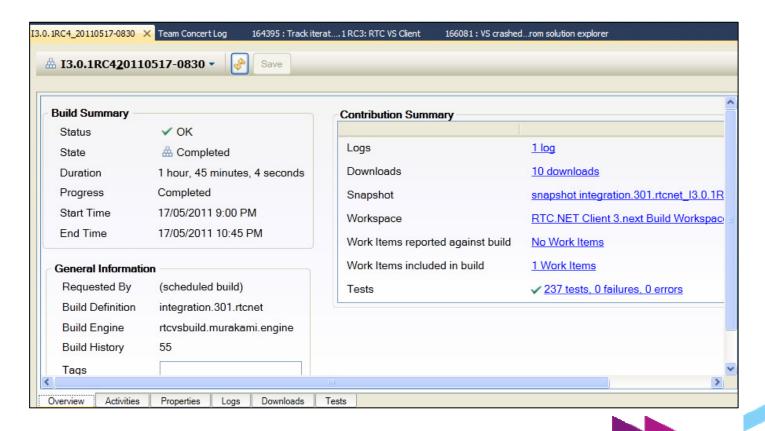






Build Results Editor

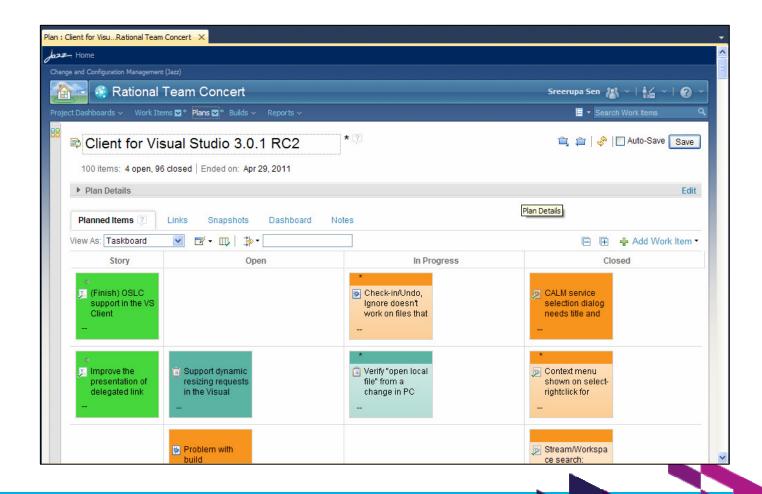
- Native build results editor
- Support for contributed build data





Planning

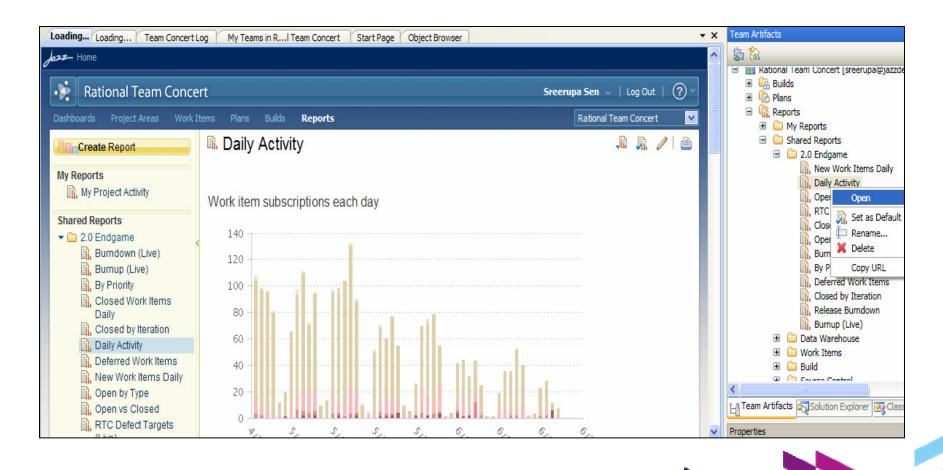
Create/update plans using a web based rich editor from within Visual Studio





Reports

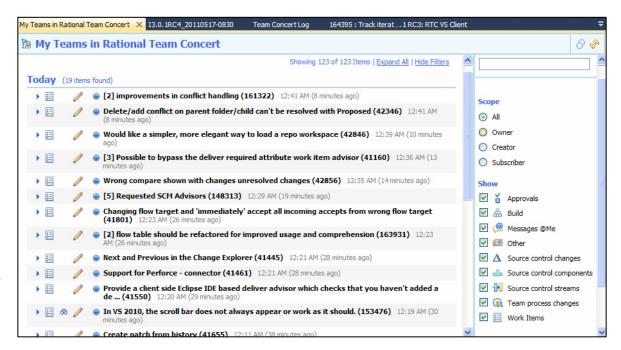
- You can now view/work with your reports from the Team Artifacts Navigator.
- You can create new reports based on the templates that come with RTC.





