

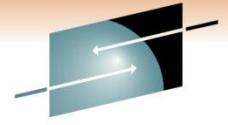
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Boldly Going Where No IMS Monitor Has Gone Before

Nick Griffin

Share # 9396



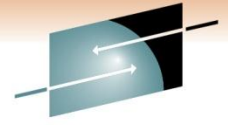


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Agenda

- System Performance for IMS
 - MAINVIEW for IMS Online
 - MAINVIEW for IMS Offline
 - MAINVIEW AutoOPERATOR for IMS
- MAINVIEW
 - Fully loaded phaser bank of views
 - Focus will be on recent enhancements
 - Exploitation of IMS V11
 - Seamless integration
 - With other BMC IMS products
 - With other MAINVIEW products

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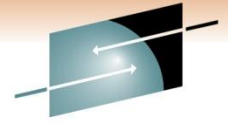


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TSO SPOC - Single Point of Control

- Introduced back with IMS V8.1
- Introduced with the Common Service Layer (CSL)
 - 3 main address spaces
 - SCI (Structured Call Interface), OM (Operations Manager), RM (Resource Manager)
- Required in order to issue Type 2 commands
- Growing interest in type 2 commands
 - Especially, new DB Quiesce in V11
- When using SPOC, you must be logged on to a TSO in the SYSPLEX
 - If Multiple SYSPLEX's, must be logged on to a TSO in each of the PLEX's
 - Doesn't seem logical

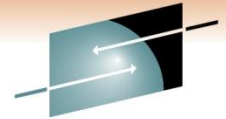
MAINVIEW Architecture – Single System Image



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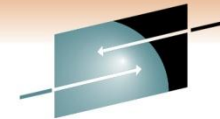
- Designed to be single point of control
- Manage and Monitor all IMS systems from one view
 - Ideal for a SYSPLEX/IMSPLEX or multiple IMS environments
- System Performance for IMS solution
 - Issue both type1 and type 2 commands
 - Type 2 commands still require OM & SCI
 - Line commands
 - CMD on a view means you can issue a command
 - Help provides information on the commands
 - IMSCMDS
 - This command displays a pop-up allowing you to issue type 1 or type 2 commands
 - Audit capability
 - Commands issued through MAINVIEW view logged

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View of your entire IMS enterprise

```
13MAY2009 06:34:14 ----- MAINVIEW WINDOW INTERFACE (V6.0.00) -----  
COMMAND ==>  
CURR WIN ==> 1 ALT WIN ==>  
>W1 =IMSDSHOR===== (ALL=====*)=====)13MAY2009==06:34:14====MVIMS====D====3  
IMS Warn Unavl Msgs Latch Stop IMS CPU Sub  
ID Status Msgs Resrc Qued Locks Waits Regns Clas Logs Pool Util Sys OTMA  
I10T ACTIVE 6 Line FF PI Okay ExCPU None Actv Okay Okay Abnr Okay  
I11T ACTIVE 4 Line FF Okay Okay ExCPU None Actv Okay Okay Abnr Okay  
I9T ACTIVE 6 Line FF PI Okay ExCPU None Actv Okay Okay Abnr Okay
```



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Issue IMS Commands

```

25MAR2009 08:57:29 ----- MAINVIEW WINDOW INTERFACE (V6.0.00) -----
COMMAND ==>                               SCROLL ==> CSR
CURR WIN ==> 1           ALT WIN ==>
>W1 =IDBSUMR=====I11J44CT=*=====25MAR2009==08:57:10====MVIMS====D==408
-
                                     Database Overview
  
```

Related Views

- . Summary by
- . Summary by

```

CMD DBD/PART IMS
--- Name      ID
BBFDDB01 I11
BBFDDB02 I11
BBFDDB03 I11
BBFDDB04 I11
BBFDDB05 I11
BBFDDB06 I11
BBFDDB07 I11
BBFDDB08 I11
BBFDDB09 I11
BBFDDB10 I11
BBFDDB11 I11
BBFDDB12 I11
BBFDDB13 I11
BBFDDB14 I11
BBFDDB15 I11
BBFDDB16 I11
BBFDDB17 I11
BBFDDB18 I11J
BBFDDB19 I11J
BBFDDB20 I11J
BBFDDB21 I11J
  
```

Help
Command ==> _

Available Actions

Scroll ==> CSR

L or LD

Lock a database

U or UD

Unlock a database

D or DD

DBDUMP a database

DG or DDG

DBDUMP a database globally

QRY

QUERY DB NAME() SHOW(ALL)

SQ or SQH

Quiesce this database with or without
the hold option

PQ

Stop a database quiesce for this
database

ns
mary

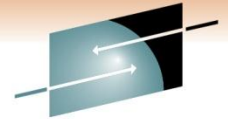
EEQE
Cnt

```

L
L
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```

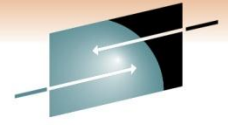
```

NOT-OPEN NOT-INIT NODMB NOT-AUTH EXCL
NOT-OPEN NOT-INIT NODMB NOT-AUTH EXCL
NOT-OPEN NOT-INIT NODMB NOT-AUTH EXCL
NOT-OPEN NOT-INIT NODMB NOT-AUTH EXCL
  
```



More on DB Quiesce

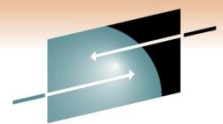
- DB Quiesce
 - Needs DBRC SCI registration
 - The Quiesce process will wait for any uncommitted updates to be committed.
 - Quiesce attempt times out according to the DBQUISCETO parameter value
 - *Prevents application from waiting too long*
 - May want to review the value of DBQUISCETO parameter



Other IMS parameters

- May need to review other IMS parameters as well
 - IMS Connect
 - *OTMA=Y,*
 - *GRNAME=GPF71GRP <<<<<<< This must match the value in the IMS Connect Proclib CONFIG for the Datastore*
- What are my current IMS parameter settings?
 - Am I headed toward an Asteroid field?
 - IMSPARMR view can help

IMSPARMR view displays current IMS parameters



