



IBM Software Group

IBM Tivoli OMEGAMON® XE for CICS on z/OS v4.1.0

Customer Presentation, December 13th

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Agenda

- IBM Tivoli OMEGAMON® XE for CICS on z/OS v410
 - Dynamic Workspace Linking (DWL)
 - Globalisation/Linux
 - 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
 - Some internal changes
 - OMEGAMON Global Data Area changes
 - CICS MCT requirements
 - Menu System 'Classic' interface enhancements
 - Application Trace Facility (ATF)
 - SMF considerations
 - CICS Performance Analyser

- Please feel free to ask questions. . . .



Dynamic Workspace Linking (DWL)

- Links from OMEGAMON XE for CICS will 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



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



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



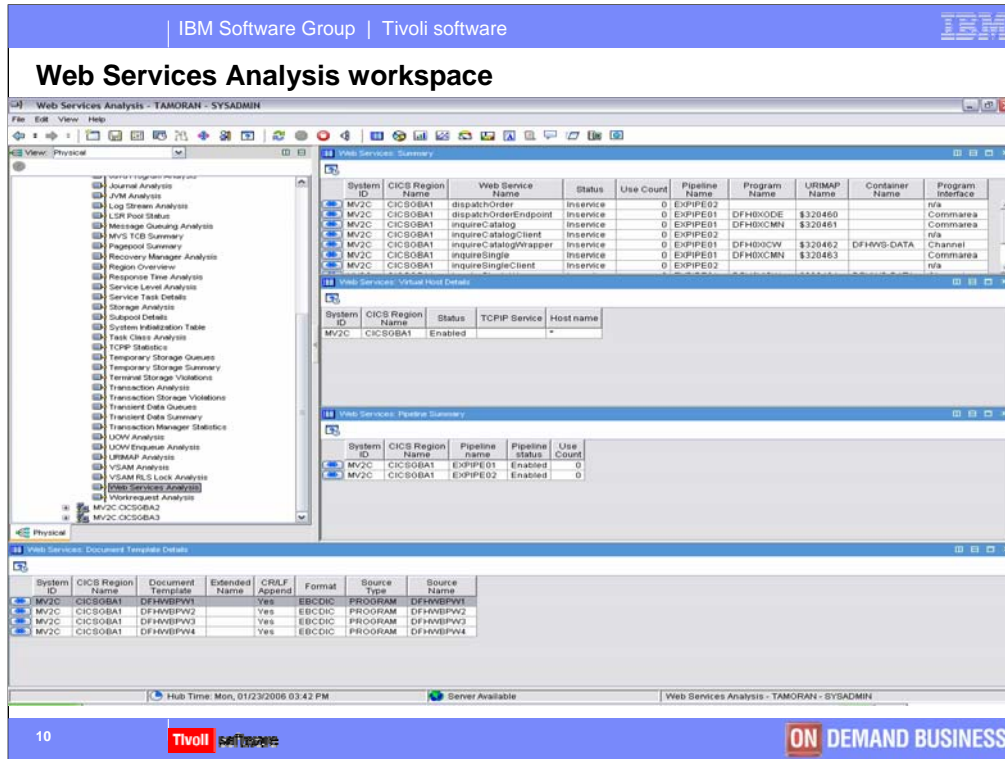
Workspace Linking

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



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



The color table:

- Oval color is this week's status. Background last weeks.
- Blank out those categories not applicable or not providing status. Do not delete them from slide. Stop light is overall project status color.

Project Milestone Summary:

- Original dates are first plan of record.
- External GA date is the date we commit in the Plan DCP and in Clearinghouse.
- Actual dates are actual outlooks for completion. These will hopefully be somewhere equal to or contained between the internal and external dates. These dates are also shown in Clearinghouse.

Dates in black are dates which have been reviewed in the OPS meeting. External and Actual dates should match between your project and Clearinghouse.

Dates in blue are dates which need to change in Clearinghouse. Once they have been reviewed in the OPS review they can then be updated in Clearinghouse.

Row entries: These are the key dates for the "Define the Product", "Plan the Stages" and "Design the UI & System" steps. The also include tractable activities that begin in these phases and complete later in the project. The key point of conclusion here is the Plan DCP, which is triggered by a completed RCS, and a Stage Delivery Project Plan.

- Design end = SDD1(s) for the stage are Approved
- CUT end = Code is inspected, unit tested, and delivered in a build
- Test Phase start = entry criteria as defined by the relevant Test plan are met and recorded, with any exceptions approved. This does NOT refer to the prep phase – this is the execution phase.
- Test Phase end = Exit criteria as defined by the relevant Test Plan are met and recorded, with any exceptions approved.
- PII – this is a milestone (start and end date are the same) representing when the files are turned over to the GPM
- Beta – start date represents when beta code is shipped to customers. End date is GA+30 days
- Availability DCP is aligned with the IPMT calendar and must precede the Release to Marketing in the RFA cycle
- RFA – must occur on a Tuesday and must precede GA or eGA



Web services analysis – Web service details

The screenshot displays the 'Web Services Summary' window in the Tivoli Web Services Analyzer. The main area contains a table with the following columns: System ID, CICS Region Name, Web Service Name, Status, Use Count, Pipeline Name, Program Name, URIMAP Name, Container Name, and Program Interface. The table lists several web services, including 'shopOrder', 'shopOrderInquiry', 'shopOrderInquiryClient', 'shopOrderInquiryClient', 'shopOrderInquiryClient', 'shopOrderInquiryClient', and 'shopOrderInquiryClient'. Below the main table, there is a 'Web Service Detail' window showing a detailed view of a specific web service, including its CICS Region Name, Web Service Name, System ID, Status, Use Count, Pipeline Name, Program Name, URIMAP Name, Container Name, Last Modified, Program Interface, Validation Indicator, Binding, and Endpoint.

System ID	CICS Region Name	Web Service Name	Status	Use Count	Pipeline Name	Program Name	URIMAP Name	Container Name	Program Interface
MVC	CCS00A1	shopOrder	Instance	0	EVFFE02				NA
MVC	CCS00A1	shopOrderInquiry	Instance	0	EVFFE01	DFHDC00E	120460		Command
MVC	CCS00A1	shopOrderInquiry	Instance	0	EVFFE01	DFHDC00E	120461		Command
MVC	CCS00A1	shopOrderInquiryClient	Instance	0	EVFFE02				NA
MVC	CCS00A1	shopOrderInquiryClient	Instance	0	EVFFE01	DFHDC00E	120462	DFHWG-DATA	Command
MVC	CCS00A1	shopOrderInquiryClient	Instance	0	EVFFE01	DFHDC00E	120463		Command
MVC	CCS00A1	shopOrderInquiryClient	Instance	0	EVFFE01	DFHDC00E	120464	DFHWG-DATA	Channel
MVC	CCS00A1	shopOrderInquiryClient	Instance	0	EVFFE01	DFHDC00E	120465		Command
MVC	CCS00A1	shopOrderInquiryClient	Instance	0	EVFFE02	DFHDC00E	120466	DFHWG-DATA	Channel

CICS Region Name	Web Service Name	System ID	Status	Use Count	Pipeline Name	Program Name	URIMAP Name	Container Name	Last Modified	Program Interface	Validation Indicator	Binding	Endpoint
CCS00A1	shopOrder	MVC	Instance	0	EVFFE02				03/10/11 10:48	NA	No	shopOrderInquiryBinding	http://myserver:8000/soap/soapshopOrder



Context-sensitive linking

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

System ID	CICS Region Name	Web Service Name	Status	Use Count	Pipeline Name	Program Name	URIMAP Name	Container Name
MV2C	CICSGBA1	dispatchOrder	Inservice	0	EXPIPE02			
		dispatchOrderEndpoint	Inservice	0	EXPIPE01	DFH0XKODE	\$320460	
		ireCatalog	Inservice	0	EXPIPE01	DFH0XCMN	\$320461	
		ireCatalogClient	Inservice	0	EXPIPE02			
		ireCatalogWrapper	Inservice	0	EXPIPE01	DFH0XCW	\$320462	DFHWS-DATA
		ireSingle	Inservice	0	EXPIPE01	DFH0XCMN	\$320463	
		ireSingleClient	Inservice	0	EXPIPE02			
MV2C	CICSGBA1	ireSingleWrapper	Inservice	0	EXPIPE01	DFH0XSW	\$320464	DFHWS-DATA
MV2C	CICSGBA1	placeOrder	Inservice	0	EXPIPE01	DFH0XCMN	\$320465	
MV2C	CICSGBA1	placeOrderClient	Inservice	0	EXPIPE02			
MV2C	CICSGBA1	placeOrderWrapper	Inservice	0	EXPIPE01	DFH0XPOW	\$320466	DFHWS-DATA