Feeds and Notifications

- You can subscribe to feeds for
 - Team events
 - Work items
 - Builds
 - Queries
 - External
- You can configure your feed subscriptions
- You can participate in work item discussions as you browse feeds
- Receive pop-up notification alerts for your feeds

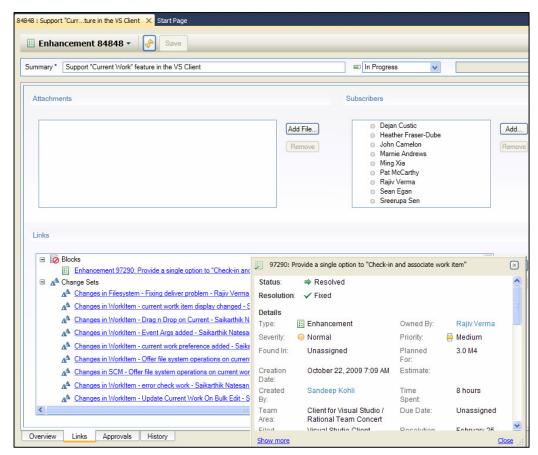






Collaborative Lifecycle Management

- Associate change sets with change requests in a 'friend' CM provider
- Link work items
 - To test cases
 - To requirements
- Create new change requests
- Rich hovers

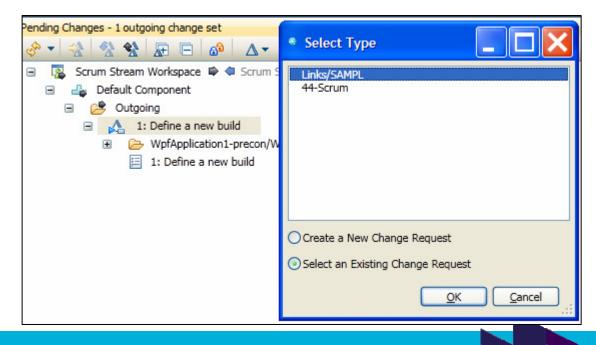






Associating Change Sets with Change Requests

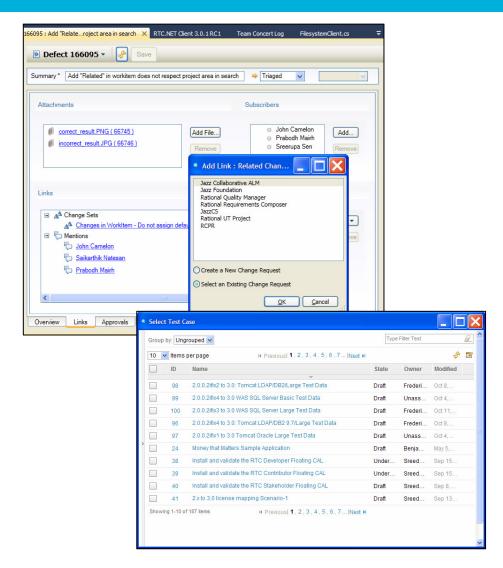
- Set up your jazz server to be a 'friend' of a CM provider
- You can now deliver your change sets against change requests from your 'friend' server
- Rich hovers provide you information on the change request in the remote server





Linking Work Items

- You can link work items to
 - Change requests in other CM providers
 - Test cases
 - Requirements
- End-to-end linking between your requirements, your development tasks and your test cases