```

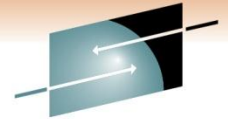
25MAR2009 08:55:44 ----- MAINVIEW WINDOW INTERFACE (V6.0.00) -----
COMMAND ==>
CURR WIN ==> 1 ALT WIN ==>
W1 =IMSPARMR=====I11J44CT=*=====25MAR2009==08:55:44====MVIMS====D===50
  
```

----- IMS Parameters -----

IMS ID --> I11J

ACBSHR	.....	(blank)	ALOT	.....	60	AOIP	.....	2047M
AOIS	.....	N	APPC	.....	Y	APPCIOT	.....	0005:00
APPCLLU	.....	Y	APPCSE	.....	N	APPLID1	.....	I11J
APPLID2	.....	(blank)	APPLID3	.....	(blank)	ARC	.....	1
ARMRST	.....	N	ASOT	.....	60	AUTO	.....	N
AUTOEXPORT	....	N	AUTOIMPORT	....	MODBLKS	BSIZ	.....	2048
CHTS	.....	256	CIOP	.....	2047M	CMDMCS	.....	Y
CMDSEC	.....	(blank)	CPLOG	.....	150000	CRC	.....	/
CSAPSB	.....	10240	CSLG	.....	(blank)	DBBF	.....	50
DBFX	.....	10	DBQUIESCETO	....	(blank)	DBRCNM	.....	I11JDBRC
DBWP	.....	24576	DC	.....	DC	DCLWA	.....	Y
DFSDF	.....	(blank)	DLIDSIZE	.....	102400	DLINM	.....	I11JDLS
DLIPSB	.....	102400	DLQT	.....	60	DMB	.....	98304
DPRTY	.....	254	DSCT	.....	I	EMHB	.....	2047M
EMHL	.....	256	EPCB	.....	12288	ETO	.....	Y
EXVR	.....	Y	FBP	.....	49152	FDRMBR	.....	(blank)
FESTIM	.....	0	FIX	.....	DC	FMT0	.....	M
FP	.....	Y	FPDSSIZE	.....	1024M	FPWP	.....	2047M
FRE	.....	30	GRNAME	.....	IMFOTMA	GRSNAME	.....	(blank)
GSTSAREA	.....	(blank)	GSTSDB	.....	(blank)	GSTSTRAN	.....	(blank)
HIOP	.....	2047M	HSBID	.....	(blank)	HSBMBR	.....	DC
IMPORTERR	.....	ABORT	IMSGROUP	.....	IMFOTMA	IMSID	.....	I11J
INPUT	(blank)	IOVFI	7200	IRLM	N

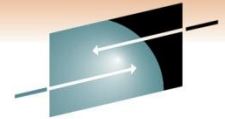
What else utilizes CSL? - Open Database Manager



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- What is Open Database Manager (ODBM)?
 - Enhances the distributed access to IMS databases
 - Provides a scalable infrastructure to facilitate distributed access to IMS DB
 - Utilizes IMS Connect as the TCP/IP gateway to IMS data
 - *IMS Connect is the router between the client and ODBM*
 - Uses SCI as its communication mechanism
 - *SCI uses XCF to communicate with the ODBM address space*
 - *Allows for applications to be on any LPAR in an IMSPLEX*
- **What has MVIMS done for ODBM?**
 - **New IODB* views**
 - **New set of views showing ODBM Alias, Datastore, thread, configuration, and client information.**

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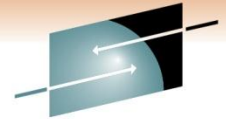


New ODBM views

- VIEWS IODB*

```
200CT2009 18:07:11 ----- MAINVIEW WINDOW INTERFACE (V6.0.00) -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =VIEWS=====I11Z=====*=200CT2009==18:07:09===MVIMS===D===6
C View Name Product Area Description
-----
IODBASMR MVIMS ODBM ODBM Alias Summary
IODBCMSR MVIMS ODBM ODBM Configuration Summary
IODBDSMR MVIMS ODBM ODBM DataStore Summary
IODBSSMR MVIMS ODBM ODBM SCI Summary
IODBSUMR MVIMS ODBM ODBM Summary
IODBTSMR MVIMS ODBM ODBM Thread Summary
```

IODBSUMR – ODBM Summary is my favorite



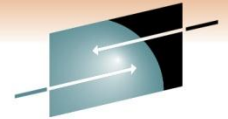
IOBBSUMR – ODBM summary view.

```
200OCT2009 18:17:59 ----- MAINVIEW WINDOW INTERFACE (V6.0.00) -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
>W1 =IOBBSUMR=====I11Z=====*=====200OCT2009==18:17:56===MVIMS===D===4
-
                                ODBM SUMMARY
CMD  ODBM      ODBM      Num  Num  Num  Num  Config  Sys  IMSpIex  Job
---  Name      Status      DStr Thrd Alias SCI   Name    Name    Name    name
I11AOD  READY, ACTIVE  1    0    1    0  CSLDCA1A  SJSC  CSLPLX11  I11AOD
I11XOD  READY, ACTIVE  1    0    1    0  CSLDCX1A  SJSC  CSLPLX11  I11XOD
I11YOD  READY, ACTIVE  1    0    2    0  CSLDCY1A  SJSC  CSLPLX11  I11YOD
I11ZOD  READY, ACTIVE  1    0    1    0  CSLDCZ1A  SJSC  CSLPLX11  I11ZOD
```

- Always start here and hyperlink to the other views in warp speed!
- Shows all ODBM address spaces, with information about their status, threads, aliases, SCIs, configuration
- ODBM status shows it's ready to receive messages
 - Use Automation to pro-actively monitor unacceptable status, like NOT_REACHABLE

IMS V11/V10 Synchronous Callout

- This enables IMS applications to synchronously call out to WebSphere applications, Web Service providers, or other external applications.
 - Positions IMS to be both a client and a server, and to allow for SOA integration
- The callouts go through OTMA, to IMS Connect, and then to the external application.
 - OTMA descriptors are used to tell OTMA how to reach the external application



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IMS V11/V10 Synchronous Callout

- A new AIBTDLI call verb (ICAL) invokes the callout.
- Dependent regions waiting for a response can impact message queuing and scheduling
 - Callouts can be timed out or /PSTOP can be used.
- How do I know if this new ICAL is causing problems?
 - Trouble in my Tribble???

MAINVIEW for IMS Trace facility

Detail Trace – What's your Tran doing



```

21JUL2010 08:42:25 ----- MAINVIEW WINDOW INTERFACE (V6.0.00) -----
COMMAND ==>
CURR WIN ==> 1 ALT WIN ==>
W1 =ITADTRAC===== (ALL=====I11T45CT) 21JUL2010==08:42:25====MVIMS====D===13
  
```

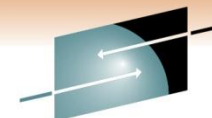
Transaction Trace