- When URIMAP is specified the 'URIMAP Detail' link appears:

System ID	CICS Region Name	Web Service Name	Status	Use Count	Pipeline Name	Program Name	URIMAP Name	Container Name
MV2C	CICSGBA1	dispatchOrder	Inservice	0	EXPIPE02			
MV2C	CICSGBA1	dispatchOrderEndpoint	Inservice	0	EXPIPE01	DFH0XKODE	\$320460	
		ireCatalog	Inservice	0	EXPIPE01	DFH0XCMN	\$320461	
		ireCatalogClient	Inservice	0	EXPIPE02			
		ireCatalogWrapper	Inservice	0	EXPIPE01	DFH0XCW	\$320462	DFHWS-DATA
		ireSingle	Inservice	0	EXPIPE01	DFH0XCMN	\$320463	
		ireSingleClient	Inservice	0	EXPIPE02			
		ireSingleWrapper	Inservice	0	EXPIPE01	DFH0XSW	\$320464	DFHWS-DATA
		ireOrder	Inservice	0	EXPIPE01	DFH0XCMN	\$320465	
		ireOrderClient	Inservice	0	EXPIPE02			
MV2C	CICSGBA1	placeOrderWrapper	Inservice	0	EXPIPE01	DFH0XPOW	\$320466	DFHWS-DATA



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
- 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 to 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 to 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

Business Transaction Services Analysis - IBM-A34BC087D73 - SYSADMIN

File Edit View Help

View: Physical

Physical

Business Transaction Services: Process Type Details

System ID	CICS Region Name	Process Type Name	File Name	Status	Audit level	Audit log
SYS_	CICSXX64	ORDER	DFHBARF	Enabled	Off	
SYS_	CICSXX64	SOAPHTTP	SOAPBTS	Enabled	Off	
SYS_	CICSXX64	SOAPPMO	BAM	Enabled	Off	

Business Transaction Services: Process Details

System ID	CICS Region Name	Process Name	Process Type Name	Activity Id
SYS_	CICSXX64	SALESABCDEF	ORDER	DFHBARF_USCAC001.TCPA0023.Dy...DFHROOT
SYS_	CICSXX64	SALES060626	ORDER	DFHBARF_USCAC001.ATERM492_Mu...DFHROOT
SYS_	CICSXX64	SALES123456	ORDER	DFHBARF_USCAC001.ATERM492_X...DFHROOT
SYS_	CICSXX64	SALES123456	ORDER	DFHBARF_USCAC001.ATERM492...DFHROOT
SYS_	CICSXX64	SALES444444	ORDER	DFHBARF_USCAC001.ATERM492.B...DFHROOT

Business Transaction Services: Container Details

System ID	CICS Region Name	Container Name	Process Type	Process Name	Activity Id	Container Length	Container Address
SYS_	CICSXX64	SALESABCDEF	ORDER	SALESABCDEF	DFHBARF_USCAC001.TCPA0023.Dy...DFHROOT	24	00042FB8
SYS_	CICSXX64	SALES060626	ORDER	SALES060626	DFHBARF_USCAC001.ATERM492_Mu...DFHROOT	24	00043AF8
SYS_	CICSXX64	SALES060765	ORDER	SALES060765	DFHBARF_USCAC001.ATERM492_X...DFHROOT	24	00043B28
SYS_	CICSXX64	SALES123456	ORDER	SALES123456	DFHBARF_USCAC001.ATERM492...DFHROOT	24	00043B58
SYS_	CICSXX64	SALES444444	ORDER	SALES444444	DFHBARF_USCAC001.ATERM492.B...DFHROOT	24	00043B88

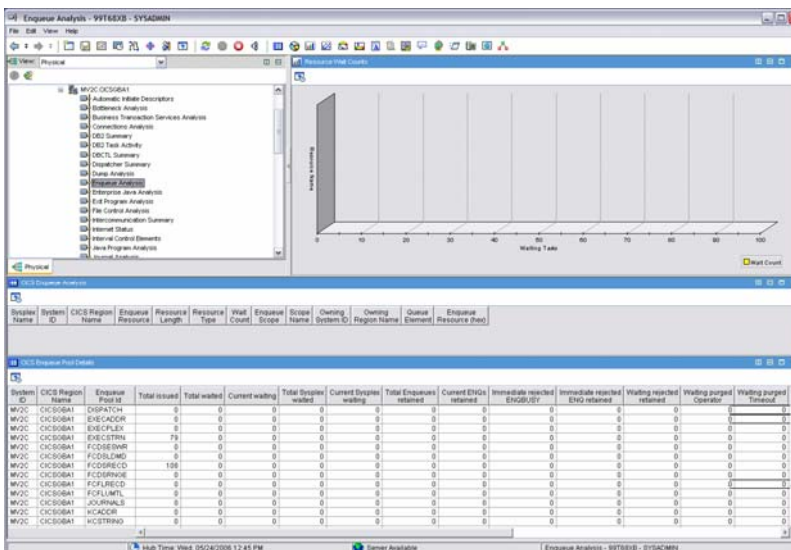
Business Transaction Services: Activity Details

System ID	CICS Region Name	Activity Name	Activity Identifier	Process Type Name	Process Name	Completion status	Suspend status	Program name	Transaction Id	User Id	Mode	Event name	Composite	Event Type	Fire Status	Predicate	Time name
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Hub Time: Tue, 08/15/2006 02:06 PM Server Available Business Transaction Services Analysis - IBM-A34BC087D73 - SYSADMIN



Enqueue Analysis





Enterprise Java Analysis

The screenshot displays the Enterprise Java Analysis (EJA) application interface. It features a tree view on the left with categories like 'Automatic Inhibit Descriptors', 'Business Transaction Services Analysis', and 'Enterprise Java Analysis'. The main area contains several panels:

- Container Summary:** A table listing container configurations.

System ID	CICS Region Name	Container Name	Enable Status	Session Timeout	Object Activated	Object Stores	Actuals	Failures
MVZC	CICS08A1	CHN1	Enabled	2	0	0	0	0
MVZC	CICS08A1	CHN3	Enabled	2	0	0	0	0
MVZC	CICS08A1	EJB1	Enabled	2	0	0	0	0
MVZC	CICS08A1	OBJ1	Enabled	2	0	0	0	0
MVZC	CICS08A1	OMB3	Enabled	2	0	0	0	0
- Request Model Summary:** A table showing request model details.

System ID	CICS Region Name	Request Model Id	Type	CORSERVER name	Transaction Id	Bean name
MVZC	CICS08A1	OMB123	CORBA	OMBA	MRP	
MVZC	CICS08A1	OMB123	Generic	OMBB	MRP	*
MVZC	CICS08A1	OMB3	Generic	OMBB	MRP	*
- Class Summary:** A table listing class details.

System ID	CICS Region Name	Class Name	Container Name	State	Last Modified Time	HF3 File Name
MVZC	CICS08A1	SQLC.Bean	OMB1	Inservice	02/20/04 16:41:18	fsjhggeshepolars/sqlc.Bean.jar
MVZC	CICS08A1	TestEJB	EJB1	Inservice	03/14/05 05:46:52	fsjhggeshepolars/testEJB.Bean.jar
MVZC	CICS08A1	TestSQL.Bean	OMB3	Inservice	08/13/04 15:15:43	fsjhggeshepolars/testSQL.Bean.jar
MVZC	CICS08A1	ChainTree	CHN3	Inservice	08/24/05 15:42:12	fsjhggeshepolars/ChainTree.jar
MVZC	CICS08A1	Explored_new_Car	OMB1	Inservice	02/25/04 16:17:01	fsjhggeshepolars/Explored_new_Car.jar
MVZC	CICS08A1	SQL.Bean	OMB1	Inservice	08/23/04 15:37:49	fsjhggeshepolars/SQL.Bean.jar
MVZC	CICS08A1	SimpleTestEJB	OMB1	Inservice	03/14/08 15:57:36	fsjhggeshepolars/SimpleTestEJB.jar
MVZC	CICS08A1	SimpleTestEJB	EJB1	Inservice	03/14/05 05:45:55	fsjhggeshepolars/SimpleTestEJB.jar
MVZC	CICS08A1	TestEJB	EJB1	Inservice	02/24/05 15:42:56	fsjhggeshepolars/TestEJB.Bean.jar
- Inservice Java Bean Analysis:** A table showing bean analysis details.

