



**IBM Rational Software Conference 2009**  
As Real as It Gets!



## IBM Rational Software Conference 2009

New Product Introduction:  
IBM Rational Change 5.2  
IBM Rational Synergy 7.1

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**Rational.** software

*iCRM03*

# Platforms and Databases

## ■ Platforms

- ▶ IBM AIX® 6.1 - Informix and Oracle (updated from 5.3)
- ▶ Red Hat® Enterprise Linux 5 (32-bit and 64-bit) - Informix and Oracle
- ▶ Sparc Solaris® 10 - Informix and Oracle
- ▶ Suse® Linux 10 SP2 (32-bit and 64-bit) - Informix only (New!)
- ▶ Windows® Server 2003 R2 Standard or Enterprise Edition (32-bit and 64-bit)
- ▶ Windows XP Professional SP3 - client only (server for internal use)
- ▶ Windows Vista Enterprise SP1 (32-bit and 64-bit) - client only
- ▶ VMware® ESX Server™ 3.5 running Windows Server 2003 R2 Standard or Enterprise Edition (32-bit or 64-bit)
- ▶ Citrix XenApp 5 (updated from Presentation Server 4.5)

## ■ Databases

- ▶ Informix 11.5 (updated from Informix 10)
- ▶ Oracle 10g R2



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### New Product Introduction: IBM Rational Change 5.2

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# Overview

- New product name: IBM Rational Change
  
- Prerequisites
  - ▶ IBM Rational Synergy 7.1 or 6.6a
  - ▶ IBM Rational Directory Server 5.0
  - ▶ IBM Rational License Server TL 2.0
  
- Platforms and Browsers
  - ▶ Added support for Suse Linux
  - ▶ Added support for Firefox 3 on Windows

# Rational Directory Server 5.0 (formerly TDS 4.3)

- RDS 5.0 Apache (new!)
  - ▶ Lightweight LDAP server (Apache Directory Server)
  - ▶ Smaller installation footprint, easier to install and administer
  - ▶ Supported by Synergy and Change, but not yet by other Telelogic products such as DOORS
  - ▶ Features:
    - Password policy support
    - Secure stack with SSL and strong (128 bit) storage encryption
    - Migration of Synergy and Change data from older versions of TDS: 3.0, 4.2, 4.3, also RDS 5.0 Tivoli
  - ▶ Platforms: Red Hat Linux 5, Solaris 10, AIX 6.1, Windows 2003 Server
  
- RDS 5.0 Tivoli
  - ▶ Works with Tivoli and DB2, similar to TDS 4.3
  - ▶ Now requires separate installation of DB2 and Tivoli
  - ▶ Supported by DOORS, System Architect, Focal Point, and Team Webtop (as well as Synergy and Change)
  - ▶ Enhancements from TDS 4.3
    - OS authentication mode supports multiple OS domains in Windows
    - Performance enhancements
    - Support for Suse Linux Enterprise 10
  - ▶ Platforms: Red Hat Linux 5, Solaris 10, AIX 6.1, Windows 2003 Server, Suse Linux 10

## Rational License Server TL 2.0

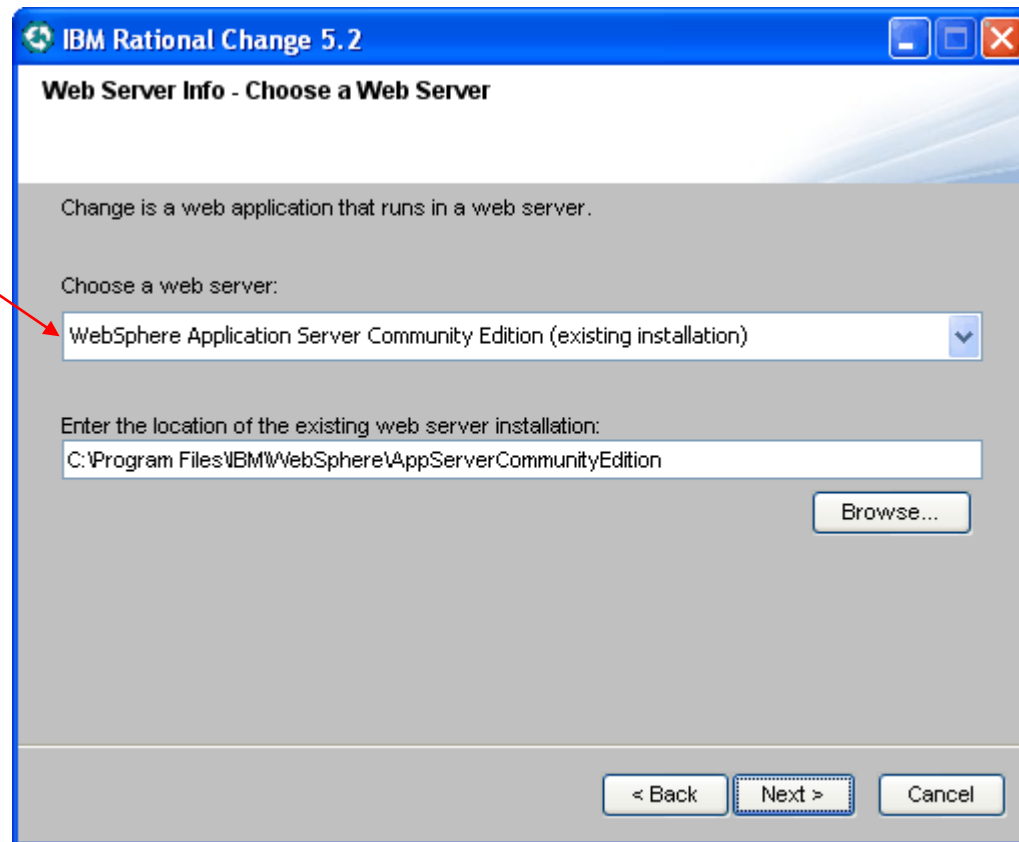
- “IBM Rational License Server” and “IBM Rational License Server TL” are different. The “TL” version is compatible with former Telelogic tools.
  
- New Change 5.2 license is required in most cases
  - ▶ Don't need to get new license if
    - Using Change 5.1 in stand-alone mode
    - Using Change 5.1 in central server mode without any remote servers

# Application Servers

- Requirement to support additional application servers, namely WebSphere
  - ▶ Change 5.2 is first step towards being hosted within an application server, Change does NOT take advantage of application server capabilities like load balancing, authentication services, etc.
  
- Jetty 5.1.14
  - ▶ Bundled solution
  - ▶ Same as Change 5.1
  
- WebSphere Application Server Community Edition 2.1.1.1 (WASCE)
  
- WebSphere Application Server 7.0 (WAS)

## Application Servers

- Select application server during installation of Change
- For WebSphere, you must install change as the same user that installed WebSphere
  - ▶ “ccm\_root” user no longer a requirement (even for Jetty)





# Application Servers

- Set port for Jetty, reuse port defined by WebSphere
- Unique context is required for all server (even Jetty).
- URL to Change must contain the context
  - ▶ `http://host:port/context/user`
  - ▶ `http://host:port/context/admin`

IBM Rational Change 5.2

Web Server Info - Port and Context

Enter the web server port number:

8080

Enter a unique context path for Change (it will be appended to the URL):

change

< Back   Next >   Cancel

# WASCE – Admin Console

WebSphere. Application Server Community Edition Logout

**Console Navigation**

- Welcome
- Server
  - Information
  - Java System Info
  - Server Logs
  - Shutdown
  - Web Server
  - Thread Pools
  - Apache HTTP
  - JMS Server
  - Monitoring
- Services
  - Repository
  - Database Pools
  - JMS Resources
- Applications
  - Web App WARs
  - System Modules
  - Application EARs
  - EJB JARs
  - J2EE Connectors
  - App Clients
  - Deploy New

**Installed Web Applications**

Expert User (enable all actions on Geronimo Provided Components)

Show parent and child components

Component Name	URL	State	Commands		
com.ibm.rational.change/central/5.2/war	<a href="#">/central</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
com.ibm.rational.change/change_eclipse/5.2/war	<a href="#">/change_eclipse</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
com.ibm.rational.change/remote/5.2/war		stopped	<a href="#">Start</a>		<a href="#">Uninstall</a>
com.ibm.wasce.configs/collector-tool-agent/2.1.1.1/car	<a href="#">/collector-tool-agent</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
com.ibm.wasce.configs/welcome-tomcat/2.1.1.1/car	<a href="#">/</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
org.apache.geronimo.configs/ca-helper-tomcat/2.1.3/car	<a href="#">/CAHelper</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
org.apache.geronimo.configs/dojo-legacy-tomcat/2.1.3/car	<a href="#">/dojo/0.4</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
org.apache.geronimo.configs/dojo-tomcat/2.1.3/car	<a href="#">/dojo</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
org.apache.geronimo.configs/remote-deploy-tomcat/2.1.3/car	<a href="#">/remote-deploy</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
org.apache.geronimo.configs/uddi-tomcat_uddi-tomcat/2.1.3/car	<a href="#">/juddi</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
org.apache.geronimo.plugins/activemq-console-tomcat/2.1.3/car	<a href="#">/activemq</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
org.apache.geronimo.plugins/console-tomcat_portal-driver.war/2.1.3/car	<a href="#">/console</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
org.apache.geronimo.plugins/console-tomcat_base-portlets.war/2.1.3/car	<a href="#">/console-base</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
org.apache.geronimo.plugins/debugviews-console-tomcat/2.1.3/car	<a href="#">/debug-views</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
org.apache.geronimo.plugins/mconsole-tomcat/2.1.3/car	<a href="#">/monitoring</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
org.apache.geronimo.plugins/plancreator-console-tomcat/2.1.3/car	<a href="#">/plan-creator</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
org.apache.geronimo.plugins/plugin-console-tomcat/2.1.3/car	<a href="#">/plugin</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
org.apache.geronimo.plugins/sysdb-console-tomcat/2.1.3/car	<a href="#">/system-database</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>

