



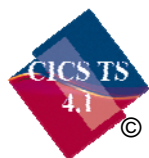
CICS and Rational: Increase business agility through innovative tooling

David Chadwick Testing Evangelist, Rational
John Knutson Marketing Manager, CICS Tools
Tim Hahn IBM Distinguished Engineer, Chief Architect for Enterprise Modernization Tools



Agenda

- **Agile Performance Testing**
- **CICS Performance Analysis**
- **Agile Development**





Agile Performance Testing

David Chadwick
Testing Evangelist, Rational



Agile Performance Testing

- **Define a Performance Requirement**
- **Write the Test Case**
- **Capture the Test**
- **Set the Performance Metric**
- **Run the Test**
- **Analyze the Results**
- **Contact the CICS guru for help!**



Define a Performance Requirement

- **The user story says: “The website user shall be able to access and update the user’s profile information.”**
- **The performance requirement –**
 - For user profile update operations,
 - 90 percent of the responses must return
 - in less than 2 seconds
- **The expected peak workload –**
 - During the busy hour along with other operations,
 - User profile updates may occur at 2,000 / min

Rational Quality Manager



- Enter the performance requirement in RQM

Requirement 23

Summary: Performance - Update User Profile

New



Overview Links Approvals History

Saved: Jul 12, 2009 2:46 PM

Details

Type:	<input type="text" value="Requirement"/>	Severity:	<input type="text" value="Normal"/>
Creation Date:	Jul 5, 2009 12:23 PM	Owned By:	<input type="text" value="Pete Planner"/>
Created By:	ADMIN	Tags:	<input type="text" value="performance, shopping_cart"/>

Description

Edit

The performance of the update user profile operation must be able to handle 2000 transactions per minute during the busy hour workload and maintain a 2 second response time at 90th percentile.

Performance Test Case in RQM

The screenshot displays the RQM web interface for a test case titled "Performance - Update User Profile". The interface includes a navigation menu on the left with sections like "Summary", "Test Case Design", "Formal Review", "Requirements", "Pre-Condition", "Post-Condition", "Test Scripts", "Test Execution Records", and "Attachments". The "Test Case Design" section is currently active and expanded. The main content area shows the test case design details, including the originator (ADMIN), action (Select Action), and state (Draft). A "Test Case Design" panel is open, displaying the following text:

Define the overall design for the current test case. This can include any background setup information or topologies.

- The user profile information is saved on the mainframe database
- The SAVE button for the profile update web page causes a POST of the profile information
- The user scenario is as follows:
 - Login as a random registered user
 - Click on the update user profile link
 - Enter some new information in the form
 - Click the SAVE button

Capture the Test and Set the Metric

- Capture the user scenario
- Add the 90th percentile < 2 seconds requirement for update response time

Test - UserProfileUpdate2

Test Contents
This section shows the test contents

- UserProfileUpdate2
 - Test Variables
 - LoginForm
 - LoggedInHomePage
 - UpdateForm
 - UserProfileUpdated

Test Element Details
UserProfileUpdated

Performance Requirements

Enable Performance Requirements

Name:

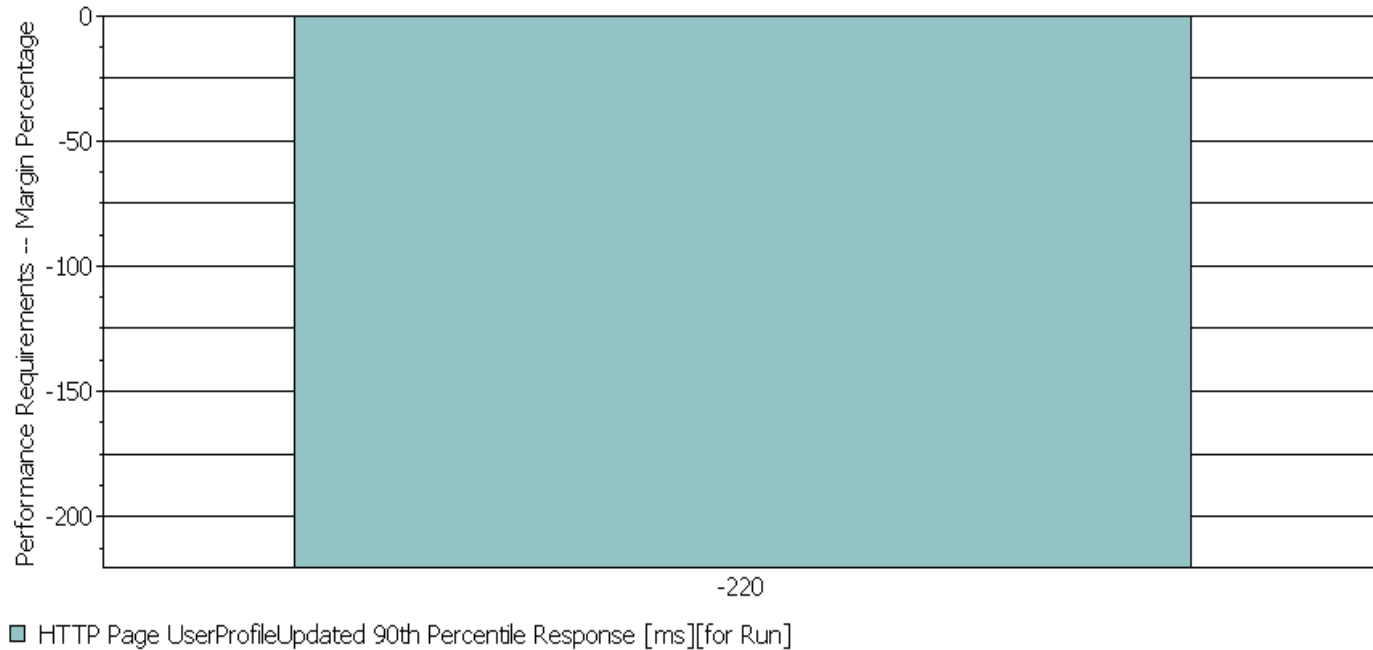
Performance Requirement	Op...	Value
Page Response Time Standard Deviation [m...		
25th Percentile Response [ms][for Run]		
50th Percentile Response [ms][for Run]		
75th Percentile Response [ms][for Run]		
85th Percentile Response [ms][for Run]		
90th Percentile Response [ms][for Run]	<=	2000
95th Percentile Response [ms][for Run]		
Percent Verification Points Passed for Page ...		
Average Response Time for Page [ms] [for ...		
Page Verification Point Pass Count [for Run]		
Hit Rate for Page [per second] [for Run]		
Minimum Response Time for Page [ms] [fo...		
Maximum Response Time for Page [ms] [fo...		

