

What's New in IBM Tivoli
OMEGAMON XE for CICS on z/OS
V410

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Session 4123A

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What's New in IBM Tivoli OMEGAMON XE for CICS on z/OS V410

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Agenda

- **IBM Tivoli OMEGAMON® XE for CICS on z/OS v4.1.0 – An overview**
- **Dynamic Workspace Linking (DWL)**
 - Globalisation/Linux
- **OMEGAMON CICS**
 - CICS considerations
- **Enhanced workspaces for existing reports**
 - Summary / Details workspaces
 - New Functions in 4.1.0 to exploit CICS TS 3.1
 - XE Service Level Analysis management in the XE client
- **OMEGAMON Global Data Area changes**
- **CICS MCT requirements**
- **Menu System 'Classic' interface enhancements**
 - Application Trace Facility (ATF)
- **Please feel free to ask questions. . . .**

IBM Tivoli CICS Solutions GA releases

- **IBM Tivoli OMEGAMON XE for CICS on z/OS V410**
- **GA October 13th 2006**
 - Product ID 5698-A58
 - Includes OMEGAMON II for CICS V560
 - Continued exploitation of CICS TS 3.1

<https://techsupport.services.ibm.com/server/390.psp390>

- **Review the following upgrade information:**
OMXEC5410 (5698-A58)

Dynamic Workspace Linking (DWL)

- **Links from OMEGAMON XE for CICS include:**
 - DB2 Summary -> (DB2) DB2 CICS Connections
 - DBCTL Summary -> (IMS) IMS Address spaces
 - Logstream Analysis -> (z/OS) Coupling Facility Structures Data for Sysplex
 - Temporary Storage Queues -> (z/OS) Coupling Facility Structures Data for Sysplex
 - TCPIP Statistics -> (MFN) Application TCP Listeners
 - Message Queuing Analysis -> (MQ Series) Tran/PGM Statistics by Applid
 - Transaction Analysis -> (DB2) Detailed thread activity (Active)
 - Transaction Analysis -> (IMS) DBCTL Summary Detailed thread detail for CICS (Active)

- **Plus links to other OMEGAMON XE for CICS on z/OS reports**
- **You can also define your own links between OMEGAMON reports**

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Globalisation/Linux

- **Language support added for:**
 - German
 - Spanish
 - French
 - Italian
 - Japanese
 - Korean
 - Brazilian Portuguese
 - Simplified and Traditional Chinese

- **Linux support for the TEP/TEPS/TEMS**
 - Redhat Enterprise and Desktop Linux 4 Intel
 - Redhat Enterprise Linux 4 on z/Series 31 bit
 - SUSE Linux Enterprise Server 9 Intel

- **Review the product documentation for a full list of supported Linux environments**

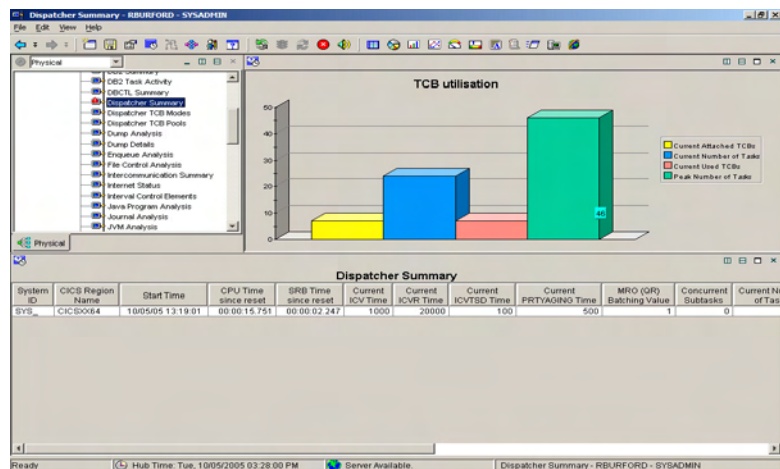
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What is the Tivoli Enterprise Portal ?

- Tivoli Enterprise Portal (TEP) is a browser enabled java front end which can be launched from Internet Explorer or your desktop
- TEP runs on Windows 98, 2000, NT and XP as well as Linux
- It requires Internet Explorer 5.5+
- It is a completely customisable front-end to the IBM Tivoli OMEGAMON monitoring solutions

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Tivoli Enterprise Portal – the anatomy of a workspace



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Tivoli Enterprise Portal - situations

The red state of the objects in the navigation tree indicate that a critical situation has been evaluated as TRUE. The Enterprise reflects the state of the highest TRUE situation.

System ID	CICS Region Name	CICS SYSDNT	Transaction ID	User ID	Terminal ID	Task Number	Resource Type	Resource Name	Task State	Elapsed Time	CPU Time	Program ID
SYS	CIC-S064	X064	DB2D	CIC-S064	rfa	22640	RUNNING	RUNWROK	Running	00:00:01.02	00:00:00	DB2TPDM
SYS	CIC-S064	X064	OSBC	CIC-S064	rfa	80047	USERWAIT	SRZVWRK	Suspend	01:45:00.99	00:00:02	KOCSRZ2
SYS	CIC-S064	X064	OSRV	CIC-S064	rfa	80048	USERWAIT	SRVWWRK	Suspend	01:45:00.99	00:00:01	KOCSRZ2
SYS	CIC-S064	X064	COE	CIC-S064	rfa	80045			Suspend	01:45:03.5	00:00:01.76	EVUWLOI
SYS	CIC-S064	X064	COB	CIC-S064	rfa	80031			Suspend	01:45:04.92	00:00:00	EVUWLOI

Tivoli Enterprise Portal – situation acknowledgement

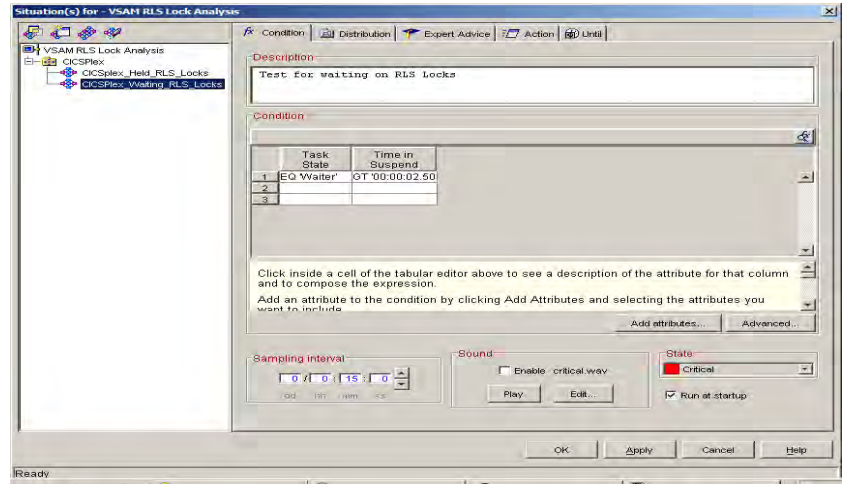
Acknowledged event
Event: CICplex_OCSPH_Critical - SYS_OCSX064
Event time: Tue, 10/05/2005 03:52:10 PM
Last Updated: Tue, 10/05/2005 04:12:46 PM
Owner: SYSADMIN
Act time: Tue, 10/05/2005 04:12:46 PM

Expiration
 Expire at end of interval
 Expire at specific time

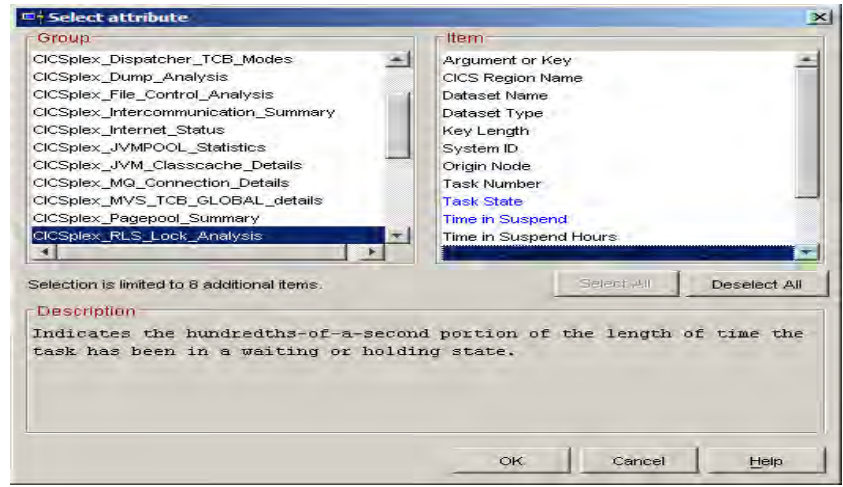
1 Hour 8 Hours
2 Hours 24 Hours
Custom Never

Notes
I now own this situation, which was caused by my attempting to run 1000 transactions a second in a test CICS region

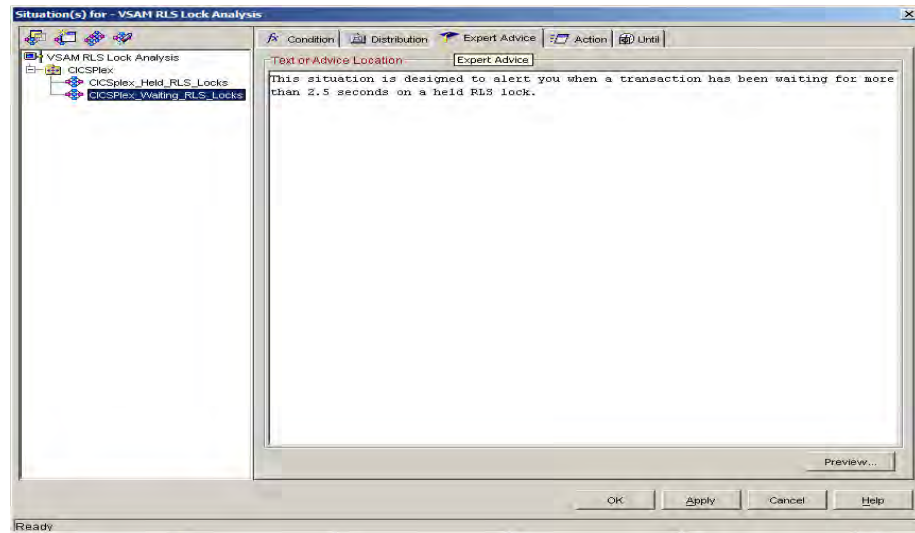
Tivoli Enterprise Portal – situation definition



Situation definition – adding attributes for evaluation

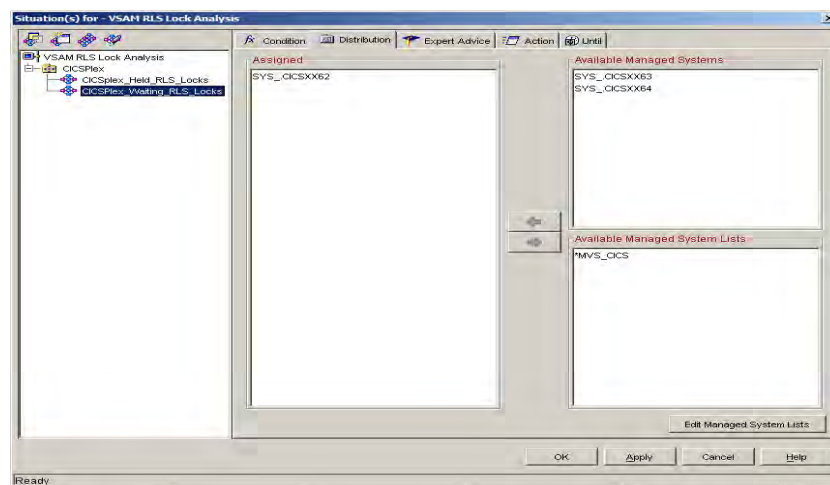


Tivoli Enterprise Portal – specify expert advice



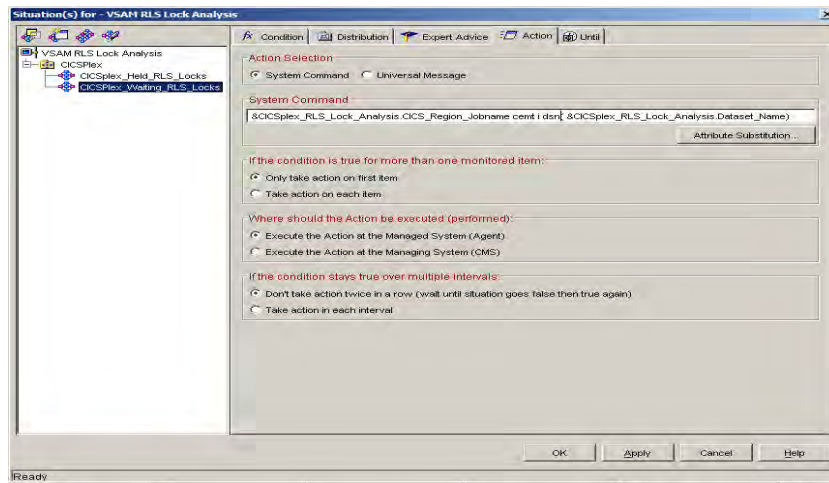
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Situation definition – specify where it will run