```

Trace ID. 12          Seq#/Rgn. 12          Tran. TSMTRNM1      Usr/LTERM MVSTXC
WAITS... YES         IO Events YES       SSA.. YES          KFB..... YES
IOA Lines 100       Arrived.. 08:30:47.758231  Started.. 08:31:06.947681
  
```

Event	Resource	AT	Elapsed	CPU	Details
SCHD	RGN I11TMP1	-185us	185us	us	IWAITING
GU	DC MVSTXC	1,083us	8us	3us	ok
	IOA 00150000	E3E2D4E3	D9D5D4F1	40E3E2D4	* TSMTRNM1 TSM*
+16	E3D9D5D4	F1			*TRNM1 *
ICAL	DC IVPDTR06	13,814us	3,001ms	21us	AIB RC=0100 RS=0104
	IOA E3C8C9E2	40C9E240	C140D9C5	D8E4C5E2	*THIS IS A REQUES*
+16	E340C6D6	D940C140	E2E8D5C3	C8D9D6D5	*T FOR A SYNCHRON*
+32	D6E4E240	C3C1D3D3	D6E4E340	40404040	*OUS CALLOUT *
+48	40404040	40404040	40404040	40404040	* *
+64	40404040	40404040	40404040	40404040	* *
+80	40404040	40404040	40404040	40404040	* *
+96	40404040	40404040	40404040	40404040	* *
+112	40404040	40404040	40404040	40404040	* *

Shows synchronous calls outs were done by the transaction, including the start times and durations of these calls, and return codes



IRGNSUMR view – Identifies ICAL waits

```

21JUL2010 08:36:44 ----- MAINVIEW WINDOW INTERFACE (V6.0.00) -----
COMMAND ==>
CURR WIN ==> 1 ALT WIN ==>
>W1 =IRGNSUMR===== (ALL=====*) 21JUL2010==08:36:44====MVIMS====D====5

```

Region Summary

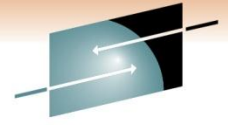
Related Views

- . Region Status . Waiting Rgns . BMP Rgns . IMS Connect
- . Region Occupancy . MPP Rgns . DBCTL Rgns . ALL Rgns
- . Region Pgm Summary . Fastpath Rgns . JAVA Rgns

CM	Rgn	IMS	Rgn	Region	Tran	PSB	Curr	Tran	Tran	Tot	Tot	Tot	Tot
--	ID	ID	Typ	Status	Name	Name	IWAIT	CPU	Elap	DL/I	I/O	Lock	SQL
	5	I11T	BMP	WT-ICAL		IVPREXX	2.583	0.056	32.6	0	0	0	0
	1	I11T	MPP	INACTIVE			0.000	0.000	0.00	0	0	0	0
	2	I11T	MPP	INACTIVE			0.000	0.000	0.00	0	0	0	0
	3	I11T	MDP	IDLE-WFI		DFSIVP5	0.000	0.000	0.00	0	0	0	0
	4	I11T	MDP	IDLE-WFI		DFSIVP4	0.000	0.000	0.00	0	0	0	0

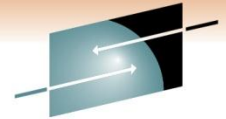
Automation for pro-active notification of this condition

Waits/contention can impact performance



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- Lock Contention in particular is extremely problematic
 - How do I identify if there's a contention problem?
 - How severe or widespread is the problem?
 - Which resources are most contended for?
 - How can I resolve the contention problem?
- Identify the ultimate holder(s) for PI Locks has been available but identifying for IRLM locks needed.
- MAINVIEW IMS V4.5 - IRLM Locking Ultimate Holder
 - New views will directly indicate the ultimate holder(s) for any lock contention that is causing an application region to wait
 - ILKULLST and ILKULTWT includes the ultimate holder information such as the region ID, region name, PSB name and its IMS ID



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New V4.5 View

```
24MAY2010 11:22:34 ----- MAINVIEW WINDOW INTERFACE (V6.0.00) -----
COMMAND ==>
CURR WIN ==> I ALT WIN ==>
>W1 =ILKULTWT===== (ALL=====*)24MAY2010==11:22:32====MVIMS====D====6
```

IRLM Wait With Ultimate Holder

Related Views

- . Resource Contention
- . Database Contention
- . Holding Regions
- . IRLM Statistics

Rgn ID	Region Jobname	Rgn Typ	PSB Name	Tran Name	Wait Time	Cnt Ult	Ult Rgn	Ultimate Jobname	Database Name	RBA	DCB
3	I10PMP2	MPP	PHDAMINQ	THDAMINQ	136	1	1	I10PGLK2	CUSTHDAM	000076D8	1
4	I11PGLK2	BMP	PTEST01	TTEST01	123	1	1	I10PGLK2	CUSTHDAM	000076D8	1
3	I11PGLK1	BMP	PTEST01	TTEST01	123	1	4	I10PGLK1	CUSTHISM	0E412519	1
2	I11PMP2	MPP	PHDAMINQ	THDAMINQ	121	1	1	I10PGLK2	CUSTHDAM	000076D8	1
3	I11QMP2	MPP	PHDAMINQ	THDAMINQ	117	1	1	I10PGLK2	CUSTHDAM	000076D8	1
2	I10QMP2	MPP	PHDAMINQ	THDAMINQ	115	1	1	I10PGLK2	CUSTHDAM	000076D8	1

Another New V4.5 View-Waiters & Holders



```

24MAY2010 11:23:02 ----- MAINVIEW WINDOW INTERFACE (V6.0.00) -----
COMMAND ==>
CURR WIN ==> 1 ALT WIN ==>
>W1 =ILKULLST===== (ALL=====*=====) 24MAY2010==11:23:01====MVIMS====D==12

```

IRLM Ultimate Holder List

Related Views

- . Regions in IRLM Wait
- . Resource Contention
- . Database Contention
- . IRLM Statistics

CMD	+-	Waiters	----	+ Wait	+-	Ultimate	----	+ Rgn	Rgn	PSB	Tran
---	ID	Jobname	IMSid	Time	ID	Holder	IMSid	Status	Typ	Name	Name
	3	I11PGLK1	I11P	124				WT-IRLM	BMP	PTEST01	TTEST01
					4	I10PGLK1	I10P	ACTV-USR	BMP	PTEST01	TTEST01
	3	I10PMP2	I10P	137				WT-IRLM	MPP	PHDAMINQ	THDAMINQ
					1	I10PGLK2	I10P	ACTV-USR	BMP	PTEST01	TTEST01
	2	I10QMP2	I10Q	116				WT-IRLM	MPP	PHDAMINQ	THDAMINQ
					1	I10PGLK2	I10P	ACTV-USR	BMP	PTEST01	TTEST01
	2	I11PMP2	I11P	121				WT-IRLM	MPP	PHDAMINQ	THDAMINQ
					1	I10PGLK2	I10P	ACTV-USR	BMP	PTEST01	TTEST01
	4	I11PGLK2	I11P	124				WT-IRLM	BMP	PTEST01	TTEST01
					1	I10PGLK2	I10P	ACTV-USR	BMP	PTEST01	TTEST01
	3	I11QMP2	I11Q	118				WT-IRLM	MPP	PHDAMINQ	THDAMINQ
					1	I10PGLK2	I10P	ACTV-USR	BMP	PTEST01	TTEST01

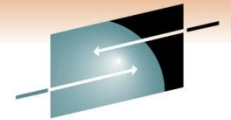
Expanding the use of IMS Connect

- IMS Connect
 - Functions as a TCP/IP socket server allowing access to IMS transactions and data
 - Many new functions require IMS Connect
 - ICAL, ODBM, and probably more to come
 - Klingon Cloaking Device - messages go in and may or may not come out
 - IMS Connect is an OTMA client
 - How do you identify if it's an IMS or IMS Connect Problem?

Expanding the use of IMS Connect

- What does System Performance for IMS do for IMS Connect
 - Utilizes Energizer for IMS Connect
 - Identifies IMS Connect and MQ clients from OTMA* views
 - Provides IMS Connect information to several region views
 - Populate IMSCON* Views
 - V4.5 – New WorkLoad Monitor

IMSRGNSR – Real-time Region Status View



SHAPE