Hide undefined requirements



Run the Test

Performance Requirement Margins



Performance Requirement Details

			Performance Requirements -- Margin Percentage	Performance Requirements -- Observed Results	Performance Requirements -- Specification	Performance Requirements -- Status
HTTP Page	UserProfileUpdated	90th Percentile Response [ms][for Run]	-220	6,400	<= 2000	Failed

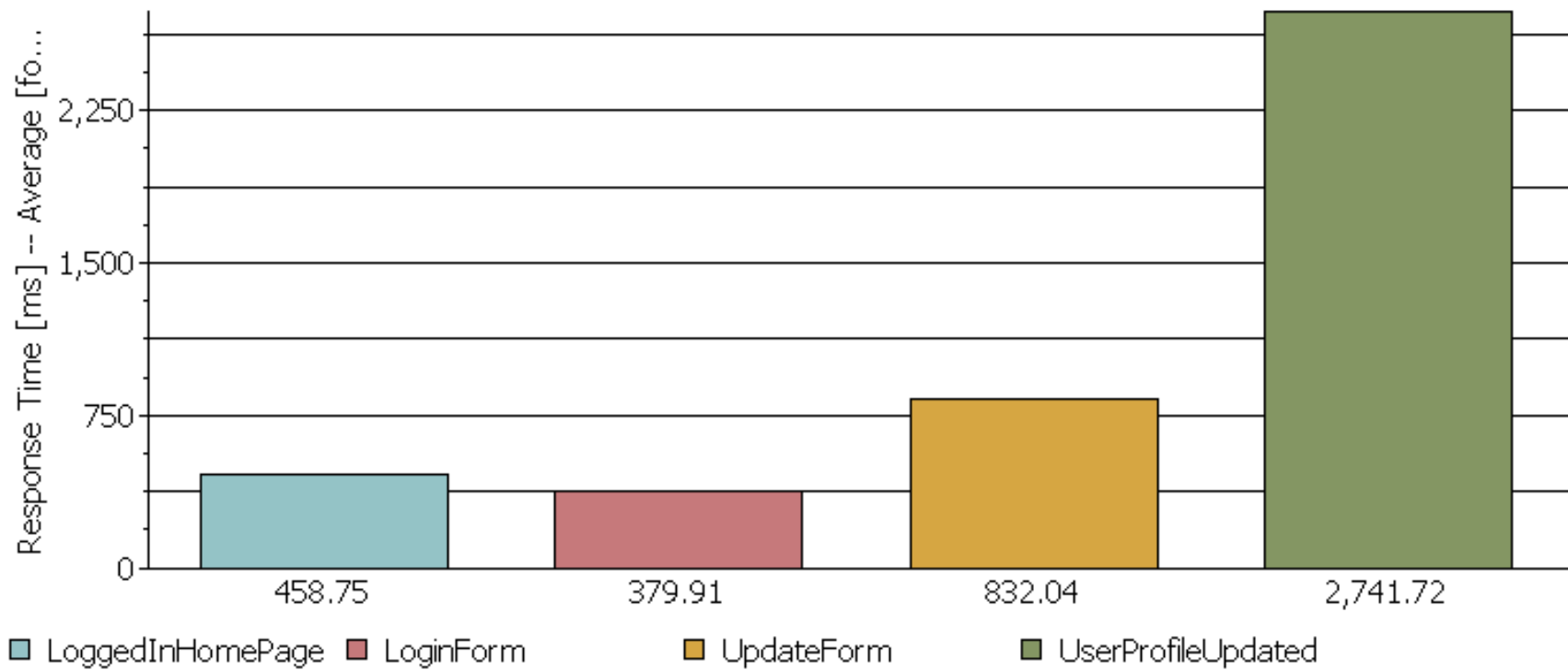


Analyze the Result



Page Performance

Average Page Response Time for Run (4 filters applied)





Ask the Expert

- Fill out a work item for CICS analysis

Summary: * Update User Profile Transaction is too slow → New → Unresolved

Overview Links Approvals History

Loaded: Jul 13, 2009 11:42 PM

Details

Type:	<input type="text" value="Task"/>	Owned By:	<input type="text" value="Pete Planner"/>		
Severity:	<input type="text" value="Normal"/>	Priority:	<input type="text" value="Medium"/>		
Found In:	<input type="text" value="Unassigned"/>	Planned For:	<input type="text" value="Unassigned"/>		
Creation Date:	Jul 13, 2009 11:42 PM	Estimate:	<input type="text"/>	Correction:	<input type="text"/>
Created By:	ADMIN	Due Date:	<input type="text"/>		
Project Area:	Quality Manager				
Team Area:	RPT Web 2.0 Feature Test Team				
Filed Against:	<input type="text" value="Quality Manager"/>				
Tags:	<input type="text"/>				

Description

Edit

The update user profile operation should take less than 2.0 seconds. Currently it is averaging almost 3 seconds. Upon analysis of the transaction breakdown using RPT and ITCAM for WAS, 2.8 seconds on average is attributed the CICS operation to update the user profile information in the zSeries backend system.

Contact the CICS expert to figure out why the operation is so slow.





