



BI104

SAP NetWeaver BI Accelerator - Query Analysis

Tanuj Gupta
Associate Support Architect, SAP Labs India

As a result of this workshop, you will be able to:

- **understand the architecture of SAP NetWeaver BI Accelerator**
- **understand the new query runtime statistics in BI 7.0.**
- **analysis of the SAP NetWeaver BI Accelerator query runtime**
- **identify the different transactions for SAP NetWeaver BI Accelerator**



Overview

Query Runtime Statistics

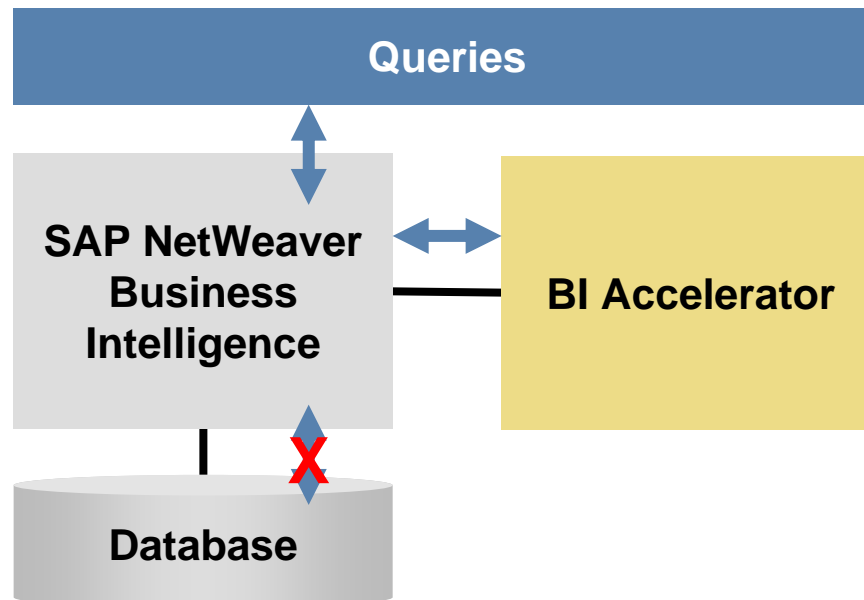
BI Accelerator Query Runtime

BI Accelerator Transactions

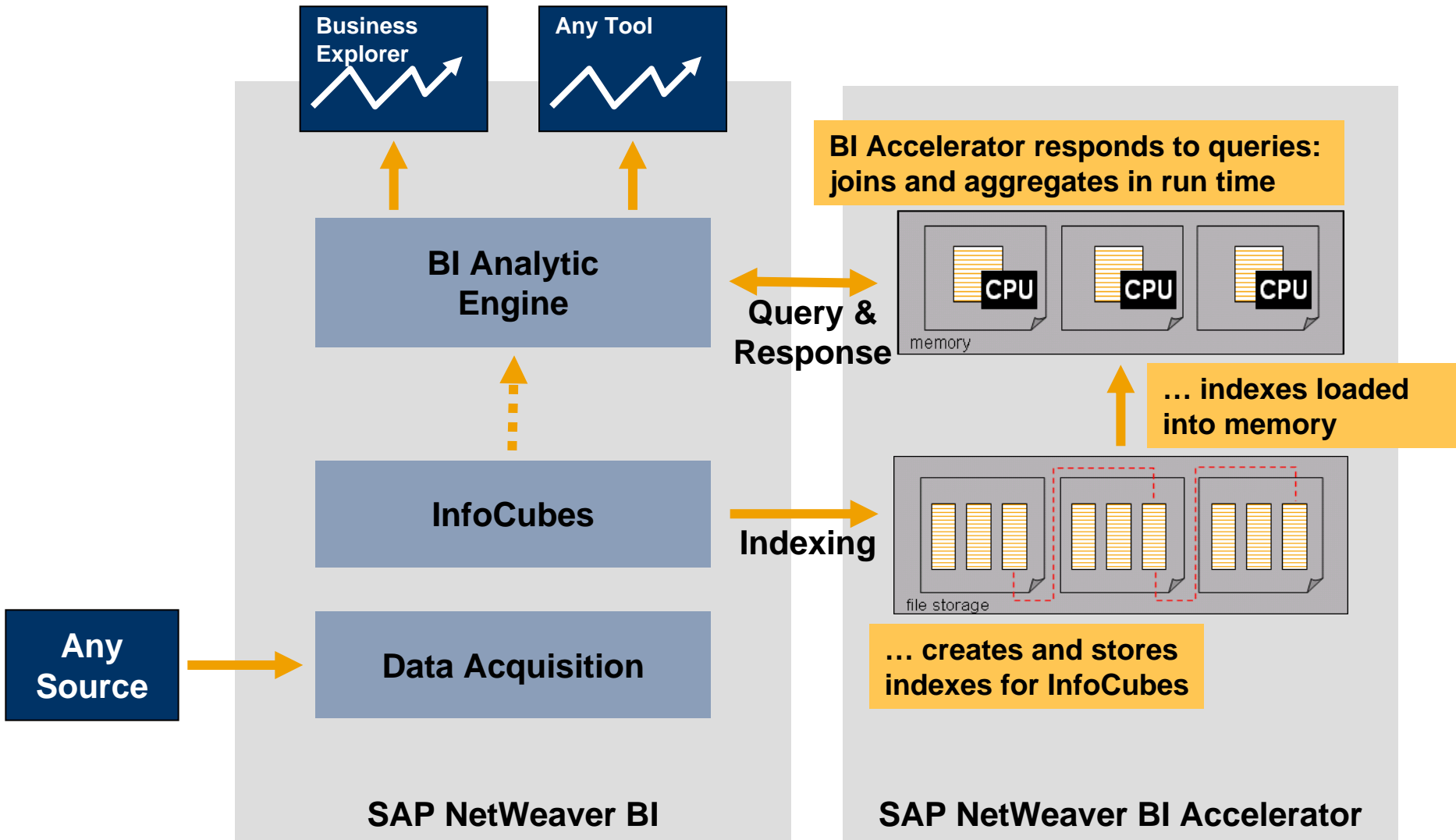
BI Accelerator for high performance BI

A new transparent approach to boost BI query performance

- Performance speedup factor **between 10 and 100** (compared to DB)
- Without changing the BI user experience (transparent to users)
- Pre-requisite: SAP NetWeaver 7.0 BI



SAP NetWeaver BI Accelerator: Architecture



Query processing time comprises 3 components

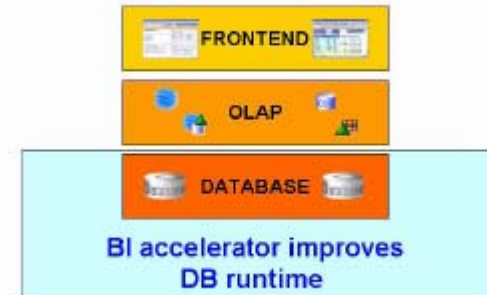
- Database access, calculations (OLAP), client rendering
- BIA addresses the Database access times

No Acceleration for

- Queries that are already fast w/o aggregates
- Queries with high OLAP time
- Long front-end events
- Complex authorization checks
- Transferred amount of data > 500,000 (rough indicator)

Acceleration for

- Ad-hoc analysis/unpredictable query patterns
- High database time
- Big ratio DBSEL/DBTRANS
- Queries that routinely need lots of aggregates





Overview

Query Runtime Statistics

BI Accelerator Query Runtime

BI Accelerator Transactions

- **Splitting the “OLAP“ statistics into a FE/OLAP and a DataManager part.**
 - **Serial (FE/OLAP) vs. (often) parallel (DM) execution**
 - **Many different events (FE/OLAP) vs. small number of events (DM)**
- **Introducing statistic detail levels on query (not just InfoProvider)**
- **Introducing the concept of Events (flexibility for further extensions)**
- **Distributing the statistic information over several tables**

Analysis of Query Runtime Statistics

In the Query Monitor (transaction RSRT), detailed query runtime statistics can be displayed.