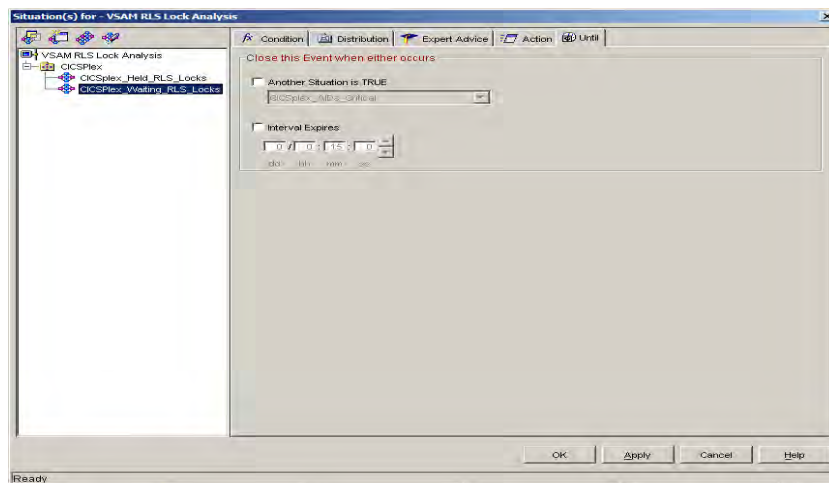
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Situation definition – specify a system command



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Situation definition – how long should this run ?



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A raised situation

Initial Situation Values

Task	Time in Suspend	Origin Node	System ID	CICS Region Name	Time in Suspend	Transaction ID	Task Number	Time in Suspend Hours
Wait	00:00:03.74	SY8	CIC0062	SY8	CIC0062	00:00:03.74	RL6A	01111

Take Action

Name: AID Purge
 Command: *Select Action
 *ZSD Purge
 *AID Purge
 *Z Cancel
 *Sample CEMT SET command

Destination system(s):

This situation is designed to alert you when a transaction has been waiting for more than 2.5 seconds on a held RLS lock.

Situation definition – the source data

RLS Lock Duration

3D bar chart showing duration in seconds (0 to 7) and time in suspend (00:00:03.74).

VSAM Record Level Sharing Lock Analysis

System ID	CICS Region Name	Transaction ID	Task Number	Task State	Time in Suspend	Dataset Type	Dataset Name	Key Length	Argument or key
SY8	CIC0063	RL63	02135	Holder	00:00:06:66	KSDS	TDCIC81 TOC.TDOCRLS.FILE99	6	000001
SY8	CIC0062	RL62	01961	Waiter	00:00:04:56	KSDS	TDCIC81 TOC.TDOCRLS.FILE99	6	000001
SY8	CIC0062	RL6A	01962	Waiter	00:00:04:56	KSDS	TDCIC81 TOC.TDOCRLS.FILE99	6	000001

Setting a threshold for an individual cell

Dispatcher TCB Pools

System ID	CICS Region Name	TCB Pool Name	Maximum TCBs	Current TCBs attached	Peak TCBs attached	Current TCBs in use	Peak TCBs in use
SYS_	CICSXX64	JVM	20	0	0	0	0
SYS_	CICSXX64	XPLink	5	0	0	0	0
SYS_	CICSXX64	SSL	8	0	0	0	0

Thresholds

	Current TCBs attached	Peak TCBs attached	Current TCBs in use	Peak TCBs in use	Times at limit	Total time at limit	C wait
1					GT 2		
2		EQ 50					
3							

Data Snapshot

	Current TCBs attached	Peak TCBs attached	Current TCBs in use	Peak TCBs in use	Times at limit	Total time at limit
5	0	50	50	0	50	3.001
0	0	0	0	0	0	0
5	0	0	0	0	0	0
8	0	0	0	0	0	0

Setting a threshold for an individual cell

Dispatcher TCB Pools

TCBs	Current TCBs attached	Peak TCBs attached	Current TCBs in use	Peak TCBs in use	Times at limit	Total time at limit
5	0	0	0	0	0	00:00:00
8	0	0	0	0	0	00:00:00
50	50	50	0	50	3	00:00:00.995

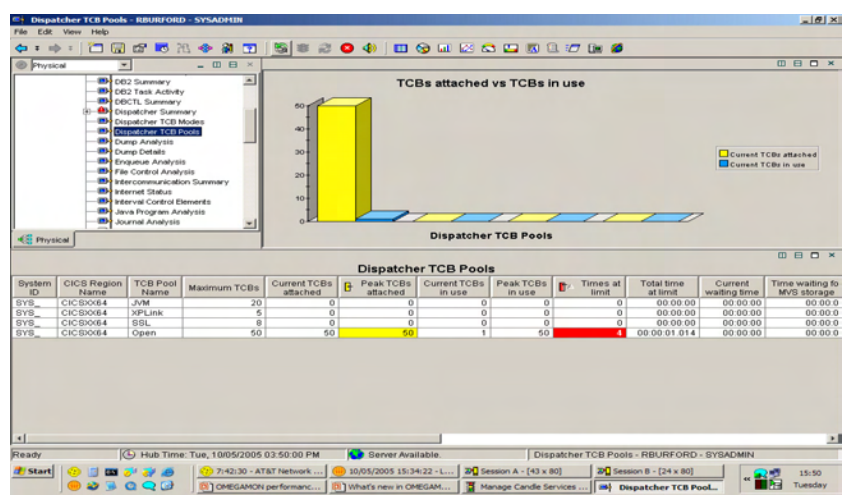
Thresholds

	Current TCBs attached	Peak TCBs attached	Current TCBs in use	Peak TCBs in use	Times at limit	Total time at limit	C wait
1					GT 2		
2		EQ 50					
3							

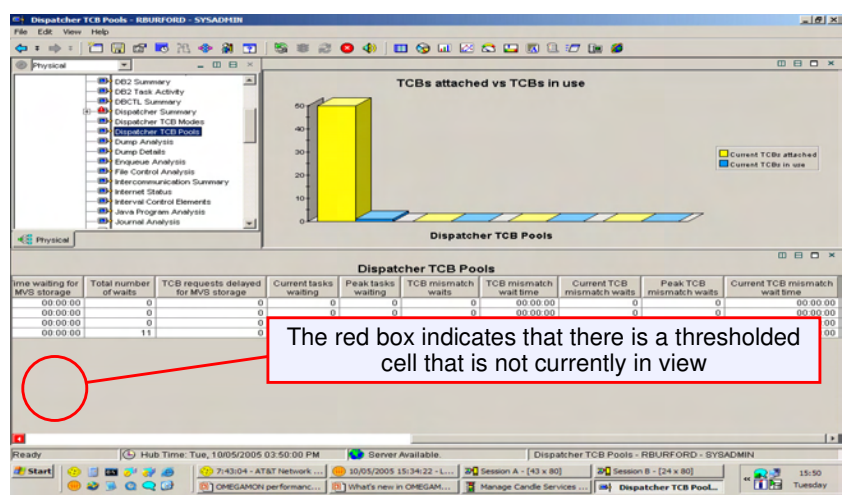
Data Snapshot

	Current TCBs attached	Peak TCBs attached	Current TCBs in use	Peak TCBs in use	Times at limit	Total time at limit
5	0	50	50	0	50	3.001
0	0	0	0	0	0	0
5	0	0	0	0	0	0
8	0	0	0	0	0	0

Setting a threshold for an individual cell



Setting a threshold for an individual cell

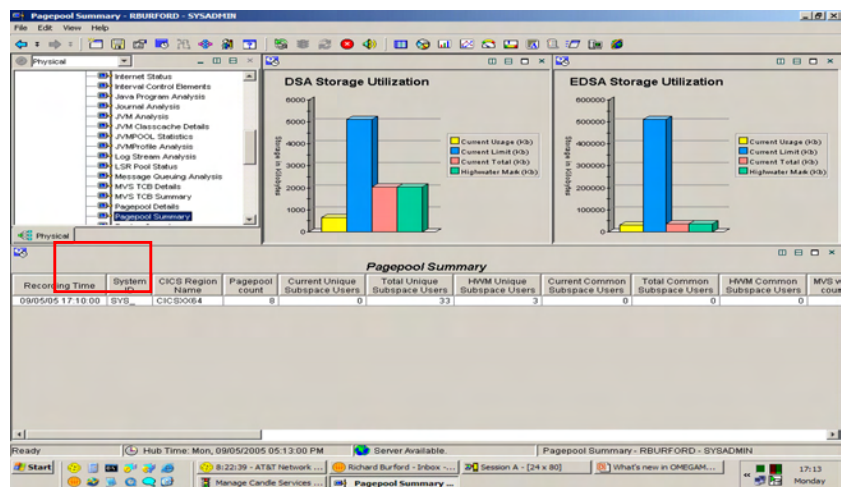


OMEGAMON XE for CICS - History

- The TEP provides a history feature which allows the user to specify tables (reports) which will be collected at a specific interval for subsequent reporting.
- This feature does not replace the menu interface ONDV (On-line Data Viewing) feature, CICS Performance Analyser, EPILOG or SAS processing of the SMF data, but is very useful for trending. In the next few slides we will see how to set up historical recording for the pagepool summary report, and the results of that recording presented in an Excel spreadsheet.

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OMEGAMON XE for CICS - History



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OMEGAMON XE for CICS - History

The screenshot shows the OMEGAMON XE for CICS - History interface. A dialog box titled "History Collection Configuration" is open, allowing users to select a CMS Target (RBURFORD) and a Product (CICS). Below this, a table lists collection status for various groups:

Group	Interval	Local	Warehouse Int.	Short Term H.	File N.
C:Sysm_Dispatcher_Su	S	CMS	Daily	1 day	CCSC...
C:Sysm_Pagepool_Sum	S	CMS	Daily	1 day	CC-SPFH

At the bottom of the dialog are buttons for "Refresh Status", "Start Collection", and "Stop Collection". The background shows a "Pagepool Summary" table and a "Page Utilization" bar chart.

OMEGAMON XE for CICS - History

The screenshot displays the OMEGAMON XE for CICS - History interface with two storage utilization charts: "DSA Storage Utilization" and "EDSA Storage Utilization". Both charts show "Pagepool in storage" on the y-axis and compare "Current Usage (93)", "Current Limit (93)", "Current Total (93)", and "Highwater Mark (93)".

A "Select Time Span" dialog box is open, showing options for "Set Time Span" (Last 6 Hours, Last 12 Hours, Last 24 Hours, Last 4 Hours, Last 6 Hours, Custom) and "Custom Start Time" (2005 05 11 PM) and "Custom End Time" (2005 05 11 PM). The "Time Column" is set to "Ending Time".