Performance analysis outline

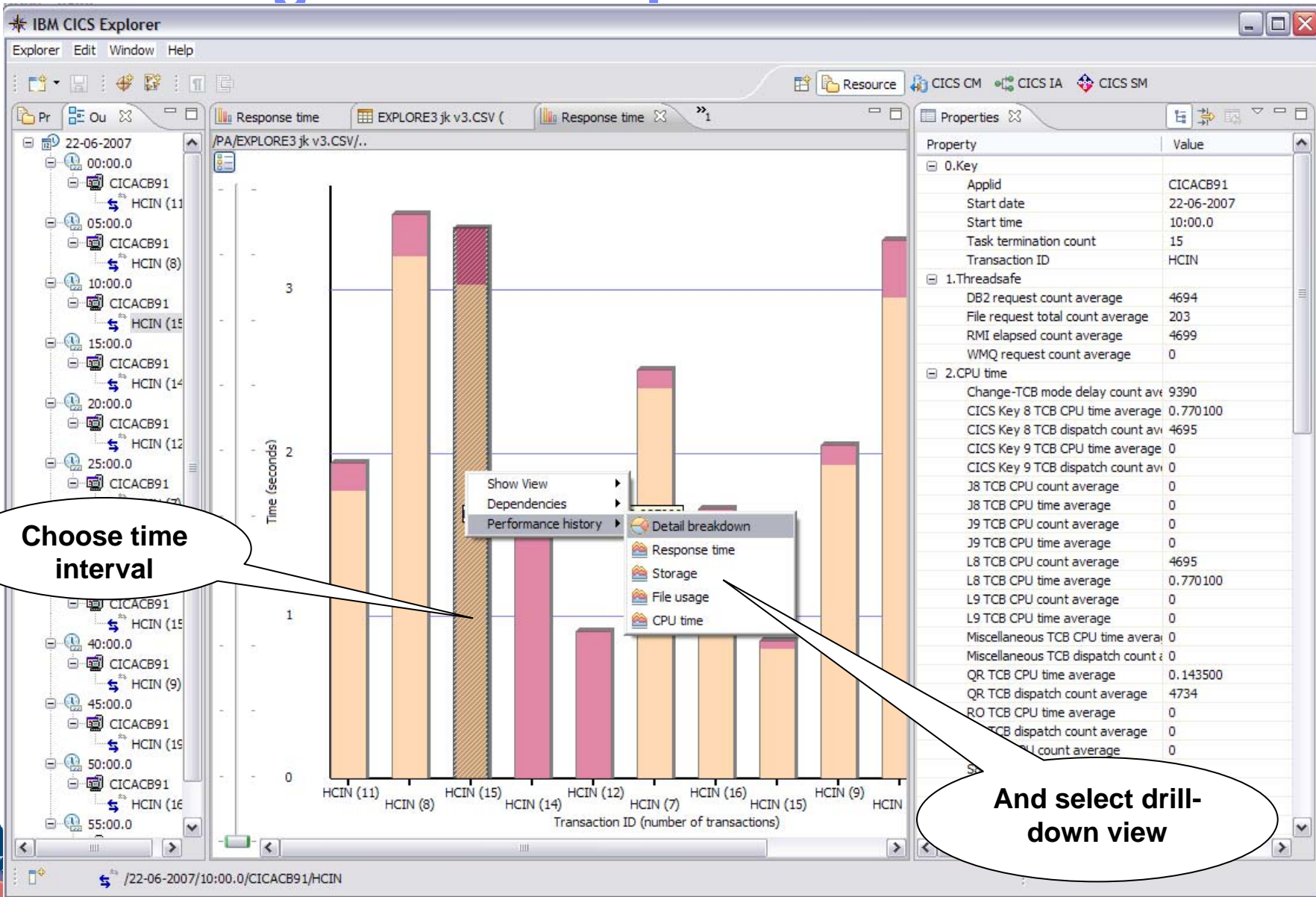
- **Identify target transactions and programs**
- **Look for out of line metrics**
 - Spikes may be intermittent
 - Resource usage, e.g. file, DB2, TS Queue
 - Response time
 - Wait time
 - CPU usage
 - Storage
 - TCB switches
- **Make recommendations**
 - Program changes
 - Resource definition changes

Look for out of line metrics

The screenshot displays the IBM CICS Explorer interface with a performance history table. The table columns include Start date, Start time, Applid, Tr..., Task ter..., Respons..., User Dis..., User CP..., and Suspend. A context menu is open over the table, showing options like Threadsafes, Storage, CPU time, Response time, and File usage. Callouts highlight specific areas: 'Test period' points to the time range in the left pane; 'Target transaction' points to a specific row; 'High response times' points to rows with high response values; and 'Context menu options' points to the open menu.