```
05MAR2008 10:31:01 ----- MAINVIEW WINDOW INTERFACE (V5.0.05) -----
COMMAND ==>
CURR WIN ==> 3 ALT WIN ==> &2
>W1 -IMSRGNSR-----I10A43CT-*-----05MAR2008--10:31:01---MVIMS---D---1
```

Region Status

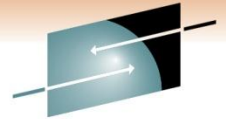
IMS ID -----> I10A

All Regions....	4	Excess CPU Msg Regns.	3	Active Regions.....	1
MPP Regions....	2	Excess Occ Msg Regns.	0	Idle Regions.....	2
IFP Regions....	2	Excess SQL Msg Regns.	0	Waiting Regions....	1
BMP Regions....	0	Excess DLI Msg Regns.	0	Waiting for Locks...	0
ODBA Threads...	0	Excess Elap Msg Regns	1	Processing IMS Conn.	1
Java Threads...	0				
DBCTL Threads..	0				

Displays IMS Connects being processed by this IMS

```
>W2 -IRGNICSM-----I10A43CT-*-----05MAR2008--10:31:01---MVTMS---D---1
CM IMS Conn Session IMS Rgn Region Tran Client Client IP Client
-- Job/STC Time ID Typ Status Name Name Address Port
I10ACONN 1.75 I10A MPP WT-OSAM IVTNO 97560904 172.21.28.217 2217
```

```
>W3 =IRGNSUMR=====I10A43CT=*=====05MAR2008==10:31:01====MVIMS====D====4
CM Rgn IMS Rgn Region Tran PSB Curr Tran Tran Tot Tot Tot
-- ID ID Typ Status Name Name Name IWAIT CPU Elaps DLI Lock SQL
4 I10A MPP WT-OSAM IVTNO DFSIVP1 0.118 0.0004 0.2364 1 4
1 I10A MDP IDLE-WFI IVTFD DFSIVP4 0.000 0.0000 0.0000 1
2 I10A MDP IDLE-WFI IVTFM DFSIVP5 0.000 0.0000 0.0000 2
3 I10A MPP ACT-SCHD 0.000 0.0000 0.0000
```



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IRGNICSM – Region/IMS Connect Activity View

24SEP2007 15:29:56 ----- MAINVIEW WINDOW INTERFACE (V5.0.05) -----

COMMAND ==> SCROLL ==> PAGE

CURR WIN ==> 1 ALT WIN ==>

>W1 =IRGNICSM===== (ALL=====*) 24SEP2007==15:29:56====MVIMS====D====1

CM	IMS Conn	Session Time	IMS ID	Rgn Typ	Region Status	Tran Name	Client	Client IP Address	Client Port
--	Job/STC								
	TXCIC10S	0.36	T10P	MPP	ACTV-USR	IVTNO	55274984	172.22.132.78	2676

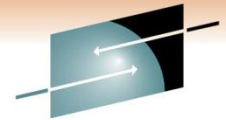
[Hyperlink to MVIP](#)

CM	IMS Conn	Client Port	Rgn ID	User ID	Sock ID	PSB Name	Curr IWAIT	Tran CPU	Tran Elaps	Tot DLI	Tot Lock	T S
--	Job/STC											
	TXCIC10S	2676	3	RIHTXC2	1	DFSIVP1	0.000	0.0003	0.0051			

+W1 =IRGNICSM===== (ALL=====*) 24SEP2007==15:29:56====MVIMS====D====1

CM	IMS Conn	Tot SQL	APPL Time	Tran DLITime	Tran Esstime	Msgs Qued	Proc Limit	Cls	Cls	Cls	Cls	OTMA Name	Member
--	Job/STC												
	TXCIC10S		0.000	0.000	0.000	65535		1	1	1		IC10P	

IRGNDTLR –Identifies IMS Connect as the OTMA client & the TMEMBER name

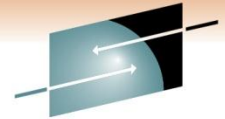


SHARPE

```

05MAR2008 13:44:27 ----- MAINVIEW WINDOW INTERFACE (V5.0.05) -----
COMMAND =====>
CURR WIN =====> 2 ALT WIN =====> &2 SCROLL =====> CSR
>W1 -IRGNSUMR-----I10A43CT-*-----05MAR2008--13:44:27--MVIMS--D--4
CM Rgn IMS Rgn Region Tran PSB Curr Tran Tran Tot Tot Tot
-- ID ID Typ Status Name Name IWAIT CPU Elaps DLI Lock SQL
  3 I10A MPP ACTV-USR PART DFSSAM02 0.000 0.0625 0.1856 2
  1 I10A MDP IDLE-WFI IVTFD DFSIVP4 0.000 0.0000 0.0000 2
  2 I10A MDP IDLE-WFI IVTFM DFSIVP5 0.000 0.0000 0.0000 1
  4 I10A MPP IDLE 0.000 0.0000 0.0000