The screenshot displays the SAP Query Monitor (RSRT) interface. The main window shows the 'Query Monitor' title bar and a menu bar with 'Query', 'Edit', 'Goto', 'Environment', 'System', and 'Help'. Below the menu bar are buttons for 'Execute', 'Execute + Debug', and 'Generate Report'. The 'Query' field contains '00_DX_M01 / 00_DX_M01_Q0002'. The 'Query Display' is set to 'List'. A 'Debug Options' dialog box is open, showing a list of options with 'Display Statistics Data' checked. A yellow callout bubble points to the 'Display Statistics Data' option, containing the text: 'Data Manager: Runtime of all (parallel) "sub" queries: • InfoProvider (<InfoProvider>) • BI Accelerator (<InfoCube>\$X) • Aggregate (1xxxxx)'. Another yellow callout bubble points to the 'Statistic Data for Query Runtime' table, containing the text: 'Front-End and OLAP: detailed list of all (sequential) events'. The 'Statistic Data for Query Runtime' table shows a list of events with columns for Start Time, Info Provider, Object Name, Duration, and Event Type. The 'Statistic Data for Query' table shows a list of queries with columns for Acc, Info Provider, Basis Prov, Aggregate, T, D, DM Post, Viewed at, SID Proc, Attribute, Hierarch, Records, Ratio, and Work.

Front-End and OLAP: detailed list of all (sequential) events

Data Manager: Runtime of all (parallel) "sub" queries:

- InfoProvider (<InfoProvider>)
- BI Accelerator (<InfoCube>\$X)
- Aggregate (1xxxxx)

Start Time	Info Provider	Object Name	D	End	Event Text	Duration	Co.	Ev.
20.03.2008 11:31:28			2		Not Assigned	0,010000	0	1
20.03.2008 11:31:28	1	RRY_SESSION_INITIALIZE	2	1000	RFC call	0,234000	0	1
20.03.2008 11:31:28	2	RRY_REPORT_OPEN	2	1000	RFC call	0,160000	0	1
20.03.2008 11:31:28	1 00_DX_M01	00_DX_M01_Q0001	2	3816	OLAP Query Gen.	0,167000	0	1
20.03.2008 11:31:28	1 00_DX_M01	00_DX_M01_Q0001	2	3898	OLAP Other Time	0,031000	0	1
20.03.2008 11:31:28	1 00_DX_M01	00_DX_M01_Q0001	2	3895	3rd Query View Open	0,062000	0	1
20.03.2008 11:31:28	1 00_DX_M01	00_DX_M01_Q0001	2	3898	3rd Analyzer Border	0,172000	0	1
20.03.2008 11:31:28	1	wait Time, User	1			0,235000	0	1
20.03.2008 11:31:28			1			0,000000	0	1
20.03.2008 11:31:28			1			0,031000	0	1
20.03.2008 11:31:28			1			0,070000	0	3
20.03.2008 11:31:28			1			0,031000	0	8
20.03.2008 11:31:28			1			0,064000	0	1
20.03.2008 11:31:28			1			0,235000	0	18
20.03.2008 11:31:28			1			0,000000	0	4
20.03.2008 11:31:28			1			0,032000	0	5
20.03.2008 11:31:28			1			0,000000	0	3
20.03.2008 11:31:28			1			0,064000	0	4
20.03.2008 11:31:28			1			17,3740	0	3
20.03.2008 11:31:28			1			0,264000	0	1
20.03.2008 11:31:28	1 00_DX_M01	00_DX_M01_Q0001	2	2626	Cache Commit	0,265000	0	1

Acc	Info Provider	Basis Prov	Aggregate	T	D	DM Post	Viewed at	SID Proc	Attribute	Hierarch	Records	Ratio	Work
1	00_DX_M01	00_DX_C01	00_DX_C01	F	0	0,000000	0,000000	16,797000	0,000000	0,000000	0,000000	47,154	1 1
2	00_DX_M01	00_DX_C02	00_DX_C02	F	0	0,000000	0,000000	0,922000	0,000000	0,000000	0,000000	21,7	1 2
3	00_DX_M01	00_DX_C03	00_DX_C03	F	0	0,000000	0,000000	0,408000	0,000000	0,000000	0,000000	95	1 0
	00_DX_M01					0,105000	0,000000	0,000000	0,000000	0,000000	0,000000	0	0 0

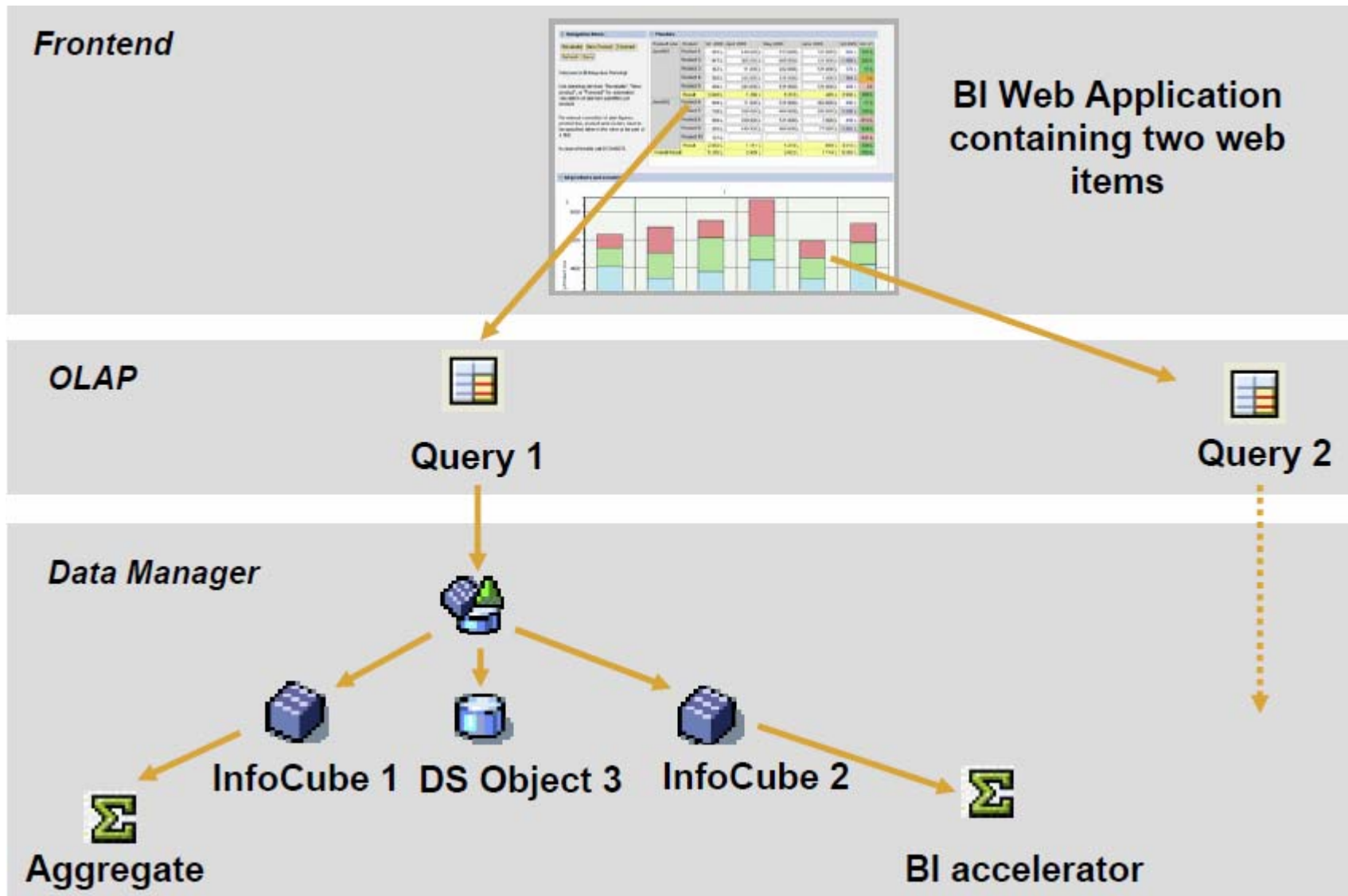
Event-IDs:

- Definition in RSDDSTATEVENTS
- Common concept used in query runtime, planning and warehouse management statistics
- Guarantees flexibility for further extensions

Most important Event-IDs:

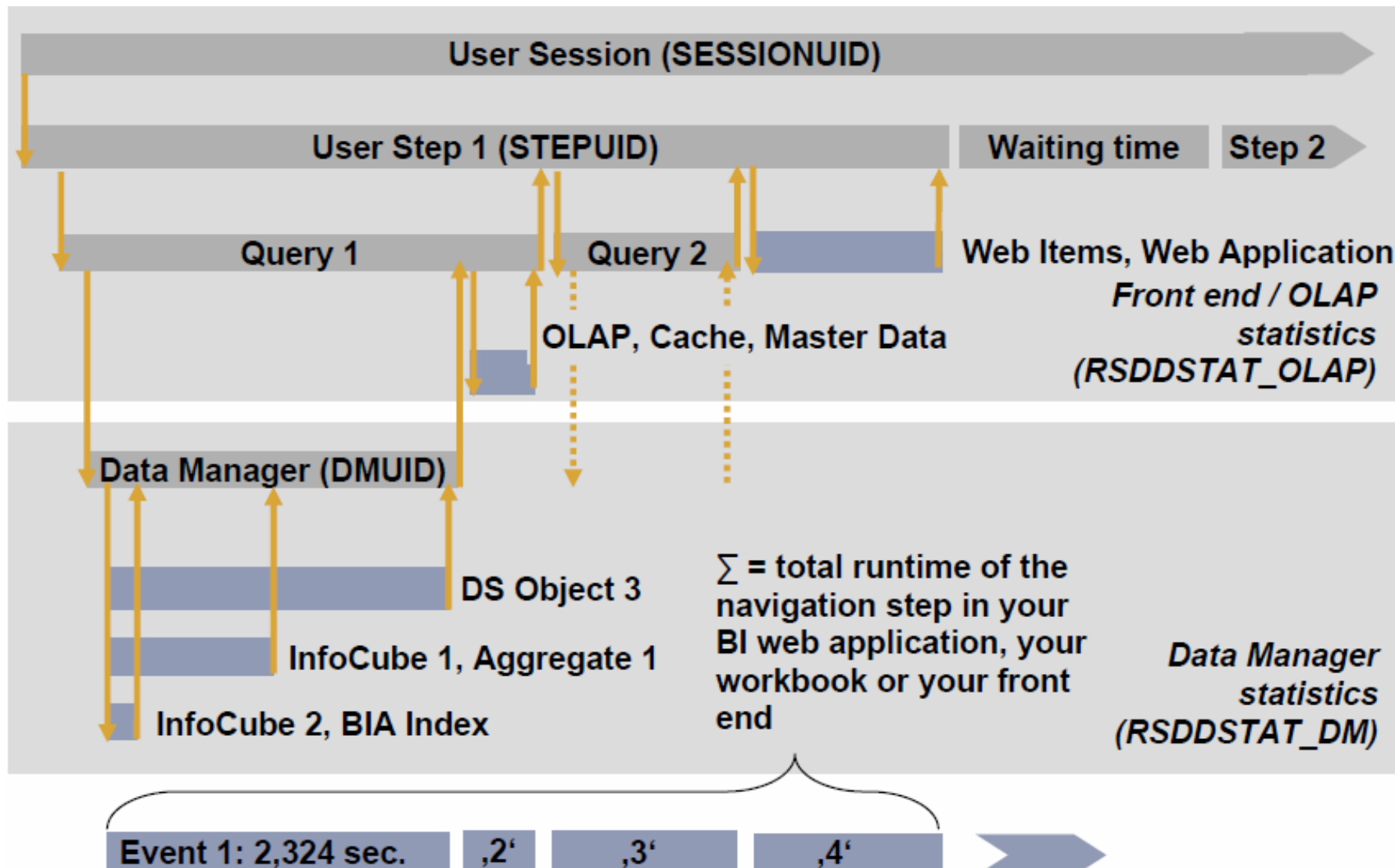
EVENT-ID / EVENT-RANGE	Description
2500 – 2530	OLAP Cache usage
3000 – 3999	OLAP processing & calculation
4300 – 4600	Authorization checks
9000	Data Manager
12600 – 14600	Web application
15000 – 15100	BEx 7.x frontend
19900 – 19999	BEx 3.x frontend
40000 – 40100	MDX
50000 – 50010	Integrated planning

Query Runtime Overview





Query Runtime Overview



RSDDSTAT_OLAP: Details (I)

Used frontend

Overall runtime (per step)

Data Browser: Table RSDDSTAT_OLAP Select Entries 39

SESSIONUID	STEPUID	HANDLETP	EVENTID	UNAME	STEP	P	S	UTIME	CALDAY	RUNTIME	NFOPROV	OBJNAME	OBJPROP	S...	EVTIME	EVCOUNT	E	STARTTIME
9UY2XWUQAE	2RWICP14	DFLT		MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000				2	0,000000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	BRFC	10000	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000		RRW3_WEBRFC		2	0,000000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	W3_I	19911	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000		MAIN		2	1,125000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	W3_T	4600	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000				2	0,500000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	W3_T	19910	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000				2	23,312000	0	2	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	W3_T	19919	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000				2	0,000000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	W3_I	19911	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000		TITLE		2	0,016000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	W3_I	19911	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000		HEADER		2	0,000000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	OLAP	2500	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002____		1	0,110000	0	8	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	OLAP	2520	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002____		1	0,000000	0	3	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	OLAP	3000	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002____		1	3,688000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	OLAP	3010	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002____		1	8,344000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	OLAP	3100	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002____		1	1,077000	15	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	OLAP	3110	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002____		1	0,734000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	OLAP	3200	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002____		1	0,405000	19	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	OLAP	3900	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002____		1	0,673000	0	3	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	OLAP	3999	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002____		1	3,953000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	OLAP	4600	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002____		1	0,968000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	OLAP	9000	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002____		1	10,782000	0	2	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	OLAP	9010	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002____		1	0,000000	30	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	OLAP	9011	MUELLERS	JAVA	1	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002____		1	0,000000	16.939	1	20.060.828.150.255,3...

Administrative Info

Execution start time

RSDDSTAT_OLAP: Details (II)

Data Browser: Table RSDDSTAT_OLAP Select Entries 39

SESSIONUID	STEPUID	H	HANDLETP	EVENTID	UNAME	STPTP	S	UTIME	CALDAY	RUNTIME	INFOPROV	OBJNAME	OBJPROP	S...	EVTIME	EVCOUNT	E	STARTTIME
9UY2XWUQAE	2RWICP14		DFLT		MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000				2	0,000000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	1	BRFC	10000	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000		RRW3_WEBRFC		2	0,000000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	1	W3_I	19911	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000		MAIN		2	1,125000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	1	W3_T	4600	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000				2	0,500000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	1	W3_T	19910	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000				2	23,312000	0	2	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	1	W3_T	19919	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000				2	0,000000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	2	W3_I	19911	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000		TITLE		2	0,016000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	3	W3_I	19911	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000		HEADER		2	0,000000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	2500	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002		1	0,110000	0	8	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	2520	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002		1	0,000000	0	3	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	3000	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002		1	3,688000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	3010	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002		1	8,344000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	3100	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002		1	1,077000	15	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	3110	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002		1	0,734000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	3200	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002		1	0,405000	19	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	3900	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002		1	0,673000	0	3	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	3999	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002		1	3,953000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	4600	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002		1	0,968000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	9000	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002		1	10,782000	0	2	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	9010	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002		1	0,000000	30	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	9011	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_EH0_002		1	0,000000	16.939	1	20.060.828.150.255,3...