Start date	Start time	Applid	Tr...	Task ter...	Respons...	User Dis...	User CP...	Suspend
22-06-2007	00:00.0	CICACB91	JK01	4	0.014100	0.006200	2	0.004900
22-06-2007	05:00.0	CICACB91	HCIN	11	1.938600	1.766800	5741	0.795400
22-06-2007	10:00.0	CICACB91	HCIN	8	3.462900	3.205600	7388	0.554900
22-06-2007	15:00.0	CICACB91	HCIN	15	3.373100	3.027900	9429	0.913600
22-06-2007	20:00.0	CICACB91	HCIN	14	0.569600	0.000900	2	0.000800
22-06-2007	25:00.0	CICACB91	HCIN	12	0.902600	0.000900	4	0.000600
22-06-2007	30:00.0	CICACB91	HCIN	7	2.507900	2.389200	4736	0.477600
22-06-2007	35:00.0	CICACB91	HCIN	16	1.656500	1.506400	3533	0.333300
22-06-2007	40:00.0	CICACB91	HCIN	1	0.849000	0.793000	1597	0.204600
22-06-2007	45:00.0	CICACB91	HCIN	1	2.049100	1.921800	4026	0.347600
22-06-2007	50:00.0	CICACB91	HCIN	8	3.306600	2.952400	7919	0.664500
22-06-2007	55:00.0	CICACB91	HCIN	1	1.730300	1.730300	6063	0.513800
22-06-2007	00:00.0	CICACB91	HCEX	1	0.008100	0.008100	108	0.387100
22-06-2007	05:00.0	CICACB91	HCEX	168	0.415200	0.415200	771	0.063300
22-06-2007	10:00.0	CICACB91	HCEX	162	0.359400	0.359400	114	0.068300
22-06-2007	15:00.0	CICACB91	HCEX	32	0.679600	0.679600	114	0.073900
22-06-2007	20:00.0	CICACB91	HCEX	147	0.451000	0.451000	119	0.066400
22-06-2007	25:00.0	CICACB91	HCEX	144	0.455700	0.455700	32	0.068200
22-06-2007	30:00.0	CICACB91	HCEX	149	0.430400	0.430400	793	0.065800
22-06-2007	35:00.0	CICACB91	HCEX	153	0.383800	0.371900	773	0.064700
22-06-2007	40:00.0	CICACB91	HCEX	151	0.429100	0.416700	816	0.067000
22-06-2007	45:00.0	CICACB91	HCEX	159	0.399100	0.384900	753	0.064300
22-06-2007	50:00.0	CICACB91	HCEX	167	0.376300	0.361500	782	0.066500
22-06-2007	55:00.0	CICACB91	HCEX	160	0.401400	0.386800	822	0.067100
22-06-2007	00:00.0	CICACB91	DCON	1	0.327300	0.317300	1721	0.094300
22-06-2007	05:00.0	CICACB91	DCON	1	0.528000	0.497600	1601	0.085200
22-06-2007	10:00.0	CICACB91	DCON	3	0.186900	0.173300	1481	0.058500
22-06-2007	15:00.0	CICACB91	DCON	2	0.390000	0.377200	1485	0.055600
22-06-2007	20:00.0	CICACB91	DCON	2	0.262500	0.242200	1662	0.085100
22-06-2007	25:00.0	CICACB91	DCON	2	0.275400	0.261400	1361	0.033600
22-06-2007	30:00.0	CICACB91	DCON	2	0.243200	0.219100	1301	0.045400
22-06-2007	35:00.0	CICACB91	DCON	1	0.364300	0.341900	1721	0.090800
22-06-2007	00:00.0	CICACB91	DCON	5	0.212200	0.193800	1618	0.078700
22-06-2007	05:00.0	CICACB91	DCON	2	0.007300	0.001500	4	0.000600
22-06-2007	10:00.0	CICACB91	DCON	2	0.007900	0.000600	2	0.000500
22-06-2007	15:00.0	CICACB91	DCON	1	0.002400	0.001100	2	0.000600
22-06-2007	20:00.0	CICACB91	DCON	1	0.001700	0.000800	5	0.000800
22-06-2007	25:00.0	CICACB91	DCON	2	0.001600	0.000800	4	0.000800
22-06-2007	30:00.0	CICACB91	DCON	2	0.002100	0.000700	2	0.000600
22-06-2007	35:00.0	CICACB91	DCON	2	0.004900	0.001100	4	0.001100
22-06-2007	00:00.0	CICACB30	DCON	2	0.004900	0.000800	2	0.000700
22-06-2007	05:00.0	CICACB91	DCON	1	0.002700	0.000800	1	0.000400
22-06-2007	10:00.0	CICACB91	DCON	1	0.002400	0.000800	1	0.000400
22-06-2007	15:00.0	CICACB91	DCON	1	0.002400	0.000800	1	0.000400
22-06-2007	20:00.0	CICACB91	DCON	3	0.002400	0.000800	3	0.000500

Drilling down into performance data



Drill down in context into dependency data



The screenshot displays the IBM CICS Explorer interface. The main window shows transaction details for 'Transaction detail for: 22-06-2007, 10:00.0, CICACB91, HCIN'. It includes an overview with pie charts for Threadsafte, CPU time, Response time, Storage, and File usage. Below this is a table for CPU measurements:

CPU measurement	Time (avg)	Count	%Overall	%Rel
Threadsafte				
User CPU time	0.913600	9429	100%	100%
CICS Key 8 TCB CPU time	0.770100	4695	84%	84%
QR TCB CPU time	0.143500	4734	16%	16%

A context menu is open over the 'CICS Key 8 TCB CPU time' row, showing options: Show View, Dependencies, Performance history, and Properties. The 'Dependencies' option is selected, and a sub-menu is visible with 'Used By Programs', 'Used By Transactions', and 'Uses Resources'. The 'Uses Resources' option is highlighted.

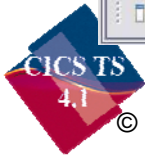
On the right, the 'Resources used' pane shows a tree view of resources used by the transaction, including Program (4), File (2), HCREGID (5), HCVISIT (4), TD (10), and Table (4). The 'Table (4)' section lists SYS030.INSURER (1), SYS030.PATIENT (1), SYS030.PATIENT_HIST (1), and SYS030.PATIENTF (1). Below this, the 'Used By' pane shows transactions using the table SYS030.INSURER, listing various select and return operations.

Many TCB switches

Very high DB2 count

Context menu to use CICS IA to show resource dependencies ...