Component Name	URL	State	Commands		
com.ibm.rational.change/central/5.2/war	<a href="#">/central</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
com.ibm.rational.change/change_eclipse/5.2/war	<a href="#">/change_eclipse</a>	running	<a href="#">Stop</a>	<a href="#">Restart</a>	<a href="#">Uninstall</a>
com.ibm.rational.change/remote/5.2/war		stopped	<a href="#">Start</a>		<a href="#">Uninstall</a>

- ClassLoader Viewer
- JNDI Viewer
- Dependency Viewer
- Embedded DB
  - DB Info
  - DB Manager



# WAS – Admin Console

Integrated Solutions Console Welcome system Help | Logout

Cell=indpd241Node01Cell, Profile=AppSrv01 Close page

**View:** All tasks

- Welcome
- ▣ Guided Activities
- ▣ Servers
- ▣ Applications
  - New Application
  - ▣ Application Types
    - [WebSphere enterprise applications](#)
    - Business-level applications
    - Assets
- ▣ Services
- ▣ Resources
- ▣ Security
- ▣ Environment
- ▣ System administration
- ▣ Users and Groups
- ▣ Monitoring and Tuning

**Enterprise Applications**

Use this page to manage installed applications. A single application can be deployed onto multiple servers.

▣ Preferences

Select	Name	Application Status
You can administer the following resources:		
<input type="checkbox"/>	<a href="#">DefaultApplication</a>	➔
<input type="checkbox"/>	<a href="#">Silent 783</a>	➔
<input type="checkbox"/>	<a href="#">central 783</a>	✖
<input type="checkbox"/>	<a href="#">ivtApp</a>	➔
<input type="checkbox"/>	<a href="#">query</a>	➔

**Help**

**Field help**  
For field help information, select a field label or list marker when the help cursor is displayed.

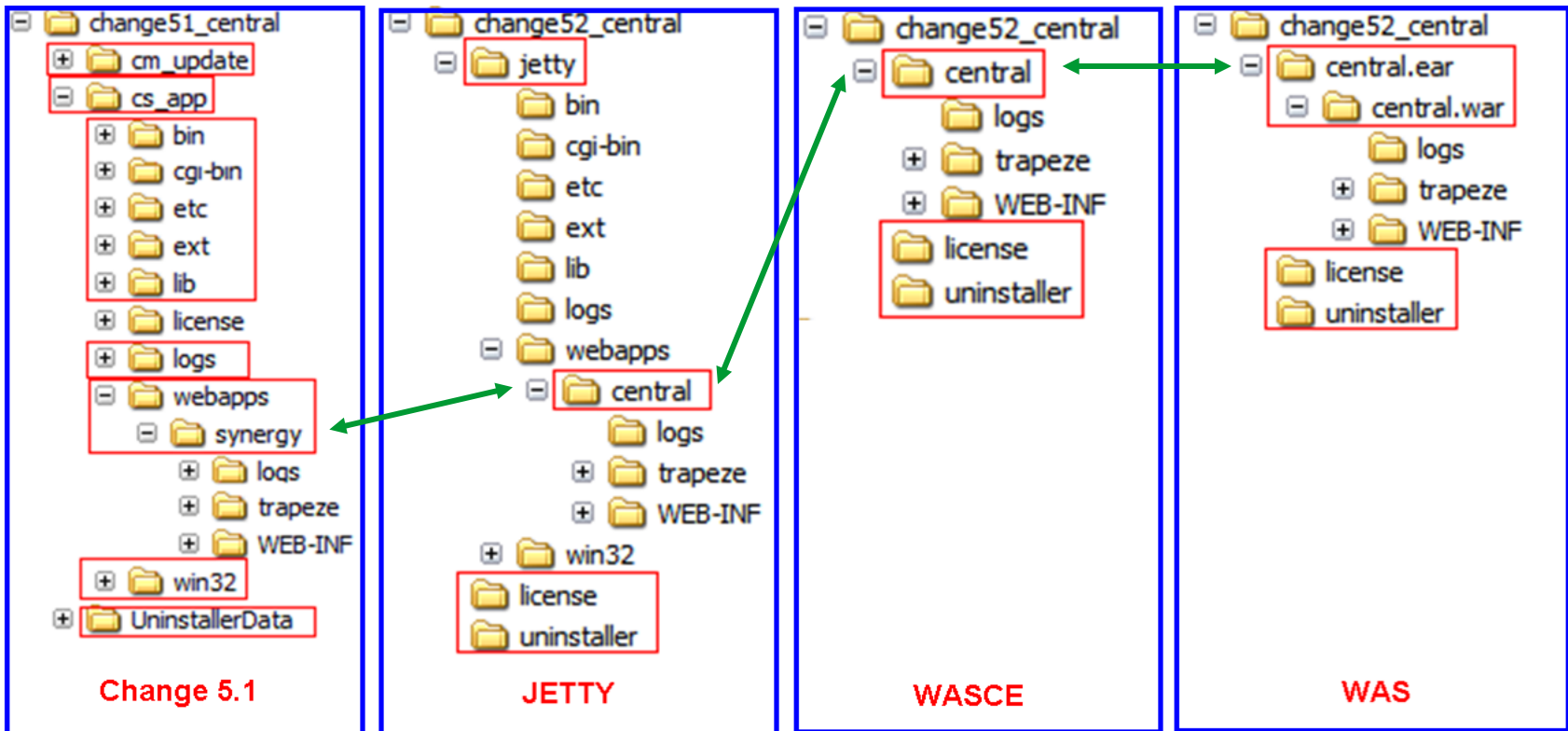
**Page help**  
[More information about this page](#)

**Command Assistance**  
[View administrative scripting command for last action](#)

Select	Name	Application Status
You can administer the following resources:		
<input type="checkbox"/>	<a href="#">DefaultApplication</a>	➔
<input type="checkbox"/>	<a href="#">Silent 783</a>	➔
<input type="checkbox"/>	<a href="#">central 783</a>	✖

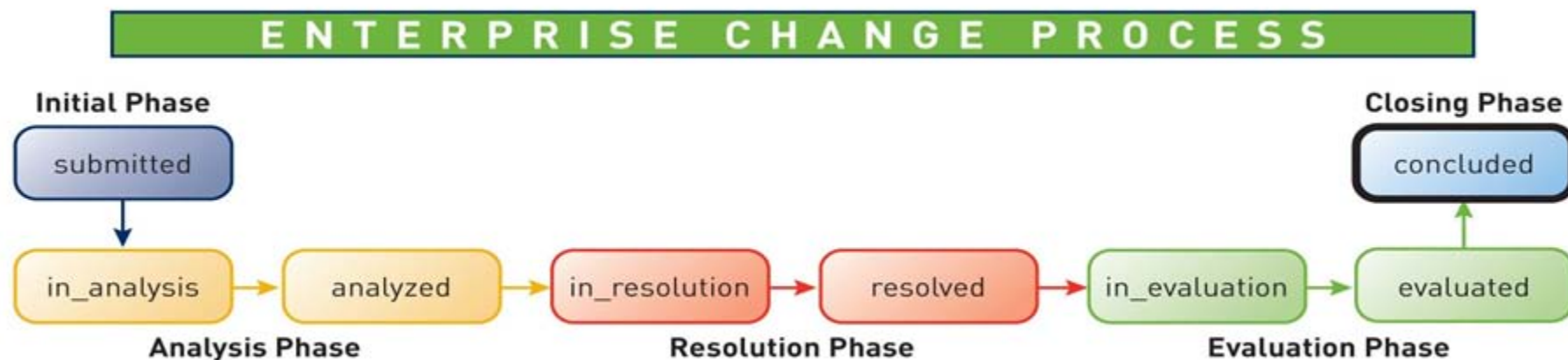
# Folder Structure Changes

- Location of the Change application is different for different servers



# Enterprise Change Process

- ECP is included with Change 5.2
  - ▶ 5 phase lifecycle
    - 3 main phases (Analysis, Resolution, and Evaluation) has 2 states
  - ▶ Several features have been generalized and made available to all lifecycles, including dev\_process



# Enterprise Change Process

- ECP features available as standard product
  - ▶ Enhanced subscription feature
  - ▶ State & transitions pictures
  - ▶ Effort progress bar
  - ▶ Page and section navigation features
  - ▶ Notification scripts
  - ▶ CMMI matrix report package (weighted matrix report)
  - ▶ Generate help with lifecycle visualization tool
  - ▶ Triggers
  
- Some of these features have been added to dev\_process

## ECP – Short-cuts and Visual Status

- Dev\_process includes a few features from ECP
  - ▶ short-cuts to sections
  - ▶ visual status

**Change Request Information** Save Printer Friendly View | Help

**Entered CR** More Info...

**Transitions:** [Assign](#) | [Defer](#) | [Mark as Duplicate](#) | [Mark as Obsolete](#) | [Reject](#) | [Verify](#) | [Admin Transition](#)

**Go to section:**

**Visual Status:**  →  →  →

**Effort Progress:** Total Effort: 0 Estimated Total Effort: 0 Unable to display the progress bar: No valid estimate for total effort has been entered.