>W2 =IRGNDTLR=====I10A43CT=*=====05MAR2008==13:44:26====MVIMS====D====1
Region ID.. 3 Rgn Status.. ACTV-USR Tran Enqueue 13:44:26.2960
Jobname.... I10AMP1 Trancode.... PART Tran Elapsed 0.0307
IMS ID..... I10A PSB..... DFSSAM02 Region Idle. 0.0
MVS Name... SJSC LTERM..... AGN.....
XCF Name... NONE User..... RIHTXC Classes.... >1 2 3 4
Rgn Type... MPP ESS Type... MQSeries DB2 AuthID.. N/A
Msg Switch. N ESS Name... CQ01 CICS TaskID. N/A
Msg Source. OTMA ESS Status.. CON CICS UOW... N/A
OTMA Client IMS Conn OTMA Member. IMSOC00A
-----
Active Elap 0.1046 Active in... APPL Total CPU... 0.0043
IWAIT Elap 0.0000
-----
DB Calls... 2 TM & DB CALL ACTIVITY
Current/Last DLI Call Current Lock Contention (PI)
Seq Bf Usg.. 0 PI Activity.
Msg GU..... 2 Msg Other... 1 Proclim.... 65535
Msg GN..... 0 Msg PURG... 0 CMD..... 0
CHKPT..... 0 Msg ISRT... 6 Get CMD.... 0
CMD..... 0 SETO..... 0 APSB..... 0
GCMD..... 0 SETS..... 0 DPSB..... 0
ICMD..... 0 SETU..... 0 INIT..... 0
RCMD..... 0 ROLB..... 0 INQY..... 1
GMSG..... 0 ROLS..... 0 AUTH..... 0
CHNG..... 0 XRST..... 0 DB Dequeue.. 0
-----
NBA..... 0 FAST PATH--- ACTIVITY
OBA..... 0 Used..... 0
Lock Detail
-----
DB2----- ACTIVITY
DB2 Name... Control.... 0 SQL Total...
Plan Name.. Dynamic.... 0 Inserts.... 0
Sel/Fetch.. DDL..... 0 Deletes.... 0
  
```

IOTMDTLR – OTMA Message Detail View

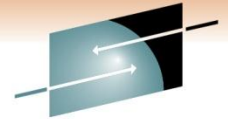
```

05MAR2008 11:00:43 ----- MAINVIEW WINDOW INTERFACE (V5.0.05) (MAX) -----
COMMAND ==>
CURR WIN ==> 3          ALT WIN ==> &3          SCROLL ==> CSR
W3 =IOTMDTLR=====I10A43CT=*=====05MAR2008==10:59:54====MVIMS=====D=====1
Msg Type.....          TRAN      Member Name..          IMS0C00A
Msg Name.....          PART      Member Status        Accepting MSG traffic
Msg Segments....       SNGL      Member Type..         Client
Age in Minutes..       0.3      Client Type..         IMS Conn
Date Queued.....       05MAR2008  OTMA Group...         IMFOTMA
Time Queued.....       10:59:36.40  Server Name..         OTMAI10A
Send Seq Nbr.....       1748      IMS ID.....          I10A
Recovery Seq Nbr.....    0         MVS Name.....        SJSC
Sense Code.....         N/A      TPIPE Name...        11032
Reason Code.....        N/A      TPIPE Sync'd.        Not Sync
Transaction Mode       NON-CONV  Commit Mode..         Send-then-Commit
Map Name.....
Override LTERM..
Security Level..        FULL
User ID.....            BOLJXK1  Correlator ID 00000000000000000000c20c583065c1a2a9
OTMA Arch Level..      1         Context ID... 00000000000000000000000000000000
Server Token.          0000000000000000

--IMS CONNECT--
Job/STC name...        I10ACONN  Client ID....          BOLJXK1
Port ID.....           11032    Client IP Adr          172.17.8.92
Socket ID.....         10       Client PortID          1786
Arrival Time...        10:59:36.40

```

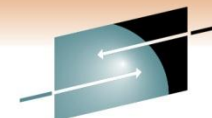
[Hyperlink to MVIP](#)



Why does hyperlink to MVIP matter?

- IMS Connect is a TCP/IP socket server
 - Problem could be with TCP/IP
- IMS always gets blamed but is usually the victim
- Seamless integration with other MAINVIEW components
 - Hyperlinks take you in WARP speed to other potential problem areas
 - TCP/IP, DB2, z/OS
 - Same look & feel with all MAINVIEW components allows for easy navigation

Trace contains OTMA / IMS Connect data



SHARE

Summary Trace Data

COMMAND ==>

SCROLL ==> **CSR**
MORE: +

```

----- SYSTEM INFORMATION -----
IMS ID..... I10A      IMS Target.... I10A43CT      IMS Jobname... I10A43CT
----- TRANSACTION INFORMATION -----
Trancode..... PART    Region ID..... 003          Trace Seq#.... 12711
Program..... DFSSAM02  Region Name... I10AMP1        User ID.....  BOLJXK1
PSB Name..... DFSSAM02  Region Type... MPP          LTERM.....   11014
Class.....     001      Route Code....          Node Name.....
Arrival Date.. 05MAR08  Arriv Time. 09:52:55.588429  Response...   153 ms
Start Date.... 05MAR08  Start Time. 09:52:55.588756  Elapsed....   152 ms
End Date..... 05MAR08  End Time... 09:52:55.741029  Abend Code..
Msg Switch.... NO      APPC.....          NO
  
```

```

----- OTMA INFORMATION -----
Client Type... IMSConn  Tmember... IMS0CO0A      IMS Connect... I10ACONN
Port Id.....   11014    Client Id.... BOLJXK1    Arrivd. 09:52:55.588116
IP Address... 172.017.008.092  Socket Id.....          10
  
```

```

----- DC CALL ACTIVITY -----
Message GU          2 Message GN          0      Message Other          2
Message PURGE      0 Message ISRT          7      Message Total         11
Last Tran          Last LTERM
  
```

```

----- DL/I CALL ACTIVITY -----
DB Name  Org      GU      GN  REPL  ISRT  DLET  Othr  Total  Opn  Read  Wrte  Avg
-----
DI21PART HISAM      1      1      0      0      0      0      2      0      0      0.0000
**Total      1      1      0      0      0      0      2      0      0      0.0000
  
```

```

----- EVENT TIMING -----
DL/I DB
Elap Time      0.0001  Open Elap Time      0.0000  Sync Point Elap Time      0.0004
VSAM IWAIT     0.0000  I/O IWAIT          0.0000  VSAM IWAIT     0.0000
OSAM IWAIT     0.0000  DBRC IWAIT         0.0000  OSAM IWAIT     0.0000
DEDB IWAIT     0.0000  Misc IWAIT         0.0000  Ltch IWAIT     0.0000
Ltch IWAIT     0.0000
Lock IWAIT     0.0000
Misc IWAIT     0.0000

DL/I TM
Elap Time      0.0006  ESS DB2 Elap      0.0000  Application Elap Time      0.1171
Ltch IWAIT     0.0000  MQS Elap          0.0000  Schd->DL/I     0.0108
Misc IWAIT     0.0000  othr Elap         0.0000
  
```

```

----- CPU TIMES (us) -----
Dep Rgn..DLI      533 us  Bufr Handler      52 us      open/Close      0 us
  
```

More on IMS Connect and ODBM

- ODBM has resulted in
 - New IMS Connect commands
 - New IMS Connect Event Records
 - New IMS Connect Routing exit to select the ODBM to service the requests
 - New IMS Connect Security exit
- MAINVIEW and Energizer for IMS Connect Integration
 - Issue IMS Connect Commands
 - Display IMS Connect Events
- Use Energizer for IMS Connect to dynamically implement IMS Connect exits.

IMS Connect Response Monitor



- Workload monitor named @CRSP