Including DB2 table names, VSAM file names



Confirm no threadsafe integrity issues

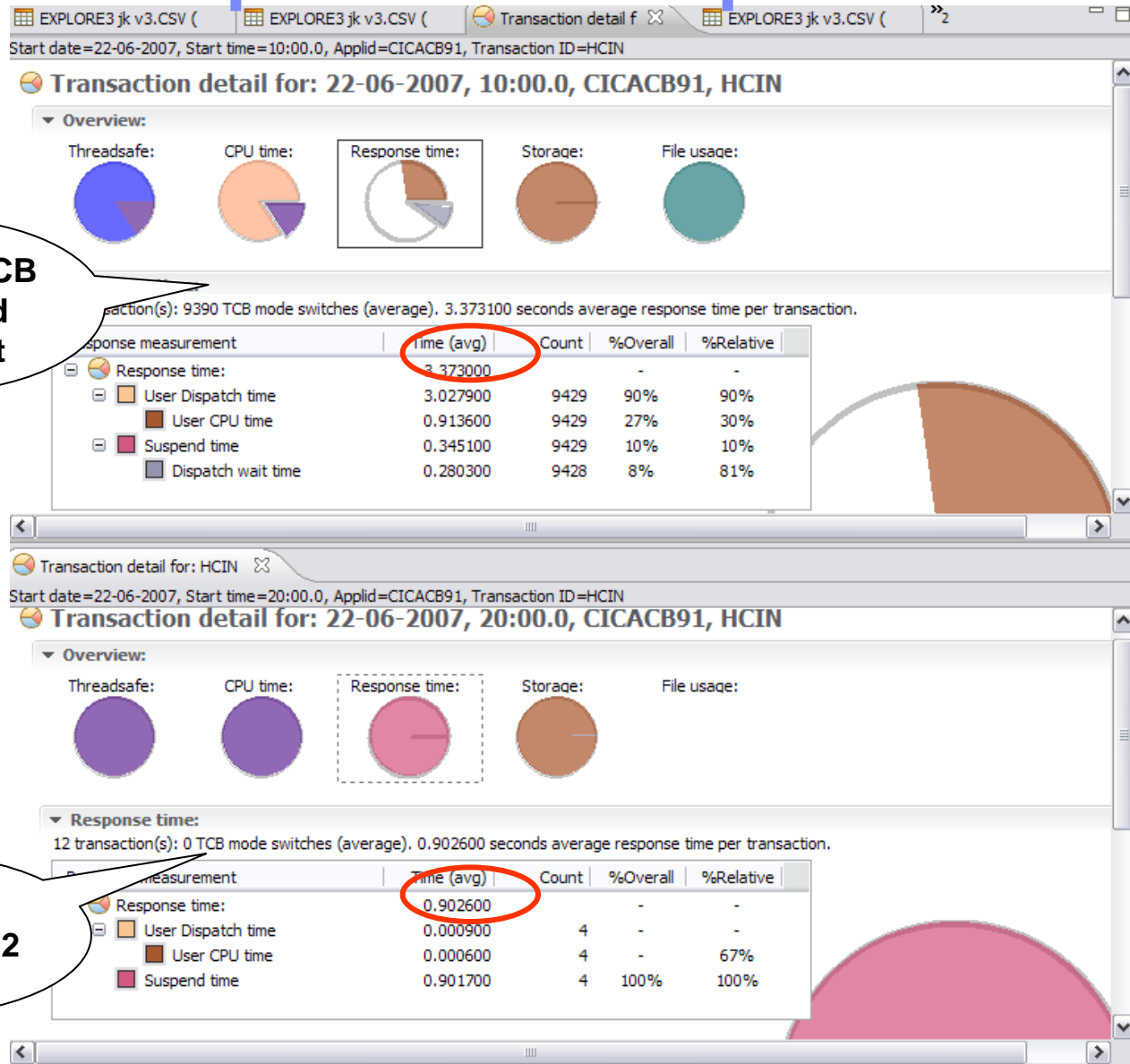
The screenshot shows the IBM CICS Explorer interface. The main window displays a query titled "All programs which may have threadsafe data integrity issues" with 0 results. A callout bubble points to the "No results found" message. Another callout bubble points to the "Edit CICS Query" dialog box, which shows a customized query filter: "Command is ADDRESS, EXTRACT, GETMAIN, LOAD" and "Transaction is HCIN". A third callout bubble points to the "No threadsafe issues!" text.

Region	Name	Status
REDDEV31	/FOR	✓ ENAI
REDDEV31	CADP	✓ ENAI
REDDEV31	CATA	✓ ENAI
REDDEV31	CATR	✓ ENAI
REDDEV31	CBAM	✓ ENAI

Customized version of standard query

No threadsafe issues!

Compare two test periods



Very high TCB switch and DB2 count

No TCB switch or DB2 access



Update Work Item with recommendations

- 1. Confirm that it is reasonable for this transaction to be issuing so many DB2 calls**
 - Rework application or reset expectations
- 2. Consider defining constituent programs as Threadsafe, to avoid high number of TCB switches and associated CPU time and redispach wait time**
 - CICS IA indicates no potential integrity issues so could re-run performance test having made simple resource definition changes



Application Developer tasks

Tim Hahn

IBM Distinguished Engineer

Chief Architect for Enterprise Modernization Tools



Steps taken

- ▶ **Open an existing work item**
- ▶ **Work on the work item**
- ▶ **Edit and change some source code**
- ▶ **Find the code in the source code repository**
- ▶ **Evaluate the differences in the before and after source code**
- ▶ **Check in the source code**
- ▶ **Resolve the work item**

Open an existing work item



The screenshot displays the Rational Software Architect Work Items interface. The main window title is "Work Items - Enterprise Tools CTO - Rational Software Architect™ for WebSphere® Software". The interface is divided into several sections:

- Left Panel:** Shows a navigation tree with "Inbox (Enterprise Tools CTO)" containing "No newly assigned work", "Current Work (Enterprise Tools)" with "Advanced Technology 1.0 (1 items)", and "Future Work (Enterprise Tools)" with "Advanced Technology 1.0 (1 items)". A specific work item, "Problem with performance in CICS application", is selected under the "Future Work" section.
- Work Item Details:** The main area displays details for "Defect 7250".
 - Summary:** Problem with performance in CICS application
 - Details:** Type: Defect; Severity: Major; Found In: Test DCP Release; Created: Jun 29, 2009 12:04 PM; Created By: Timothy J. Hahn; Team Area: Advanced Technology Team / E; Filed Against: Advanced Technology; Tags: (empty); Owned By: Timothy J. Hahn; Priority: High; Planned For: Advanced Technology 1.0; Estimate: Correction; Time Spent: (empty); Due: None.
 - Description:** We found that this CICS application takes far too long to run. Please find the source of this time consumption and fix the code to be more efficient and run faster!
 - Quick Information:** <No information>
 - Discussion:** Add Comment
- Bottom Panel:** Shows a tabbed interface with "Problems", "Tag Cloud", "Team Advisor", "Builds", "Pending Changes", "Work Items", and "Console". The "Work Items" tab is active, displaying "No results to display". Below this, there is a message: "You may choose one of the Work Item queries below to populate this view. More Work Item queries are available from the Work Items section of the Team Artifacts view. Open assigned to me (Enterprise Tools CTO)".