---

**CR ID:** 173 **Status:** entered

# ECP – Progress Bar and Email Notification

## ■ Progress Bar Indicator

- ▶ A simple progress bar indicator for the total effort to the actual effort taken to complete a Change Request

Effort Progress: Total Effort: 0.25 Estimated Total Effort: 0.25



## ■ Email notification

- ▶ Provides a template based email notification system, which is easy to implement and administer, and which provides targeted emails with appropriate content to those people who need to take action.



# ECP – Generated Help

- Flash based CR process help system

http://192.168.71.32:8110 - IBM Rational Change - Process Help - Mozilla Firefox

## CR Process Help

Default Lifecycle -> States -> Assigned CR (assigned)

**Description** Associations

Assigned Change Request

State Dialog Attributes (Uses default process dialog)

Required Attributes (0) Optional Attributes (70) Read Only Attributes (10) Security

Name	Description
Actual Total Effort	The actual effort spent on resolving the CR. The effort can be in days or hours. This should align with the attribute estimate.
Additional Information	Start Additional Information - provides the internal page navigation information and the style sheet information to color the section.
Approval Information	provides the internal page navigation information and the style sheet information to color the section.
Approval Information	Provides a dummy style to terminate the section color.
Approved by Architect	Whether or not the CR has been approved by an architect.
Approved by Development Mgr	Whether or not the CR has been approved by a development manager.
Approved by Doc Team	Whether or not the CR has been approved by a documentation team member.
Approved by Product Mgr	Whether or not the CR has been approved by a product manager.

Transferring data from 192.168.71.32...

## ECP – CMMI Report

- CMMI Weighted Matrix Report: Comes with the installation of CMMIMatrixReports package. Report shows the weighted number of Change Requests for each state and severity.

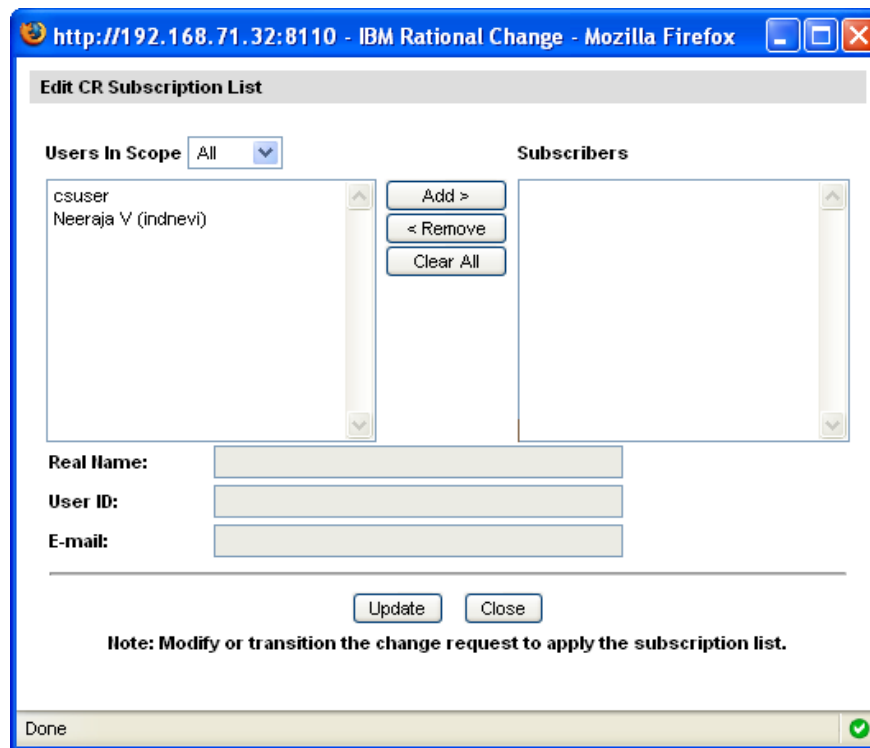
**Report:** [CMMI Weighted Matrix \(Status + Severity\)](#)

**Query:** [CMMI Weighted Matrix \(Status + Severity\)](#)

Change Request Severity (weighted)							
	Severity					Totals	
	Hot Set	Minor	Medium	Severe	Showstopper		
S t a t e s	Entered	0.00	0.00	0.00	0.00	0.00	
	Assigned	0.00	0.00	0.00	0.00	<a href="#">4.80</a>	
	Resolved	0.00	0.00	<a href="#">3.20</a>	0.00	<a href="#">3.20</a>	
	Concluded	0.00	0.00	0.00	0.00	0.00	
	Deferred	0.00	0.00	0.00	0.00	0.00	
	Duplicate	0.00	0.00	0.00	0.00	0.00	
	In Review	0.00	0.00	0.00	0.00	0.00	
	Obsolete	0.00	0.00	0.00	0.00	0.00	
	Probreject	0.00	0.00	0.00	0.00	0.00	
	<b>Totals</b>	0.00	0.00	<a href="#">3.20</a>	0.00	<a href="#">4.80</a>	<a href="#">16.00</a>

## ECP – Subscription

- The administrator privilege can be specified as custom context data to the control so global administrator privilege is not required to subscribe other users



# Extended Text

- New web type that allows “web rich text” (sub-set of rich text easily rendered on the web)
  - ▶ Font (format and size)
  - ▶ Bold, italics, underline, strikethrough
  - ▶ Left, center, right alignment
  - ▶ Numbering and bulleting
  - ▶ Indention
  - ▶ Foreground, background color
  - ▶ Links

**Description:**



# Message of the day

- Can be defined from the Admin interface

- ▶ Admin -

## Message of the Day

The message of the day is displayed to users on the login dialog. A message is not currently defined.

Define Message

## Edit Message of the Day

Enter a message to be displayed on the login dialog. HTML may be used and will be rendered.

Text  HTML

OK

Cancel

## Message of the Day

Status:  On  Off

Preview:

### Message of the Day

Tip: Change your font size.

Log in with the User role. Click Settings in the Action Panel, then click the General Preferences tab. In the Default Font Size list, click your preferred font size. Click the Update button to save your new font size.

To change or remove this message, edit the `motd.js` file located in the `Templates/pt/include` directory.

# Base Templates

- Set of available base templates have been reduced
  - ▶ Column style and the number of columns can be selected from the interface
  - ▶ Previous base templates can be restored from earlier versions of Change

Base Templates		Attributes Per Row
Show:	<input type="text" value="base_show_by_column.html (default)"/>	<input type="text" value="2"/>
Submit:	<input type="text" value="base_submit_by_column.html (default)"/>	<input type="text" value="2"/>
Copy:	<input type="text" value="base_copy_by_column.html (default)"/>	<input type="text" value="2"/>
Transition:	<input type="text" value="base_transition_by_column.html (default)"/>	<input type="text" value="2"/>
Query:	<input type="text" value="base_query.html (default)"/>	<input type="text" value="1"/>

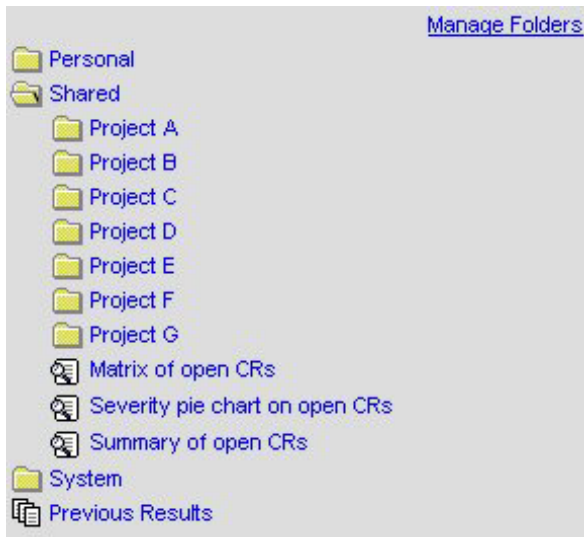
# Performance

- Attribute controls are cached in the Change server
  - ▶ Performance improvements vary depending on number of attributes and file system performance. Standard dev\_process only 300ms faster, but one customer's submit dialogs went from 4 seconds to 2.3 seconds and 5.7 seconds to 3 seconds
- Modifications/customizations of attribute controls won't take effect until after reloading configuration data or use new configuration entry to turn off cache:

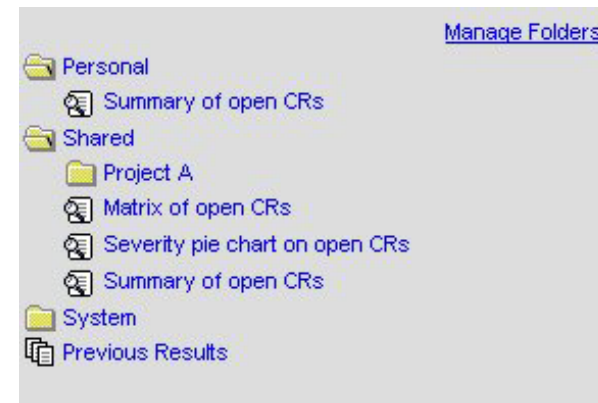
```
[CCM_SYSTEM]
  [CACHE_ATTRIBUTE_CONTROL]
    false
  [/CACHE_ATTRIBUTE_CONTROL]
[/CCM_SYSTEM]
```