```

30JUN2010 11:10:26 ----- MAINVIEW WINDOW INTERFACE (V6.0.00) -----
COMMAND ==>
CURR WIN ==> 1 ALT WIN ==>
>W1 =MONSERV=====I11J45CT=*=====30JUN2010==11:09:40====MVIMS====D==108
-
Commands: BLK (Requests) JOURNAL (Log Display)
Line CMDs: S

CMD Service Num Act
---
$CBMP
$CDBT
$CMPP
$CTOT
#CDB2
#CIC
#OBAW
#PROC
#SDB2
h @CRSP
@ELAP
@INPQ
@OBA
@PDB2
@RESP
@TRSP
ARVBG
ARVCL
ARVPR 1 TRAN ARRIVALS BY PGM (IDENTIFIER) SCHED
ARVTR 1 TRAN ARRIVALS BY TRNCODE (TRNCODE) SCHED
CSAFR 1 CSA FRAGMENTATION IMVS
CSAUT 1 CSA % UTILIZATION IMVS
    
```

```

Help @CRSP Monitor Service Help
Command ==> _ Scroll ==> CSR
-----
This service monitors the IMS Connect transaction
average response time.

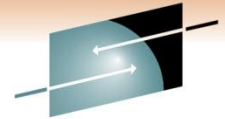
Parameter:

User-defined monitor request identifier or blank.

Measurement:

Average IMS Connect transaction response time for
the selected workload and sampled interval.
Response time is calculated as the difference
between when IMS Connect reads the message from
the socket and when IMS completes the transaction
and sends the response back to IMS Connect.
    
```

MVIMS Offline - FA Log Records



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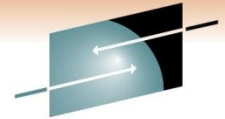
- Provide additional transaction statistics
- MAINVIEW IMS Offline component reports on these records
- Provides lots of useful information that is formatted by Log Analyzer for IMS
 - For DBCTL – provides CICS tran name, applid, userid
 - For all IMS environments - READ Only DB information
 - Number shown controlled by event collector options DBTS and DBTS4BMP

```
FA    Mainview    000000FC5EDF0 16:23:26.661454 jobname=IMSYS50K userid=OR498HK message GU count=2 pst=00064
                                     message insert count=1 i/o pcb input characters=1845
                                     i/o pcb output characters=1845
                                     readDBs= ED0008(24), ED0001(956), ED0007(26), ED0061(1), ED0006(5),
                                     ED0003(68), ED0005(4920), ED0025(273)
```

Database name

non-update CALL counts

EZ Menu



SHARE
SCREEN MVIMS
SCROLL ==> PAGE

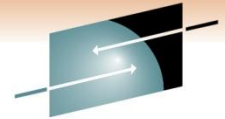
```

30NOV2010 07:10:40 ----- MAINVIEW WINDOW INTERFACE (V6.0.00) -----
COMMAND ==>
CURR WIN ==> 1 ALT WIN ==>
W1 =EZISSI===== (ALL=====*)30NOV2010==07:10:40===MVIMS===D===1=====

```

IMS SSI Easy Menu
 Timeframe - Interval

(Change) Current Target Context Members Performance . IMS Systems in Context . IMS Msg Sharing Groups . IMS Data Sharing Group . Processing by Class . Processing by BALG . Output Resp by Tran . Output Resp by LTERM Activity/Status . Dashboard . Region Occupancy . Region Activity . Database Activity . IRLM Communications . Input Messages Queued	(Multiple) 3 +-----+ | Place cursor on | | menu item and | | press ENTER | +-----+	Resources . Transactions . Programs . Databases . Areas . DB and Area datasets . Subsystem Connections . IMSplex Connections Cross Reference . Transactions/Programs . Programs/Databases . Databases/Transactions . Databases/Programs Tools and Menu * IMS Utility Menu
Exceptions . Current Delays . Database Lock Waits . Waiting Regions . Warnings . Alarms in Exception * Unavailable Resources Transaction Analysis . Delay Factors		

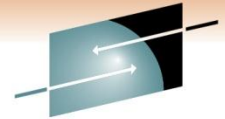


Different Menus for Different Functions

```

30NOV2010 07:18:01 ----- MAINVIEW WINDOW INTERFACE (V6.0.00) -----
COMMAND ==>
CURR WIN ==> 1      ALT WIN ==>
W1 =EZISSI===== (ALL=====*)=====)30NOV2010==07:17:41==MVIMS==D==1=====
* Unavailable Resources
Communications      Transaction Analysis      Tools and Menu
. Input Messages Queued . Delay Factors          * IMS Utility Menu
. Output Messages Queued . Components of Response * IMS Fast Menu
. Input/Output Status   . Traces                 * IMS Easy Menu
. Active Users          > IMS Easy Ops Menu
. ODBM                  > IMS Easy DBA Menu
. OTMA                  > IMS Easy MSC Menu
. IMS Connect          * IMS Classic Menu
* APPC                 > IMS Easy Admin Menu ← New with V4.5
. MSC                  . Installed Products
                       . What's New?
                       . Return...
Monitors
. In Warning
. Active
. Workload Objective
. Area Summary

```

Easy Admin Menu

```

30NOV2010 07:25:47 ----- MAINVIEW WINDOW INTERFACE (V6.0.00) -----
COMMAND ==>
CURR WIN ==> I      ALT WIN ==>
W1 =EZIADMIN===== (ALL=====*)30NOV2010==07:25:47===MVIMS===D===1=====
                                     IMS Easy Admin Menu

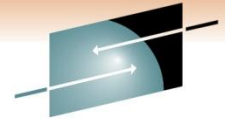
(Change) Target--> DVT91IMS      Status: ACTIVE

Trace Admin  +-----+
. History Traces
. Start Trace
. Current Traces
+-----+
Place cursor on
menu item and
press ENTER
+-----+

Monitor Admin  +-----+
. Active Timers
. Start Monitor
+-----+

Samplers/Workloads +-----+
. Sampler Administration
. Sampler Operation
. Workload Definition
+-----+

General +-----+
. Product Level Options
. Event Collector Options ←
. Misc. PAS Options
> Server Administration
. History Datasets
. Security
  
```



View current event collector options

```

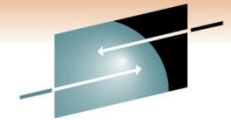
30NOV2010 07:14:50 ----- MAINVIEW WINDOW INTERFACE (V6.0.00) -----
COMMAND ==>
CURR WIN ==> 1 ALT WIN ==>
+W1 =IECPSUMR===== (ALL=====*)=====)30NOV2010==07:14:15==MVIMS==D==2=====
-
IMFECF Summary
Related Views
. IMS Parameters      . IMS General Info      . IMFBEX Summary