Event-IDs

Runtime

Counter

2 keyfigure types

RSDDSTAT_OLAP: Details (III)

InfoProvider

Query

Data Browser: Table RSDDSTAT_OLAP Select Entries 39

SESSIONUID	STEPUID	H	HANDLETP	EVENTID	UNAME	STEP TP	S	UTIME	CALDAY	RUNTIME	INFOPROV	OBJNAM	OBJPROP	S...	EVTIME	EVCOUNT	E	STARTTIME
9UY2XWUQAE	2RWICP14		DFLT		MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000				2	0,000000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	1	BRFC	10000	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000		RRW3_V	EBRFC	2	0,000000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	1	W3_I	19911	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000		MAIN		2	1,125000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	1	W3_T	4600	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000				2	0,500000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	1	W3_T	19910	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000				2	23,312000	0	2	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	1	W3_T	19919	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000				2	0,000000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	2	W3_I	19911	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000		TITLE		2	0,016000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	3	W3_I	19914	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000		HEADER		2	0,000000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	2500	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_E	HO_002	1	0,110000	0	8	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	2520	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_E	HO_002	1	0,000000	0	3	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	3000	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_E	HO_002	1	3,688000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	3010	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_E	HO_002	1	8,344000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	3100	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_E	HO_002	1	1,077000	15	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	3110	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_E	HO_002	1	0,734000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	3200	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_E	HO_002	1	0,405000	19	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	3900	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_E	HO_002	1	0,673000	0	3	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	3999	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_E	HO_002	1	3,953000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	4600	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_E	HO_002	1	0,968000	0	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	9000	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_E	HO_002	1	10,782000	0	2	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	9010	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_E	HO_002	1	0,000000	30	1	20.060.828.150.255,3...
9UY2XWUQAE	2RWICP14	4	OLAP	9011	MUELLERS	JAVA	1	15:02:55	28.08.2006	57,203000	ZWS_MULTI	ZSM_ZWS_MULTI_E	HO_002	1	0,000000	16.939	1	20.060.828.150.255,3...

Used statistic level:
 ,0' = Aggregated data only
 ,1' = No detail on data manager
 ,2' = Detail on all levels



Data Manager details in RSDDSTAT_DM (I)

Link to RSDDSTAT_OLAP

Query

InfoProvider / MultiProvider

STEPUID	H	HANDLETF	UNAME	UTIME	CALDAY	OBJNAME	DMUID	A...	ACCESSTI	INFORMPROV	PARTPROV	AGGREGATE	TABLTP
DKU8WTAHAQ	4	OLAP	D026527	14:22:32	27.07.2006	FIRSTQUERY	58KJZ885N.			ZWS_MULTI			
DKU8WTAHAQ	4	OLAP	D026527	14:22:32	27.07.2006	FIRSTQUERY	58KJZ885N.	1		ZWS_MULTI	ZWS_CUBE1	100010	E
DKU8WTAHAQ	4	OLAP	D026527	14:22:32	27.07.2006	FIRSTQUERY	58KJZ885N.	2		ZWS_MULTI	ZWS_C1_G2	ZWS_C1_G2	F

TIMEDMPREP	TIMEDMPOST	TIMEREAD	TIMESID	TIMENAVATTR	TIMEHIERARCHY	DBSEL	DBTRANS	WP_ID	PROCESSCNT	SLOTNR	STARTTIME
1,532000	0,000000	0,000000	0,000000	0,000000	0,000000	0	0	0	0	0	20.060.727.142.232,3630000
0,000000	0,000000	1,734000	0,000000	0,000000	0,000000	47.404	1	2	1	2	20.060.727.142.232,3630000
0,000000	0,000000	2,124000	0,000000	0,000000	0,000000	50.000	1	1	2	1	20.060.727.142.232,3630000

Administrative Info

Execution start time

Data Manager details in RSDDSTAT_DM (II)

STEPUID	H	HANDLETP	UNAME	UTIME	CALDAY	OBJNAME	DMUID	A...	ACCESSTP	INFOPROV	PARTPROV	AGGREGATE	TABLTP
DKU8WTAHAQ	4	OLAP	D026527	14:22:32	27.07.2006	FIRSTQUERY	58KJZ885N.			ZWS_MULT			
DKU8WTAHAQ	4	OLAP	D026527	14:22:32	27.07.2006	FIRSTQUERY	58KJZ885N.	1		ZWS_MULT	ZWS_CUBE1	100010	E
DKU8WTAHAQ	4	OLAP	D026527	14:22:32	27.07.2006	FIRSTQUERY	58KJZ885N.	2		ZWS_MULT	ZWS_C1_G2	ZWS_C1_G2	F

Aggregate used ?

Basis InfoProvider

Fact table type

TIMEDMPREP	TIMEDMPOST	TIMEREAD	TIMESID	TIMENAVATTR	TIMEHIERARCHY	DBSEL	DBTRANS	WP_ID	PROCESSCNT	SLOTNR	STARTTIME
1,532000	0,000000	0,000000	0,000000	0,000000	0,000000	0	0	0	0	0	20.060.727.142.232,3630000
0,000000	0,000000	1,734000	0,000000	0,000000	0,000000	47.404	1	2	1	2	20.060.727.142.232,3630000
0,000000	0,000000	2,124000	0,000000	0,000000	0,000000	50.000	1	1	2	1	20.060.727.142.232,3630000

DM prepare

Database read time

DBSEL & DBTRANS



Parallel execution statistics

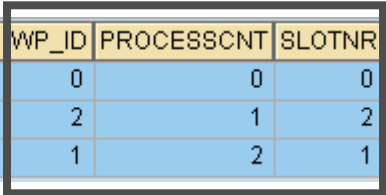
WP_ID: Used DIA Workprocess

PROCESSCNT: Analog access counter

SLOTNR: Max. 6 parallel slots available

STEPUID	H	HANDLETP	UNAME	UTIME	CALDAY	OBJNAME	DMUID	A...	ACCESSTP	INFOPROV	PARTPROV	AGGREGATE	TABLTP
DKU8WTAHAQ	4	OLAP	D026527	14:22:32	27.07.2006	FIRSTQUERY	58KJZ885N.			ZWS_MULTI			
DKU8WTAHAQ	4	OLAP	D026527	14:22:32	27.07.2006	FIRSTQUERY	58KJZ885N.	1		ZWS_MULTI	ZWS_CUBE1	100010	E
DKU8WTAHAQ	4	OLAP	D026527	14:22:32	27.07.2006	FIRSTQUERY	58KJZ885N.	2		ZWS_MULTI	ZWS_C1_G2	ZWS_C1_G2	F

TIMEDMPREP	TIMEDMPOST	TIMEREAD	TIMESID	TIMENAVATTR	TIMEHIERARCHY	DBSEL	DBTRANS	WP_ID	PROCESSCNT	SLOTNR	STARTTIME
1,532000	0,000000	0,000000	0,000000	0,000000	0,000000	0	0	0	0	0	20.060.727.142.232,3630000
0,000000	0,000000	1,734000	0,000000	0,000000	0,000000	47.404	1	2	1	2	20.060.727.142.232,3630000
0,000000	0,000000	2,124000	0,000000	0,000000	0,000000	50.000	1	1	2	1	20.060.727.142.232,3630000





Overview

Query Runtime Statistics

BI Accelerator Query Runtime

BI Accelerator Transactions

BI Accelerator Query Runtime

System Help

Statistics Data for Query Runtime

Frontend/Calculation Layer **Aggregation Layer**

Step UID	Ha...	Han...	Data Manager UID	Acc...	Info Provider	Basis Provi...	Aggregate	T...	DM Prep...	DM Post...	Viewed at
43ZJ8Q9VY9	1	OLAP	43ZJ86EP7VRE8L4U	1	OBWVC_005	OBWVC_005	OBWVC_005\$X		0,000000	0,000000	0,165106
43ZJ8Q9VY9	1	OLAP	43ZJ86EP7VRE8L4U		OBWVC_005				0,120696	0,000000	0,000000

To view aggregated statistics choose tab *Aggregation Layer*

The \$X suffix shows the BIA index was used

RSRT

BI Accelerator Query Runtime

The screenshot shows the SAP BI Accelerator Query Runtime interface. The title bar reads "Statistics Data for Query Runtime". Below the title bar, there are two tabs: "Frontend/Calculation Layer" and "Aggregation Layer". The "Aggregation Layer" tab is selected. The main area displays a table with the following columns: Step UID, Ha..., Han..., Data Manager UID, Acc..., InfoProvider, Basis Provi..., Aggregate, T..., DM Prep..., DM Post..., Viewed at, and SID. The table contains two rows of data. The first row has a "Viewed at" value of 0,165106, which is highlighted with a red box. A red arrow points from a text box to this value. The text box contains the text: "The total BIA engine time for the query was about 165 milliseconds".