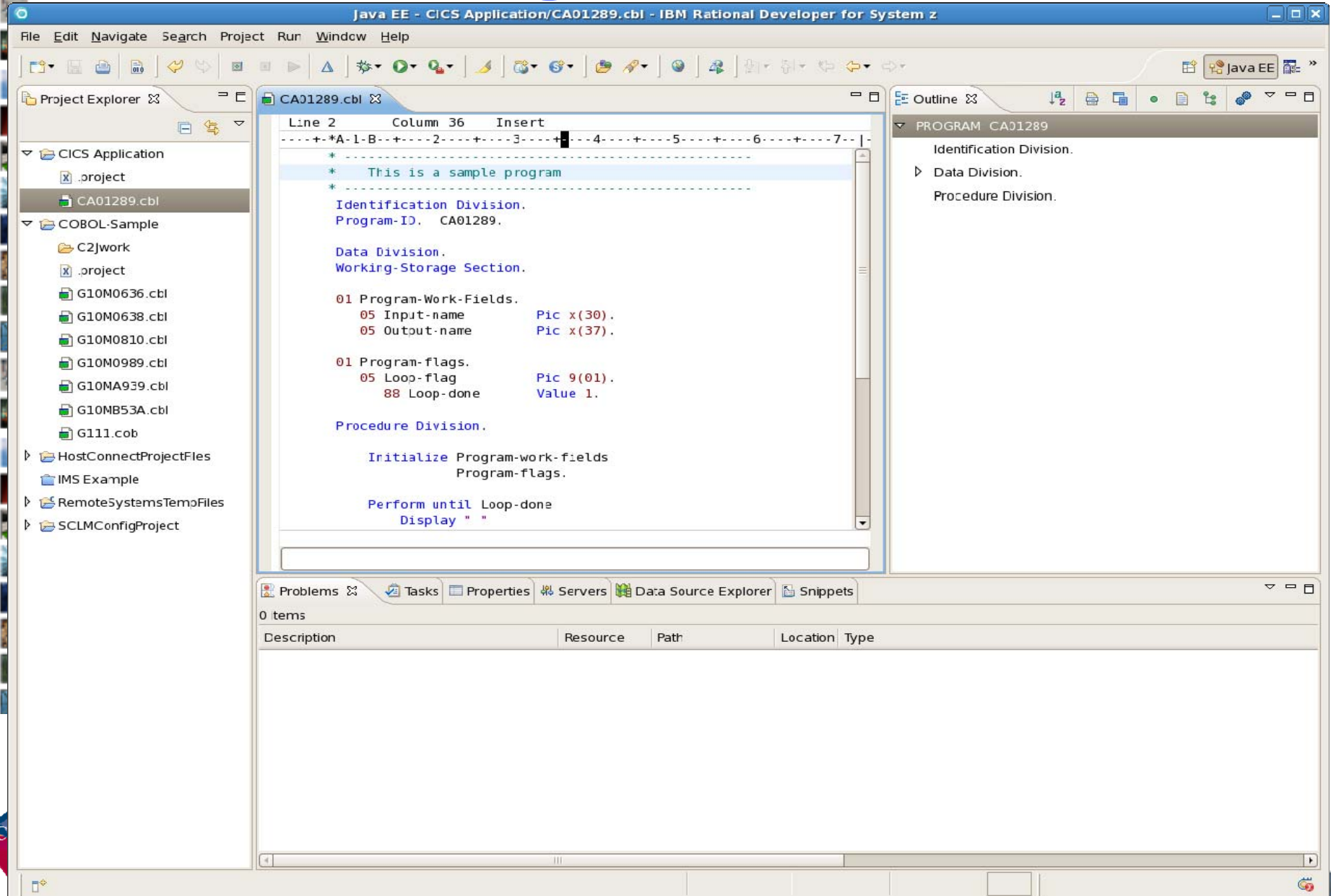
Work on the work item



The screenshot displays the Rational Software Architect Work Items interface. The main window is titled "Work Items - Enterprise Tools CTO - Rational Software Architect™ for WebSphere® Software". The interface is divided into several sections:

- Left Panel:** Contains navigation tabs for "Team", "My W", and "Inbox (Enterprise Tools CTO)". The "Inbox" section shows "No newly assigned work". The "Current Work (Enterprise Tools C)" section shows "Today (1 items)" with a list item: "Problem with performance in CICS application".
- Header:** Shows the selected work item: "7250: Problem with performance in CICS application".
- Details Section:** Contains fields for:
 - Type:** Defect
 - Severity:** Major
 - Found In:** Test DCP Release
 - Created:** Jun 29, 2009 12:04 PM
 - Created By:** Timothy J. Hahn
 - Team Area:** Advanced Technology Team / E
 - Filed Against:** Advanced Technology
 - Tags:** (empty)
 - Owned By:** Timothy J. Hahn
 - Priority:** High
 - Planned For:** Advanced Technology M1
 - Estimate:** 3 h
 - Time Spent:** (empty)
 - Due:** None
- Description Section:** Contains the text: "We found that this CICS application takes far too long to run. Please find the source of this time consumption and fix the code to be more efficient and run faster!".
- Discussion Section:** Shows a comment by Timothy J. Hahn on Jun 29, 2009, 12:12 PM: "I will look into this ASAP!".
- Quick Information:** Shows "<No information>".
- Bottom Panel:** Contains tabs for "Overview", "Links", "Approvals", and "History". Below these are tabs for "Problems", "Tag Cloud", "Team Advisor", "Builds", "Pending Changes", "Work Items", and "Console". The "Work Items" tab is active, showing "No results to display".