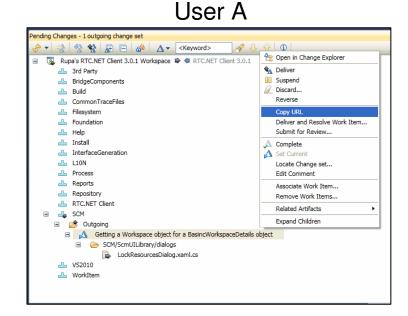
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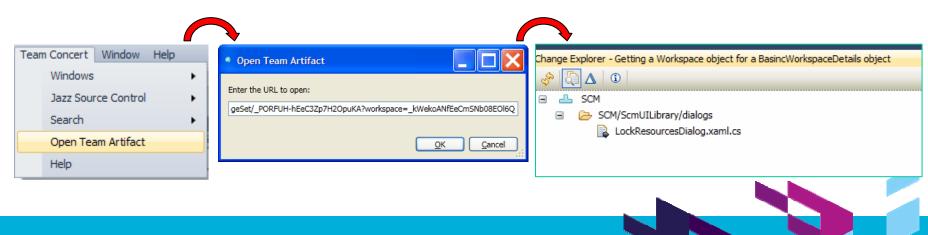


Opening a Team Artifact

- Sharing team artifacts between members of a team
 - For code reviews
 - For quickly viewing work items, build results, ...
- Pair programming made easy!



User B



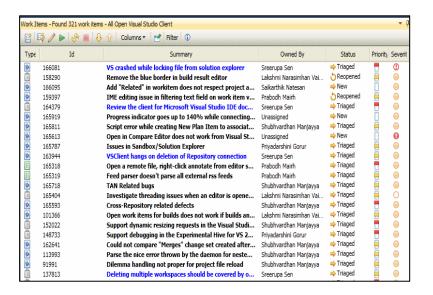


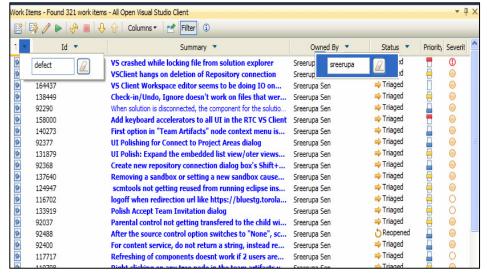
Multi-level filters for Work Items, Builds

- Multi-level filtering support for work items and builds
- You can get a single query to yield multi-faceted results

All Open Work Items

'Defect's owned by 'sreerupa'







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Self-hosting

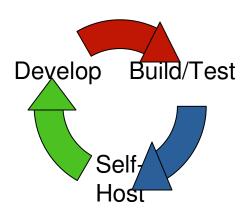
- At the completion of each iteration, we selfhost.
 - ▶ We develop on VS 2010
 - Our experimental hive is on VS 2008
- We have partitioned solutions
 - One solution per component
 - Projects are homed in the solution for their component
 - Projects get included in solutions that depend on them
 - One 'master' solution that homes all the test. projects and includes all the other projects from all solutions





Self-hosting

- Our continuous and integration builds are Jazz builds
 - Builds the master solution
- We've integrated our builds with Microsoft's unit testing framework
 - Each build runs through all the unit tests
- We follow the develop->build->test-> self-host->develop cycle
- The RTC team is heterogeneous
 - ▶ Team members self host using the VS Client, the Eclipse Client, the Web Client and the SCM CLL
 - We share common plans
 - We communicate via work items
 - We have common builds







What's worked for us

- Streams for every development line
 - ▶ Flow our changes, back port defect fixes
- Build definitions for every development line
- Process customizations are iteration specific
 - Relaxed rules at the start
 - More and more constraints towards the release, especially in terms of
 - Source code delivery
 - Work item approvals
- A developers life centers around work items
 - Design discussions
 - Bug reports
 - Source code deliveries
 - Approvals
 - ▶ Linking work items children, blocks on, related to...





What's worked for us

- Daily scrums, often distributed
 - Using the Developer's Taskboard view in the Iteration Plan
- Total transparency across globally distributed teams
 - Adoption items track cross-team dependencies
 - Feeds, dashboards
 - Plans
 - Project backlog
 - Planned Items: Committed, Deferred
- Automated builds that run a bunch of MSTests
- Installables created and uploaded as a part of build results
 - For stakeholders to download and use
 - SVT
 - Globalization
 - User Assistance
 - Self-hosting