Step UID	Ha...	Han...	Data Manager UID	Acc...	InfoProvider	Basis Provi...	Aggregate	T...	DM Prep...	DM Post...	Viewed at	SID
43ZJSQ9VY9	1	OLAP	43ZJS8EP7VRE8L4U	1	OBWVC_005	OBWVC_005	OBWVC_005		0,000000	0,000000	0,165106	0,00
43ZJSQ9VY9	1	OLAP	43ZJS8EP7VRE8L4U		OBWVC_005				0,120696	0,000000	0,000000	0,00

The total BIA engine time for the query was about 165 milliseconds

BI Accelerator Query Runtime

The screenshot shows the SAP BI Accelerator Query Runtime interface. At the top, there is a menu bar with 'System' and 'Help'. Below it is a toolbar with various icons. The main title is 'Statistics Data for Query Runtime'. There are two tabs: 'Frontend/Calculation Layer' and 'Aggregation Layer'. Below the tabs is another toolbar with icons. The main area contains a table with the following data:

Step UID	Ha...	Han...	Data Manager UID	Acc...	InfoProvider	Basis Provi...	Aggregate	T...	DM Prep...	DM Post...
43ZJSQ9VY9	1	OLAP	43ZJSSEP7VRE8L4UJ2H0WVPW3	1	0BWVC_005	0BWVC_005	0BWVC_005:		0,000000	0,000000
43ZJSQ9VY9	1	OLAP	43ZJSSEP7VRE8L4UJ2I0WVPW3		0BWVC_005				0,120696	0,000000

A red box highlights the 'Data Manager UID' cell in the first row. A red arrow points from this cell to a yellow callout box with a red border. The callout box contains the following text:

To analyze the query runtime in more detail,
1. Copy the Data Manager UID: right-click in cell and select *Copy Text*

At the bottom right of the window, there is a status bar with 'RSRT' and a small chart icon.

BI Accelerator Query Runtime

The screenshot shows the SAP Data Browser interface. The title bar reads "Data Browser: Initial Screen". The main area has a "Table Name" field containing "RSDDSTATREXSERV". A red box highlights the table name field, and a red arrow points from a yellow instruction box to it. The instruction box contains the following steps:

2. Start transaction SE16
3. Enter table name RSDDSTATREXSERV
4. Choose *Table Contents*

The bottom status bar shows the transaction code "SE16".

BI Accelerator Query Runtime

Data Browser: Table RSDDSTATREXSERV: Selection Screen

Number of Entries

STATUID	43ZJSSEP7YRE8L4UJ2	to		→
TABLNM		to		→
CALLTYPE	Q	to		→
RFC_SERVER_TIME		to		→
TREX_CLIENT_TIME		to		→
TREX_KERNEL_TIME				
ABAP RFC_TIME				
KBYTES				

Width of Output List: 250
Maximum No. of Hits: 500

5. Enter Data Manager UID
6. Enter call type Q (not in drop down list)
7. Choose *Execute*

SE16

BI Accelerator Query Runtime

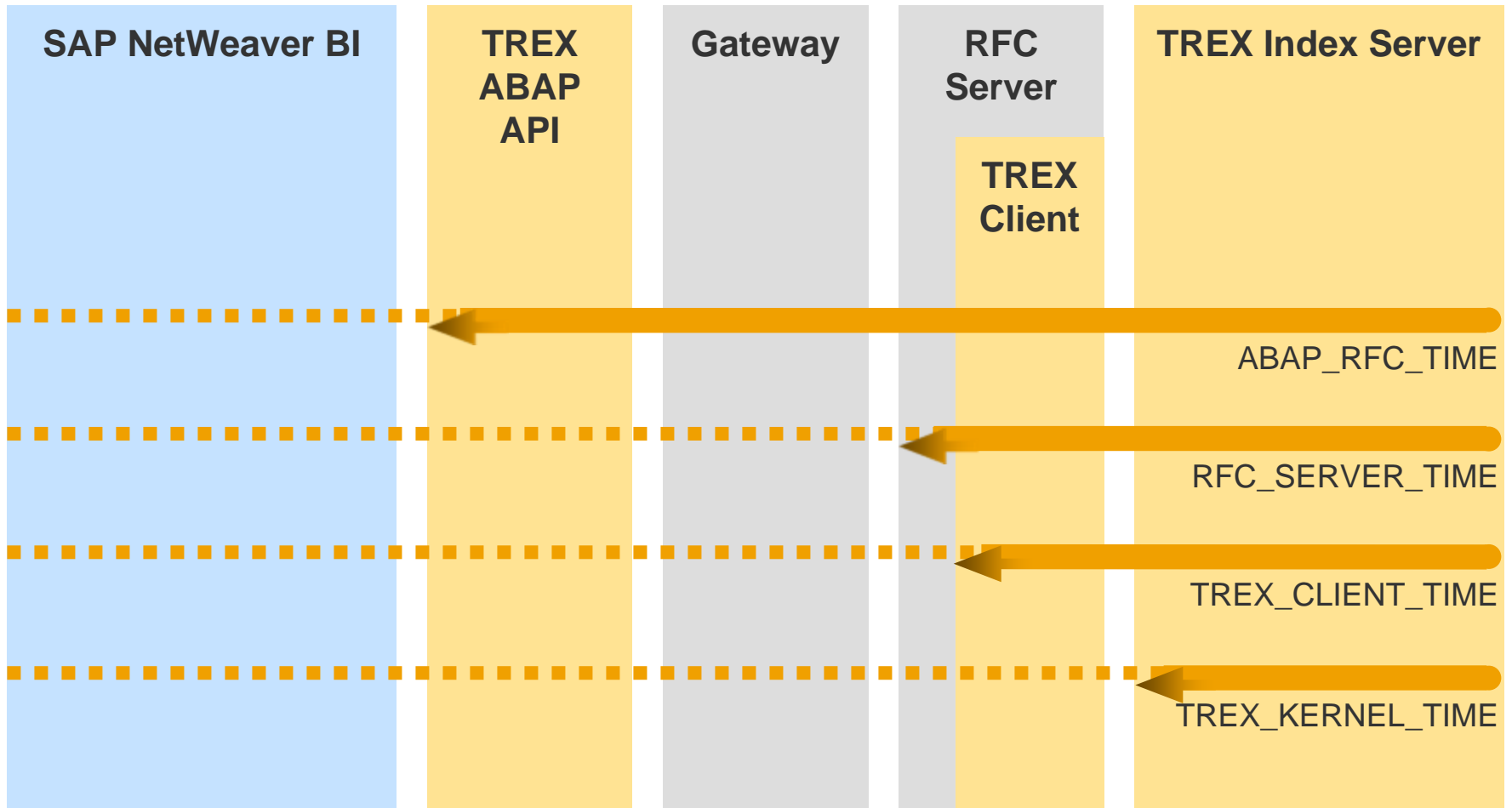
The screenshot shows the SAP Data Browser interface. The title bar reads "Data Browser: Table RSDDSTATREXSERV Select Entries 1". Below the title bar is a toolbar with various icons. The main area displays the table "RSDDSTATREXSERV" with the following data:

CALLTYPE	RFC_SERVER_TIME	TREX_CLIENT_TIME	TREX_KERNEL_TIME	ABAP_RFC_TIME	KBYTES
Q	135	135	130	163	0,000

A red box highlights the columns RFC_SERVER_TIME, TRIX_CLIENT_TIME, TRIX_KERNEL_TIME, and ABAP_RFC_TIME. A red arrow points from a text box to the TRIX_CLIENT_TIME column.