# Folder Security

- Security added to queries, reports, and formats
  - ▶ Security is enforced at the folder level (not individual queries, reports, or formats)
  - ▶ Applicable for shared and system folders
  - ▶ Activated by setting [ENABLE\_FOLDER\_SECURITY] to true



No folder security



With folder security



## Folder Security – Privileges

- The privilege defined by [FOLDER\_ROOT\_MANAGER\_ROLE] controls edit capabilities at the root level
  - ▶ Allow users to create/delete items directly under Shared and System folders (e.g. ability to create a sub-folder)
  - ▶ Default value is build\_mgr
  
- The privilege defined by [FOLDER\_SECURITY\_MANAGER\_ROLE] controls edit capabilities of the folder security rules
  - ▶ Allow users to create/delete ACL-like rules
  - ▶ Default value is build\_mgr

# Folder Security

- Managing folder security from “Manage folders” link and then selecting Manage Folder Security

The screenshot displays the IBM Rational Change web application interface. The top navigation bar includes links for Home, Queries, Reports, Advanced Search, Settings, Help, and Exit. Below this, there are input fields for 'Submit a CR', 'CR', 'Task', and 'Enter ID or search string', along with 'Show' and 'Search' buttons. The 'Report on:' dropdown is set to 'Change Requests'. The main content area is divided into two sections. On the left, under 'Choose a Report', there are checkboxes for 'Immediately run report', 'Show results in a new window', and 'Show report links in a new window'. Below this is a tree view of folders including 'Personal', 'Shared', 'Project A' through 'Project G', and 'System'. A red circle highlights the 'Manage Folders' link in the 'Shared' folder. On the right, the 'Manage Folders' dialog box is open, showing a dropdown menu for 'Operation' with options: 'Choose a folder operation', 'Create a new folder', 'Delete a folder (and all of its members)', 'Rename a folder', 'Delete folder members', 'Move folder members', and 'Manage folder security'. The 'Manage folder security' option is selected. Below the dropdown, there is a note: 'require the process administrator or build\_mgr privilege.' and 'OK' and 'Cancel' buttons.

# Folder Security

## ■ ACL like interface

- ▶ Default Rule (Allow all users or Denies all users)
- ▶ All folder grant or deny rule
- ▶ List users/groups for read and read/write access
- ▶ Filter, Show with Rules, Show without Rules

IBM Rational Change

Home | Queries | Reports | Advanced Search | Settings | Help | Exit

Submit a CR [Go] CR Task Enter ID or search string [Show] [Search] DB: base71

Manage Folder Security > CR Shared Reports

Filter Show With Rules Show Without Rules Show All

Default Rule: Deny read and write access for all 8 Folders

Folder Name	Read Access	Read & write Access
All folders grant		
Project A		saa
Project B		
Project C		
Project D		
Project E		
Project F		
Project G		

Save Cancel

## Central Server Mode

- Restore support for CM build queries/reports in central server mode
  - ▶ This feature was disabled in 5.0 and 5.1
  
- Migration from distributed to central
  - ▶ First available as a patch to 5.1

# Migration to Central

- ▶ Add a development database to central server and then migrate:
  - Transfers all CRs to the central database
  - Transfers all CR attachments and other directly related objects
  - Preserve CR-to-CR relationships
  - Preserve CR-to-task relationships between databases. The tasks themselves remain in the development database
  
- ▶ Server will automatically update user saved queries/reports in RDS when user logs into server

## Migrate Change Requests into the Central Database [Help](#)

CR Migrate allows you to transfer CRs out of a development database and into your central CR database. CR Migrate performs the following actions:

- Transfers all CRs to the central database.
- Transfers all CR attachments and other directly related objects.
- Preserves CR-to-CR relationships.
- Preserves CR-to-task relationships between databases. The tasks themselves remain in the development database.

Migrate From Database:

E-mail When Done:

## Migration to Central

- Migration is designed to run while the server is fully functional. It runs in the background moving CRs from the development database to the central database using small DCM packages.
  - ▶ DCM packages are transferred by the Change server (no admin/user involvement is necessary)
- Newest CRs (likely to be the most active) are transferred first, so users can start accessing CRs before the migration is complete
- Migration tool will provide an estimate that will be more accurate as time progresses. The documentation also contains instructions on how to estimate the time and space requirements based on number of CRs.



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### New Product Introduction: IBM Rational Synergy 7.1

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**Rational.** software


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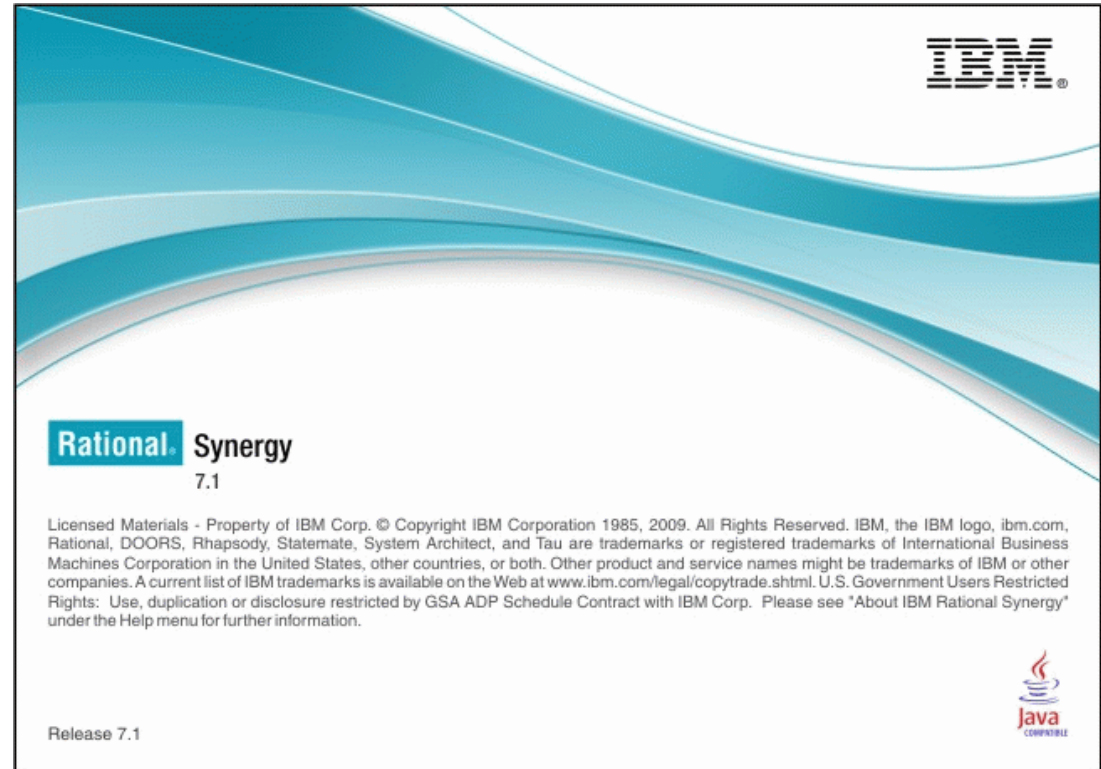
# Overview of IBM Rational Synergy 7.1

- Branding changes
- Improvements to Web Mode
  - ▶ Support for link-based work areas on UNIX
  - ▶ CCM Server administration improvements
  - ▶ Ability for users to change their passwords
  - ▶ Extended CLI commands
- Improved support for Component-Based Development
  - ▶ Easily add and manage subcomponents
  - ▶ Better support for baselines containing multiple releases
  - ▶ Usability improvements
- Improvements to Windows client installation deployment
- Support for large files (>2GB)
- New archiver for source code
- Support for new lighter weight Rational Directory Server (formerly TDS)
- Platform support

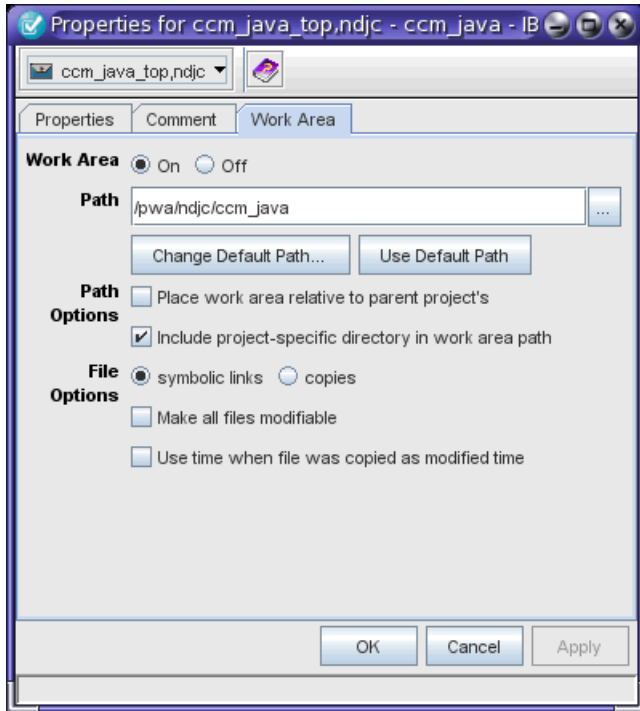


# Branding Changes

- New product name: IBM Rational Synergy
- Splash screen
- About dialog
- Start menu
- Installation path
- Desktop icons 
- Registry entries
- License acceptance