Below the charts is a "Pagepool Summary" table:

total Unique Subspace Users	HWM Unique Subspace Users	Current Common Subspace Users	Total Common Subspace Users	HWM Common Subspace Users	MVS wait count	MVS wait time	Tras
33	3	0	0	0	0	00 00 00	ACT

OMEGAMON XE for CICS - History

The screenshot shows the 'Pagepool Summary' window with a 'Select Time Span' dialog box open. The dialog box has a red border and contains the following options:

- Set Time Span:
 - None
 - Last Hour
 - Last 2 Hours
 - Last 4 Hours
 - Last 8 Hours
 - Last 12 Hours
 - Last 24 Hours
 - Custom
- Custom Start Time: 09/05/05 04:20 PM
- Custom End Time: 09/05/05 05:20 PM
- Time Column: Recording Time
- Apply to all views associated with this view's query

The background window shows 'DSA Storage Utilization' and 'EDSA Storage Utilization' bar charts, and a 'Pagepool Summary' table with the following data:

	Current Unique Subspace Users	Total Unique Subspace Users	HWM Unique Subspace Users	Current Common Subspace Users	Total Common Subspace Users	HWM Common Subspace Users	MVS count
09/05/05 04:20 PM	0	33	3	0	0	0	0
09/05/05 05:20 PM	1	35	3	0	0	0	0

OMEGAMON XE for CICS - History

The screenshot shows the 'Pagepool Summary' window with a 'Recording Time' column highlighted in red. The table below shows the history of pagepool summary data:

Recording Time	System ID	CICS Region Name	Pagepool count	Current Unique Subspace Users	Total Unique Subspace Users	HWM Unique Subspace Users	Current Common Subspace Users	Total Common Subspace Users	HWM Common Subspace Users	MVS count
09/05/05 17:10:00	SVS	CIC-SD064	8	0	33	3	0	0	0	0
09/05/05 17:15:00	SVS	CIC-SD064	8	1	35	3	0	0	0	0

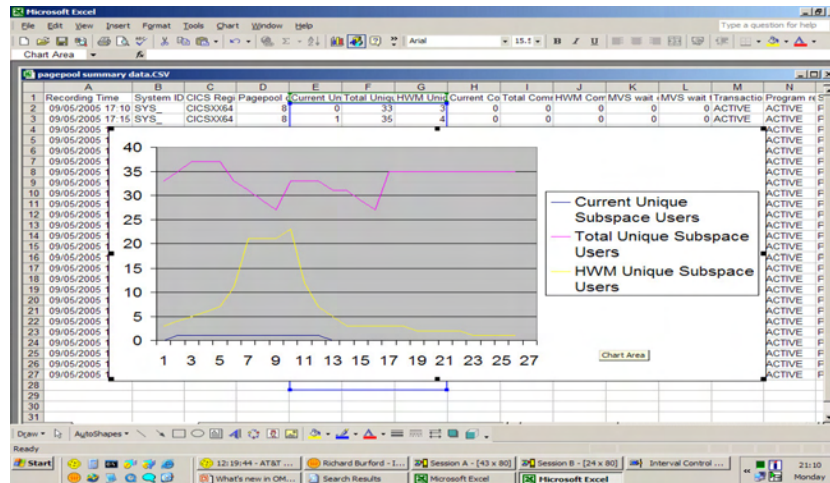
OMEGAMON XE for CICS - History

The screenshot displays the 'Pagepool Summary' window in OMEGAMON XE. It features a left-hand navigation tree with options like 'Internet Status', 'Interval Control Elements', 'Java Program Analysis', 'Journal Analysis', 'JVM Analysis', 'JVM Classcache Details', 'JVMPOOL Statistics', 'JVMProfile Analysis', 'Log Stream Analysis', 'LSR Pool Status', 'Message Counting Analysis', 'MVS TCB Details', 'MVS TCB Summary', and 'Pagepool Details'. The main area is divided into three sections: 'Physical' (with a tree view), 'DSA Storage Utilization' (a bar chart showing memory in MB for four dates), and 'EDSA Storage Utilization' (another bar chart). Below these is a table with columns: Recording Time, System ID, CICS Region Name, Pagepool count, Current Un Subspace Users, HVM Unique Subspace Users, Current Common Subspace Users, Total Common Subspace Users, HVM Common Subspace Users, and MV. A context menu is open over the table, showing options like 'Take Action...', 'Edit Action...', 'Link Wizard...', 'Export', 'Split vertically', 'Split horizontally', 'Remove', 'Print Preview...', 'Print...', and 'Properties...'. The status bar at the bottom shows 'Hub Time: Mon, 09/05/2005 07:58:11 PM' and 'Server Available'.

OMEGAMON XE for CICS - History

This screenshot shows the same 'Pagepool Summary' window as above, but with the 'Export to Disk' dialog box open. The dialog has a 'Save In' field set to 'XE extract data' and a file list containing 'pagepool summary data.csv'. The 'File name' field is empty, and the 'Files of type' is set to 'Spreadsheet (*.csv)'. Below the file list, there are sections for 'Columns to Export' and 'Available Columns'. The 'Columns to Export' section includes 'Recording Time', 'System ID', 'CICS Region Name', 'Pagepool count', and 'Current Un Subspace Users'. The 'Available Columns' section is currently empty. The background window shows the 'EDSA Storage Utilization' chart and the user statistics table. The status bar at the bottom shows 'Hub Time: Mon, 09/05/2005 09:02:11 PM'.

OMEGAMON XE for CICS - History



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OMEGAMON Dashboard Edition (DE)

- Provides the ability to group monitored resources into Areas of Control, Geographies and Local Groupings of Resource Utilisation in a single workspace
 - By allowing you to build an integrated view which contains data sourced from multiple platforms and agents
- Improves speed of critical application problem identification and resolution
- Linking of information between applications: ex, go from MQ queue to CICS AOR to DB2
- Extends OMEGAVIEW/3270 concepts to the desktop...data from multiple sources into a single workspace.

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OMEGAMON DE Benefits and Value

- **Combine data from different platforms/agents into a single workspace**
 - Example: information about an MQ manager, CICS AOR, DB2, and VMS via UA into a single workspace
- **Link from a workspace in one application to a workspace in another application**
 - Example: link from an CICS Transaction Analysis workspace to the DB2 Thread Detail workspace based on the thread correlation ID
- **Integrate and exchange alerts with other 3rd party software**
 - Foundation for integration with other Open Standards: XML, SOAP, SNMP etc.



OMEGAMON DE – an application in a workspace

The screenshot displays the OMEGAMON DE application interface within a Microsoft Internet Explorer browser window. The main content area is titled "VO End User Response Time" and features a bar chart showing response times over time. Below the chart are several data tables and monitoring panels:

- Critical WAS Metrics:** A table with columns for Origin node, Server name, Container name, Average method response time, and Total method calls. It lists two Trade 2 Servers with an average response time of 1.868 and 995 total method calls.
- Critical VO CICS Transactions:** A table with columns for System ID, CICS SYBENT, Transaction ID, Task Number, Wait Type, Elapsed Time, CPU, and Program ID. It shows a transaction on SP12 with a wait time of 2 Days.
- Critical VO DB2 Threads:** A table with columns for DB2ID, Plan Name, Correlation Identifier, Thread Status, Elapsed Time, CPU, and Wait Time. It lists threads for DB2ID D610 and D510.
- VO Queues Out of Norm (Depth or Status):** A table with columns for Queue Name, Current Depth, % Full, Get Status, and Put Status.
- VO AIX Servers - CPU:** A panel showing two circular gauges for CPU usage on servers goodgy04.KLX and goodgy02.candle.com.KL. A legend indicates Use CPU (Percent), System CPU (Percent), Idle CPU (Percent), and CPU Busy (Percent).

Enhancements to existing reports

- **New situations**
 - Situations added for the new reports added in OMEGAMON XE for CICS on z/OS v4.1.0
- **New/Merged workspaces**
 - Improve usability
 - Merges individual workspaces that had been created in the 3.1.0 release into more useful views.
 - Reduce the size of the list of reports in the navigation tree
 - Present related data where appropriate in a single workspace to speed problem determination and resolution.

Enhanced workspaces

- Dispatcher
 - Merged Dispatcher Summary, Dispatcher TCB Pools and Dispatcher Modes into a single workspace.
- Dump Analysis
 - Merged Dump Analysis and Dump Details into a single workspace.
- JVM
 - JVM Analysis, JVM Classcache Details, JVMPool Statistics and JVM Profile Analysis merged into a single workspace
 - New link added from JVM Analysis to the new Single Transaction Workspace
- MVS TCBs
 - MVS TCB Summary and MVS TCB details merged into a single workspace.
- Storage
 - Pagepool summary and Pagepool details merged into a single workspace.
- TCP/IP
 - TCPIP Statistics and TCPIP Service Statistics merged into a single workspace.
- Transient Data
 - Added new attributes.

Summary / Details Reports

- **Summary / Details layout**
 - Summary report shows data for all resources of that type
 - Summary reports showing the same data, without the longer fields
 - Summaries appear in the visible workspaces
 - Details can be reached as link targets from the summary
 - Summaries can be used to link from one detailed view to another
 - Link to the detail report uses a filter to typically only return data for a single resource

- **This is in keeping with the presentation model used in other OMEGAMON products**

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Workspace Linking

- **Workspace linking:**
 - Summaries visible on linked-to workspaces
 - Links only visible when relevant
 - Linked-to workspace may depend on nature of link

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Summary / Details Example: Web Service Analysis

- **Web Service Analysis Summary / Details workspaces:**
 - Initial workspace is a collection of Summary views
 - Links to Detail views
 - Linking within Detail views
 - Links only visible when relevant
 - Source Type / Source Name field on Document Template Details

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The screenshot displays the IBM Web Services Analysis - TAMORAN - SYSADMIN interface. It features a navigation tree on the left and several data tables in the main workspace.

Web Services Summary

System ID	CICS Region Name	Web Service Name	Status	Use Count	Pipeline Name	Program Name	URIMAP Name	Container Name	Program Interface
MVZC	CICS0BA1	dispatchOrder	Instance	0	EXPPE02	DFHSD00E	\$320460	Commarea	na
MVZC	CICS0BA1	dispatchOrderEndpoint	Instance	0	EXPPE01	DFHSD0CMN	\$320461	Commarea	na
MVZC	CICS0BA1	inquireAtalog	Instance	0	EXPPE01	DFHSD0CMN	\$320461	Commarea	na
MVZC	CICS0BA1	inquireAtalogClient	Instance	0	EXPPE02	DFHSD0CMN	\$320462	Channel	na
MVZC	CICS0BA1	inquireAtalogServer	Instance	0	EXPPE01	DFHSD0CMN	\$320463	Commarea	na
MVZC	CICS0BA1	inquireSingle	Instance	0	EXPPE01	DFHSD0CMN	\$320463	Commarea	na
MVZC	CICS0BA1	inquireSingleClient	Instance	0	EXPPE02	DFHSD0CMN	\$320464	Channel	na

Web Services - Inode Host Details

System ID	CICS Region Name	Status	TCP/IP Service	Host name
MVZC	CICS0BA1	Enabled	*	*

Web Services Pipeline Summary

System ID	CICS Region Name	Pipeline Name	Pipeline Status	Use Count
MVZC	CICS0BA1	EXPPE01	Enabled	0
MVZC	CICS0BA1	EXPPE02	Enabled	0

Web Services - Document Template Details

System ID	CICS Region Name	Document Template Name	Extended Name	CR/LF Append	Format	Source Type	Source Name
MVZC	CICS0BA1	DFHBPV01		Yes	EBCDIC	PROGRAM	DFHBPV01
MVZC	CICS0BA1	DFHBPV02		Yes	EBCDIC	PROGRAM	DFHBPV02
MVZC	CICS0BA1	DFHBPV03		Yes	EBCDIC	PROGRAM	DFHBPV03
MVZC	CICS0BA1	DFHBPV04		Yes	EBCDIC	PROGRAM	DFHBPV04

Hub Time: Mon, 01/23/2006 02:42 PM | Server Available | Web Services Analysis - TAMORAN - SYSADMIN

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Web services analysis – Web service details

The screenshot shows the 'Web Services Detail' window for TAMORAN - SYSADMIN. It features a tree view on the left with categories like 'Information Summary', 'Internal Control Elements', 'Data Program Analysis', 'Log Stream Analysis', 'LIR Host Status', 'Message Gateway Analysis', 'MVS TDR Summary', 'Recovery Manager Analysis', 'Region Overview', 'Response Time Analysis', 'Service Level Analysis', 'Service Test Details', 'Storage Analysis', 'Subpool Details', 'System Initialization Table', 'Task Class Analysis', 'TCP/IP Statistics', 'Temporary Storage Detail', 'Temporary Storage Summary', 'Remote Storage Violations', 'Transaction Analysis', 'Transaction Storage Violations', 'Transient Data Classes', 'Transient Data Summary', 'Transaction Manager Statistics', 'UOV Analysis', 'UOV Escape Analysis', 'URMAP Analysis', 'VSAM Analysis', 'VSAM REXX Job Analysis', and 'Web Service Topology'. The main pane displays a table of web services.