System ID	CICS Region Name	Bean Name	Container Name	DJAR Name	Activations	Passations	Creates	Removes	Method calls
MVZC	CICS08A1	SQLC.Bean	OMB1	SQLC.Bean	0	0	0	0	0
MVZC	CICS08A1	TestSQL.Bean	OMB3	TestSQL.Bean	0	0	0	0	0
MVZC	CICS08A1	Car	OMB1	Explored_new_Car	0	0	0	0	0
MVZC	CICS08A1	Chain	CHN3	TestEJB2	0	0	0	0	0
MVZC	CICS08A1	Chain	CHN1	ChainTree	0	0	0	0	0

The interface also shows a status bar at the bottom with 'Hub Time: Wed, 05/24/2006 12:48 PM' and 'Server Analysis'.



Exit Program Analysis

Exit Program Analysis

System ID	CCS Region Name	Exit Program Name	Exit Point Name	Entry Point	Use Count	Global Workarea Owner	Global Workarea Length	OWA Use Count	Global Exit Points	Start Status	Concurrency Status	Connection Status
MV2C	CIC80BA1	DFHDEP	DLI	96032149	0	DLI	0	0	0	Started	Quiescent	Unknown
MV2C	CIC80BA1	DFHDEBT	DRCTL	9C3228C4	277	DRCTL	294	1	0	Started	Quiescent	Connected
MV2C	CIC80BA1	DFHDEXT	DSINC-SOL	9C32885C	276	DSINC-SOL	18	1	0	Started	Threadsafe	Connected
MV2C	CIC80BA1	KOCOME00	KOCOME00	80080918	262	KOCOME00	168	8	0	Started	Threadsafe	Unknown
MV2C	CIC80BA1	KOCOME00	OLLEEDT	80080918	110080	OLLEEDT	138	1	4	Started	Threadsafe	Unknown

Global User Exits

System ID	CCS Region Name	Exit Name	Exit Program Name	Entry Name	OWA Entry Name	OWA Length	OWA Use Count	Number of Exits	Program Status	Program Concurrency
MV2C	CIC80BA1	AMNOUT	KOCOME00	OLLEEDT	OLLEEDT	128	1	4	Started	Threadsafe
MV2C	CIC80BA1	ICLUPRE	KOCOME00	OLLEEDT	OLLEEDT	128	1	4	Started	Threadsafe
MV2C	CIC80BA1	ICLUPIS	KOCOME00	OLLEEDT	OLLEEDT	128	1	4	Started	Threadsafe
MV2C	CIC80BA1	KEOUT	KOCOME00	OLLEEDT	OLLEEDT	128	1	4	Started	Threadsafe



Recovery Manager Analysis

The screenshot displays the 'Recovery Manager Analysis - 99T5XB - SYSADMIN' application window. It features a menu bar (File, Edit, View, Help) and a toolbar. A left-hand pane shows a tree view of analysis categories, with 'Recovery Manager Analysis' selected. The main workspace is divided into several panes:

- Recovery Manager Detail:** A table showing system status for MRZC-CIC00A1.

System ID	CICS Region Name	Syncpoints forward	Syncpoints backward	Resynchronization	Current Instants UOWs	Total Instants UOWs	Total RO Instants UOWs	Current RO Instants UOWs	Instants Transfer	Instants Timeout	Instants No wait	Instants Operator	Instants Action Other
MRZC	CIC00A1	1	0		0	0	0	0	0	0	0	0	0
- Link of work Database Name Failure Details:** A table with columns: System ID, CICS Region Name, Database Name, Network Name, Unit-of-work ID, Connected System ID, Cause, Reason, RLS Access.
- Link of work Link Details:** A detailed table listing connections between systems.

System ID	CICS Region Name	Link token	Unit-of-work identifier	Connection Type	Protocol	Resync status	Role	Link ID	RMI Qualifier	Connected System ID	Unit-of-recovery ID	Network Unit-of-work identifier	Host ID
MRZC	CIC00A1	0110001	BE004E55911E8FD0000000000000000	RMI	N/A	N/A	Unsync	KOC0ME00				70-08B8MFA17X22FV1Q-789	
MRZC	CIC00A1	0110004	BE004E55909FAA00000000000000000	RMI	N/A	N/A	Unsync	KOC0ME00				70-08B8MFA17X22FV1Q-789	
MRZC	CIC00A1	010C0004	BE004E559125C7FA00000000000000000	RMI	N/A	N/A	Unsync	KOC0ME00				70-08B8MFA17X22FV1Q-789	
MRZC	CIC00A1	01080005	BE004E55905C042C0000000000000000	RMI	N/A	N/A	Unsync	KOC0ME00				70-08B8MFA17X22FV1Q-789	
MRZC	CIC00A1	01050011	BE004E55904C042C0000000000000000	RMI	N/A	N/A	Unsync	DBCT				70-08B8MFA17X22FV1Q-789	
MRZC	CHC00A1	010E0001	BE004E55910C042C0000000000000000	RMI	N/A	N/A	Unsync	ESRV-00				70-08B8MFA17X22FV1Q-789	

At the bottom, the status bar shows 'Hub Time: Wed, 05/24/2006 01:03 PM', 'Server Available', and 'Recovery Manager Analysis - 99T5XB - SYSADMIN'.



URIMAP Analysis

The screenshot displays the URIMAP Analysis application interface. It features a navigation tree on the left, a main summary table, a detailed table, and two charts.

URIMAP Summary Table:

System ID	CICS Region Name	URIMAP Name	Enable status	TCP/IP Service	Usage	Scheme	Reference count	Disable count	Redirect count
M/2C	CICS08A1	\$320480	Enabled		Pipeline	HTTP	0	0	0
M/2C	CICS08A1	\$320481	Enabled		Pipeline	HTTP	0	0	0
M/2C	CICS08A1	\$320482	Enabled		Pipeline	HTTP	0	0	0
M/2C	CICS08A1	\$320483	Enabled		Pipeline	HTTP	0	0	0
M/2C	CICS08A1	\$320484	Enabled		Pipeline	HTTP	0	0	0
M/2C	CICS08A1	\$320485	Enabled		Pipeline	HTTP	0	0	0
M/2C	CICS08A1	\$320486	Enabled		Pipeline	HTTP	0	0	0

URIMAP Detail Table:

System ID	CICS Region Name	Reference count	Disabled count	Unmatched count	Matched count	Redirect count	Analyzer count	Static count	Dynamic count	Pipeline count	HTTP count	HTTPS count	Hosts disabled
M/2C	CICS08A1	0	0	0	0	0	0	0	0	0	0	0	0

URIMAP Detail Counts Chart: A horizontal bar chart showing various counts for the selected system. The legend includes: Analyzer count, Disabled count, Dynamic count, Hosts disabled, HTTP count, HTTPS count, Matched count, Pipeline count, Reference count, Static count, and Unmatched count.

URIMAP Summary Reference Counts Chart: A vertical bar chart showing reference counts for different categories. The legend includes: Analyzer count, Disabled count, Dynamic count, Hosts disabled, HTTP count, HTTPS count, Matched count, Pipeline count, Reference count, Static count, and Unmatched count.

At the bottom of the interface, it shows the host time: Wed, 09/24/2008 01:04 PM and the status: Server Available.



Web Services Analysis

The screenshot displays the Tivoli Web Services Analysis interface. The main window is titled "Web Services Analysis - 9916E1B - SYSADMIN". On the left, a tree view shows a navigation menu with categories like "Area Program Analysis", "API Analysis", "Log Stream Analysis", "Message Queue Analysis", "MVS TCB Summary", "Program Summary", "Resource Manager Analysis", "Region Overview", "Resource Data Analysis", "Service Level Analysis", "Service Task Details", "Storage Analysis", "Storage Details", "System Initialization Table", "Task Class Analysis", "TCP/IP Statistics", "Temporary Storage Queue", "Temporary Storage Summary", "Transaction Analysis", "Transaction Storage Violation", "Transaction Data Queue", "Transaction Data Summary", "Transaction Manager Statistics", "UCM Analysis", "UCM Enqueue Analysis", "UCM Lock Analysis", "VSAM Analysis", "VSAM RLS Lock Analysis", and "Web Services Analysis".