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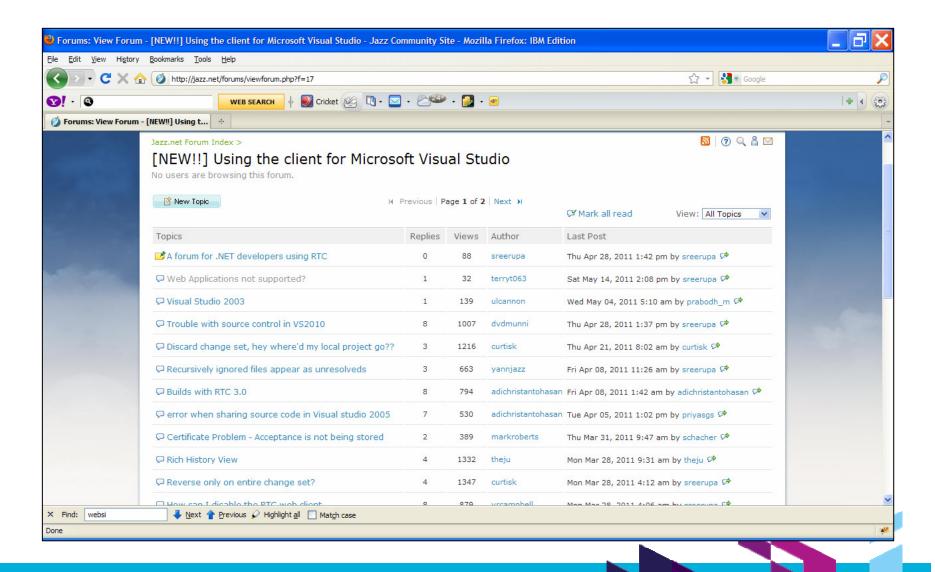
'Money that Matters' Sample Application

- A tutorial that explores how teams share common project goals, with complete alignment across requirements, development, and test plans.
- A new sample application for the RTC Visual Studio Client users
 - Iteration based development
 - Work items linked to plans and test cases
 - A source controlled WPF Application, unit tests
 - A build definition that lets you build the application and run the tests
- Download, install and play





New forum for the RTC Client for Visual Studio





Jazz.net Library

- FAQs page @ Frequently Asked Questions about Rational Team Concert client for Visual Studio IDE
- Features page @ The Rational Team Concert Client for Microsoft Visual Studio IDE
- Videos
- Articles, blogs

Learn More





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Using ClearCase™ with RTC Visual Studio

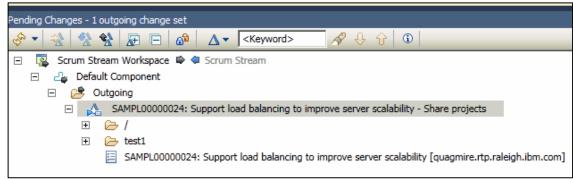
- The ClearCase synchronizer provides a smooth integration with Visual Studio projects
 - ▶ Converts from one source control provider to another, adding appropriate bindings
 - You can continue to work with the Source Control provider of your choice

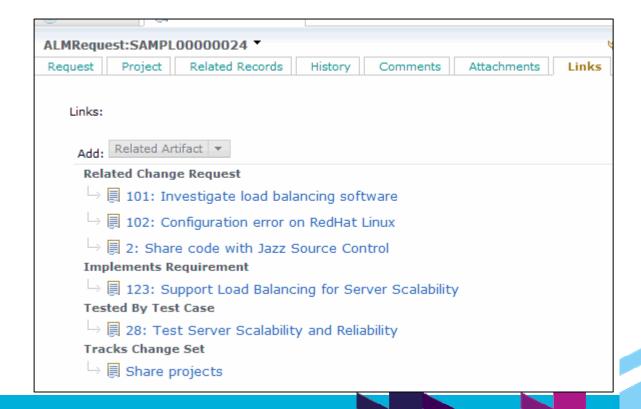




Using ClearQuest ™ with RTC Visual Studio

- You can link with CQ records from RTC Visual Studio
 - Associate with your change sets
 - Link to your work items
 - Links created are bidirectional









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Your Favorite Missing Feature

• ???





How do I give feedback/ask questions?