System ID	CICS Region Name	Web Service Name	Status	Use Count	Pipeline Name	Program Name	URMAP Name	Container Name	Program Interface
MVZC	CICSOBA1	dispatchOrder	Instance	0	EXPPE02				NA
MVZC	CICSOBA1	dispatchOrderEndpoint	Instance	0	EXPPE01	DFHRCODE	\$320460		Commons
MVZC	CICSOBA1	inquireCatalog	Instance	0	EXPPE01	DFHRCMN	\$320461		Commons
MVZC	CICSOBA1	inquireCatalogClient	Instance	0	EXPPE02				NA
MVZC	CICSOBA1	inquireCatalogWrapper	Instance	0	EXPPE01	DFHRCVW	\$320462	DFHWS-DATA	Channel
MVZC	CICSOBA1	inquireSingle	Instance	0	EXPPE01	DFHRCMN	\$320463		Commons
MVZC	CICSOBA1	inquireSingleClient	Instance	0	EXPPE02				NA
MVZC	CICSOBA1	inquireSingleWrapper	Instance	0	EXPPE01	DFHRCVW	\$320464	DFHWS-DATA	Channel
MVZC	CICSOBA1	placeOrder	Instance	0	EXPPE01	DFHRCMN	\$320465		Commons
MVZC	CICSOBA1	placeOrderClient	Instance	0	EXPPE02				NA
MVZC	CICSOBA1	placeOrderWrapper	Instance	0	EXPPE01	DFHRCVW	\$320466	DFHWS-DATA	Channel

Below the table is a detailed view for the 'dispatchOrder' service, showing fields like 'Last Modified', 'Program Interface', 'Validation Indicator', 'Binding', and 'Endpoint'.

Context-sensitive linking

Link options when no URIMAP specified are just 'Web Service Detail' and 'Pipeline Detail'

This screenshot shows the same table as above, but with context-sensitive links added to the 'Web Service Name' column for services that do not have a URIMAP specified. The links are 'Web Service Detail' and 'Pipeline Detail'.

System ID	CICS Region Name	Web Service Name	Status	Use Count	Pipeline Name	Program Name	URMAP Name	Container Name	Program Interface
MVZC	CICSOBA1	dispatchOrder	Instance	0	EXPPE02				NA
MVZC	CICSOBA1	dispatchOrderEndpoint	Instance	0	EXPPE01	DFHRCODE	\$320460		Commons
MVZC	CICSOBA1	inquireCatalog	Instance	0	EXPPE01	DFHRCMN	\$320461		Commons
MVZC	CICSOBA1	inquireCatalogClient	Instance	0	EXPPE02				NA
MVZC	CICSOBA1	inquireCatalogWrapper	Instance	0	EXPPE01	DFHRCVW	\$320462	DFHWS-DATA	Channel
MVZC	CICSOBA1	inquireSingle	Instance	0	EXPPE01	DFHRCMN	\$320463		Commons
MVZC	CICSOBA1	inquireSingleClient	Instance	0	EXPPE02				NA
MVZC	CICSOBA1	inquireSingleWrapper	Instance	0	EXPPE01	DFHRCVW	\$320464	DFHWS-DATA	Channel
MVZC	CICSOBA1	placeOrder	Instance	0	EXPPE01	DFHRCMN	\$320465		Commons
MVZC	CICSOBA1	placeOrderClient	Instance	0	EXPPE02				NA
MVZC	CICSOBA1	placeOrderWrapper	Instance	0	EXPPE01	DFHRCVW	\$320466	DFHWS-DATA	Channel

When URIMAP is specified the 'URIMAP Detail' link appears.

This screenshot shows the same table as above, but with context-sensitive links added to the 'Web Service Name' column for services that have a URIMAP specified. The links are 'Web Service Detail' and 'URIMAP Detail'.

System ID	CICS Region Name	Web Service Name	Status	Use Count	Pipeline Name	Program Name	URMAP Name	Container Name	Program Interface
MVZC	CICSOBA1	dispatchOrder	Instance	0	EXPPE02				NA
MVZC	CICSOBA1	dispatchOrderEndpoint	Instance	0	EXPPE01	DFHRCODE	\$320460		Commons
MVZC	CICSOBA1	inquireCatalog	Instance	0	EXPPE01	DFHRCMN	\$320461		Commons
MVZC	CICSOBA1	inquireCatalogClient	Instance	0	EXPPE02				NA
MVZC	CICSOBA1	inquireCatalogWrapper	Instance	0	EXPPE01	DFHRCVW	\$320462	DFHWS-DATA	Channel
MVZC	CICSOBA1	inquireSingle	Instance	0	EXPPE01	DFHRCMN	\$320463		Commons
MVZC	CICSOBA1	inquireSingleClient	Instance	0	EXPPE02				NA
MVZC	CICSOBA1	inquireSingleWrapper	Instance	0	EXPPE01	DFHRCVW	\$320464	DFHWS-DATA	Channel
MVZC	CICSOBA1	placeOrder	Instance	0	EXPPE01	DFHRCMN	\$320465		Commons
MVZC	CICSOBA1	placeOrderClient	Instance	0	EXPPE02				NA
MVZC	CICSOBA1	placeOrderWrapper	Instance	0	EXPPE01	DFHRCVW	\$320466	DFHWS-DATA	Channel

New Workspaces in 4.1.0

- **Grouped into new Workspaces showing related reports:**
 - shorter navigation tree
 - intuitive workspaces showing related reports
- **Summary/Detail pattern used extensively**
 - Many of the new reports contain long character strings (URLs, file paths etc).

CICS TS 3.1 Exploitation Reports

- **Over 20 new reports added to exploit CICS TS 3.1 functionality**
 - Using the Service Tasks
- **Related reports grouped into Workspaces:**
 - Business Transaction Services (BTS) Analysis (4)
 - Enqueue Analysis (1)
 - Enterprise Java Analysis (4)
 - Exit Program Analysis (1)
 - Recovery Manager Analysis (3)
 - URIMAP Analysis (3 Reports)
 - Web Services Analysis (4)
 - Work Request Analysis (1)

New reports exploit CICS TS 3.1 functionality (1)

- **Business Transaction Services (BTS) Analysis**
 - Process Type Detail
 - Process Name Detail
 - Container Detail
 - Activity Detail
- **Enqueue Analysis**
 - Enqueue Pool Details
- **Enterprise Java Analysis**
 - CORBASERVER Details
 - DJAR Details
 - Enterprise Java Bean Details
 - Request Model Details
- **Exit Program Analysis**
 - Exit Program Detail

New reports exploit CICS TS 3.1 functionality (2)

- **Recovery Manager Analysis**
 - Recovery Manager Summary
 - Unit-of-work Link Detail
 - Unit-of-work DSN Failure
- **URIMAP Analysis**
 - URIMAP Summary
 - URIMAP Global Counts
 - URIMAP Details
- **Web Services Analysis**
 - Web Service Detail
 - Virtual Host Detail
 - Pipeline Detail
 - Document Template Detail
- **Work Request Analysis**
 - Work Request Details

Business Transaction Services (BTS) Analysis

The screenshot shows the 'Business Transaction Services Analysis' tool. It features several panes: a left-hand navigation tree, a 'Business Transaction Services Process List Details' pane with a table of processes, a 'Business Transaction Services Process Details' pane, a 'Business Transaction Services Container Details' pane with a table of containers, and a 'Business Transaction Services Activity Details' pane. A red arrow points from the 'DFHBARF' process in the first table to the 'DFHBARF' container in the second table.

System ID	CICS Region Name	Process Name	Type Name	Status	Audit level	Audit log
SVS	CIC0004	DFHBARF	DFHBARF	Enabled	OF	
SVS	CIC0004	SOAFMFG	SOAFMFG	Enabled	OF	

System ID	CICS Region Name	Container Name	Process Name	Type Name	Activity ID	Container Length	Container Address
SVS	CIC0004	SALE04071E	ORDER	SALE04071E	DFHBARF USAC001 TCPAD071 Dy	24	00042F83
SVS	CIC0004	SALE060826	ORDER	SALE060826	DFHBARF USAC001 ATERM42 Mu	24	00043AF8
SVS	CIC0004	SALE060765	ORDER	SALE060765	DFHBARF USAC001 ATERM42 X	24	00043B28
SVS	CIC0004	SALE123456	ORDER	SALE123456	DFHBARF USAC001 ATERM42	24	00043B58
SVS	CIC0004	SALE044444	ORDER	SALE044444	DFHBARF USAC001 ATERM42 B	24	00043B98

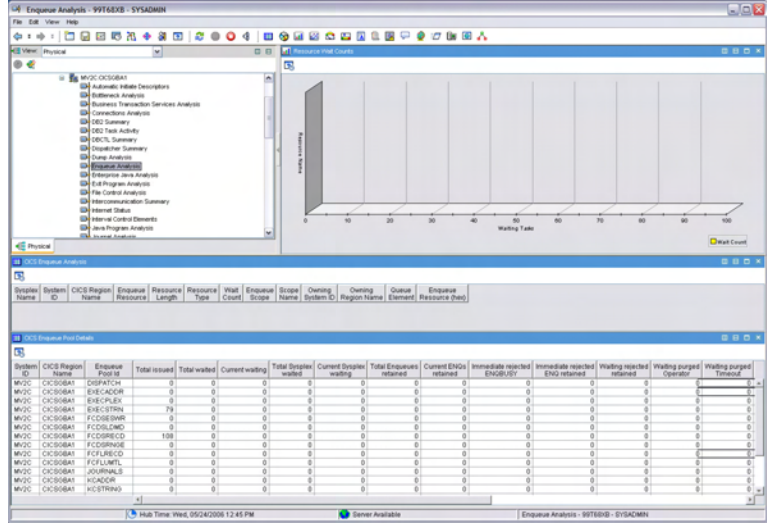
Link to the details of the underlying VSAM dataset

VSAM details for DFHBARF, from the previous link

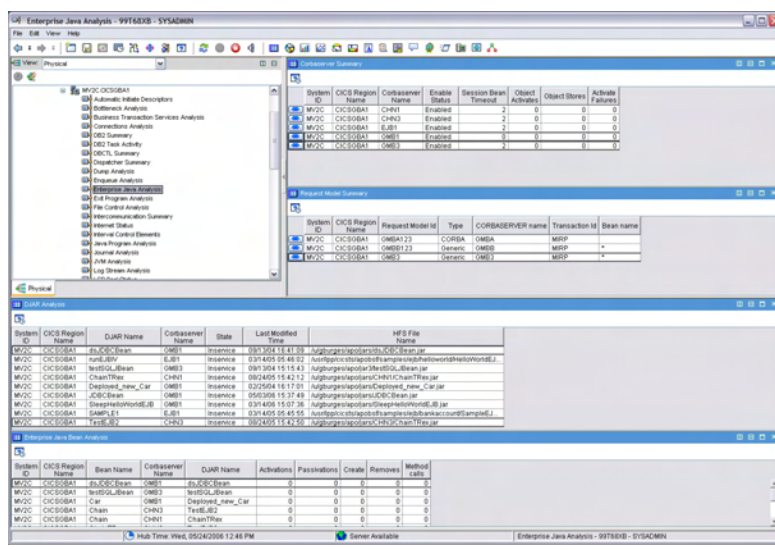
The screenshot shows the 'File Control Details' tool. It includes a left-hand navigation tree, a 'File String Utilization' chart, and a table of file control details. The chart shows a blue bar for 'DFHBARF' with a value of 10. The table below provides specific details for the VSAM dataset.