IMSID DBFPLVL DBIO      DBTNAME DBTS DBTS4BMP DEPREC DTSQLCPU ETIMEELP ETIMEIWT MAXDS MSCCLOCK      MSGOQBUF MSGOQTME MXPASRQ RGN
-----
DVT9 3      IOWAITS DB          20      30 YES      YES      YES      YES      50 DEFAULT,NOTSYNC      1020 YES      510 ABE
DVT9 3      IOWAITS DB          20      30 YES      YES      YES      YES      50 DEFAULT,NOTSYNC      1020 YES      510 ABE

```

Easily determine if options are set differently in another system

BMC MAINVIEW Explorer – Manage IMS from web browser



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File View Options Help

Area System Product

Contexts by Contexts by system

- MVALERT
- MVAO
- MVCICS
- MVDB2
- MVEXP
- MVIMS
- SYSBDEMO**
 - DVT10IMS - MVIMS: IMS 10.1
 - DVT91IMS - MVIMS: MainView
- ALL

Product: (context not set)

- PLEX
- Alerts
- 3270

Notice IMS systems

PLEX Products **Systems**

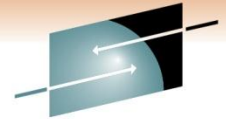
SYSBDEMO

AUTOMATN4	
CICS	5
IMS	2
MQS	2
MVS	2
NETWORK	2
PLEX	13
UNIX	1
WEB	1

SYSEDEMO

AUTOMATN3	
CICS	4
MQS	1
MVS	2
PLEX	8
UNIX	1

CMF MVALAR MVALER MVAO MVCICS MVDB2 MVEXP MVIMS MVIP MVLNX MVLNXV MVMQS MVMVS



MVEXPLORER – View all the systems

File View Options Help

Area System Product

Contexts by product

- MVALERT
- MVAO
- MVCICS
- MVDB2
- MVEXP
- MVIMS
- SYSBDEMO
 - DVT10IMS - MVIMS: IMS 10.1
 - DVT91IMS - MVIMS: MainView
- ALL

Product: (context not set)

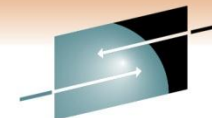
- PLEX
- Alerts
- 3270

PLEX Products Systems

Export topology as XML

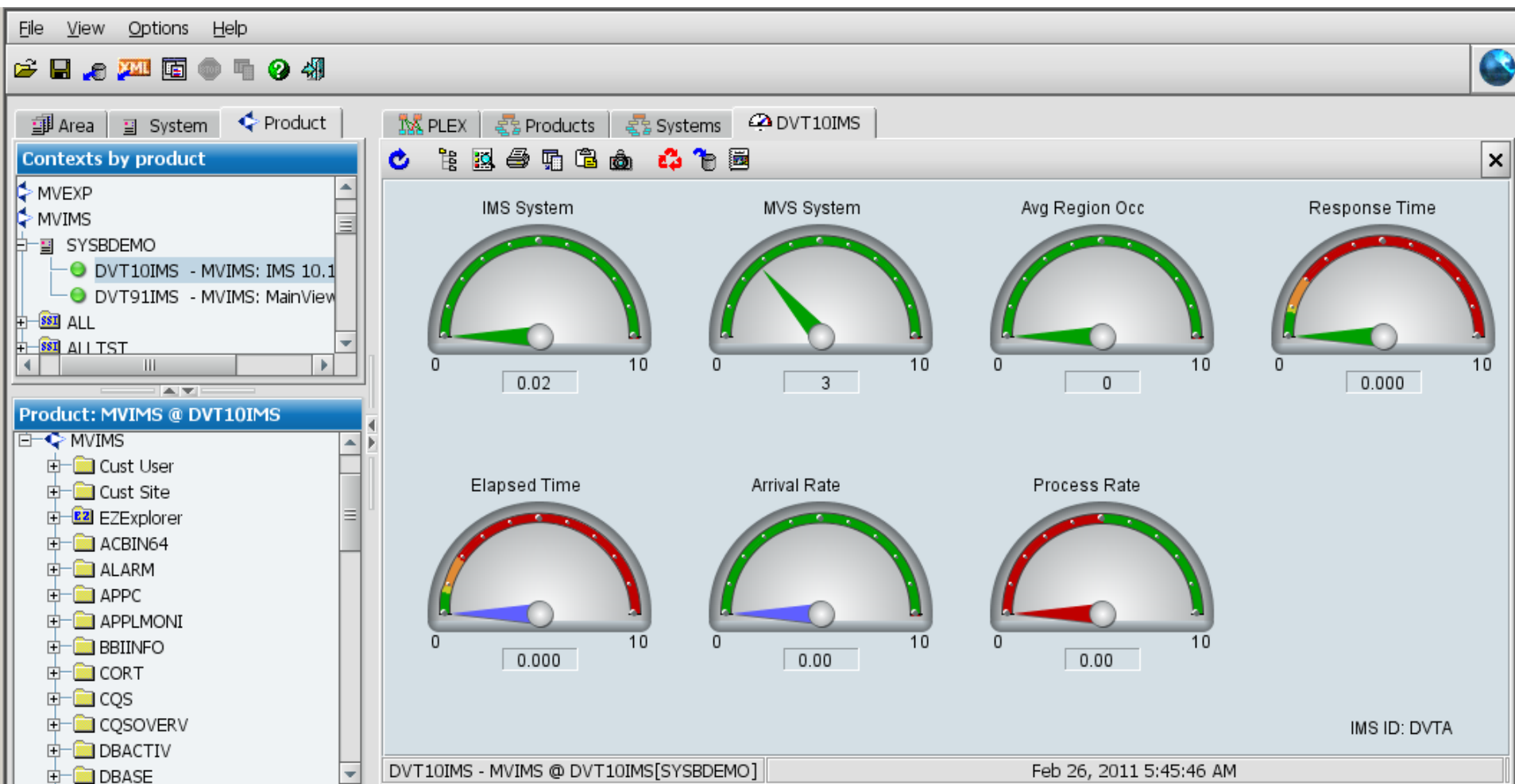
Save chart image to file

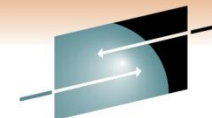
Zoom: 100% Rotate: 0° Linear Find in tooltip 5:24:24 AM



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MVIMS Dashboard View





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IMS Views thru MVEXPLORER

The screenshot displays the BMC MAINVIEW Explorer interface. The main window shows a 'Database Status Summary' for the DVT10IMS database. The summary includes a table with columns for Status 1, Status 2, Status 3, Number of DB, IMS ID, and IMS Name. The table lists three database instances: NOT-OPEN (52 DBs), NOT-OPEN (751 DBs), and OPENED (4 DBs). The interface also shows a tree view of contexts and products on the left, and a command line at the bottom.

Database Status Summary

Related Views

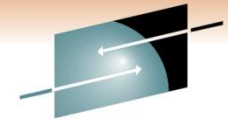
- . Database Overview
- . Database I/O Delays
- . Database Exceptions
- . Summary by Type
- . Data Set I/O Delays
- . Database Xref Summary

Status 1	Status 2	Status 3	Number of DB	IMS ID	IMS Name
NOT-OPEN			52	DVTA	DVT10IMS
NOT-OPEN	NOT-INIT	NODMB	751	DVTA	DVT10IMS
OPENED			4	DVTA	DVT10IMS

Command: Send Recall

IDBSTAR - MVIMS @ DVT10IMS[SYSBDEMO] Feb 26, 2011 5:50:40 AM 1 of 3

Launch MVEXPLORER from Data Management Console



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BMC® Database Management - sysb:16016

File Edit View Tools Action Window Help

Navigation

- Enterprise Data
 - Connections
 - HOU-QA system
 - R&D System
 - SC Demo system
 - sysb:16016
 - DB2 Subsystems
 - IMS Connects
 - IMS Databases
 - DBQP DISTRIBUTION LEVEL
 - PCP 1206 SAMPLE TOOLKIT
 - RCNSYE.DVT9.RECON1 (AutoConfigure)
 - RCNSYE.DVTA.RECON1 (AutoConfigure)
 - DVTA
 - DBRC Resources
 - DTGROUP
 - FREDTEST
 - GCWTEST
 - ROSEGRP
 - IVPDBCR
 - IVPDB01
 - IVPDB1
 - IV
 - IV
 - IV

Contexts by product

- MVALERT
- MVAO
- MVCICS
- MVDB2
- MVEXP
- MVIMS
 - SYSBDEMO
 - DVT10IMS - MVIMS: IMS 10.1
 - DVT91IMS - MVIMS: MainView
 - ALL

Product: (context not set)

- PLEX
- Alerts
- 3270

Database Overview

Related Views

- Summary by Status
- Database I/O Delays