## Improvements to Web Mode: Work Area



### Link-based work areas now supported for UNIX clients in Web Mode

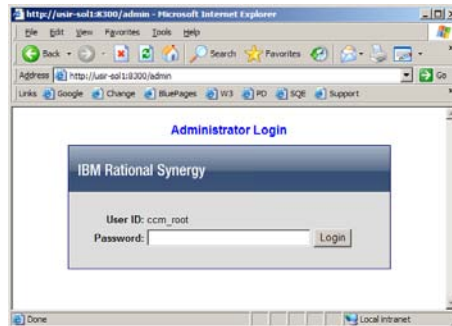
- ▶ Behaves the same as link-based work areas in Traditional Mode
- ▶ Supported in Synergy graphical and command line interfaces

# Improvements to Web Mode: Server Administration

## ■ New web admin page to configure server-to-database mappings

### ▶ To access

- Navigate to <http://host:port/admin>
- Login as `ccm_root`
- Login expires after 5 minutes
- Expiration time is configurable



### ▶ Page shows all databases and their servers

- Databases can be active or inactive
  - Active = being served by a server  
You must go to its own server to change its server
  - Inactive = not being served by a server  
You can change it from any server

### ▶ Newly unpacked, loaded, and upgraded databases are served by the “local” server by default

### ▶ Commands that create databases have a new option to specify the server

- `ccmdb unpack ... -url <host:port>`
- `ccmdb load ... -url <host:port>`
- `ccmdb upgrade ... -url <host:port>`

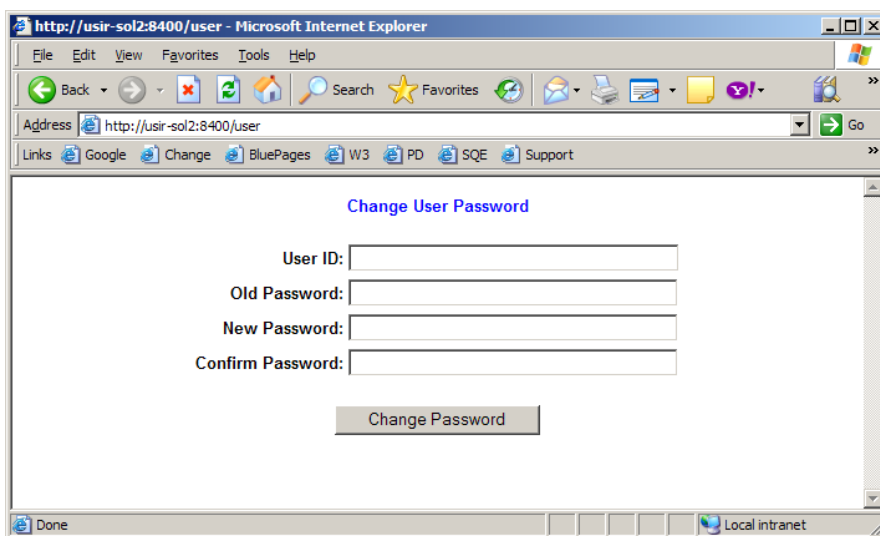
Database	Server		
Avl/aix1app1/ccmdb/ccm_model_cp	http://supernova:8300	(inactive)	Change Delete
Avl/tools6/ccmdb/ccmintdb	<a href="http://usir-sol2.8300">http://usir-sol2.8300</a>	(active)	
Avl/tools6/ccmdb/magnus_a	<a href="http://usir-sol2.8411">http://usir-sol2.8411</a>	(active)	
Avl/tools6/ccmdb/magnus_b	<a href="http://usir-sol2.8411">http://usir-sol2.8411</a>	(active)	
Avl/tools6/ccmdb/magnus_train	<a href="http://usir-sol2.8411">http://usir-sol2.8411</a>	(active)	
Avl/tools6/ccmdb/magnusint2	<a href="http://usir-sol2.8411">http://usir-sol2.8411</a>	(active)	
Avl/tools6/ccmdb/pcheng_71A	<a href="http://usir-sol2.12345">http://usir-sol2.12345</a>	(active)	
Avl/tools6/ccmdb/test_ccmintnew	<a href="http://usir-sol1.8300">http://usir-sol1.8300</a>	(active)	Change Delete
\\futura\ccmdb\pcheng_71A	<a href="http://futura.8300">http://futura.8300</a>	(active)	
\\futura\ccmdb\win_ccmintdb	<a href="http://futura.8300">http://futura.8300</a>	(active)	

Add Database

Note: You can only modify the databases that are assigned to the current server or the databases where the assigned server of the database is not running.

## Improvements to Web Mode: Change Password

- Ability for Synergy users to change the RDS password
  - ▶ Navigate to `http://host.port/user`
  - ▶ Introduced in Synergy 7.0 patch 2



# Improvements to Web Mode: Synergy Command Line

- Improvements to starting command line session on Windows
  - ▶ No longer requires the user to type the password on the start command
  - ▶ New command “ccm set\_password” encrypts the password, then saves it to a file
  - ▶ New option “ccm start –fpw <file>” reads and uses the password from the specified file
  - ▶ More secure option for scripting
- Improved sorting
  - ▶ All string values sorted using numeric string comparisons
    - name “file20” appears before “file100”
    - version “1.1.1” appears before “1.10”
  - ▶ Support for enumeration sorting
    - task priority in ascending order is “low”, “medium”, “high”
- Link-based work area options added to relevant commands
  - ▶ `ccm create -t project`
  - ▶ `ccm copy_project`
  - ▶ `ccm work_area`
- More on the CLI later....

# Deployment of Windows Client Installations

- Enable Windows client users to install and patch their clients without having administrator privilege, via Synergy's deployment feature
  - ▶ If user is an Administrator, Synergy is installed with Administrator privilege for all users of the local machine
    - This is how it worked in previous releases
    - This installation requires the end user to have Administrator privilege to update his/her client installation in the future, for example, for patches, etc.
  - ▶ If user is not an Administrator, Synergy is installed for the current user only
    - The user should select an installation path not under Program Files if he/she doesn't have write access to that directory
    - Registry entry is stored under HKEY\_CURRENT\_USER rather than HKEY\_LOCAL\_MACHINE
    - The goal is to enable users to automatically update/patch their own clients using the Synergy deployment feature
    - (There may be additional security restrictions on Vista that prevent this)

# Support for Large Files

- Synergy now supports files larger than 2GB
  - ▶ All platforms
  - ▶ All user interfaces
  - ▶ Both Web Mode and Traditional Mode

# New Archiver

- New underlying source file archiver
- Scalable, reliable, and fast
- Single archiver handles all data types (ascii, binary)
- Archiving is asynchronous for fast file check in
- Archive conversion on demand
  - ▶ Old archives created with previous archivers will need to be converted eventually
    - (You can wait.)
  - ▶ An asynchronous archiver tool is provided from the Admin interface
  - ▶ Start, stop, and show progress of archive conversion by database

The screenshot shows the 'Archive Conversion' page in the IBM Rational Synergy Admin interface. The page title is 'Archive Conversion' and it includes a 'Logout' link. Below the title is a table with columns for 'Database', 'Status', 'Progress', and 'Action'.

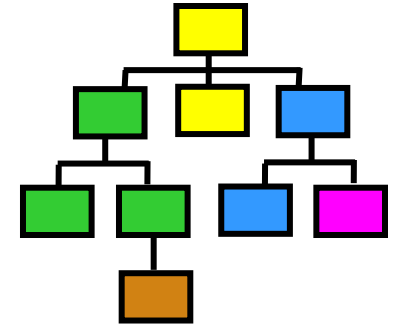
Database	Status	Progress	Action
/data/ccmdb/phaint	Stopped	0% Not started	Start
/data/ccmdb/t71	Stopped	0% Not started	Start
/demo/unstarted	Stopped	0% Not started	Start
/demo/completed	Completed	100% 10,000,000 of 10,000,000	Remove
/demo/error	Error	99% 10,000,000,000 of 10,000,000,001	Start
/demo/running	Running	72% 7,200,000 of 10,000,000	Stop
/demo/stopped	Stopped	21% 2,199,999 of 10,000,000	Start

Conversion status at 8:47 PM on Mar 5, 2009.