CICS Region Name	File Name	File Access Method	Open Status	Enable Status	File Attributes	Time Opened	File Format	File Record Format	File Disposition	Resource Security Level	Local File Key Length	File Relative Key Position	File LO Record L
CIC0004	DFHBARF	VSAM	Open	Enabled	Lspool1	16.06.20	KSDS	VB	n/a	n/a	50	0	n/a

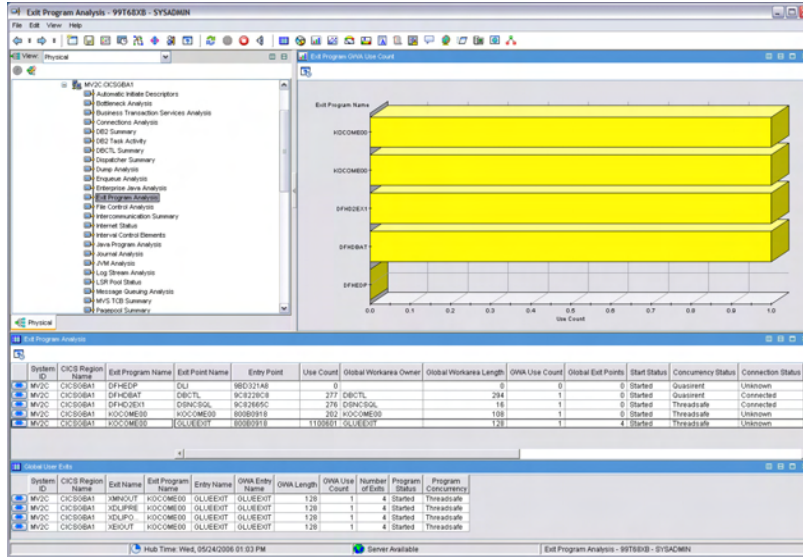
Enqueue Analysis



Enterprise Java Analysis

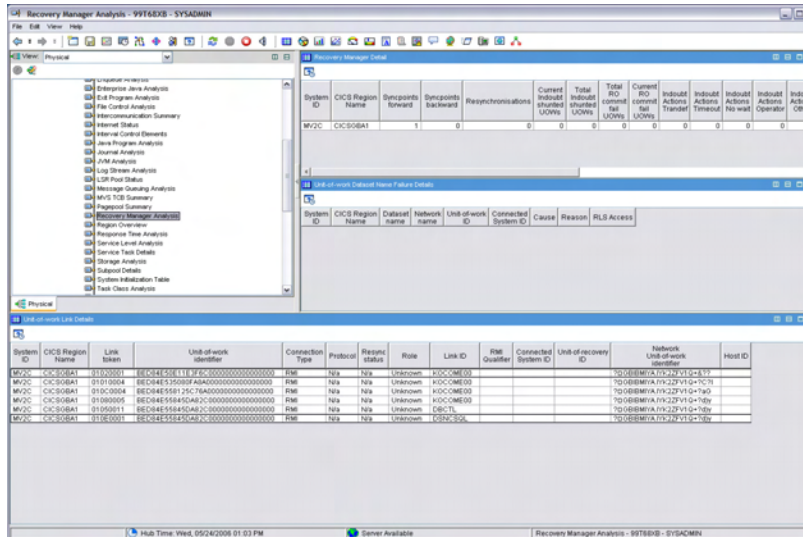


Exit Program Analysis



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Recovery Manager Analysis



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URIMAP Analysis

The screenshot displays the URIMAP Analysis tool interface. The main window is titled "URIMAP Analysis - 99T6EXB - SYSADMIN". The left sidebar contains a tree view of analysis categories, with "URIMAP Analysis" selected. The main area is divided into several panes:

- URIMAP Summary:** A table listing system details.

System ID	CICS Region	URIMAP Name	Enable status	TCP/IP Service	Usage	Scheme	Reference count	Disable count	Redirect count
MVZC	CICS08A1	\$320460	Enabled		Pipeline	HTTP	0	0	0
MVZC	CICS08A1	\$320461	Enabled		Pipeline	HTTP	0	0	0
MVZC	CICS08A1	\$320462	Enabled		Pipeline	HTTP	0	0	0
MVZC	CICS08A1	\$320463	Enabled		Pipeline	HTTP	0	0	0
MVZC	CICS08A1	\$320464	Enabled		Pipeline	HTTP	0	0	0
MVZC	CICS08A1	\$320465	Enabled		Pipeline	HTTP	0	0	0
MVZC	CICS08A1	\$320466	Enabled		Pipeline	HTTP	0	0	0
- URIMAP Detail:** A table showing reference and unmatched counts.

System	CICS Region	Reference count	Disabled count	Unmatched count	Matched count	Redirect count	Analysed count	Static count	Dynamic count	Pipeline count	HTTP count	HTTPS count	Hosts disabled
MVZC	CICS08A1	0	0	0	0	0	0	0	0	0	0	0	0
- URIMAP Detail Counts:** A bar chart showing various counts for the selected system.
- URIMAP Summary Reference Counts:** A bar chart showing reference counts for different systems.

The status bar at the bottom indicates "Hub Time: Wed, 05/24/2006 01:04 PM" and "Server Available".

Web Services Analysis

The screenshot displays the Web Services Analysis tool interface. The main window is titled "Web Services Analysis - 99T6EXB - SYSADMIN". The left sidebar contains a tree view of analysis categories, with "Web Services Analysis" selected. The main area is divided into several panes:

- Web Services Summary:** A table listing web service details.

System	CICS Region	Web Service Name	Status	Use Count	Pipeline Name	Program Name	URIMAP Name	Container Name	Program Interface
MVZC	CICS08A1	dispatchOrder	Inservice	0	EXPPE02				ITA
MVZC	CICS08A1	dispatchOrderEndpoint	Inservice	0	EXPPE01	DFHWCODE	\$320460		Commarea
MVZC	CICS08A1	inquireCatalog	Inservice	0	EXPPE01	DFHWCMN	\$320461		Commarea
MVZC	CICS08A1	inquireCatalogItem	Inservice	0	EXPPE02				ITA
MVZC	CICS08A1	inquireCatalogWrapper	Inservice	0	EXPPE01	DFHWISW	\$320462	DFHWISW.DATA	Channel
MVZC	CICS08A1	inquireSingleItem	Inservice	0	EXPPE01	DFHWCMN	\$320463		Commarea
MVZC	CICS08A1	inquireSingleItem	Inservice	0	EXPPE02				ITA
MVZC	CICS08A1	inquireSingleWrapper	Inservice	0	EXPPE01	DFHWISW	\$320464	DFHWISW.DATA	Channel
MVZC	CICS08A1	placeOrder	Inservice	0	EXPPE01	DFHWCMN	\$320465		Commarea
MVZC	CICS08A1	submitOrderRequest	Inservice	0	EXPPE02				ITA
- Web Services Value-Host Detail:** A table showing host details for the selected system.

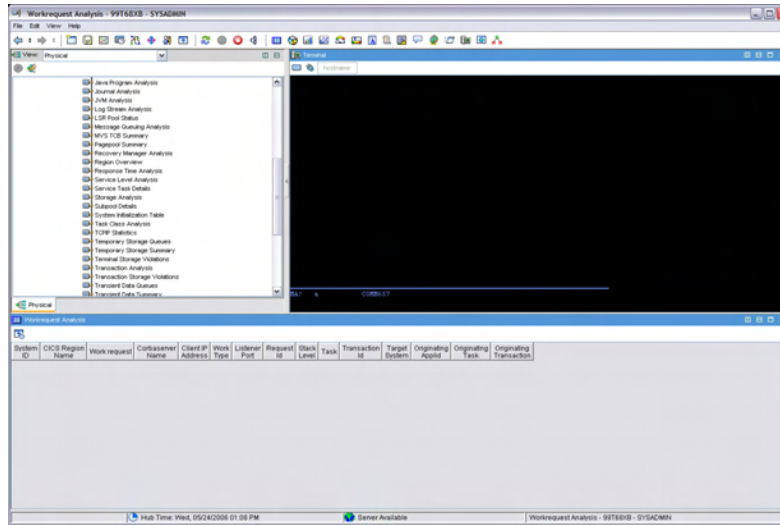
System	CICS Region	Status	TCP/IP Service	Host name
MVZC	CICS08A1	Enabled		
- Web Services Audit Summary:** A table showing audit summary for the selected system.

System	CICS Region	Pipeline Name	Pipeline Status	Usage
MVZC	CICS08A1	EXPPE01	Enabled	0
MVZC	CICS08A1	EXPPE02	Enabled	0
- Web Services Document Template Detail:** A table showing document template details.

System	CICS Region	Document Name	Extended Name	CRULF	Format	Source Type	Source Name
MVZC	CICS08A1	DFHWSPW1		Yes	EB-CDC	PROGRAM	DFHWSPW1
MVZC	CICS08A1	DFHWSPW2		Yes	EB-CDC	PROGRAM	DFHWSPW2
MVZC	CICS08A1	DFHWSPW3		Yes	EB-CDC	PROGRAM	DFHWSPW3
MVZC	CICS08A1	DFHWSPW4		Yes	EB-CDC	PROGRAM	DFHWSPW4

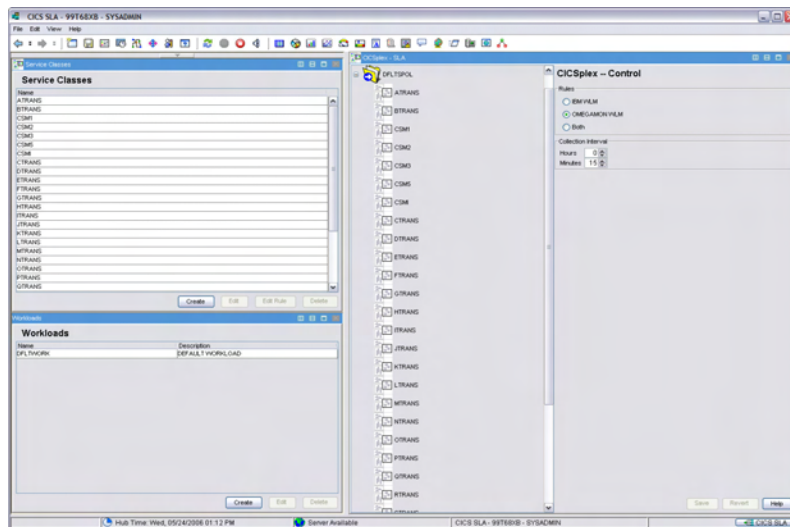
The status bar at the bottom indicates "Hub Time: Wed, 05/24/2006 01:04 PM" and "Server Available".