Edit and change some source code



The screenshot displays the IBM Rational Developer for System z IDE. The main editor window shows the source code for the COBOL program CA01289.cbl. The code is structured as follows:

```
Line 2      Column 36      Insert
-----+*A-1-B-+-----2-----+3-----+4-----+5-----+6-----+7-----|
*
* This is a sample program
*
*-----+
Identification Division.
Program-ID. CA01289.

Data Division.
Working-Storage Section.

01 Program-Work-Fields.
   05 Input-name           Pic x(30).
   05 Output-name          Pic x(37).

01 Program-flags.
   05 Loop-flag            Pic 9(01).
   88 Loop-done            Value 1.

Procedure Division.

   Initialize Program-work-fields
               Program-flags.

   Perform until Loop-done
               Display " "
```

The Project Explorer on the left shows the project structure:

- CICS Application
 - .project
 - CA01289.cbl
- COBOL-Sample
 - C2jwork
 - .project
 - G10M0636.ctl
 - G10M0638.ctl
 - G10M0810.ctl
 - G10M0989.ctl
 - G10MA939.cbl
 - G10MB53A.cbl
 - G111.cob
- HostConnectProjectFiles
- IMS Example
- RemoteSystemsTempFiles
- SCLMConfigProject

The Outline view on the right shows the program structure:

- PROGRAM CA01289
 - Identification Division.
 - Data Division.
 - Procedure Division.

The Problems view at the bottom shows 0 items.

Edit and change some source code

The screenshot displays the IBM Rational Developer for System z interface. The main editor window shows the source code for the COBOL program CA01289.cbl. The code is structured as follows:

```
Line 24      Column 46      Insert
-----*A-1-3-----2-----3-----4-----+-----5-----6-----7-|-|
Program-ID.  CA01289.

Data Division.
Working-Storage Section.

01 Program-Work-Fields.
05 Input-name      Pic x(36).
05 Output-name     Pic x(37).
05 LoopCount       Value 0.

01 Program-flags.
05 Loop-flag       Pic 9(01).
08 Loop-cone       Value 1.

Procedure Division.

Initialize Program-work-fields
Program-flags.

Perform until Loop-done or LoopCount < 400
Display " "
Display "Enter a name or Q to quit:"
Accept Input-name
If function upper-case (Input-name) = "Q"
```

The Project Explorer on the left shows the project structure:

- CICS Application
 - .project
 - CA01289.cbl
- COBOL-Sample
 - C2Jwork
 - .project
 - G10M0636.cbl
 - G10M0638.cbl
 - G10M0810.cbl
 - G10M0989.cbl
 - G10MA939.cbl
 - G10MB53A.cbl
 - G111.cob
- HostConnectProjectFiles
- IMS Example
- RemoteSystemsTempFiles
- SCLMConfigProject

The Outline view on the right shows the program structure:

- PROGRAM: CA01289
 - Identification Division.
 - Data Division.
 - Procedure Division.

The Problems view at the bottom shows 0 items.

Find the code in the source code repository



The screenshot displays the Rational Software Architect interface. The main window shows a defect titled "7250: Problem with performance in CICS application". The defect details include:

- Summary:** Problem with performance in CICS application
- Status:** In Progress
- Type:** Defect
- Severity:** Major
- Found In:** Test DCP Release
- Created:** Jun 29, 2009 12:04 PM
- Created By:** Timothy J. Hahn
- Team Area:** Advanced Technology Team / E
- Filed Against:** Advanced Technology
- Owned By:** Timothy J. Hahn
- Priority:** High
- Planned For:** Advanced Technology M1
- Estimate:** 3 h
- Due:** None

The **Description** section contains the following text:

We found that this CICS application takes far too long to run. Please find the source of this time consumption and fix the code to be more efficient and run faster!

The **Discussion** section shows one comment:

1. Timothy J. Hahn, Jun 29, 2009, 12:12 PM
I will look into this ASAP!

The **Project Explorer** on the left shows the project structure:

- CICS Application (Ad Tech - IMS Example - CICS)
- CA01289.cbl

The **Overview** tab at the bottom shows the change set structure:

- 1 outgoing change set, 4 component changes
 - CICS Application
 - Outgoing
 - 7250: Problem with performance in CICS application - Share projects
 - /
 - CICS Application
 - jazzignore
 - CA01289.cbl

The status bar at the bottom indicates the current file is CA01289.cbl and there is no current work.

Evaluate differences - before and after code



C/C++ - CA01289.cbl - Rational® Software Architect™ for WebSphere® Software

File Edit Refactor Navigate Search Project Run Window Help

Project Explorer: CICS Application (Ad Tech - IMS Example - CICS) CA01289.cbl

7250: Problem with performance in CICS application CA01289.cbl

Text Compare

CA01289.cbl (editable)	CA01289.cbl @ Workspace Ad Tech - I...ple - CICS Application (read-only)
----- * Identification Division. Program-ID. CA01289. Data Division. Working-Storage Section. 01 Program-Work-Fields. 05 Input-name Pic x(30). 05 Output-name Pic x(37). 05 LoopCount Value 0.	----- * Identification Division. Program-ID. CA01289. Data Division. Working-Storage Section. 01 Program-Work-Fields. 05 Input-name Pic x(30). 05 Output-name Pic x(37). 01 Program-flags. 05 Loop-flag Pic 9(01). 88 Loop-done Value 1.
----- * 01 Program-flags. 05 Loop-flag Pic 9(01). 88 Loop-done Value 1.	----- * 01 Program-flags. 05 Loop-flag Pic 9(01). 88 Loop-done Value 1.
----- * Procedure Division. Initialize Program-work-fields Program-flags. Perform until Loop-done or LoopCount < 400 Display " " Display "Enter a name or Q to quit:" Accept Input-name If function upper-case (Input-name) = "Q" Set Loop-done to true Else Move spaces to Output-name	----- * Procedure Division. Initialize Program-work-fields Program-flags. Perform until Loop-done Display " " Display "Enter a name or Q to quit:" Accept Input-name If function upper-case (Input-name) = "Q" Set Loop-done to true Else Move spaces to Output-name Move "Hello, " to Output-name (1:7)