# Improved Support for Component-Based Development (CBD)

- Easier to switch to a new version of a subcomponent
- Easier to use new subcomponents
- Better support for baselines containing mixed releases
- Ease of use improvements for teams with many releases and versions



# Improved CBD: Easier to Switch to a New Version of a Subcomponent

- **Best practice for component-based development process**
  1. Developer sets his/her current task to integrate a new component or update an existing component
  2. Developer adds the new component to the project or uses the new version of the component
  3. Developer makes any changes necessary to integrate the new component
  4. Developer checks in the task
  
- **In previous releases**
  - ▶ If you add a subproject from a different release, it is added to the current task ... but if you *use* a new version of a subproject, it is not
  - ▶ You need to remember to manually associate the new version with the task ... or the build manager needs to update the process rules
  - ▶ If you forget this manual step, no one will get the new component version and the build will break
  
- **New in 7.1**
  - ▶ When someone uses a new version of a subcomponent project or product, it is added to the current task
  - ▶ The new component and changes required to integrate it are all associated to the same task
  - ▶ The new component flows through the normal process to the build manager and the rest of the team
  - ▶ Component changes go through the normal development and test lifecycle
  - ▶ Others on the team are insulated from untested changes

# Improved CBD: Easily Add Process Rules for Subcomponent Reuse

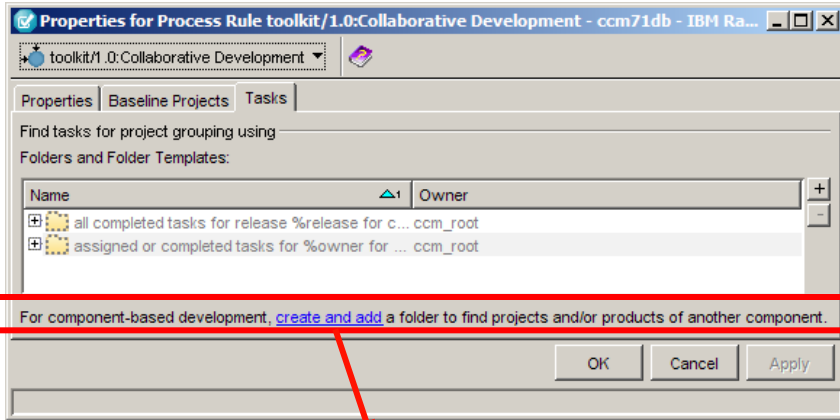
- When you create a baseline, Synergy automatically creates two *component tasks*
  - ▶ One for projects in the baseline, one for products
  - ▶ This is a “handle” for using those components in other releases

The screenshot shows the 'Query' window in IBM Rational Synergy. The window title is 'Query - ccm71db - IBM Rational Synergy'. The 'Define Query' tab is active, and the search criteria are set to 'Find... Tasks...'. The search filters are 'For Release = toolkit/1.0' and 'Custom status="component\_task"'. The results table shows two tasks:

Task ID	Priority	Synopsis	State
ccm71db#40	medium	product component task for baseline ccm71db#toolkit~1.0~20090405.1	component_task
Name			
Guilib.jar	jar	3_20090405	released
ccm71db#41	medium	project component task for baseline ccm71db#toolkit~1.0~20090405.1	component_task
Name			
toolkit	project	1.0_20090405	released

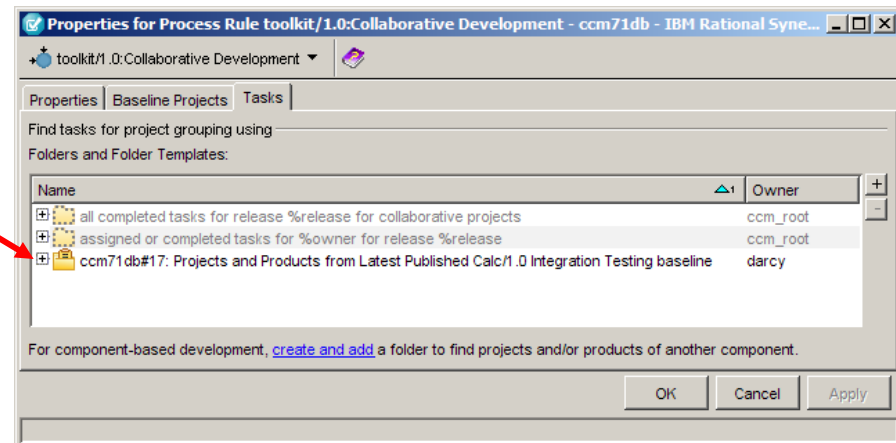
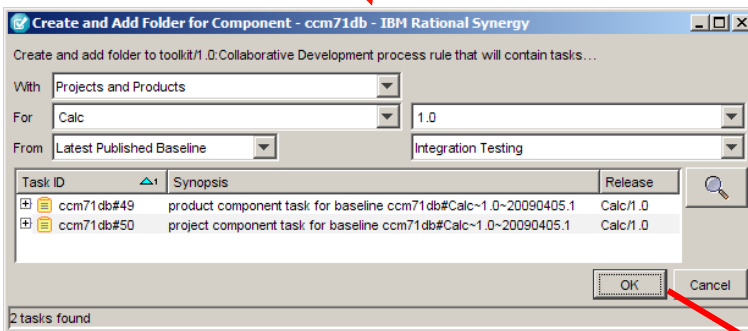
2 tasks found

# Improved CBD: Easily Add Process Rules for Subcomponent Reuse



Build manager can easily add process rules that include subcomponents:

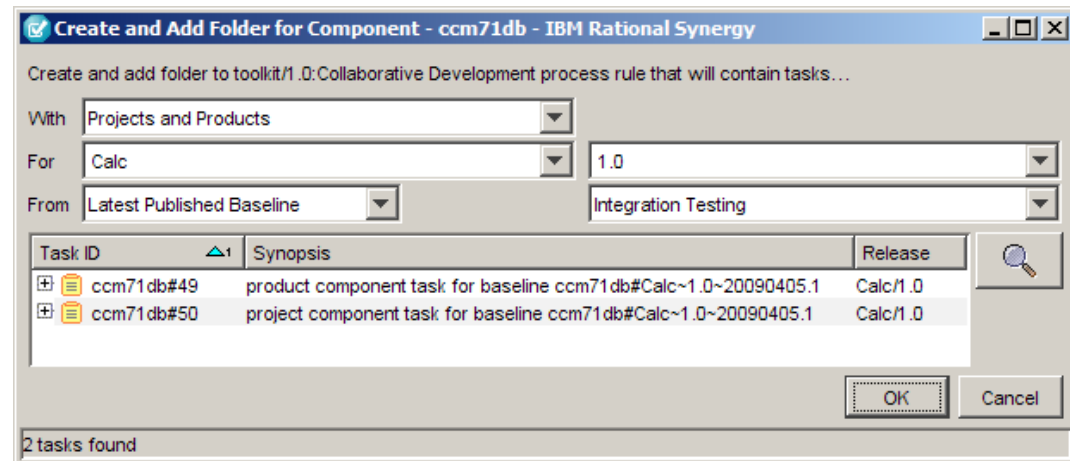
- It was already possible to create most rules like this... but a new dialog makes it easier and more intuitive
- No changes to update



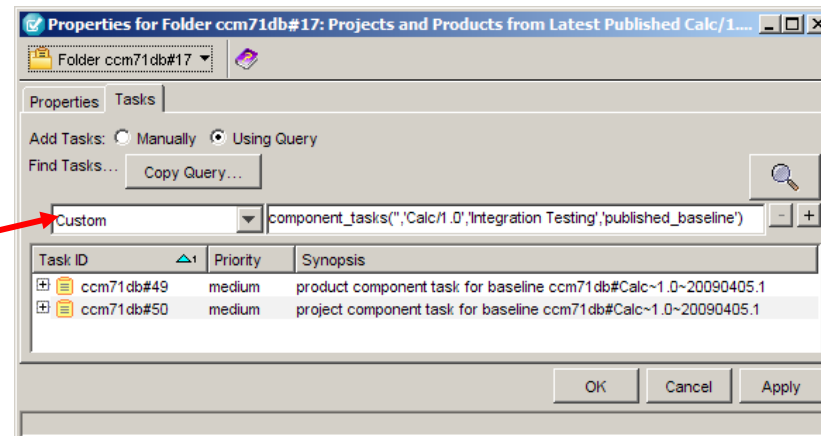
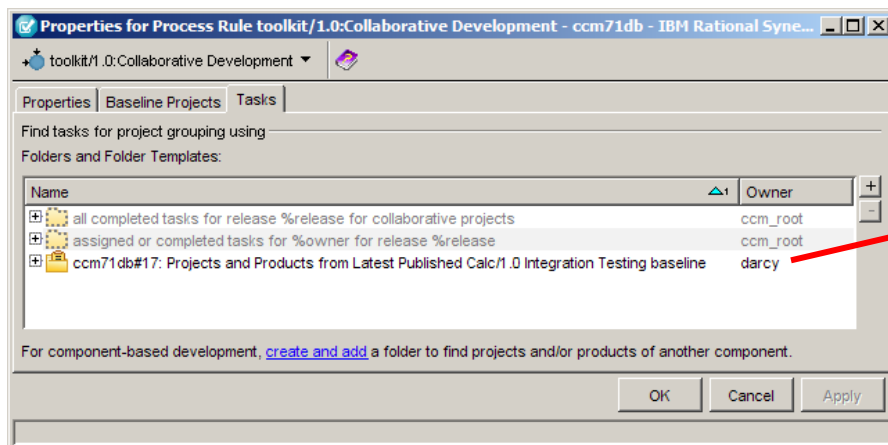
Easy to see which subcomponents are used in the process rules