- jazz.net forums
- Work Items









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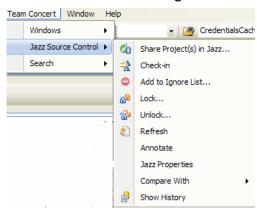




RTC Visual Studio™ at a glance

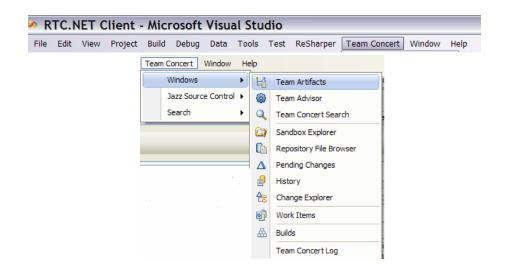
Visual Studio IDE extended with Jazz/RTC capabilities for

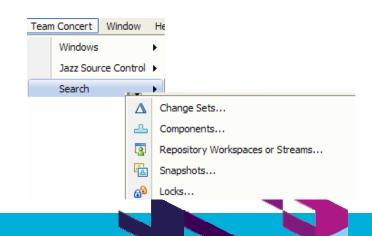
- Artifacts management
 - Repository connections, project areas, team Areas, streams, workspaces, components
- Work items management
- Build management



Source control management

- Repository search
 - Change sets, components, streams and workspaces, snapshots







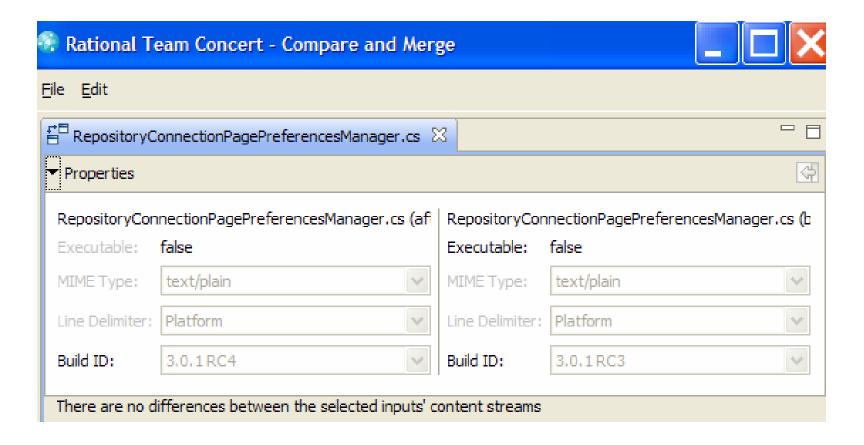
Error Reporting

- Easier error reporting at the click of a button
 - Set the debug level on the fly
 - ▶ Zips up the error logs at a location of the user's choice.
 - The user can attach the zip to a work item
- Monitor your jazz server calls in the Team Concer Log view