The "Web Services Summary" panel shows a table with the following data:

System ID	CICS Region Name	Web Service Name	Status	Use Count	Pipeline Name	Program Name	URMAP Name	Container Name	Program Interface
MVZC	CICS0BA1	dispatchOrder	Inservice	0	EXPPE02				rs
MVZC	CICS0BA1	dispatchOrderEndpoint	Inservice	0	EXPPE01	DFHEDVCE	\$320460		Commarea
MVZC	CICS0BA1	inquireCatalog	Inservice	0	EXPPE01	DFHEDVCMN	\$320461		rs
MVZC	CICS0BA1	inquireCatalogClient	Inservice	0	EXPPE02				Channel
MVZC	CICS0BA1	inquireCatalogWrapper	Inservice	0	EXPPE01	DFHEDVCMN	\$320462	DFHWS-DATA	Commarea
MVZC	CICS0BA1	inquireSingle	Inservice	0	EXPPE01	DFHEDVCMN	\$320463		rs
MVZC	CICS0BA1	inquireSingleClient	Inservice	0	EXPPE02				Channel
MVZC	CICS0BA1	inquireSingleWrapper	Inservice	0	EXPPE01	DFHEDVCMN	\$320464	DFHWS-DATA	Commarea
MVZC	CICS0BA1	planPrinter	Inservice	0	EXPPE01	DFHEDVCMN	\$320465		rs
MVZC	CICS0BA1	planPrinterClient	Inservice	0	EXPPE02				Channel

The "Web Services: Value Not Defined" panel shows a table with the following data:

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

The "Web Services: Pipeline Summary" panel shows a table with the following data:

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

The "Web Services: Document Template Details" panel shows a table with the following data:

System ID	CICS Region Name	Document Template	Extended Name	CRUL Append	Format	Source Type	Source Name
MVZC	CICS0BA1	DFHANSPW1		Yes	EBCDIC	PROGRAM	DFHANSPW1
MVZC	CICS0BA1	DFHANSPW2		Yes	EBCDIC	PROGRAM	DFHANSPW2
MVZC	CICS0BA1	DFHANSPW3		Yes	EBCDIC	PROGRAM	DFHANSPW3
MVZC	CICS0BA1	DFHANSPW4		Yes	EBCDIC	PROGRAM	DFHANSPW4

At the bottom of the interface, it shows "Hub Time: Wed, 05/24/2006 01:04 PM", "Server Available", and "Web Services Analysis - 9916E1B - SYSADMIN".

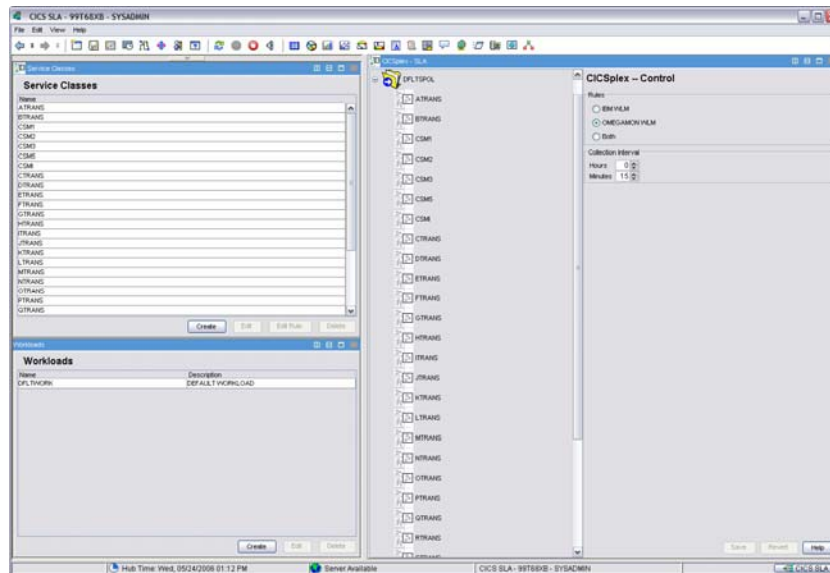


Workrequest Analysis

System ID	CICS Region Name	Work request	CorbaName	Client IP Address	Work Type	Listener Port	Request ID	Back Level	Task	Transaction ID	Target System	Originating Applid	Originating Task	Originating Transaction
-----------	------------------	--------------	-----------	-------------------	-----------	---------------	------------	------------	------	----------------	---------------	--------------------	------------------	-------------------------



CICS Service Level Analysis (SLA) support in XE



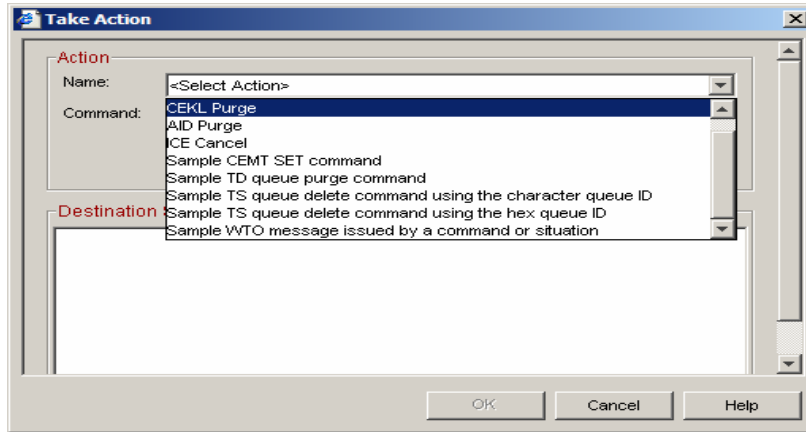


Take action enhancements

- 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

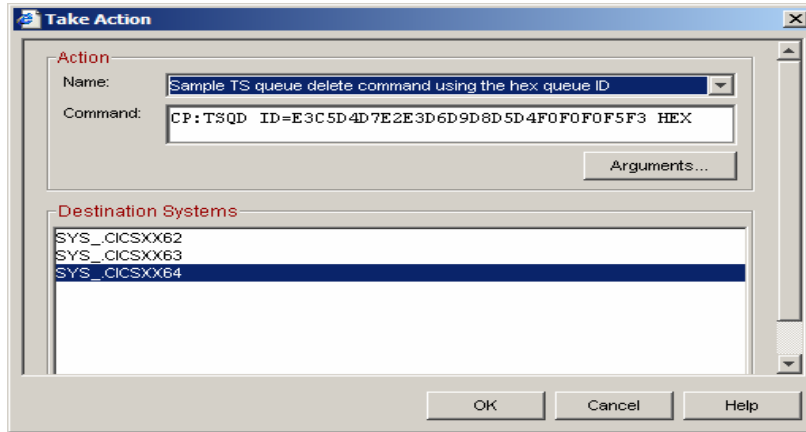


Sample take action commands





Take action TS Delete





OMEGAMON Global Data Area changes

- USER_EXIT_TRACE parameter is removed
- EXIT_SUPPRESSION 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 a verify job (supplied in 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 60]
File Edit View Communication Actions Window Help
K00000I OVR PROCESSING STARTED FOR GLOBAL MEMBER K00000A
K00000I OVR UNIT AND DATA DELETED SUCCESSFULLY
K00000I OVR UNIT EXIT TRACE IS NO LONGER SUPPORTED. CARD DELETED
K00000I OVR TRACE OFF WRITE OPTION IS NO LONGER SUPPORTED. CARD DELETED
K00000I OVR EXIT SUPPRESSION IS NO LONGER SUPPORTED. CARD(2) DELETED
K00000I OVR CIE(S) ARE RECORDED. CARD IS REMITTED AS CIE_OFF_WRITE
005019 OVR PROCESSING SUCCESSFUL FOR GLOBAL K00000A
***
```

117 007006
[37] Connected to remote server host.viva.tivoli.ibm.com using libool TCPA0324 and port 23 [hp deskjet 5600 series on fno01]



OMEGAMON New Global Data Area parameters