Workrequest Analysis



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CICS Service Level Analysis (SLA) support in the TEP



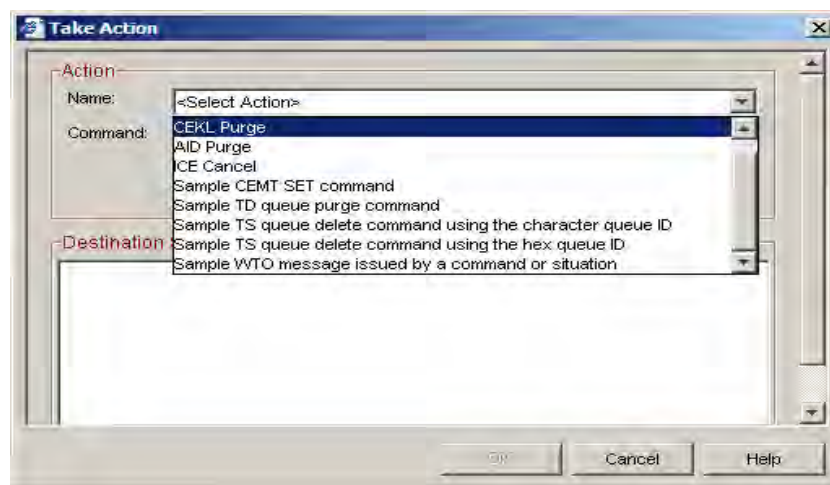
56

Take action enhancements

- The TEP take action feature provides an interface which allows the customer to issue commands, either directly or in response to a situation being evaluated as TRUE.
- New commands:
 - Transient Data delete
 - Temporary Storage delete by queue ID or hex queue ID
 - WTO

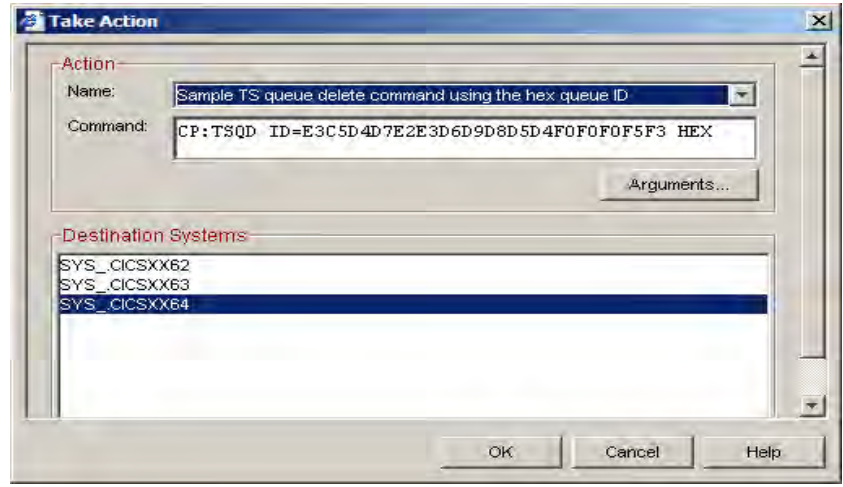
57

Sample take action commands

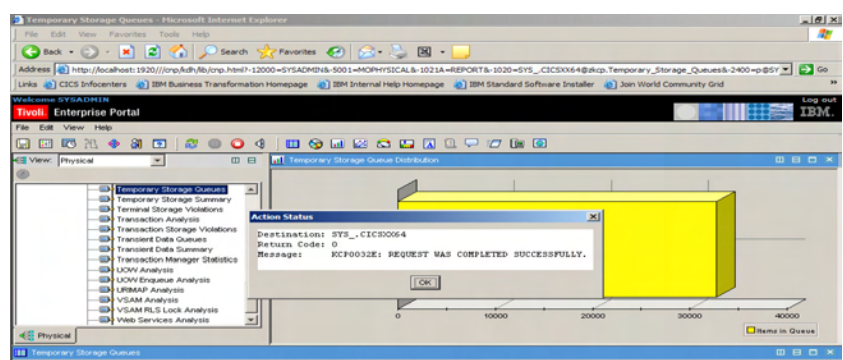


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Take action TS Delete



Take action TS Delete



One minor problem can occur with the result of the take action command. The result is confirmed with a pop-up dialog; if the customer 'loses focus' on this dialog it will be hidden behind other active dialogs. At that point the TEP will appear to 'hang' – finding the pop-up and hitting 'OK' resolves the issue.

OMEGAMON Global Data Area changes

- **USER_EXIT_TRACE** parameter is removed
- **CICSESA_SMF_RECORDS** parameter is renamed as **CICS_CMF_WRITE=NO|YES**
- **MCT_VALIDATION_MESSAGES=NO|YES**
- **COMPRESS_SMF112_RECORDS=NO|YES**
 - SMFID cannot be changed, and will default to 112
 - TRACE(ATF) data cannot be written to SMF
- **Run the verify job from “*hilev.TKANSAM(KC2VERIFY)*” to convert pre-560 global data area(s) to the new format.**
 - You might consider copying your existing global data area(s) to a new library, which you can then convert. This will allow you to ‘fall back’ to an earlier release if that is in your plans. . . .

OMEGAMON Global Data Area verification

```

Session A - [43 x 80]
KCP5095I  OVR PROCESSING STARTED FOR GLOBAL MEMBER KC201BAA
KCP5096I  OVR SMFID HAS BEEN SET TO SMFID=112
KCP5097I  OVR USER_EXIT_TRACE IS NO LONGER SUPPORTED. CARD DELETED
KCP5098I  OVR TRACE% SMF_WRITE OPTION IS NO LONGER SUPPORTED. CARD DELETED
KCP5099I  OVR EXIT_SUPPRESSION IS NO LONGER SUPPORTED. CARD(S) DELETED
KCP5099I  OVR CICSESA_SMF_RECORDS% CARD IS REWRITTEN AS CICS_CMF_WRITE=
UC5010I  OVR PROCESSING SUCCESSFUL FOR GLOBAL KC201BAA
***
  
```

Connected to remote server host=ida.191bb.falsh.ibm.com using Lu60of TCPAc224 and port 23

To OMEGAMON series on TW01

MCT requirements – v410

- In v410 the OMEGAMON MCT entries are only required IF you wish to post-process the CMF data
 - You may now be able to remove the OMEGAMON MCT entries
- Our end of task TRUE code no longer uses CICS MONITOR requests to write the data into the CMF buffer
- Our XMNOUT codepath has been reduced by about 600 instructions as a result of this effort
- ONDV, RTA and XE's SLA components have no requirement for the OMEGAMON MCT definitions

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OMEGAMON initialisation messages

```

Session A - [43 x 80]
Display Filter View Print Options Help
-----
SDSFP OUTPUT DISPLAY CICSXX62 STC05104 DSDI 2 LINE 188 COLS 22- 101
COMMAND INPUT ==> SCROLL ==> CS0
C004721 CICSXX62 CSOCSERV Server subtask (TCB address=007BEA60) connect success
C004721 CICSXX62 CSOCSERV Server subtask (TCB address=007E4000) connect success
C004721 CICSXX62 CSOCSERV Server subtask (TCB address=007BE200) connect success
C004721 CICSXX62 CSOCSERV Server subtask (TCB address=007BE500) connect success
C004721 CICSXX62 CSOCSERV Server subtask (TCB address=007BE540) connect success
C004971 CICSXX62 CSOCSSM Successful connection to queue manager MQM7
DFHS18441 CICSXX62 Connection to MQ MOM7 successfully completed.
DFHS18480 CICSXX62 About to link to PLI programs during the third stage of init
OC1026 OCMOEG OMEGAMON II FOR CICS INITIALIZATION IN PROGRESS
OC1023 OCMOEG RKANMOD IS IN USE FOR PROGRAM LOADING
OC0053 XMCB CICS IS USING 'RCC03M00' DD NAME
OC1034 EXEN MODULE KOCOME00 WILL RUN IN THREADSAFE MODE
OC2991 EXEN DLI BLUE CODE-XXXXXXXXXXXX CHANGED
OC1147 EXEN DLI BLUE CODE-XXXXXXXXXXXX MONITORING IS BEING TURNED ON
OC1148 EXEN PERFORMANCE CLASS IS BEING TURNED ON
OC1149 EXEN EXIT INITIALIZATION COMPLETED
KCP1125E UMEX MCT ENTRY FOR MYDLI (DLI_SECTION ) IS INCORRECTLY DEFINED
KCP1125E UMEX MCT ENTRY FOR MYDB2 (DB2_SECTION ) IS INCORRECTLY DEFINED
KCP1125E UMEX MCT ENTRY FOR CANMO (MO_SECTION ) IS INCORRECTLY DEFINED
KCP1125E UMEX MCT ENTRY FOR CANWHI (USRWHI_SECTION) IS INCORRECTLY DEFINED
KCP1125E UMEX MCT ENTRY FOR CANMLSC IS INCORRECTLY DEFINED
KCP1126E UMEX MCT ENTRY FOR OMEGCICS IS INCORRECTLY DEFINED
OC1179 OCSEII OMEGAMON OMEGAMON II FOR CICS OCSEXC PROCESSING
OC1164 OCSEII KOCSEI INTERFACE IS NOW AVAILABLE IN CICS
OC1013 OCSEII SERVICE TASK INITIALIZATION COMPLETED
OC1019 OCMOEG OMEGAMON II FOR CICS INITIALIZATION IS COMPLETE.
DFHS18484 CICSXX62 Control returned from PLI programs during the third stage of
DFHS19192 CICSXX62 Enterprise Java domain initialization has ended.
DFHS11517 CICSXX62 Control is being given to CICS.
DFH080109 CICSXX62 055
05/24/2006 06:50:08 CICSXX62 An error has occurred when attempting to
access the Local Request Queue data set (DFHLR0). The file could not
be found. The Local Request Queue is now unavailable.
C0014: XMCB COMMUNICATION BUFFER HAS WRAPPED FOR: ONDV
DFHFC0951 CICSXX62 RLS OPEN of file FVMBEP failed. DSNAME not available fro
EC1611 248-0537, CICSXX62, CICSXX62, FILE01, , CTS130, CICSMM53.FILEA,
EC1611 074130, CICSMM53 FILEA DATA, ICF001, VFS0008
DFHFC0950 CICSXX62 RLS OPEN of file FILE01 failed. VSAM has returned code X'0008
-----
04/021
  
```

66

OMEGAMON initialisation messages

```

Session A: [43 x 80]
File Edit View Communication Actions Window Help
-----
Display Filter View Print Options Help
SDSF OUTPUT DISPLAY CICSXX63 STC05105 DSD1 2 LINE 210 COLS 22- 101
COMMAND INPUT ==> SCROLL ==> CSR
OC1094 EXEN MODULE KOCOME00 WILL RUN IN THREADSAFE MODE
OC1147 EXEN CICS MONITORING IS BEING TURNED ON
OC1148 EXEN PERFORMANCE CLASS IS BEING TURNED ON
OC1149 EXEN EXIT INITIALIZATION COMPLETED
KCP11211 UMEX EXTRACTION ROUTINE PROCESSING A DEFAULT CICS MGT
KCP11271 UMEX NO OMEGAMON CICS RAPS ARE DEFINED IN THIS MGT
KCP11271 UMEX NO OMEGAMON CICS DATA WILL BE ADDED TO THE CICS RECORD
KCP11331 UMEX MGT PROCESSING HAS COMPLETED
OC1150 OCSEII CONTROL ON OMEGAMON II FOR CICS DELEG PROCESSING
OC1154 OCSEII KOCEXE INTERFACE IS NOW INSTALLED IN CICS
OC1019 OMEGA OMEGAMON II FOR CICS INITIALIZATION IS COMPLETE
DFHSD1444 CICSXX63 Control returned from JCL programs during the third stage of
DFHSD1117 CICSXX63 control is being given to CICS
DFHEJ0102 CICSXX63 Enterprise Java domain initialization has ended.
DFRSH0103 CICSXX63 352
05/24/2006 05:46:49 CICSXX63 An error has occurred when attempting to
access the Local Request Queue data set (DFHLR0). The file could not
be found. The Local Request Queue is now unavailable.
DFHFC0951 CICSXX63 Non-RLS OPEN of file FVUBREP failed. DSNAME not available fro
EC1611 245.0532.CICSXX63.CICSXX63.FILE01., CDS130.CICSHM53.FILEA,
EC1611 CTS130.CICSHM53.FILEA.DATA.ICF0AT.VTS0008
DFHFC0950 CICSXX63 RLS OPEN of file FILE01 failed. VSMH has returned code X'0008
DFHFC0952 CICSXX63 Dynamic allocation of RLS file FILE02 failed. Return code X'
DFHFC0955 CICSXX63 associated data set is FDCIC01.TOC.IDOCRLS.FILEB. Module DFH
X02311 KOCOMN REQUEST CONNECT TO LOG STREAM 400
ICCSXX63.CICSXX63.DFHLGLOG DID NOT SUCCEED FOR JOB CICSXX63. RETURN
001.00000000 REASON CODE: 00000000 DIAG1: 00000000 DIAG2:
000F801 DIAG3: 05030004 DIAG4: 05020010
DFHFC0958 CICSXX63 404
05/24/2006 05:46:52 CICSXX63 Log stream CICSXX63.CICSXX63.DFHLGLOG
not defined to MVS because model stream CICSXX63.CICSXX63.MODEL does
not exist.
DFHFC0821 CICSXX63 405
RLS OPEN of file FILE05 failed. Undefined LOG parameter is invalid
for an RLS file with update type SERVR000.
DFHFC0952 CICSXX63 Dynamic allocation of RLS file FILE05X failed. Return code X
DFHFC0
-----
04/021
[3] Connected to remote server/host vslm.tblib.rdgch.ibm.com using Lu600 TCPAQ224 and port 22 [P] debug 3600 series on [W01]