# Improved CBD: Easily Add Process Rules for Subcomponent Reuse

- Create and Add Folder for Subcomponent Options
  - ▶ With
    - Projects and products
    - Projects only
    - Products only
  - ▶ For
    - Component X
    - Release Y
  - ▶ From
    - Specific Baseline >> *select a baseline*
    - Latest Published Baseline >> with purpose P
    - Latest Released Baseline >> with purpose P
    - Latest Test Baseline >> with purpose P
    - Build Manager's Project Grouping >> with purpose P
    - Developer's Project Grouping >> with purpose P



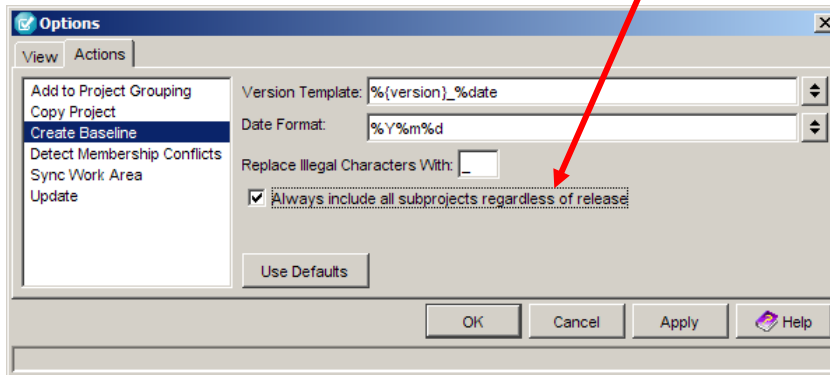
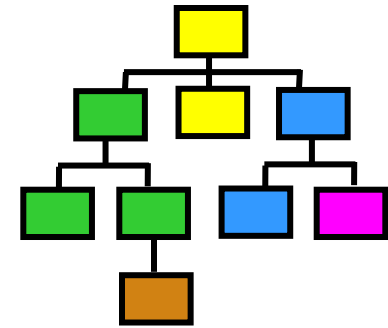
# Improved CBD: Easily Add Process Rules for Subcomponent Reuse



- Creates a folder with a custom query to select component tasks
- New queries find the criteria specified in the dialog
  - ▶ component\_tasks(%category, %release, %purpose, %baseline\_state)
    - %category = 'project', 'product', or '' for all
    - %release = '<component>/<release>' or '\*/<release>' or '<component>/' or '' for all
    - %purpose = the single-quoted name of any project purpose, or '' for all
    - %baseline\_state = 'published\_baseline' or 'released' or 'test\_baseline' or '' for all (specifying 'published\_baseline' will also return released baselines)
  - ▶ automatic\_tasks(%category, %release, %purpose, %owner)
    - %category = 'project', 'product', or '' for all
    - %release = '<component>/<release>' or '\*/<release>' or '<component>/' or '' for all
    - %purpose = the single-quoted name of any project purpose, or '' for all
    - %owner = the single-quoted name of the owner, or '' for all

# Improved CBD: Improved Support for Baselines Containing Mixed Releases

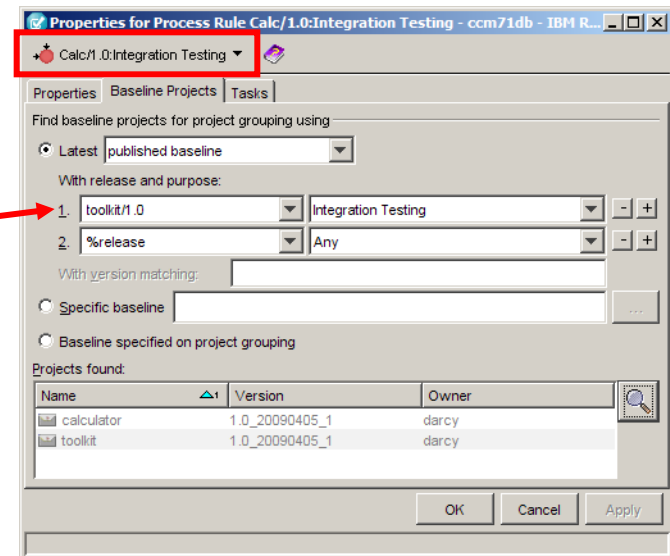
- Full support for creating a baseline with mixed releases
  - By default, baselines will include all releases in the hierarchy



- Subcomponents with different releases can use the hierarchy baseline

- New command line support for copying baseline rules to other process rules

- `ccm process_rule -copy -baseline_rules_only`



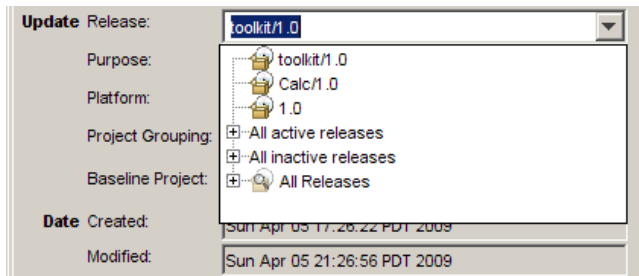
## Improved CBD: Improved Support for Baselines Containing Mixed Releases

- When updating a project, if there are no candidates for the root directory, update will give an error and stop
  - ▶ In previous releases, it would leave the root directory empty, leaving an empty project and work area
  - ▶ This typically happens when there is no baseline (e.g., if the user has created a top-level baseline but no baseline for the subcomponents)
  - ▶ This will save time and prevent frustration from resync'ing the work area
  - ▶ If you don't want the update to stop (for example, during automated build scripts)
    - Set user option "stop\_on\_failure" to FALSE to continue the update
    - It will give an error on this project but continue updating the other projects in the hierarchy
  - ▶ This change applies to all interfaces

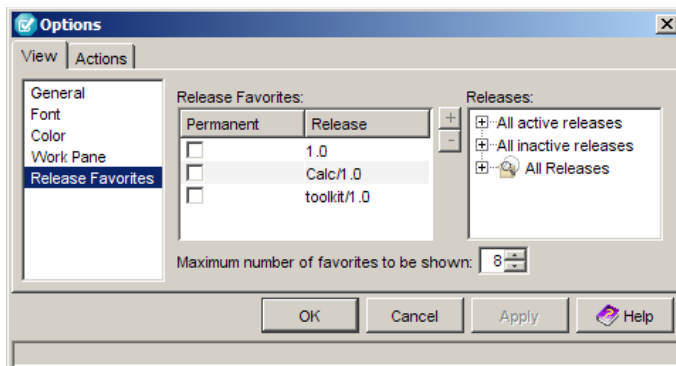


## Improved CBD: Ease of Use

- New in 7.1: Release favorites – an easier way to select the release value
  - ▶ Typing a release name auto-fills the value
  - ▶ Commonly-used releases appear at the top of the release choice list
  - ▶ No need to expand the release tree anymore

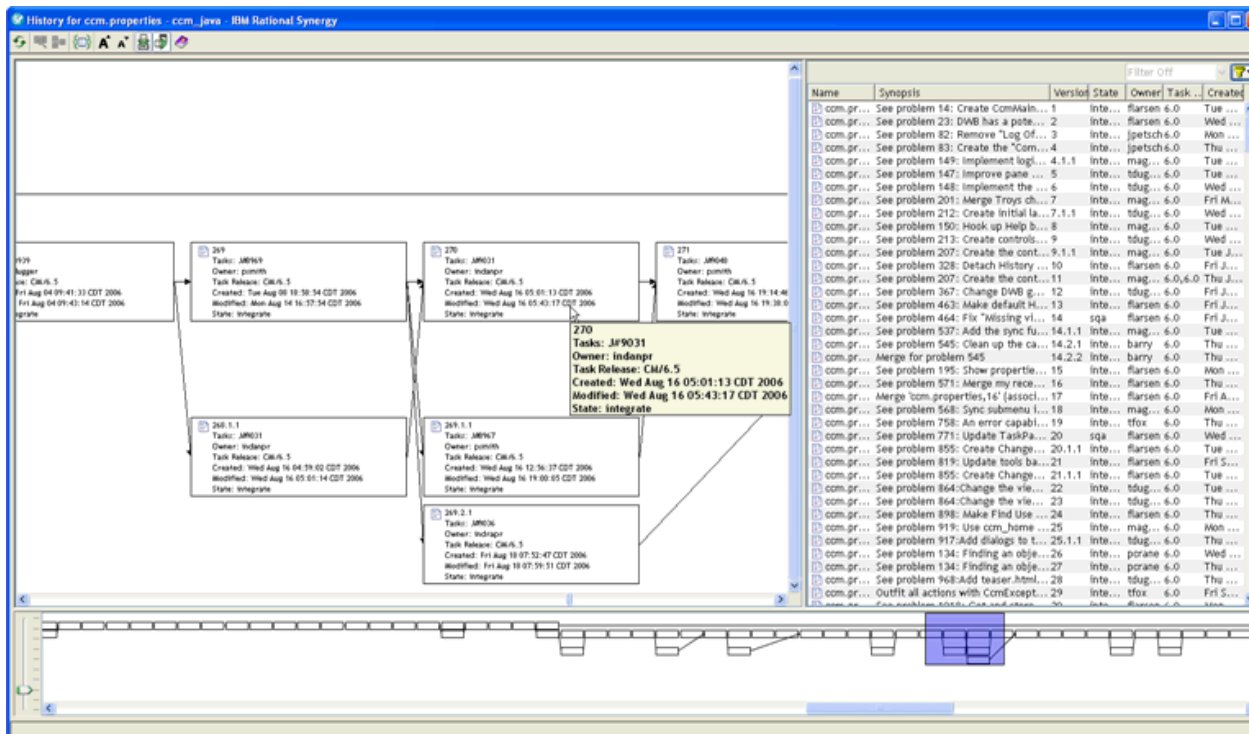


- ▶ The user's preferences can be manually maintained in the options dialog



# Improved CBD: Ease of Use

- Improved history dialog – easier to manage a complex history with many releases