Problems Tasks Console Properties Team Advisor Pending Changes History

CA01289.cbl in Workspace Ad Tech - IMS Example - CICS Application

Merges	Comment	Creator	Date Created
	7250: Problem with performance in CICS application	Timothy J. Hahn	1:57:58 PM (30 minutes ago)

<No Current Work>

Check in the source code



The screenshot displays the Rational Software Architect interface for C/C++ development. The main window shows a defect titled "Problem with performance in CICS application" (Defect 7250) in an "In Progress" state. The defect description reads: "We found that this CICS application takes far too long to run. Please find the source of this time consumption and fix the code to be more efficient and run faster!". A discussion comment from Timothy J. Hahn states: "I will look into this ASAP!".

The "Team" menu is open, showing options for source code management. The "Check-in" option is highlighted, with a keyboard shortcut of Shift+Ctrl+F11. Other options include "Show Pending Changes", "Apply Patch...", "Show History", "Annotate", "Accept...", "Deliver...", "Change File Properties...", and "Add to Ignore List...".

The bottom status bar shows the current file is "CA01289.cbl" and the work area is "<No Current Work>".

Resolve the work item



The screenshot displays the 'Work Items' window in Rational Software Architect. The main window title is 'Work Items - Enterprise Tools CTO - Rational Software Architect™ for WebSphere® Software'. The interface is divided into several sections:

- Left Panel:** Shows a navigation tree with 'Inbox (Enterprise Tools CTO)' (No newly assigned work), 'Current Work (Enterprise Tools CTO)' (1 item: 'Problem with performance in CICS application'), and 'Future Work (Enterprise Tools CTO)'.
- Defect 7250:** The main view shows a defect titled '7250: Problem with performance in CICS application'. The status is 'Resolved' and it is marked as 'Fixed'. The summary is 'Problem with performance in CICS application'.
- Details:** A form with various fields:
 - Type: Defect
 - Severity: Major
 - Found In: Test DCP Release
 - Created: Jun 29, 2009 12:04 PM
 - Created By: Timothy J. Hahn
 - Team Area: Advanced Technology Team / E
 - Filed Against: Advanced Technology
 - Tags: (empty)
 - Owned By: Timothy J. Hahn
 - Priority: High
 - Planned For: Advanced Technology M1
 - Estimate: 3 h
 - Time Spent: 1 h
 - Due: None
- Description:** 'We found that this CICS application takes far too long to run. Please find the source of this time consumption and fix the code to be more efficient and run faster!'.
- Discussion (2 comments):**
 - 1. Timothy J. Hahn, Jun 29, 2009, 12:12 PM: 'I will look into this ASAP!'.
 - 2. Timothy J. Hahn, Jun 29, 2009, 2:55 PM: 'I have added a LoopCount "guard" to the potentially long-running loop in the CICS application. Completing this problem.'
- Bottom Panel:** Shows 'Share projects' for 'CICS Application' with sub-items 'jazignore' and 'CA01289.cbl'.



CICS and Rational Tools in Action

- **Agile Performance Testing**

- [Rational Quality Manager](http://www-01.ibm.com/software/awdtools/rqm/) <http://www-01.ibm.com/software/awdtools/rqm/>
- [Rational Performance Tester](http://www-01.ibm.com/software/awdtools/tester/performance/) <http://www-01.ibm.com/software/awdtools/tester/performance/>

- **CICS Performance Analysis**

- [CICS Explorer](http://www-01.ibm.com/software/htp/cics/explorer/) <http://www-01.ibm.com/software/htp/cics/explorer/>
- [CICS Performance Analyzer](http://www-01.ibm.com/software/htp/cics/panaly/) <http://www-01.ibm.com/software/htp/cics/panaly/>
- [CICS Interdependency Analyzer](http://www-01.ibm.com/software/htp/cics/ianaly/) <http://www-01.ibm.com/software/htp/cics/ianaly/>

- **Agile Development**

- [Rational Team Concert](http://www-01.ibm.com/software/awdtools/rtc/index.html) <http://www-01.ibm.com/software/awdtools/rtc/index.html>
- [Rational Developer for System z](http://www-01.ibm.com/software/awdtools/rdz/) <http://www-01.ibm.com/software/awdtools/rdz/>





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- [developerWorks Rational](http://www.ibm.com/developerworks/rational) <http://www.ibm.com/developerworks/rational>
- [IBM Rational TV](http://www-01.ibm.com/software/info/television/index.jsp?cat=rational&item=xml/M259765N40519Z80.xml&media=video) <http://www-01.ibm.com/software/info/television/index.jsp?cat=rational&item=xml/M259765N40519Z80.xml&media=video>
- [IBM Rational Business Partners](http://www-01.ibm.com/software/rational/partners/) <http://www-01.ibm.com/software/rational/partners/>



Learn More About CICS

- **CICS TS V4.1 Generally Available June 26th 2009**
 - Announcement letter (April 28th 2009) <http://tinyurl.com/cjc9oj>
 - <http://ibm.com/cics/tserver/v41/>
- **CICS Tools**
 - Home page <http://ibm.com/cics/tools>
- **CICS Explorer**
 - Home page <http://ibm.com/cics/explorer>
 - Downloads <http://ibm.com/cics/explorer/download>
 - Forum <http://tinyurl.com/68bndw>
- **Watch great new CICS videos on YouTube**
 - [CICS Explorer](http://www.youtube.com/CICSExplorer) - Videos, demos and other cool stuff <http://www.youtube.com/CICSExplorer>
 - [CICSFluff](http://www.youtube.com/CICSfluff) - Other CICS videos <http://www.youtube.com/CICSfluff>
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