```

OMEGAMON SMF data collection controls

```

Session A: [43 x 80]
File Edit View Communication Actions Window Help
-----
ZCOLL VTH CICSXX64 V560.7C SVS 05/24/06 8:07:21
PF1 Help PF3 Back PF4 Main Menu
> A-RTA On B-RTA Off C-RTA Status D-RTA Intervals E-RTA Scaling
> F-ONDV On G-ONDV Off H-ONDV Status I-Bottleneck Ctl J-Mail Reasons
> K-INTR Ctl L-IANL On M-IANL Off N-IANL Settings O-IANL Groups
> P-Collection Q-Shutdown R-RLIM On S-RLIM Off T-RLIM Status
> U-SMF Status V-ATF Filters W-ATF Status
-----
CONTROL DATABASE COLLECTORS
> To change status of a collector, enter ON or OFF over the current values
> displayed below.
COLL
+-----+-----+-----+-----+-----+-----+
+ Name Monitor Monitor ONDV SMP Files
+-----+-----+-----+-----+-----+-----+
VSMH ON ON N/A N/A N/A OFF
DB2 ON N/A N/A N/A N/A N/A
DLI OFF OFF OFF OFF OFF N/A
IDS ON ON ON ON ON N/A
ADABAS ON ON ON ON ON N/A
SUBR ON ON ON ON ON N/A
DATACOM ON ON ON ON ON N/A
HO OFF OFF OFF OFF OFF N/A
USREVT1 ON ON ON ON ON N/A
-----
01/002
[3] Connected to remote server/host vslm.tblib.rdgch.ibm.com using Lu600 TCPAQ224 and port 22 [P] debug 3600 series on [W01]

```

Trace (ATF) controls have been moved to the ATF Status and ATF Filters panels

OMEGAMON SMF Status – fastpath O.U

```
Session A - [43 x 80]
File Edit View Communication Actions Window Help
ZSMFC VTH CICSXN64 V560 /C SVS 05/24/06 7:12:23
PF1 Help PF3 Back PF4 Main Menu
> A-RTA On B-RTA Off C-RTA Status D-RTA Intervals E-RTA Scaling
> F-ONDV On G-ONDV Off H-ONDV Status I-Bottleneck Ctl J-Wait Reasons
> K-INTR Ctl L-IANL On M-IANL Off N-IANL Settings O-IANL Groups
> P-Collection Q-Shutdown R-RLIM On S-RLIM Off T-RLIM Status
> U-SMF Status V-ATF Filters W-ATF Status
-----
> OMEGAMON SMF STATUS
SMF
+ Comp Active
+ CICSNON YES
+ ONEXITS YES
+ SMFDATA YES
+ COMPRESS NO
-----
SMF STATUS
+ Buffer Status Buffer Length Tasks in Average Shortest Longest Compress
+ Status Length buffer Record Record Record Ratio
+ -----
+ In use 32476 100 391 248 392 n/a
+ Written 4764 12 392 392 392 n/a
+ Availbl 0 0 0 0 0 n/a
+ Availbl 0 0 0 0 0 n/a
-----
01/002
[3] Connected to remote server host name: 191.161.148.101 using Lu6.02 TCPAQ224 and port 23 [7] Thegnet 3600 series on 1601
```

OMEGAMON SMF Status – fastpath O.U

```
Session A - [43 x 80]
File Edit View Communication Actions Window Help
ZSMFC VTH CICSXN64 V560 /C SVS 05/24/06 7:30:04
PF1 Help PF3 Back PF4 Main Menu
> A-RTA On B-RTA Off C-RTA Status D-RTA Intervals E-RTA Scaling
> F-ONDV On G-ONDV Off H-ONDV Status I-Bottleneck Ctl J-Wait Reasons
> K-INTR Ctl L-IANL On M-IANL Off N-IANL Settings O-IANL Groups
> P-Collection Q-Shutdown R-RLIM On S-RLIM Off T-RLIM Status
> U-SMF Status V-ATF Filters W-ATF Status
-----
> OMEGAMON SMF STATUS
SMF
+ Comp Active
+ CICSNON YES
+ ONEXITS YES
+ SMFDATA YES
+ COMPRESS YES
-----
SMF STATUS
+ Buffer Status Buffer Length Tasks in Average Shortest Longest Compress
+ Status Length buffer Record Record Record Ratio
+ -----
+ In use 15772 44 391 328 392 n/a
+ Written 32948 100 327 248 748 52.5%
+ Availbl 0 0 0 0 0 n/a
+ Availbl 0 0 0 0 0 n/a
-----
30/001
[3] Connected to remote server host name: 191.161.148.101 using Lu6.02 TCPAQ224 and port 23 [7] Thegnet 3600 series on 1601
```

OMEGAMON 112 data is compressed immediately before the write to SMF is performed – uses a standard z/OS service called CSRCE SRV.

OMEGAMON product status – fastpath U.R

```

Session A: [43 x 80]
File Edit View Communication Actions Window Help
-----
> PF1 Help PF3 Back VTH CICSXK64 V560 /C SVS 05/24/06 7:13:01
PF4 Main Menu PF7 Up PF8 Down
-----
OMEGAMON Global Data Area details
> For more information press PF1 for help.
-----
GLOB GLOB
+ Global Address . . . . . : 125E2530
+ Global Module . . . . . : KC2GLB64
+ Assembly Date . . . . . : *ONLINE*
+ Convtime . . . . . : 7:11
+ Noawait . . . . . : Noawait
+ DD2 . . . . . : Auto
+ DEX . . . . . : Auto
+ DLT . . . . . : Noauto
+ INTR . . . . . : Noauto
+ Freq . . . . . : 1
+ Interval . . . . . : 1
+ Maxcops . . . . . : 30
+ Maxids . . . . . : 50
+ Maxr . . . . . : Auto
+ ONDV . . . . . : Auto
+ RLIM . . . . . : Auto
+ RTA . . . . . : Noauto
+ Shutopt . . . . . : Purge
+ Xnodes . . . . . : 2000
+ OCPR Verification PTF . . . . . : G2560
+ Vsmaint . . . . . : 15
+ Dumpint . . . . . : 15
+ Stopint . . . . . : 15
+ RLIM MSG Dest . . . . . : LOG,WARN
+ RLIM System Tasks . . . . . : NO
+ Enable VSRM Exite . . . . . : NO
+ Auto Restart . . . . . : YES
+ History Catchup Time . . . . . : 100
-----
01/002

```

OMEGAMON History changes (ONDV)

```

Session A: [43 x 80]
File Edit View Communication Actions Window Help
-----
> PF1 Help ZONDV VTH CICSXK64 V560 /C SVS 05/24/06 7:14:16
PF3 Back PF4 Main Menu PF7 Up PF8 Down PF11 Zoom
-----
A-History Record View B-History Record Selection
C-Trace Record View D-Trace Filters Management
-----
ONDV HISTORICAL TRANSACTION OVERVIEW
Transaction Overview: 05/24/06
+ End Tran Task Term CPU Resp Storage # Top of Data *
+ Time ID Num ID Type Time Time HWM Reqs I/O Code
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 7:14:10 LN20 197 H430 TRM 0 0.000 2288 0 71
+ 7:14:09 LN20 197C H430 TRM 0 0.001 2288 0 33
+ 7:14:09 LN20 197B H430 TRM 0 0.000 2288 0 0
+ 7:14:09 LN20 197S H430 TRM 0 0.178 2384 183 35
+ 7:14:08 LN20 197C H430 TRM 0 0.374 2384 216 76
+ 7:14:07 LN20 197C H430 TRM 0 0.268 2384 155 76
+ 7:14:06 LN20 197C H430 TRM 0 0.383 2384 216 76
+ 7:14:04 LN20 197C H430 TRM 0 0.311 1824 100 83
+ 7:12:22 CSFU 32 n/a SVS 2.4 51.297 0 0 0
+ 7:12:18 DC01 196 n/a SVS 0 2.353 2272 15 0
+ 7:12:18 DC01 198 n/a SVS 0 2.351 2272 15 0
+ 7:12:18 DC01 182 n/a SVS 0 2.350 2272 15 0
-----
01/002

```

New options, C – Trace Record View, and D – Trace Filters Management, are added.

Task numbers appended with C, S, D and F to indicate why the record was written.

OMEGAMON ATF via the menu system – fastpath O.W

```
Session A - [43 x 80]
File Edit View Communication Actions Window Help
ZCATE VTH CIGSKX64 V560 /C SYS 05/24/06 7:16:34
> PF1 Help PF3 Back
> A-RTA On B-RTA Off C-RTA Status D-RTA Intervals E-RTA Scaling
> F-ONDV On G-ONDV Off H-ONDV Status I-Bottleneck Ctl J-Wait Reasons
> K-INTB Ctl L-INTL On M-INTL Off N-INTL Settings O-INTL Groups
> P-Collection Q-Shutdown R-RLIM On S-RLIM Off T-RLIM Status
> U-SMF Status V-ATF Filters W-ATF Status
=====
> APPLICATION TRACE FACILITY STATUS
> Current collector status displays below. To change the status of the trace
> collector, enter START or STOP after the command:
>ATF START Starts the trace collector and, if necessary, ONDV.
>ATF STOP Stops the trace collector.
>
> ATF start_
+
+ Application Trace Facility Control Information
+
+ Status : Inactive Number of filters : 2
+
+ ONDV STATUS
+
+ ONDV Control Information
+
+ Status : Active Data store wraparound : 0
+ Start time : 7:11:32 Start date : 05/24/06
+ Data store type : Dataspec Display requests : 11
+ Data store size : 2000K Xmem posts : 0
+ Data store size (recs) : 505 Cycle time (seconds) : 2
+ Records received : 198
+
+ Function Elapsed Time CPU Time Paging
+-----+-----+-----+-----+
+ Initial 0.000 0.000 0
+ Collect 0.013 0.004 1
+ Display 0.006 0.005 0
+ Wait 7:00:721 n/a n/a
+-----+-----+-----+-----+
NO a 18/011
[3] Connected to remote server host=iam.ibm.it/ibm.it/ibm.com using Luobod TCPAQ224 and port 23 [7] on target 3600 series on H011
```

OMEGAMON ATF via the menu system

```
Session A - [43 x 80]
File Edit View Communication Actions Window Help
Z2ATFF VTH CIGSKX64 V560 /C SYS 05/24/06 7:17:10
> PF1 Help PF3 Back PF4 Main Menu PF7 Up PF8 Down PF11 Zoom
> A-History Record View B-History Record Selection
> C-Trace Record View D-Trace Filters Management
=====
> ATF ADD TRACE FILTERS MANAGEMENT
+
+ :: KCP54251 TRANDID must be supplied ::
+
+ TRANDID=LN40_
+ USER=*
+ ITERM=*
+ STARDATE=20060624
+ STARTIME= 717
+ DURATION=30
+ CALLTYPE=ALL
+ EXECALL=REL
+ OWNER=CP00049L
+-----+-----+-----+-----+
NO a 10/021
[3] Connected to remote server host=iam.ibm.it/ibm.it/ibm.com using Luobod TCPAQ224 and port 23 [7] on target 3600 series on H011
```

OMEGAMON ATF via the menu system

```

Session A - [43 x 80]
File Edit View Communication Actions Window Help
ZONDA VTH CICSXK64 V560 /C SYS 05/24/06 7:20:17
PF3 Back PF4 Main Menu PF7 Up PF8 Down PF11 Zoom
> A-History Record View B-History Record Selection
> C-Trace Record View D-Trace Filters Management
-----
> ONDV TRACEONLY TRACED TRANSACTIONS OVERVIEW
-----
Traced Transaction Overview: 05/24/06
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ End Tran Task Term CPU Resp Storage % All of Data *
+ Time ID Num ID Type Time Time Num Reqs File Term
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 7:20:14 LN40 201 H430 TRM -0 0.000 2288 0 44
+ 7:20:14 LN40 201C H430 TRM -0 0.000 2288 0 33
+ 7:20:14 LN40 201B H430 TRM -0 0.000 2288 0 0
+ 7:20:14 LN40 201S H430 TRM -0 0.000 2288 0 0
+ 7:20:13 LN40 201C H430 TRM -0 0.163 2384 155 76
+ 7:20:12 LN40 201C H430 TRM -0 0.293 2384 216 76
+ 7:20:10 LN40 201C H430 TRM -0 0.122 1824 108 82
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ EOP reached, no more records to display
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
01/002