```

Session A (43 x 60)
EDIT --- TDCICST_C5310.DLV.INSTDATA(KC2QLE00) - 01.00 --- COLUMNS 00001 00072
For in-context help: Place cursor on selected line then press F1
000035 DUMPS_MONITORING_INTERVAL=15
000036 VIOLATIONS_MONITORING_INTERVAL=15
000037 *
000038 *
000039 *
000040 *
000041 *
000042 *
000043 *
000044 *
000045 *
000046 *
000047 *
000048 *
000049 *
000050 *
000051 *
000052 *
000053 *
000054 *
000055 *
000056 *
000057 *
000058 *
000059 *
000060 *
000061 *
000062 *
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000080 *
000081 *
000082 *
000083 *
000084 *
000085 *
000086 *
000087 *
000088 *
000089 *
000090 *
000091 *
000092 *
000093 *
000094 *
000095 *
000096 *
000097 *
000098 *
000099 *
000100 *
COMMAND == >
SCROLL == >>> 000
43 / 015

```

There are 2 new parameters shown here;
MCT_VALIDATION_MESSAGES=YES|NO, and
COMPRESS_SMF112_RECORDS=YES|NO



MCT requirements – pre v410

- In previous releases OMEGAMON CICS required that you add MCT definitions which allow OMEGAMON data to be written to CMF.
- Sample OMEGAMON sections for OMEGBSC, OMEGDB2, OMEGDLI, CANMQ, CANUE1 and CANWLMSC are provided in *hilev.TKANSAM*
- At the end of task a series of EXEC CICS MONITOR requests take the OMEGAMON data, and write it into the CMF buffer. In our XMNOUT code the OMEGAMON data is extracted and written out to those subtasks that require that data. In this way OMEGAMON is able to send data to:
 - ONDV (near term history), RTA (Response Time Analysis) and SLA (Service Level Analysis)



MCT requirements – v410

- In v410 the OMEGAMON MCT entries are only required IF you wish to post-process the CMF data using CICS Performance Analyser or a substitute product
 - Customers may now be able to remove the OMEGAMON MCT entries
- Our end of task TRUE code no longer uses EXEC CICS MONITOR requests to write the data into the CMF buffer
- Our XMNOUT code path has been reduced by about 600 instructions as a result of this effort
- ONDV, RTA and XE's SLA component have no requirement for the OMEGAMON MCT definitions
- Sample MCTs are shipped in *hilev.TKANSAM* and include the new OMEGCICS definitions for CICS PA support



OMEGAMON initialisation messages

```
Session A (43 x 60)
Display Filter View Print Options Help
SBSE OUTPUT DISPLAY CICSXX62 STC05104 DSID 2 LINE 188 COLS 22 101
COMMAND INPUT ***
CS004721 CICSXX62 CSQCSERV Server subtask (TCB address=0070CAG0) connect success
CS004721 CICSXX62 CSQCSERV Server subtask (TCB address=0070C0B0) connect success
CS004721 CICSXX62 CSQCSERV Server subtask (TCB address=0070E5B0) connect success
CS004721 CICSXX62 CSQCSERV Server subtask (TCB address=0070E5B0) connect success
CS004721 CICSXX62 CSQCSERV Server subtask (TCB address=0070E5B0) connect success
CS003071 CICSXX62 CSQCCON Successful connection to queue manager MON7
DFHSI14411 CICSXX62 Connection to MQ MON7 successfully completed
DFHSI14301 CICSXX62 About to link to PLI programs during the third stage of init
OC1026 OCONEG OMEGAMON II FOR CICS INITIALIZATION IN PROGRESS
OC1025 OCONEG RKNMOD 12 IN USE FOR PROGRAM LOADING
OC0001 XRCR CICS IS USING 'RKC2MM08' DD NAME
OC1024 EXEN MODULE KOCONEG0 WILL RUN IN THREADSAFE MODE
OC0021 EXEN BLI BLUE-0000 HAS BEEN TURNED ON
OC1147 EXEN CICS WATCHING IS BEING TURNED ON
OC1149 EXEN PERFORMANCE CLASS IS BEING TURNED ON
KCP1125E UMRK MGT ENTRY FOR MYDL1 (DL1_SECTION) IS INCORRECTLY DEFINED
KCP1125E UMRK MGT ENTRY FOR MYDB2 (DB2_SECTION) IS INCORRECTLY DEFINED
KCP1125E UMRK MGT ENTRY FOR CANNO (NO_SECTION) IS INCORRECTLY DEFINED
KCP1125E UMRK MGT ENTRY FOR CANM1 (SUBRVTN1_SECTION) IS INCORRECTLY DEFINED
KCP1126E UMRK MGT ENTRY FOR CANMLMBC IS INCORRECTLY DEFINED
KCP1126E UMRK MGT ENTRY FOR OREGOICS IS INCORRECTLY DEFINED
OC1174 ODSRT STARTING OMEGAMON II FOR CICS OCEXEC PROCESSING
OC1174 ODSRT OREGOICS REFERENCE IS NOW INSTALLED IN CICS
OC1210 ODSRT SERVICE TIME ***
OC1019 OCONEG OMEGAMON II FOR CICS INITIALIZATION IS COMPLETE
DFHSI14341 CICSXX62 Control returned from PLI programs during the third stage of
DFHE30102 CICSXX62 Enterprise Java domain initialization has ended.
DFHSI1517 CICSXX62 Control is being given to CICS.
DFHS0109 CICSXX62 CSI
95/24/2006 06:59:00 CICSXX62 An error has occurred when attempting to
access the Local Request Queue data set (DFHLRQ). The file could not
be found. The Local Request Queue is now unavailable.
C001: XRCR COMMUNICATION BUFFER HAS WRAPPED FOR: DNDV
DFHPC0951 CICSXX62 Non-RLS OPEN of file EYUWRP failed, DSNNAME not available fro
EC1611 245-0037 CICSXX62 CICSXX62 FILE91 - CTS130, CICSMM93, FILEA,
EC1611 CTS130, CICSMM93, FILEA, DATA, ICFCAT, VTS000B
DFHPC0500 CICSXX62 RLS OPEN of file FILE01 failed, VSMH has returned code R'000B
04/021
[37] Connected to remote server host vmla.tivoli.com using libool TCPA0324 and port 23 [p] desktop.5600 series on Red11
```



OMEGAMON initialisation messages

```
-----
SBSE OUTPUT DISPLAY CICSXX63 STC05105 DSID 2 LINE 218 COLS 22 101
COMMAND INPUT ==> SCROLL ==> CSR
OC1144 EXEN MODULE KTCOME00 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
KCP1121 UNEX EXTRACTION ROUTINE PROCESSING A DEFAULT CICS MCT
KCP1127I UNEX NO OMEGAMON CICS EMPS ARE DEFINED IN THIS MCT
KCP1127I UNEX NO OMEGAMON CICS DATA WILL BE ADDED TO THE CICS RECORD
KCP1133I UNEX MCT PROCESSING HAS COMPLETED
OC1170 DSSEIT STAGING OMEGAMON
OC1171 DSSEIT KUCERE INTERFACE IS NOW INSTALLED IN CICS
OC1115 DCSR1 SERVICE TASK INITIALIZATION COMPLETED
OC1019 OCOMED OMEGAMON II FOR CICS INITIALIZATION IS COMPLETE
DFHFI1517 CICSXX63 Control returned from RLT programs during the third stage of
DFHFI1517 CICSXX63
DFHFI1517 CICSXX63 Enterprise Java domain initialization has ended.
DFHSH0109 CICSXX63 352
05/24/2006 06:48:49 CICSXX63 An error has occurred when attempting to
access the Local Request Queue data set (DFHLR01). The file could not
be found. The Local Request Queue is now unavailable.
DFHFC0951 CICSXX63 RLS OPEN of file FILE05 failed. DSNAME not available fro
EC1611 245 0537 CICSXX63.CICSXX63.FILE01.CTS130.CICSHH59.FILEA.
EC1611 CTS130.CICSHH59.FILEA.DATA.IGCOL.VIS0009
DFHFC0500 CICSXX63 RLS OPEN of file FILE01 failed. VSAM has returned code X'0008
DFHFC0955 CICSXX63 Dynamic allocation of RLS file FILE02 failed. Return code X'
DFHFC0955 CICSXX63 Associated data set is IDCICR1.TOC.IDOORLS.FILEB. Module DFH
302311 XSOCONN REQUEST CONNECT TO LOG STREAM 495
ICSMX63 CICSXX63 DFHLGLOG DID NOT SUCCEED FOR JOB CICSXX63. RETURN
005: 00000000 REASON CODE: 00000000 DIAG1: 00000000 DIAG2:
000F801 DIAG3: 05030004 DIAG4: 05020010
DFHLO0508 CICSXX63 494
05/24/2006 06:48:52 CICSXX63 Log stream CICSXX63.CICSXX63.DFHLGLOG
not defined to RVS because model stream CICSXX63.CICSXX63.MODEL does
not exist
DFHFC0521 CICSXX63 496
RLS OPEN of file FILE05 failed. Undefined LOG parameter is invalid
for an RLS file with update type SERVREQ.
DFHFC0952 CICSXX63 Dynamic allocation of RLS file FILE05X failed. Return code X
DFHFCNO.
-----
04/021
```



OMEGAMON SMF data collection controls