- Database Exceptions
- Summary by Type
- Data Set I/O Delays
- Database Xref Summary

DBD/PART Name	IMS ID	Database Type	Org	Status 1	Status 2	Status 3	OSAM Exts	VSAM Exts	A S
IVPDB11	DVTA	INDEX	VSAM	NOT-OPEN					U

Command: Send Recall

IDBSUMR - MVIMS @ DVT10IMS[SYSBDEMO] Feb 26, 2011 5:26:27 AM 1 of 1

BMC MAINVIEW Explorer

- IDBDTLR - Database Detail
- IDBEXCP - Databases with Exceptions
- IDBSTAR - Database Status Summary
- CORT ▶ IDBSUMR - Database Overview
- DBACTIV ▶ IDBSUMZ - Summarized Database Overview
- DBASE ▶ IDBTYPR - Database Type Summary
- GRAPH ▶
- XREF ▶

Messages

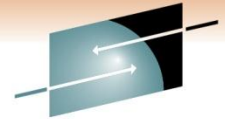
Severity	Wh
OK	Sat, Feb 26 0
Warning	Sat, Feb 26 0
Error	Sat, Feb 26 0

Ready

IMS Subsystem Actions ▶

SHARE in Anaheim 2011

Data Management Console & MVEXPLORER integration



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BMC® Database Management - sysb:16016

File Edit View Tools Action Window Help

Navigation

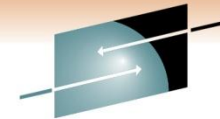
- Enterprise Data
 - Connections
 - HOU-QA system
 - R&D System
 - SC Demo system
 - sysb:16016
 - DB2 Subsystems
 - IMS Connects
 - IMS Databases
 - DBQP DISTRIBUTION LEVEL
 - PCP 1206 SAMPLE TOOLKIT
 - RCNSYE.DVT9.RECON1 (AutoConfigure)
 - RCNSYE.DVTA.RECON1 (AutoConfigure)
 - DVTA
 - DBRC Resources
 - DTGROUP
 - FREDTEST
 - GCWTEST
 - ROSEGRP
 - IVPDBCR
 - IVPDB01
 - IVPDB1
 - IVPDB1 (selected)
 - Details
 - Request Analysis
 - Disassemble
 - Generate JCL
 - Reports
 - Base Values
 - Configuration
 - CORT
 - DBACTIV
 - DBASE
 - IXDPSUMR - Database-to-Program Cross-Reference
 - IXDSUMR - Database Cross-Reference Summary
 - GRAPH
 - IXDTSUMR - Database-to-Transaction Cross-Reference

Main Tasks

Messages

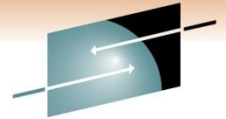
| Severity | When |
|----------|-------------------|
| OK | Sat, Feb 26 05:25 |
| Warning | Sat, Feb 26 05:16 |
| Error | Sat, Feb 26 05:13 |

Ready



Beams you directly to a MVIMS view

The screenshot shows the BMC Database Management interface for sysb:16016. The navigation tree on the left shows the hierarchy: Enterprise Data > Connections > sysb:16016 > DB2 Subsystems > IMS Connects > IMS Databases > RCNSYE.DVTA.RECON1 (AutoConfigure). A context menu is open over the selected node, listing options like Details, Request Analysis, Disassemble, Generate JCL, Reports, Base Values, Configuration, Notes, Request Data Collection, HALDB Modeling, MAINVIEW Explorer, and IMS Subsystem Actions. The MAINVIEW Explorer option is highlighted. The main window displays a list of database acts, including IDABODTL, IDABODTR, IDABOSM, IDABOSMR, IDABVDL, IDABVDTR, IDABVSM, IDABVSMR, IDAGDTL, IDAGDTLR, IDAGSUM, IDAGSUMR, IDALGSM, IDALGSMR, IDALSUM, IDALSUMR, IDAPGSM, IDAPGSMR, IDAPSUM, IDAPSUMR, IDASDTL, IDASDTLR, IDASSUM, IDASSUMR, IDAVGSM, IDAVGSMR, IDAVSUM, IDAVSUMR, IDAXGSM, IDAXGSMR, IDAXSUM, and IDAXSUMR. A message window at the bottom shows an error: "Failed to start for sysb:16016. Failed_Server timestamp: 11:13:28.108."

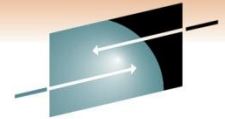


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Summary

- Monitoring your IMS environment is just as critical as it's ever been!
- As you continue with IMS
 - And your on-going mission
 - Could be a 5 year mission !
- As you explore strange new IMS releases
- Seek out bold new IMS features and functions to exploit
- Don't take this voyage alone
- BMC System Performance for IMS is the solution to monitor and manage your IMS systems now and into the future

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Thank You!

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