Here the total BIA engine time of 165 milliseconds is broken down into parts

BI Accelerator Query Runtime





Overview

Query Runtime Statistics

BI Accelerator Query Runtime

BI Accelerator Transactions

BI Accelerator Monitor - Summary (RSDDBIAMON2)

The screenshot shows the SAP BI Accelerator Monitor interface. The main window is titled "BI Accelerator Monitor" and contains several panes. The "Summary" pane shows a table of check results. The "Check Details" pane shows details for a specific host. The "BIA Actions" pane shows a list of actions that can be executed. The "BIA Action Messages" pane shows a list of messages.

Summary tab features an alert status icon

Click icon to see details below – or right-click on line and choose *Details* to see a message box

Transaction RSDDBIAMON2 opens a BI accelerator monitor offering all the main administration tools you need

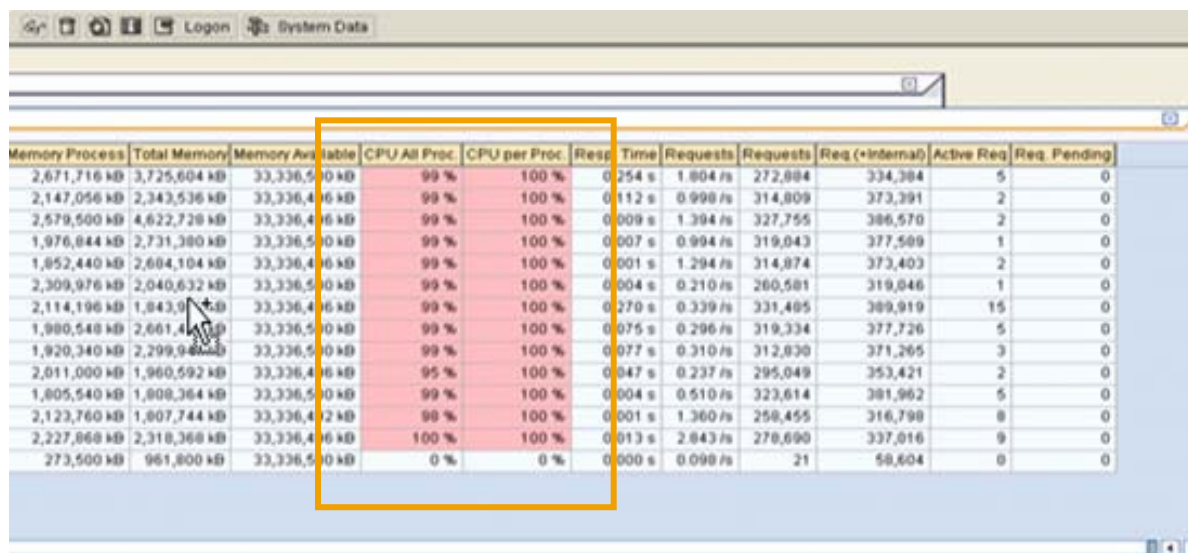
Status	Check Description	LTxt	Details	Action	Execute	Act...
🚫	Solution 1			Increase memory sp...		?
🚫	Solution 2			Reorganize BIA landsc...		?
🚫	Index checks returned at least one error as					

Host
Id8003
Id8047
Max. Service Memory Size
1910455 KB
137385 KB
92 %
yes
Service Memory Size Deviation
179356

Message Text	Le...	LTxt
Status information read from BI accelerator	1	

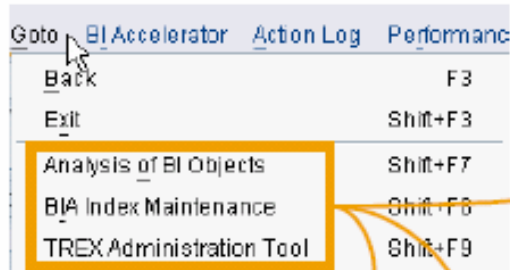
Check if Load is equally distributed

- ‘CPU per Proc.’ indicates single CPU utilization / per Index server / blade
- ‘CPU All Proc’ indicates combined CPU utilization / blade
- ‘Memory Process’ indicates memory utilization / Index server / blade
- ‘Total Memory’ is the total memory utilization / blade
- If load is not evenly distributed, either re-org (re-distribute) the BIA index across the blades or re-index the InfoCube

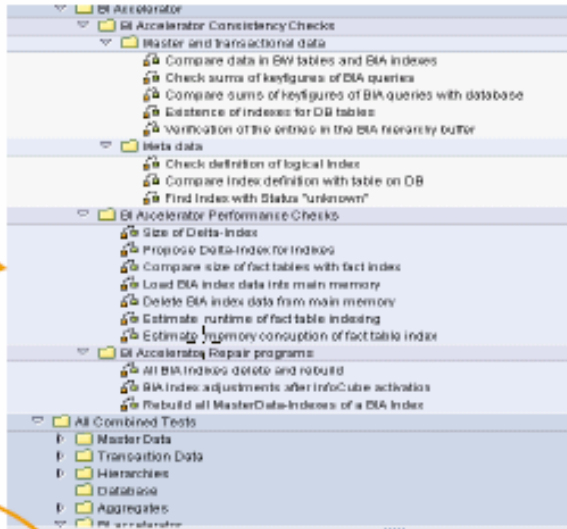


Memory Process	Total Memory	Memory Available	CPU All Proc	CPU per Proc	Resp. Time	Requests	Requests	Req. (+Internal)	Active Req.	Req. Pending
2,671,716 kB	3,725,604 kB	33,336,500 kB	99 %	100 %	0.254 s	1.804 /s	272,884	334,384	5	0
2,147,056 kB	2,343,536 kB	33,336,406 kB	99 %	100 %	0.112 s	0.998 /s	314,809	373,391	2	0
2,579,500 kB	4,622,728 kB	33,336,406 kB	99 %	100 %	0.009 s	1.394 /s	327,755	386,570	2	0
1,976,844 kB	2,731,380 kB	33,336,500 kB	99 %	100 %	0.007 s	0.994 /s	319,043	377,589	1	0
1,852,440 kB	2,684,104 kB	33,336,406 kB	99 %	100 %	0.001 s	1.294 /s	314,874	373,403	2	0
2,309,976 kB	2,040,632 kB	33,336,500 kB	99 %	100 %	0.004 s	0.210 /s	260,581	319,046	1	0
2,114,196 kB	1,843,904 kB	33,336,406 kB	99 %	100 %	0.270 s	0.339 /s	331,485	389,919	15	0
1,980,548 kB	2,661,400 kB	33,336,500 kB	99 %	100 %	0.075 s	0.296 /s	319,334	377,726	5	0
1,920,340 kB	2,299,904 kB	33,336,500 kB	99 %	100 %	0.077 s	0.310 /s	312,830	371,265	3	0
2,011,000 kB	1,960,592 kB	33,336,406 kB	95 %	100 %	0.047 s	0.237 /s	295,049	353,421	2	0
1,805,540 kB	1,808,364 kB	33,336,500 kB	99 %	100 %	0.004 s	0.510 /s	323,614	381,962	5	0
2,123,760 kB	1,807,744 kB	33,336,406 kB	98 %	100 %	0.001 s	1.360 /s	258,455	316,798	8	0
2,227,868 kB	2,318,368 kB	33,336,406 kB	100 %	100 %	0.013 s	2.843 /s	278,690	337,016	9	0
273,500 kB	961,800 kB	33,336,500 kB	0 %	0 %	0.000 s	0.098 /s	21	58,604	0	0