```

Session A: [32 x 60]
ZCCOLL VTH CICSX64 V560.70 SYS 05/24/06 0:07:23
> PF1 Help PF3 Back PF4 Main Menu
> D-RTA On B-RTA Off C-RTA Status D-RTA Interval E-RTA Scaling
> F-OMDV On G-OMDV Off H-OMDV 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-RLIB On S-RLIB Off T-RLIB 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 OMDV SMF Files
+-----+-----+-----+-----+-----+-----+
VSAM ON ON ON ON ON
DB2 ON N/A N/A N/A N/A
DI1 OFF OFF OFF OFF OFF
IDMS ON ON ON ON ON
ADABAS ON ON ON ON ON
CUPRA ON ON ON ON ON
DATACOM ON OFF OFF OFF OFF
RO OFF OFF OFF OFF OFF
USREVT1 ON ON ON ON ON
=====
    
```

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



OMEGAMON product status – fastpath U.R

```

Session A: [43 x 60]
PF1 Help PF3 Back 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 . . . . . KC2QLB64
+ Assembly Date . . . . . *08LINE*
+ Assembly Time . . . . . 711
+ Conv Time . . . . . Noconv11
+ DD2 . . . . . Iwait1
+ DEK . . . . . Auto
+ DIJ . . . . . Noauto
+ INTR . . . . . Noauto
+ IPRG . . . . . 1
+ Interval . . . . . 30
+ Maxgrps . . . . . 30
+ Reside . . . . . Auto
+ Racc . . . . . Auto
+ RNDV . . . . . Auto
+ RLIM . . . . . Noauto
+ RTG . . . . . Auto
+ Shutopt . . . . . Purge
+ Sncds . . . . . 2000
+ QOPR Verification PTF . . . . . C2560
+ Vsmint . . . . . 15
+ Dumpint . . . . . 15
+ Csigint . . . . . 15
+ RLIM MSG Dest . . . . . LOG,WARN
+ RLIM System Task . . . . . NO
+ Enable VSAM Exits . . . . . NO
+ Auto Restart . . . . . YES
+ History Catchup Time . . . . . 100
=====
017002
[37] Connected to remote server host vika.tivoli.ibm.com using libool TCPA0324 and port 23 [jp.desktop.5600 series on fe01]
    
```

OMEGAMON History changes (ONDV)

```

Session A: [43 x 60]
PF1 Help PF3 Back PF4 Main Menu PF7 Up PF8 Down PF11 Zoom
ZONDV VTH CICSXN64 V560 /C SYS 05/24/06 7:14:16
A- History Record View B- History Record Selection
C- Trace Record View D- Trace Filters Management
*****
HISTORICAL TRANSACTION OVERVIEW
*****
ONDV Transaction Overview: 05/24/06 * Top of Data *
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ End Time ID Num Task ID Type CPU Resp Time Storage File Term Abend
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 7:14:10 LN20 197C M430 TRM 0 0.000 2288 0 71
+ 7:14:09 LN20 197C M430 TRM 0 0.001 2288 0 33
+ 7:14:09 LN20 197C M430 TRM 0 0.000 2288 0 0
+ 7:14:09 LN20 197C M430 TRM 0 0.170 2384 103 35
+ 7:14:08 LN20 197C M430 TRM 0 0.374 2384 216 76
+ 7:14:07 LN20 197C M430 TRM 0 0.268 2384 155 76
+ 7:14:06 LN20 197C M430 TRM 0 0.303 2384 216 76
+ 7:14:04 LN20 197C M430 TRM 0 0.311 1824 100 83
+ 7:12:22 CSFU 82 n/a SYS 2.4 51.297 0 0 0
+ 7:12:18 DCO1 196 n/a SYS 0 2.353 2272 15 0
+ 7:12:18 DCO1 199 n/a SYS 0 2.351 2272 15 0
+ 7:12:18 DCO1 192 n/a SYS 0 2.350 2272 15 0
+ 7:12:18 DCO1 179 n/a SYS 0 2.350 2272 15 0
+ 7:12:18 DCO1 168 n/a SYS 0 2.348 2272 15 0
    
```

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: [32 x 60]
ZCATF VTH C10SKX64 V560.70 SYS 05/24/06 7:18:04
> PFI Help PFS Back
> O-RTA On O-RTA Off C-RTA Status O-RTA Intervals E-RTA Scaling
> F-ONDV On C-ONDV Off H-ONDV Status I-Bottleneck Clt J-Mail Reasons
> K-INTR Clt L-IANL On H-IANL Off N-IANL Settings O-IANL Groups
> D-Collection Q-Shutdown E-RLIB On S-RLIB Off T-RLIB 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:
>YATF START Starts the trace collector and, if necessary, ONDV.
>YATF 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 : DataSpace Display requests : 11
+ Data store size : 2000K Xmem posts : 0
+ Data store size (recs) : 666 Cycle time (seconds) : 2
+ Records received : 198
+
+ Function Elapsed CPU Paging
+ Time Time
+-----+-----+-----+-----+
+ 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
=====
10/011

```

Connected to remote server host.viaa.tivoli.com using kubectl TCP40324 and port 23 [p:desktop.5600 series on Red1]



OMEGAMON ATF via the menu system

```
Session A: [43 x 60]
File Edit View Communication Actions Window Help
-----
> PF1 Help      Z2ATFF VTH C108X64 V560 /O SYS 05/24/06 7:17:10
> 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
-----
> TRACE FILTERS MANAGEMENT
> ATF ADD * K0564291 TRANSID must be supplied **
-----
* TRANSID=LN40_
* TERM=
* USER=*
* STARTDATE=20060524
* STARTTIME= 7:17
* DURATION=30
* CALLTYPE=ALL
* EXECCEL=ALL
* OWNER=CPOC040L
-----
10/021
[37] Connected to remote server host vika.tivoli.rdg.ibm.com using libool TCPA0324 and port 23 [jp.desktop.5600 series on Red01]
```




OMEGAMON ATF via the menu system

```
Session A [43 x 60]
ZONDA VTH CICSXN64 V560 /O SYS 05/24/06 7:20:17
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
=====
* TRACED TRANSACTIONS OVERVIEW *
=====
ONDV TRACEONLY Traced Transaction Overview: 05/24/06 * All of Data *
+ End Tran Task Term Type CPU Resp Storage File Term Abend
+ Time ID Num ID Time Time HHM Reqs I/O Code
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 7:20:14 LN40 201C M430 TRM 0 0.000 2288 0 44
+ 7:20:14 LN40 201C M430 TRM 0 0.000 2288 0 0
+ 7:20:14 LN40 201C M430 TRM 0 0.000 2288 0 0
+ 7:20:13 LN40 201C M430 TRM 0 0.168 2384 155 76
+ 7:20:12 LN40 201C M430 TRM 0 0.298 2384 216 76
+ 7:20:10 LN40 201C M430 TRM 0 0.122 1824 100 82
+
+ EOF reached, no more records to display
+
=====
017002
```

Connected to remote host vika.tivoli.ibm.com using libssh TCFAG324 and port 23 [jp.desktop.5600 series on Red1]



OMEGAMON ATF via the menu system

```

Session A - [43 x 80]
File Edit View Communication Actions Window Help
-----
ZZONDA VTM GIC5X64 V560 /C SYS 05/24/06 7:21:17
> PF1 Help 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 1 to 460 of 460
Type -----
-----
+ TSKSTR CSLINK40 0 1ST DISPATCH
+ EXECIN CSLINK40 3D0 HANDLE CONDITION
+ EXECOUT CSLINK40 3D0 HANDLE CONDITION TEST03 NORMAL 0.000012
+ EXECIN CSLINK40 406 WRITE TEST03 DUPREC 0.000094
+ EXECOUT CSLINK40 406 WRITE TEST03 0.000098
+ EXECIN CSLINK40 49C READ TEST03 NORMAL 0.000007
+ EXECOUT CSLINK40 49C READ TEST03 NORMAL 0.000033
+ EXECIN CSLINK40 466 DELETE TEST03 NORMAL 0.000093
+ EXECOUT CSLINK40 466 DELETE TEST03 NORMAL 0.001713
+ EXECIN CSLINK40 49C WRITE TEST03 0.000010
+ EXECOUT CSLINK40 49C WRITE TEST03 NORMAL 0.001806
+ EXECIN CSLINK40 4D2 READ TEST03 NORMAL 0.000009
+ EXECOUT CSLINK40 4D2 READ TEST03 0.000034
+ EXECIN CSLINK40 508 REWRITE TEST03 NORMAL 0.000093
+ EXECOUT CSLINK40 508 REWRITE TEST03 NORMAL 0.001546
+ EXECIN CSLINK40 49C WRITE TEST03 0.000095
+ EXECOUT CSLINK40 49C READ TEST03 NORMAL 0.000025
+ EXECIN CSLINK40 466 DELETE TEST03 NORMAL 0.000093
+ EXECOUT CSLINK40 466 DELETE TEST03 NORMAL 0.001891
+ EXECIN CSLINK40 49C WRITE TEST03 0.000096
+ EXECOUT CSLINK40 49C WRITE TEST03 NORMAL 0.002000
+ EXECIN CSLINK40 4D2 READ TEST03 NORMAL 0.000096
+ EXECOUT CSLINK40 4D2 READ TEST03 0.000035
+ EXECIN CSLINK40 508 REWRITE TEST03 NORMAL 0.000093
+ EXECOUT CSLINK40 508 REWRITE TEST03 NORMAL 0.001975
+ EXECIN CSLINK40 49C READ TEST03 0.000095
+ EXECOUT CSLINK40 49C READ TEST03 NORMAL 0.000055
+ EXECIN CSLINK40 466 DELETE TEST03 0.000093
+ EXECOUT CSLINK40 466 DELETE TEST03 NORMAL 0.001735
+ EXECIN CSLINK40 49C WRITE TEST03 0.000007
-----
01 / 002
-----