- ▶ Macro view for context and easy navigation
- ▶ List for easy sorting and filtering to quickly find a specific version and navigate to it
- ▶ Show only the selected version, predecessors and successors with one click to easily traverse complex histories
- ▶ Increase or decrease font size with one click

# Synergy Command Line Interface

## New and improved in 7.1

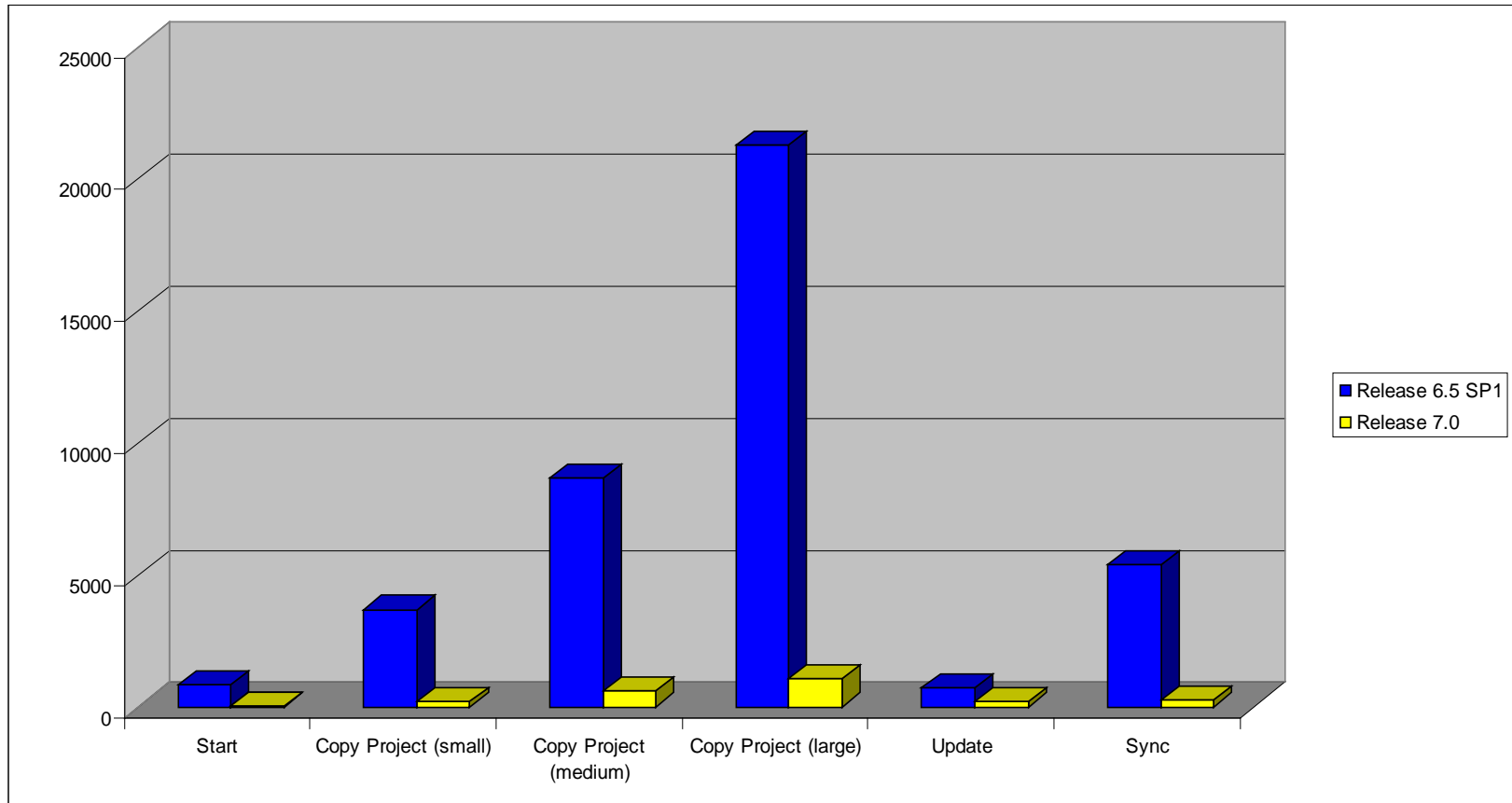
- **Sorting**
  - ▶ All string values sorted using numeric string comparisons
    - name “file20” appears before “file100”
    - version “1.1.1” appears before “1.10”
  - ▶ Support for enumeration sorting
    - task priority in ascending order is “low”, “medium”, “high”
- **Support for link-based work area options for:**
  - ▶ `ccm create -t project`
  - ▶ `ccm copy_project`
  - ▶ `ccm work_area`
- **`ccm attr`**
  - ▶ Completion of `ccm attr -copy` subcommand

**A Lot of other Synergy Command Line have also been updated !!  
See next few hidden slides for more details.**

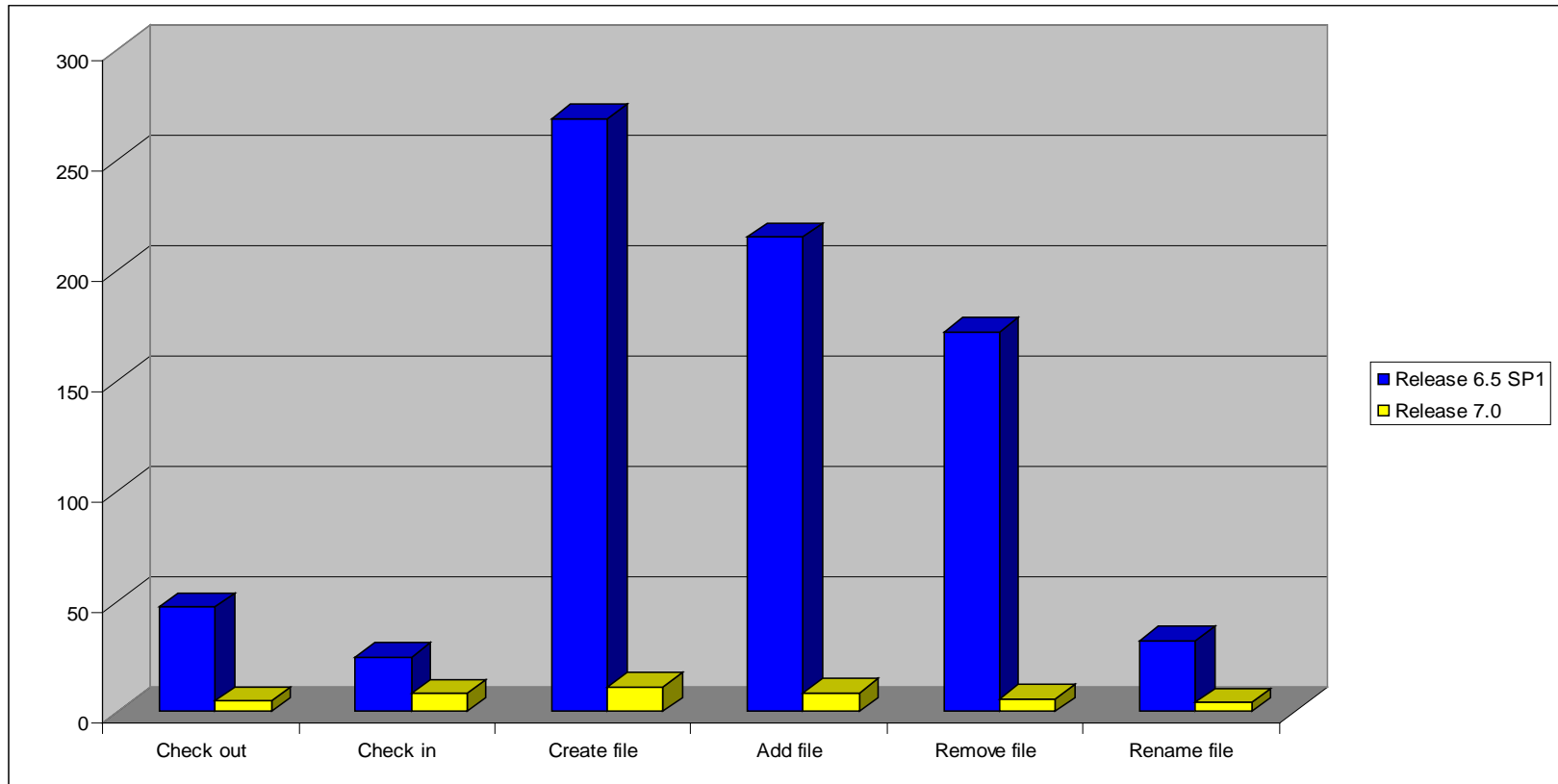


# A few words about Performance....

# Performance over the WAN: Synergy 6.5 SP1 versus 7.0



# Performance over the WAN: Synergy 6.5 SP1 versus 7.0



# QUESTIONS

# Thank YOU



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