BI Accelerator Monitor - Go To 1

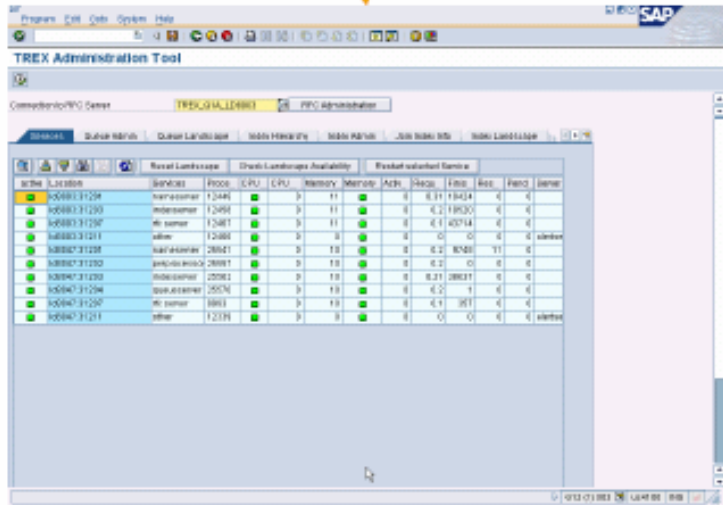
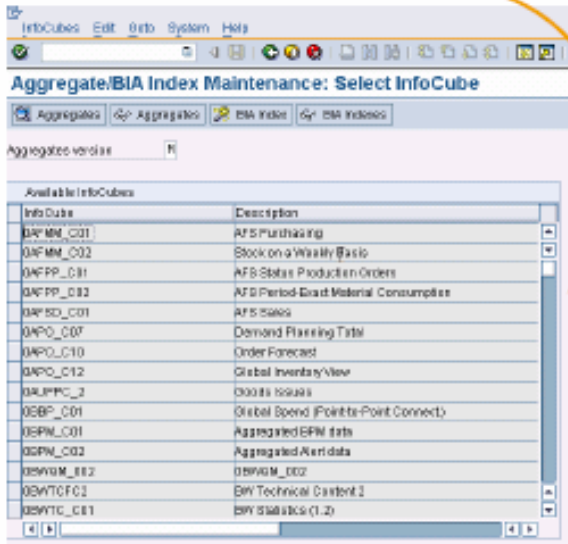


RSRV



RSDDV

TREXADMIN



BI Accelerator Monitor - Go To 2

Goto	BI Accelerator	Action Log	Performance
Back			F3
Exit			Shift+F3
Analysis of BI Objects			Shift+F7
BIA Index Maintenance			Shift+F8
TREX Administration Tool			Shift+F9

Name	Techn. Name	S.	O.	O.	Anza.	M.	Delta I.
BIA-Index	ZBWVC_SBIEX						
Tabellenindizes							
IBICDZBWVC_BE 012_BIC:DZBWVC_SBI1					7856		
IBICDZBWVC_BE 012_BIC:DZBWVC_SBI2					1560		
IBICDZBWVC_BE 012_BIC:DZBWVC_SBI4					355		
IBICDZBWVC_BE 012_BIC:DZBWVC_SBI P					2		
IBICDZBWVC_BE 012_BIC:DZBWVC_SBI U					2		
IBICDZBWVC_BE 012_BIC:DZBWVC_SBI3					25		
IBICDZBWVC_BE 012_BIC:DZBWVC_SBI T					349		
Fakentabelle (E-I) 012_BIC:FZBWVC_SBI					171512		
IBIOSVC_2SUBC 012_BIO:SV_2SUBC					103		
IBIOSVC_2PDCT 012_BIO:SV_2PDCT					1581		<input checked="" type="checkbox"/>
IBIOSVC_2FMLY 012_BIO:SV_2FMLY					5		<input checked="" type="checkbox"/>
IBIOSVC_2DPMT 012_BIO:SV_2DPMT					23		<input checked="" type="checkbox"/>
IBIOSVC_2CUST 012_BIO:SV_2CUST					7955		<input checked="" type="checkbox"/>
IBIOSVC_2CTBY 012_BIO:SV_2CTBY					48		<input checked="" type="checkbox"/>
IBIOSUNIT 012_BIO:UNIT					353		<input checked="" type="checkbox"/>
IBIOSCURRENCY 012_BIO:SCURRENCY					225		<input checked="" type="checkbox"/>
IBIOSVC_2PDCT 012_BIO:SV_2PDCT					1560		<input checked="" type="checkbox"/>

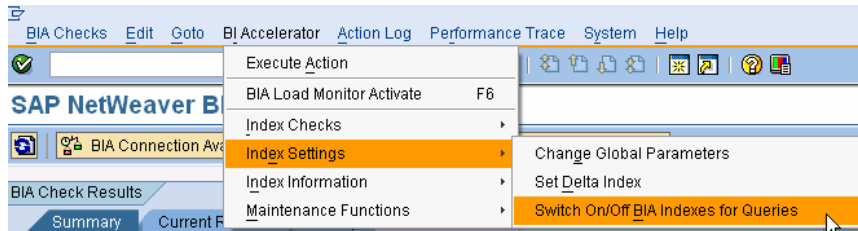
If the **BIA Index** of an InfoCube has been deactivated, the object status changes to a grey diamond symbol.

Name	Techn. Name	S.	O.	O.	Anza.	M.	Delta I.
EIABS_LS	EIABS_LS						
BIA-Index							
EIABS_LSIX							
Tabellenindizes							
IBICDEIABS_LST 012_BIC:DEIABS_LST					1		
IBICDEIABS_LS3 012_BIC:DEIABS_LS3					1		
IBICDEIABS_LSP 012_BIC:DEIABS_LSP					1		
IBICDEIABS_LS2 012_BIC:DEIABS_LS2					1		
IBICDEIABS_LS1 012_BIC:DEIABS_LS1					1		
Fakentabelle (E-I) 012_BIC:FEIABS_LS					0		
IBICSEBS_SID 012_BIC:SEBS_SID					1		
IBICSEBS_HSTN 012_BIC:SEBS_HSTNM					1		
IBICSEBS_COMP 012_BIC:SEBS_COMPR					1		

If an index is turned off for reporting, it will still be affected by the delta loads. The index will contain up to date information if it were to be activated again.

The 'Time Stamp' column indicates the last date and time when the index was changed (via either roll up, change-run, re-indexing).

'Last Changed' indicates the user associated with the last change.



The screenshot shows the 'Switch On/Off BIA Indexes for Queries' dialog box. It contains a table with the following columns: 'InfoCube', 'Switched Off for Q...', 'Last Chan...', and 'Time Stamp'. The table lists various InfoCubes and their status. The 'OD_DX_C01' row is highlighted, and its 'Switched Off for Q...' checkbox is checked.


InfoCube	Switched Off for Q...	Last Chan...	Time Stamp
DAFMM_C02	<input type="checkbox"/>	1028525	20.070.411.162.604
OBWVC_017	<input type="checkbox"/>	1026425	20.070.320.160.509
OBWVC_001	<input type="checkbox"/>	1026425	20.070.320.160.430
OBWVC_002	<input type="checkbox"/>	1026425	20.070.320.161.202
OBWVC_C03	<input type="checkbox"/>	1026425	20.070.320.160.132
OBWVC_C04	<input type="checkbox"/>	1026425	20.070.320.160.822
OBWVC_C11	<input type="checkbox"/>	1026425	20.070.320.160.908
OBWVC_C36	<input type="checkbox"/>	1026425	20.070.320.155.828
OBWVC_C48	<input type="checkbox"/>	1026425	20.070.320.160.646
OBWVC_SB1	<input type="checkbox"/>	1026425	20.070.320.160.754
OBWVC_SB2	<input type="checkbox"/>	1026425	20.070.320.160.648
OBW_TX_05	<input type="checkbox"/>	1026425	20.070.320.155.056
OD_COPA	<input type="checkbox"/>	1026425	20.070.320.165.305
OD_DX_C01	<input checked="" type="checkbox"/>	1026425	20.070.320.161.701
OD_SD_C03	<input type="checkbox"/>	1026425	20.070.320.155.924
OFIAR_C03	<input type="checkbox"/>	1026425	20.070.320.155.021
ORSTT_C03	<input type="checkbox"/>	1026425	20.070.320.161.346
ORSTT_C04	<input type="checkbox"/>	1026425	20.070.321.072.250
OTDAT_C03	<input type="checkbox"/>	BWTEST	20.070.327.173.828
BIACLCUBE	<input type="checkbox"/>	1026425	20.070.320.161.846
BW_EUCR1	<input type="checkbox"/>	1026425	20.070.320.160.203
BW_EUCR2	<input type="checkbox"/>	1026425	20.070.320.161.403
BW_TX_01	<input type="checkbox"/>	1026425	20.070.320.160.300
BW_TX_02	<input type="checkbox"/>	1026425	20.070.320.160.716
BW_TX_03	<input type="checkbox"/>	1026425	20.070.320.160.549
BW_TX_04	<input type="checkbox"/>	1026425	20.070.320.161.002
CUBE_ONE	<input type="checkbox"/>	1026425	20.070.320.155.644
EDW2_IC1	<input type="checkbox"/>	1026425	20.070.320.161.452
FIARS_LS	<input type="checkbox"/>	1026425	20.070.320.155.143