```

Connected to remote server /host wlaa.zivlab.raleigh.ibm.com using lu/pool TCPA0324 and port 23 jhp deskjet 5600 series on NEO II



OMEGAMON ATF via the menu system

```
Session A - [43 x 80]
File Edit View Communication Actions Window Help
z20NDVD VTN CICSXK64 VS60 /C SYS 05/24/06 7:21:44
PF3 Back PF4 Main Menu PF7 Up PF8 Down PF11 ZOOM
=====
> PF1 Help
> TRACED TRANSACTION DETAIL FOR SELECTED TASK
=====
ONDV 06 TRACE DETAIL 00004
Transaction Detail for LN40 task number = 201
+
+ Application Trace Facility
+
+ Time . . . . . : 07:20:11.853016 Function code . . . : 0604
+ Elapsed time . . . : 00:00:00.000098 Command . . . . . : WRITE
+ Trace type . . . . : EXECOUT File ID . . . . . : TEST03
+ Program . . . . . : CSLINK40 EIBRESP . . . . . : 14 (DUPREC)
+ Offset . . . . . : 00000406 EIBRESP2 . . . . . : X'00000096'
+ EIBR00E . . . . . : X'320000000000'
=====
MO a 01/002
[3] Connected to remote server/host vfile.tivlab.vaugh.ibm.com using tcp://pool.TCPA0324 and port 23 hp deskjet 5600 series on hpo11
```



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. . .



SMF details – no compression – fastpath O.U

```

> PF1 Help      ZSMFC      VIM      CICSXX64 V560./C SYS  09/12/06  0:15:12
> PF3 Back     PF4 Main Menu

> A-RTA On      B-RTA Off      C-RTA Status    D-RTA Intervals  E-RTA Scaling
> F-OMDV On     G-OMDV Off     H-OMDV Status   I-Bottleneck Ctl J-Bait Reasons
> K-INTR Ctl    L-IANL On      M-IANL Off      N-IANL Settings  O-IANL Groups
> P-Ctl Loclon  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
+ DREXITS   YES
+ SMFDATA   YES
+ COMPRESS  NO
+-----+-----+

SMF STATUS
+-----+-----+-----+-----+-----+-----+-----+
+ Buffer     Buffer   Tasks In  Average  Shortest  Longest  Compress
+ Status    Length  buffer   Record   Record   Record   Ratio
+-----+-----+-----+-----+-----+-----+-----+
+ Written   31864   66       514     248     1236    n/a
+ In use    14832   36       391     248     1236    n/a
+ Availbl   0        0        0       0       0       n/a
+ Availbl   0        0        0       0       0       n/a
+-----+-----+-----+-----+-----+-----+
    
```

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 – fastpath O.U

```

> PF1 Help      ZSDFC      VTR      CICSXN64 V560./C SYS 05/24/06 7:30:04
> 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
+ Buffer Tasks in Average Shortest Longest Compress
+ Status Length buffer Record Record Record Ratio
+ -----
+ In use 15772 44 391 328 592 n/a
+ Written 32348 100 322 248 748 52.5%
+ Availbl 0 0 0 0 0 n/a
+ Availbl 0 0 0 0 0 n/a
=====
    
```

OMEGAMON 112 data is optionally compressed immediately before the write to SMF. Compression uses a standard z/OS service, CSRCSR.V.



SMF status – error detected during compression

```

Session A [43 x 60]
ZSMFC VTH CICSXN64 V560.70 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
> P-DMV On Q-DMV Off R-DMV Status I-Bottleneck Ctl J-Wait Reasons
> K-INTR Ctl L-IANL On N-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
=====
OHEGAMON SMF STATUS
+
SMF Comp Active
+
-----
+ CICSXN64 YES
+ OHEXITS YES
+ SMFDATA YES
+ COMPRESS YES
+
SMF STATUS Buffer Tasks In Average Shortest Longest Compress
+ Status Length buffer buffer Record Record Record Ratio
+ Fall(40) 32460 43 906 248 1236 70.0%
+ In Mem 20504 39 572 248 1236 69.9%
+ Availbl 0 0 0 0 0 n/a
+ Availbl 0 0 0 0 0 n/a
=====
    
```

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

SMF errors – operator console

```

Session A [43 x 60]
Display Editor View Print Options Help
SMF OUTPUT DISPLAY CICSXX64 STC32628 DSTD 2 LINE 1,071 COLS 22, 101
COMMAND INPUT ==>
DFHNN191 CICSXX64 SMF error - SMF return code X'2B'
DFHNN101 CICSXX64 SMF error - SMF return code X'2B'
KCP403E CICSXX64 OCRIE SMFEWTM MACRO CALL FAILED, RC=40
DFHTM1715 CICSXX64 CICS is being selected by user ID CICSXX64 in transaction CEMT
DFHDD102I CICSXX64 CICS is shutting
DFHDCSD CICSXX64 SHUTDOWN ASSIST TRANSACTION CESC STARTING, SHUTDOWN IS NORMAL.
DFHTM1709I CICSXX64 About to link to PLI programs
OC1402A OCMEG OMEGAMON II FOR CICS TERMINATION IN PROGRESS
OC1170 OCSETI STARTING OMEGAMON II FOR CICS OCEXEC PROCESSING
OC1165 OCSETI KOCSEI INTERFACE HAS BEEN DISABLED
CP4401I OCSVET SMFEWTM MACRO CALL FAILED, RETURN CODE=40
OC1405 OCSHUT START OF SHUTDOWN PHASE PROCESSING
OC1402 OCSHUT OMEGAMON II FOR CICS HAS PURGED 0 TASK(S)
OC1209 OCSRV SERVICE TASK TERMINATED NORMALLY
OC1209 OCSRI THE SERVICE TASK HAS BEEN SUCCESSFULLY SHUTDOWN
DFHTM1701 CICSXX64 Control returned from PLI programs
DFHTM1701 CICSXX64 CICS shutdown cannot complete because some non-system user ts
DFHTM1701 CICSXX64 All non-system tasks have been successfully terminated.
DFH2C230I CICSXX64 Termination of VIAM sessions beginning
DFH2C231G CICSXX64 VIAM ACB is closed
DFH00104I CICSXX64 RVS console queue is closed.
DFHT0104 CICSXX64 An SMF error has occurred with return code X'2B'

```

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



OMEGAMON XE for CICS v410 and CICS Performance Analyser v1.4

- Announcement letter
 - IBM United States Software Announcement 206-236 October 3, 2006
- Support for the new OMEGCICS EMP is implemented via CICS PA service, and includes support for Adabas, Datacom, IDMS and Supra call counts and timings, and details of those transactions which have been abended by OMEGAMON's resource limiting feature (RLIM).
- From the announcement letter;
- **New enhancements to CICS PA V1.4 will be added through the service channel.**
- For example, support for OMEGAMON CMF performance (SMF110) MCT User fields (PTF for APAR PK30209) will be implemented.