		→ Filter:		100	dear Log Copy to	Clipboard Open Log File	c Save Edg Files (6)
Date	Time	Component	Time Taken	Bytes Received	Request Number	Round Trips to Server	Message
5/18/2011	00:21:26	ServiceInte	8.9	33047	1221		Request 1221: Duration 8.97 sec
5/18/2011	00:21:17	ServiceInte					Executing Request 1221, 18/05/2011 00:21:17: https://jazzo
5/18/2011	00:20:35	ServiceInte	5.3	17941	1220		Request 1220: Duration 5.34 sec
5/18/2011	00:20:30	ServiceInte					Executing Request 1220, 18/05/2011 00:20:30: https://jazzo
5/18/2011	00:18:39	ServiceInte	3.6	1581	1219		Request 1219: Duration 3.64 sec
5/18/2011	00:18:37	ServiceInte	2.3	1623	1218		Request 1218: Duration 2.33 sec
5/18/2011	00:18:35	ServiceInte					Executing Request 1219, 18/05/2011 00:18:35: https://jazzo
5/18/2011	00:18:35	ServiceInte					Executing Request 1218, 18/05/2011 00:18:35: https://jazzo
5/18/2011	00:11:17	ServiceInte	8.2	66800	1217		Request 1217: Duration 8.23 sec
5/18/2011	00:11:09	ServiceInte					Executing Request 1217, 18/05/2011 00:11:09: https://jazzo
5/18/2011	00:10:30	ServiceInte	4.5	23879	1216		Request 1216: Duration 4.52 sec
5/18/2011	00:10:26	ServiceInte					Executing Request 1216, 18/05/2011 00:10:26: https://jazzo
5/18/2011	00:08:35	ServiceInte	1.9	1581	1215		Request 1215: Duration 1.92 sec
5/18/2011	00:08:35	ServiceInte	2.3	1623	1214		Request 1214: Duration 2.38 sec
5/18/2011	00:08:33	ServiceInte					Executing Request 1215, 18/05/2011 00:08:33: https://jazz
5/18/2011	00:08:32	ServiceInte					Executing Request 1214, 18/05/2011 00:08:32: https://jazz
5/18/2011	00:01:24	Core				5	Task Retrieving work item details required requests 1204,
5/18/2011	00:01:24	ServiceInte	6.6	54561	1213		Request 1213: Duration 6.64 sec
5/18/2011	00:01:17	ServiceInte					Executing Request 1213, 18/05/2011 00:01:17: https://jazz
5/18/2011	00:01:17	ServiceInte	1.7	2618	1212		Request 1212: Duration 1.78 sec
5/18/2011	00:01:15	ServiceInte					Executing Request 1212, 18/05/2011 00:01:15: https://jazz
5/18/2011	00:01:15	ServiceInte	0.5	1424	1211		Request 1211: Duration 0.52 sec
5/18/2011	00:01:15	ServiceInte					Executing Request 1211, 18/05/2011 00:01:15: https://jazz
5/18/2011	00:01:15	ServiceInte	0.6	1428	1210		Request 1210: Duration 0.69 sec
5/18/2011	00:01:14	ServiceInte					Executing Request 1210, 18/05/2011 00:01:14: https://jazz
5/18/2011	00:01:14	ServiceInte	3.8	36250	1209		Request 1209: Duration 3.89 sec
5/18/2011	00:01:10	ServiceInte					Executing Request 1209, 18/05/2011 00:01:10: https://jazz
5/18/2011	00:01:10	ServiceInte	5.3	54561	1207		Request 1207: Duration 5.31 sec
5/18/2011	00:01:08	ServiceInte	2.1	36434	1208		Request 1208: Duration 2.16 sec
5/18/2011		ServiceInte					Executing Request 1208, 18/05/2011 00:01:06: https://jazz
5/18/2011		ServiceInte					Executing Request 1207, 18/05/2011 00:01:05: https://jazz
5/18/2011		ServiceInte	4.4	46842	1206		Request 1206: Duration 4.48 sec
		ServiceInte					Executing Request 1206, 18/05/2011 00:01:00: https://jazz
5/18/2011	00:01:00	ServiceInte	17.5	79955	1204		Request 1204: Duration 17.50 sec
5/18/2011	00:00:47			***************************************		1	Task Retrieving work item details required requests 1203,
		ServiceInte	3.2	54561	1205		Request 1205: Duration 3.27 sec



Comparing File Properties

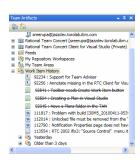






Work Item History

- Work items are listed in the Team Artifacts Navigator in the order you accessed them
 - You no longer need to remember work items of interest to you, the RTC Client for Visual Studio will remember them instead.

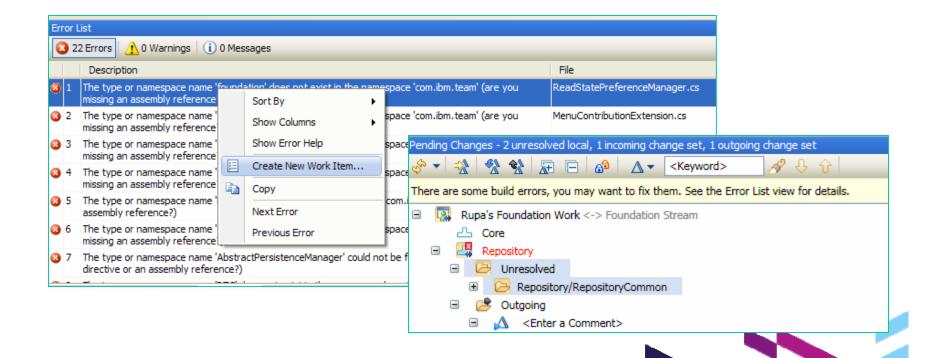






Integration with the Error View

- You can now create work items on build errors
- The Pending Changes view is also sync'ed with the Error View
 - If the user tries to deliver sources that have compile errors, the Pending Changes view shows up dilemmas





Team Areas

- The Visual Studio Client has now made your teams more visible by the Team Areas node in the Team Artifacts **Navigator**
- You can browse your teams and look up your team members, subscribe to team events, search for streams and repository workspaces and so on.