- **TREX Admin Tool is a stand-alone program that you can use to administer TREX independently of the application to which it is connected.**
- **The application that is connected to TREX normally provides its own administration tools for TREX too. You should use the administration tools provided by the application where possible. Only use the TREX admin tool for the functions that are not available in the administration tools of the application.**

Transaction TREXADMIN - 1

Data Browser: Table RSADMINA Select Entries 1




CUSTOMIZID	BW_USER	DEBUG_USER	BEX_REQUEST	DBSYSDEPGLOBL	DBSY
BW	BWREMOTE9	RINNEBERG			

Details

Group description	Cell Content
MONFILLED	
IDOCLASTNBR	456
ISLASTNBR	
TSLASTNBR	
MONARCHNBR	
XPRADONE	
BW client	3
ODSMAXTASKS	
ODSMINPAKSIZE	
ODSACTTIMEOUT	
Switch-on Logs for Lock Manager	
ODSSERVGROUP	
BW Client RFC Destination	Q12CLNT003_MULTI
TPBWMANDTRFC	TPRFC003
MDINSRECBYREC	
RFC Destination for BI Accelerator	TREX_Q1A_LD8003
Package-Based Del. of Master Data	X

✓ H

TREX Administration Tool



Connection to RFC Server **TREX_Q1A_LD8003** RFC Administration

Transaction TREXADMIN - 2

Tool Edit Goto System Help

TREX Administration Tool

Advanced Mode

Services Trace Ini Files Alert RFC Monitor Search Index Landscape Index Admin Queue Administration Version Topology

Reset Landscape... Restart Service Reconfigure Start missing services Kill Process Export load

active	Location	Services	Proce...	Server Info	CPU ...	CPU ...	Mem...	Memory...	Requ...	Activ...	Finis...	Res...	Pend...
<input checked="" type="checkbox"/>	ld8003:31201	nameserver	25122		<input checked="" type="checkbox"/>	7	<input checked="" type="checkbox"/>	15	0.35	0	42053	67	0
<input checked="" type="checkbox"/>	ld8003:31203	indexserver	25121		<input checked="" type="checkbox"/>	7	<input checked="" type="checkbox"/>	15	20.05	0	10731	1	0
<input checked="" type="checkbox"/>	ld8003:31211	other	24975	alertserver	<input checked="" type="checkbox"/>	0	<input checked="" type="checkbox"/>	0	0	0	0	0	0
<input checked="" type="checkbox"/>	ld8047:31201	nameserver	18450		<input checked="" type="checkbox"/>	2	<input checked="" type="checkbox"/>	6	0.34	0	18464	2	0
<input checked="" type="checkbox"/>	ld8047:31203	indexserver	18462		<input checked="" type="checkbox"/>	2	<input checked="" type="checkbox"/>	6	16.1	0	39358	10	0
<input checked="" type="checkbox"/>	ld8047:31207	rfc server	17870		<input checked="" type="checkbox"/>	2	<input checked="" type="checkbox"/>	6	0.1	0	13103	0	0
<input checked="" type="checkbox"/>	ld8047:31211	other	19356	alertserver	<input checked="" type="checkbox"/>	0	<input checked="" type="checkbox"/>	0	0	0	0	0	0

TREX Administration Tool

Standard Mode

Services Threads Handles Trace Ini Files Alert RFC Monitor Search Index Landscape Index Hierarchy Index Admin

Reset Landscape... Restart Service Reconfigure Start missing services Kill Pro...

active	Location	Services	Proce...	Server Info	CPU ...	CPU ...	Mem...	Memory...	Requ...	Activ...	Finis...	Res...	Pe...
<input checked="" type="checkbox"/>	ld8003:31201	nameserver	13982		<input checked="" type="checkbox"/>	3	<input checked="" type="checkbox"/>	6	0.31	0	5454	0	
<input checked="" type="checkbox"/>	ld8003:31203	indexserver	14003		<input checked="" type="checkbox"/>	3	<input checked="" type="checkbox"/>	6	31.75	0	22153	4	
<input checked="" type="checkbox"/>	ld8003:31207	rfc server	14020		<input checked="" type="checkbox"/>	3	<input checked="" type="checkbox"/>	6	0.1	0	17915	0	
<input checked="" type="checkbox"/>	ld8003:31211	other	14019	alertserver	<input checked="" type="checkbox"/>	0	<input checked="" type="checkbox"/>	0	0	0	0	0	
<input checked="" type="checkbox"/>	ld8047:31201	nameserver	10391		<input checked="" type="checkbox"/>	6	<input checked="" type="checkbox"/>	3	0.24	0	5329	140	
<input checked="" type="checkbox"/>	ld8047:31203	indexserver	10409		<input checked="" type="checkbox"/>	6	<input checked="" type="checkbox"/>	3	33.44	0	19676	1	
<input checked="" type="checkbox"/>	ld8047:31207	rfc server	10420		<input checked="" type="checkbox"/>	6	<input checked="" type="checkbox"/>	3	0.1	0	17911	0	
<input checked="" type="checkbox"/>	ld8047:31211	other	10419	alertserver	<input checked="" type="checkbox"/>	0	<input checked="" type="checkbox"/>	0	0	0	0	0	

- Services
- Threads
- Handles
- Trace
- Ini Files
- Alert
- RFC Monitor
- Search
- Index Landscape
- Index Hierarchy
- Index Admin
- Join Index Info
- Queue Administration
- Queue Landscape
- Version
- Topology
- Attribute Mining
- ABAP Client Customizing
- Landscape
- Hosts
- Usage
- Cruiser
- Reorg

- **QUERY_MAX_WP_DIAG** is a parameter in table RSADMIN.
- Specifies the maximum number of parallel processes that a query (non-BIA and BIA) could potentially use.
- The BI system reserves 5 DIA (dialog) work processes open and uses the formula: $(\text{MIN}(\# \text{ InfoProviders}, \text{QUERY_MAX_WP_DIAG}) + 5)$ to determine whether or not to parallelize query execution.
- Default value = 6. Hence, there **NEEDS** to be at least 11 DIA work processes free in order to execute query in parallel.
- For additional information, refer to **SAP Note 895530**.

- **SAP NetWeaver BI Accelerator improves Query database time**
- **New Query Runtime statistics are flexible and available for further extensions**
- **SAP NetWeaver BI Accelerator Query Runtime statistics can be viewed using the table RSDDSTATTREXSERV**
- **Transactions RSDDBIAMON2 and TREXADMIN can be used to monitor the SAP NetWeaver BI Accelerator.**



SAP Public Web:

SAP Developer Network (SDN): www.sdn.sap.com

Business Process Expert (BPX) Community: www.bpx.sap.com



Related SAP Education and Certification Opportunities

<http://www.sap.com/education/>



THANK YOU FOR YOUR
ATTENTION !

QUESTIONS – SUGGESTIONS – DISCUSSION



Feedback

Please complete your session evaluation.

**Be courteous — deposit your trash,
and do not take the handouts for the following session.**

Thank You !