Report Forms – Field Categories - OMEGAMON

```
WINMVSAD - [32 x 80]
File Systems Options Help

Select Field Categories
Command ==> _____

Category Selection:
- DFHAPPL - Application naming
- DFHBTS - BTS
- DFHCHNL - CHANNEL option
/ DFHCICS - CICS task information
- DFHDATA - Data processing
- DFHDEST - Transient Data
- DFHDOCH - Document Handler
- DFHEJBS - EJB Server
- DFHFEPI - Front End (FEPI)
/ DFHFILE - File Control
- DFHJOUR - Journal
- DFHMAPP - BMS Maps
/ DFHPRG - Program Control
- DFHRMI - Resource Manager (RMI)
- DFH SOCK - Secure Sockets
/ DFHSTOP
- DFHS
/ DFHT
- DFHT
/ DFHT
- DFH

Region Type:
- AOR - Application-owning
- FOR - File-owning
- TOR - Terminal-owning
- DB2 - DB data-owning

User Fields:
- DBCTL - DBCTL data-owning
- CROSS - Cross-System
/ OMCICS - OMEGAMON

MA g 23/004
```

Select the OMCICS Field Category to include the OMEGAMON fields in the Report Form field selection list.



Report Forms – OMEGAMON Third Party Support

```

WINMVS40 - [32 x 80]
File Edit Confirm Upgrade Options Help
EDIT LIST Report Form - OMEGSAMP Row 1 of 15 More: >
Command ==> Scroll ==> PAGE
Description . . . OMEGAMON Third Party Support Version (VRM): 640
Selection Criteria:
_ Performance Page width . . 132

Field
/ Name + Type Description
-- IRAN Transaction identifier
-- USERID User ID
-- TASKNO Transaction identification number
-- STOP TIME Task stop time
-- IDMSREQ TIME OMEGAMON monitored CA-IDMS requests
-- IDMSREQ COUNT OMEGAMON monitored CA-IDMS requests
-- ADABREQ TIME OMEGAMON monitored Adabas requests
-- ADABREQ COUNT OMEGAMON monitored Adabas requests
-- SUPPREQ TIME OMEGAMON monitored Supra requests
-- SUPPREQ COUNT OMEGAMON monitored Supra requests
-- DCOMREQ TIME OMEGAMON monitored CA-Datcom requests
-- DCOMREQ COUNT OMEGAMON monitored CA-Datcom requests
-- USREVT TIME OMEGAMON User defined events
-- USREVT COUNT OMEGAMON User defined events
-- EOR ----- End of Report -----
***** Bottom of data *****
    
```

List Report Form showing the OMEGAMON Third Party Support fields available.

List Report – OMEGAMON Third Party Support

VIR4M0

CICS Performance Analyzer
Performance List

LIST0001 Printed at 9:36:33 10/05/2006 Data from 18:56:43 9/18/2006 APPLID CICSXX64 Page 2

OMEGAMON Third Party Support - Detail

Tran	Userid	TaskNo	Stop Time	IDMS Req Time	IDMS Req Count	ADAB Req Time	ADAB Req Count	SUPR Req Time	SUPR Req Count	DCOM Req Time	DCOM Req Count	User Evt Time	User Evt Count
ADA3	CICSXX64	171	18:56:44.210	.0000	0	.0005	8	.0000	0	.0000	0	.0000	0
IDM1	CICSXX64	172	18:56:44.210	.0001	10	.0000	0	.0000	0	.0000	0	.0000	0
ADA4	CICSXX64	174	18:56:44.212	.0000	0	.0003	16	.0000	0	.0000	0	.0000	0
DC01	CICSXX64	176	18:56:44.213	.0000	0	.0000	0	.0000	0	.0002	15	.0000	0
ADA4	CICSXX64	178	18:56:44.214	.0000	0	.0003	16	.0000	0	.0000	0	.0000	0
SUP1	CICSXX64	179	18:56:44.215	.0000	0	.0000	0	.0001	11	.0000	0	.0000	0
ADA4	CICSXX64	181	18:56:44.216	.0000	0	.0003	16	.0000	0	.0000	0	.0000	0
SUP1	CICSXX64	182	18:56:44.216	.0000	0	.0000	0	.0001	11	.0000	0	.0000	0
ADA3	CICSXX64	186	18:56:44.218	.0000	0	.0002	8	.0000	0	.0000	0	.0000	0
IDM1	CICSXX64	187	18:56:44.219	.0001	10	.0000	0	.0000	0	.0000	0	.0000	0
ADA4	CICSXX64	189	18:56:44.220	.0000	0	.0003	16	.0000	0	.0000	0	.0000	0
DC01	CICSXX64	191	18:56:44.222	.0000	0	.0000	0	.0000	0	.0002	15	.0000	0
ADA4	CICSXX64	193	18:56:44.223	.0000	0	.0003	16	.0000	0	.0000	0	.0000	0
SUP1	CICSXX64	194	18:56:44.224	.0000	0	.0000	0	.0001	11	.0000	0	.0000	0
ADA3	CICSXX64	197	18:56:44.225	.0000	0	.0001	8	.0000	0	.0000	0	.0000	0
IDM1	CICSXX64	198	18:56:44.226	.0001	10	.0000	0	.0000	0	.0000	0	.0000	0
ADA4	CICSXX64	200	18:56:44.227	.0000	0	.0003	16	.0000	0	.0000	0	.0000	0
DC01	CICSXX64	202	18:56:44.229	.0000	0	.0000	0	.0000	0	.0004	15	.0000	0
ADA4	CICSXX64	204	18:56:44.230	.0000	0	.0003	16	.0000	0	.0000	0	.0000	0
SUP1	CICSXX64	205	18:56:44.230	.0000	0	.0000	0	.0001	11	.0000	0	.0000	0
ADA4	CICSXX64	207	18:56:44.232	.0000	0	.0003	16	.0000	0	.0000	0	.0000	0
SUP1	CICSXX64	208	18:56:44.233	.0000	0	.0000	0	.0001	11	.0000	0	.0000	0
ADA3	CICSXX64	212	18:56:44.234	.0000	0	.0002	8	.0000	0	.0000	0	.0000	0
IDM1	CICSXX64	213	18:56:44.235	.0001	10	.0000	0	.0000	0	.0000	0	.0000	0
ADA4	CICSXX64	215	18:56:44.236	.0000	0	.0003	16	.0000	0	.0000	0	.0000	0
DC01	CICSXX64	217	18:56:44.238	.0000	0	.0000	0	.0000	0	.0002	15	.0000	0
ADA4	CICSXX64	219	18:56:44.239	.0000	0	.0003	16	.0000	0	.0000	0	.0000	0
SUP1	CICSXX64	220	18:56:44.239	.0000	0	.0000	0	.0001	11	.0000	0	.0000	0
ADA3	CICSXX64	223	18:56:44.241	.0000	0	.0002	8	.0000	0	.0000	0	.0000	0
IDM1	CICSXX64	224	18:56:44.241	.0001	10	.0000	0	.0000	0	.0000	0	.0000	0
ADA4	CICSXX64	226	18:56:44.243	.0000	0	.0003	16	.0000	0	.0000	0	.0000	0
DC01	CICSXX64	228	18:56:44.244	.0000	0	.0000	0	.0000	0	.0002	15	.0000	0



Summary Report – OMEGAMON Third Party Support

VIR4M0 CICS Performance Analyzer
Performance Summary

SUMM0001 Printed at 9:25:19 10/05/2006 Data from 16:41:03 9/18/2006 to 19:26:14 9/18/2006 Page 1

OMEGAMON Third Party Support - Summary

Tran	#Tasks	Avg IDMSREQ Time	Avg IDMSREQ Count	Avg ADABREQ Time	Avg ADABREQ Count	Avg SUPPREQ Time	Avg SUPPREQ Count	Avg DCOMREQ Time	Avg DCOMREQ Count	Avg USREVNT Time	Avg USREVNT Count
ADA3	6736	.0000	0	.0002	8	.0000	0	.0000	0	.0000	0
ADA4	16840	.0000	0	.0003	16	.0000	0	.0000	0	.0000	0
ADA5	3369	.0000	0	8.3947	7	.0000	0	.0000	0	.0000	0
ADA6	1	.0000	0	8.5790	8	.0000	0	.0000	0	.0000	0
DC01	6736	.0000	0	.0000	0	.0000	0	.0026	15	.0000	0
IDM1	6736	.0026	10	.0000	0	.0000	0	.0000	0	.0000	0
OMEG	4	.0000	0	.0000	0	.0000	0	.0000	0	.0000	0
SUP1	10104	.0000	0	.0000	0	.0029	11	.0000	0	.0000	0
Total	50526	.0004	1	.5601	6	.0006	2	.0003	1	.0000	0



Questions?

Any questions about the product enhancements?