```

OMEGAMON ATF via the menu system

```

Session A - [43 x 80]
File Edit View Communication Actions Window Help
ZONDA VTH CICSXK64 V560 /C SYS 05/24/06 7:21:17
PF3 Back PF4 Main Menu PF7 Up PF8 Down
> ONDV 06 TRACE SUMMARY
-----
Transaction Detail for LN40 task number = 201
-----
Application Trace Facility
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ Trace Program Offset Function Lines Resource Response Elapsed
+ Type -----+-----+-----+-----+-----+-----+-----+-----+-----+
+ TSKSTRT CSLINK40 0 1ST DISPATCH 1 to 460 of 460
+ EXECIN CSLINK40 300 HANDLE CONDITION 0.000012
+ EXECOUT CSLINK40 300 HANDLE CONDITION 0.000012
+ EXECIN CSLINK40 406 WRITE TEST03 NORMAL 0.000004
+ EXECOUT CSLINK40 406 WRITE TEST03 DUPREC 0.000098
+ EXECIN CSLINK40 43C READ TEST03 NORMAL 0.000007
+ EXECOUT CSLINK40 43C READ TEST03 NORMAL 0.000033
+ EXECIN CSLINK40 466 DELETE TEST03 NORMAL 0.000003
+ EXECOUT CSLINK40 466 DELETE TEST03 NORMAL 0.001713
+ EXECIN CSLINK40 49C WRITE TEST03 NORMAL 0.000010
+ EXECOUT CSLINK40 49C WRITE TEST03 NORMAL 0.001806
+ EXECIN CSLINK40 4D2 READ TEST03 NORMAL 0.000004
+ EXECOUT CSLINK40 4D2 READ TEST03 NORMAL 0.000034
+ EXECIN CSLINK40 508 REWRITE TEST03 NORMAL 0.000003
+ EXECOUT CSLINK40 508 REWRITE TEST03 NORMAL 0.001546
+ EXECIN CSLINK40 49C READ TEST03 NORMAL 0.000025
+ EXECOUT CSLINK40 466 DELETE TEST03 NORMAL 0.000003
+ EXECIN CSLINK40 49C DELETE TEST03 NORMAL 0.001591
+ EXECOUT CSLINK40 49C WRITE TEST03 NORMAL 0.000006
+ EXECIN CSLINK40 49C WRITE TEST03 NORMAL 0.002000
+ EXECOUT CSLINK40 4D2 READ TEST03 NORMAL 0.000006
+ EXECIN CSLINK40 49C READ TEST03 NORMAL 0.000025
+ EXECOUT CSLINK40 508 REWRITE TEST03 NORMAL 0.000003
+ EXECIN CSLINK40 508 REWRITE TEST03 NORMAL 0.001575
+ EXECOUT CSLINK40 43C READ TEST03 NORMAL 0.000005
+ EXECIN CSLINK40 466 DELETE TEST03 NORMAL 0.000003
+ EXECOUT CSLINK40 466 DELETE TEST03 NORMAL 0.001735
+ EXECIN CSLINK40 49C WRITE TEST03 NORMAL 0.000007
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
01/002

```


OMEGAMON ATF via the menu system

```

Session A: [43 x 60]
File Edit View Communication Actions Window Help
-----
> PF1 Help      PF3 Back      PF4 Main Menu  PF7 Up         PF8 Down      PF11 200H
-----
          TRACED TRANSACTION DETAIL FOR SELECTED TASK
-----
ONDV 06 TRACE  DETAIL 00004
Transaction Detail for LN40 task number = 201
-----
Application Trace Facility
-----
Time           : 07:20:11.853015      Function code  : 0604
Elapsed time   : 00:00:00.000098      Command       : WRITE
Trace type    : EXECOUT                File ID       : TEST08
Trace program  : CSLINK40              EIBRESP      : 14 (DUPREC)
Offset        : 00000406              EIBRESP2     : X'00000096'
                                           EIBRCODE     : X'320000000000'
-----
01/002
Connected to remote server host nlsn.tr.ibm.it through tsm using libssh2 and port 23

```

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SMF considerations

- **In C2560 a change was made so that our database SMF data is;**
 - Written as a new IBM compliant number, 112
 - Buffered in CICS
 - In the past each transaction which recorded database performance data would result in at least one SMF write.
 - In C2560 the records are buffered, when the buffer fills an SMF write operation occurs.
 - May optionally be compressed, the compression uses a standard IBM utility, and occurs immediately before the physical write to SMF

- **Add KOCOME00 to the PLTSD to ensure that any partial buffers are written to SMF when OMEGAMON terminates. . .**

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SMF details – no compression

```
Session A - [43 x 80]
File Edit View Communication Actions Window Help
-----
> PF1 Help PF3 Back PF4 Main Menu CICSXX64 V560./C SYS 09/12/06 0:15:12
> A-RTA On B-RTA Off C-RTA Status D-RTA Intervals E-RTA Scaling
> F-ONDV On G-ONDV Off H-ONDV Status I-Bottleneck Ctl J-Wait Reasons
> K-INTR Ctl L-IANL On M-IANL Off N-IANL Settings O-IANL Groups
> P-Collection Q-Shutdown R-RLIM On S-RLIM Off T-RLIM Status
> U-SMF Status V-ATF Filters W-ATF Status
-----
> OMEGAMON SMF STATUS
-----
+ SMF Comp Active
+-----+
+ CICSMON YES
+ OMEXITS YES
+ SMFDATA YES
+ COMPRESS NO
-----
+ SMF STATUS
+-----+
+ Buffer Length Tasks in Average Shortest Longest Compress
+ Status Length buffer Record Record Record Ratio
+-----+
+ In use 14892 96 391 248 1236 n/a
+ Written 31864 66 314 248 1236 n/a
+ Availbl 0 0 0 0 0 n/a
+ Availbl 0 0 0 0 0 n/a
+ Availbl 0 0 0 0 0 n/a
-----
01/002
```

The buffers are not allocated unless options are set which would initiate a write to SMF for one of the supported databases – in that case all columns are set to n/a

SMF details – with compression

```
Session A - [43 x 80]
File Edit View Communication Actions Window Help
-----
> PF1 Help PF3 Back PF4 Main Menu CICSXX64 V560./C SYS 09/12/06 0:16:58
> A-RTA On B-RTA Off C-RTA Status D-RTA Intervals E-RTA Scaling
> F-ONDV On G-ONDV Off H-ONDV Status I-Bottleneck Ctl J-Wait Reasons
> K-INTR Ctl L-IANL On M-IANL Off N-IANL Settings O-IANL Groups
> P-Collection Q-Shutdown R-RLIM On S-RLIM Off T-RLIM Status
> U-SMF Status V-ATF Filters W-ATF Status
-----
> OMEGAMON SMF STATUS
-----
+ SMF Comp Active
+-----+
+ CICSMON YES
+ OMEXITS YES
+ SMFDATA YES
+ COMPRESS YES
-----
+ SMF STATUS
+-----+
+ Buffer Length Tasks in Average Shortest Longest Compress
+ Status Length buffer Record Record Record Ratio
+-----+
+ In use 29628 72 391 248 1236 64.2%
+ Written 32308 72 443 248 1236 59.2%
+ Availbl 0 0 0 0 0 n/a
+ Availbl 0 0 0 0 0 n/a
+ Availbl 0 0 0 0 0 n/a
-----
01/002
```

SMF errors – 'classic' SMF STATUS command

```

Session A - [43 x 80]
ZSMPD VTH CICSXX64 V560.7C SYS 09/12/06 0:24:25
> PF1 Help PF3 Back PF4 Main Menu
> A-RTA On B-RTA Off C-RTA Status D-RTA Intervals E-RTA Scaling
> F-ONDV On G-ONDV Off H-ONDV Status I-Bottleneck Ctl J-Wait Reasons
> K-INTR Ctl L-IANL On M-IANL Off N-IANL Settings O-IANL Groups
> P-Collection Q-Shutdown R-RLIN On S-RLIN Off T-RLIN Status
> U-SMF Status V-ATF Filters W-ATF Status
=====
> OMEGAMON SMF STATUS
+-----+
+ SMF Comp Active
+-----+
+ CICSMON YES
+ OMEKITS YES
+ SMFDATA YES
+ COMPRESS YES
+-----+
+ SMF STATUS
+ Status Length Buffer Tasks in Average Shortest Longest Compress
+-----+-----+-----+-----+-----+-----+-----+-----+
+ In use 32480 48 386 248 1236 78.8%
+ Availbl 28504 99 577 248 1236 69.9%
+ Availbl 0 0 0 0 0 n/a
+ Availbl 0 0 0 0 0 n/a
=====
01/002

```

Here we see the RC 40 from the SMFEWTM requests, issued during XMNOUT (GLUE) processing. RC 40 (x'28') indicates a buffer full return.

SMF errors – operator console

```

Session A - [43 x 80]
Display Filter View Print Options Help
SDSF OUTPUT DISPLAY CICSXX64 STC32628 DSTD 2 LINE 1,071 COLS 22- 101
COMMAND INPUT ==> SCROLL ==> CLR
DFHNN0101 CICSXX64 SMF error - SMF return code X'28'.
DFHNN0103 CICSXX64 SMF error - SMF return code X'28'.
KCP9403E CICSXX64 OCGLUO SMFEWTM MACRO CALL FAILED, RC=40
DFHTM1715 CICSXX64 CICS is being quiesced by userid CICSXX64 in transaction CEHT
DFHDM01021 CICSXX64 CICS is quiescing.
DFHCESD CICSXX64 SHUTDOWN ASSIST TRANSACTION CESD STARTING, SHUTDOWN IS NORMAL.
DFHTM17091 CICSXX64 above is link to PLT programs.
OC1024 OCOMEG OMEGAMON II FOR CICS TERMINATION IN PROGRESS
OC1179 OCRESI STARTING OMEGAMON II FOR CICS OESRVC PROCESSING
OC1165 OCRESI KOCEXL INTERFACE HAS BEEN DISABLED
CP54011 OCSYST SMFEWTM MACRO CALL FAILED, RETURN CODE=40
OC1405 OCSHUI START OF SHUTDOWN PURGE PROCESSING
OC1402 OCSHUI OMEGAMON II FOR CICS HAS PURGED 0 TASK(S)
OC1220 OCSRV SERVICE TASK TERMINATED NORMALLY
OC1209 OCSRI THE SERVICE TASK HAS BEEN SUCCESSFULLY SHUTDOWN
OC1020 OCOMEG OMEGAMON II FOR CICS TERMINATION IS COMPLETE
DFHTM17101 CICSXX64 Control returned from PLT programs.
DFHTM1781 CICSXX64 CICS shutdown cannot complete because some non-system user is
DFHTM1782 CICSXX64 all non-system tasks have been successfully terminated.
DFHZ223951 CICSXX64 Termination of VTAM sessions beginning
DFHZ22316 CICSXX64 VTAM PCB is closed.
DFHC001041 CICSXX64 MVS console queue is closed.
=====
PUNCH RECORDS
SP001 KBYTES
S EXECUTION TIME
04/021

```

Here we see the RC 40 from the SMFEWTM requests, issued during OCGLUO (XMNOUT) processing, and OCSYST (OMEGAMON termination) processing. These return codes are SMFEWTM macro return codes, and documented in the SMF manual set.

What's now ? CICS Transaction Server v3.2 Open Beta

- **The following PTFs are available for CICS/TS v3.2 support in OMEGAMON CICS**
 - OMEGAMON XE for CICS on z/OS v310
 - UA34139 and UA34141
 - OMEGAMON XE for CICS on z/OS v410
 - UA34140 and UA34142

- **Check for GA PTFs when CICS/TS v3.2 GAs**

What's next

- **Two SPEs are currently planned for OMEGAMON XE for CICS later this year.**
 - The first comprises a set of 'classic' enhancements, and an enhancement to the security for TEP take action commands.
 - Later on a CICS/TS 3.2 exploitation SPE will be released, which includes both TEP report changes and classic enhancements.

Questions?

Please fill out your session evaluations. . .



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