

Trace Analysis

Both ST12 and STAD provide very detailed performance traces, to be used only for short moments to analyze specific issues on a single user.

Generally you ask the user or the functional to setup a test case to trace.

- **ST12** needs explicit activation and deactivation after the test case.
- **STAD** doesn't require activation but it is less detailed and more difficult to use, no persistency for old data (48h retention).

ST12

The most common set up for ST12 transaction is the following:

Single transaction analysis

Trace & collect

Traces on/off Collect ext. traces Statistical records

Trace for User / Tasks Workprocess Current mode Schedule >

Comment insert the comment here

Server < All Servers >

Username EX2TIBURAN (Perf.trace for user)

Tasktype * (Any tasktype)

- * (Any tasktype)
- DIA (Dialog)
- BTC (Batch job)
- UPD (Update)
- RFC (Incoming RFC call)
- HTTP (HTTP request/BSP)
- SMTP (SMTP request)
- SHO (Shared obj. area constr.)

No. trace activations 5

Start trace

Performance traces

- SQL
- RFC
- Enqueue

Statistical records (top 20)

Context trace (RFC,Upd)

- Insert a comment
- Trace all the servers, otherwise select the server you want to trace
- Select the username
- Select the tasktype you have to trace (if you don't know, select "Any tasktype")

Start the Trace

Single transaction analysis

Trace & collect

Traces on/off Collect ext. traces Statistical records

Trace for User / Tasks Workprocess Current mode Schedule >

Comment

Server < All Servers >

Username (Perf.trace for user)

Tasktype * ... No. trace activations

Start trace

☒ ABAP trace ☒ Performance traces

When the user has finished the activity, stop the trace.

Trace & collect

Traces on/off Collect ext. traces Statistical records

Trace for User / Tasks Workprocess Current mode Schedule >

Comment

Server < All Servers >

Username (Perf.trace for user)

Tasktype * ... No. trace activations

	ABAP...	.	.	Sql	E...	Rfc	Server
8	2	0	X	X	X		Total for all ser...
4	1	0	X	X	X		< Local >

End traces & collect

Select all the servers and continue:

Collect traces

Select traces and edit comment for collection

Server name	Comment	Start date	Start time	Trace by user	Content	Traced user	Error	Orig. comm	ABAP trace filename	Transaction GUID (DSR)
pm3510-ap01_PM3_00	trace Andrea	15.09.2022	17:31:50	EX2TIBURAN	per call,Size=21kB	EX2TIBURAN		trace Andrea	/usr/sap/PM3/D00/data/AT000000	BB11ACBE601401F0E0
pm3510-ap02_PM3_00	trace Andrea	15.09.2022	17:32:03	EX2TIBURAN	per call,Size=297kB	EX2TIBURAN		trace Andrea	/usr/sap/PM3/D00/data/AT000004	BB11ACBE60140150E0
pm3510-ap02_PM3_00	trace Andrea	15.09.2022	17:31:59	EX2TIBURAN	per call,Size=11kB	EX2TIBURAN		trace Andrea	/usr/sap/PM3/D00/data/AT000002	BB11ACBE60140150E0
pm3510-ap02_PM3_00	trace Andrea	15.09.2022	17:31:59	EX2TIBURAN	per call,Size=31kB	EX2TIBURAN		trace Andrea	/usr/sap/PM3/D00/data/AT000003	BB11ACBE60140150E0
pm3510-ap02_PM3_00	trace Andrea	15.09.2022	17:31:50	EX2TIBURAN	per call,Size=37kB	EX2TIBURAN		trace Andrea	/usr/sap/PM3/D00/data/AT000001	BB11ACBE601401F0E0

Filter for trace collection

Trace duration msec

Min. # of lines

Task type ☒ DIA BTC others ☒ HTTP ☒ Update ☒ tRFC execute ☐ ST12

☒ RFC ☐ Enqueue ☐ Update2 ☐ tRFC framework

☒ Delete created ABAP trace files after collection

✓ ✗

Trace analyses fullscreen list									
Collect date	No#	Sts	Trc. Time	User	Comment	Content	Ann...	Duration...	Task...
15.09.2022	1#3	✓	17:31:50	EX2TIBURAN	trace Andrea	ATRA SQL SSUM ENQ RFC STAT [User=EX2TIBURAN ,per ...			

Select the row and choose the trace you want to display (ABAP/Performance/SQL)

Trace analyses fullscreen list									
Collect date	No#	Sts	Trc. Time	User	Comment	Content	Ann...	Duration...	Task...
15.09.2022	1#3	✓	17:31:50	EX2TIBURAN	trace Andrea	ATRA SQL SSUM ENQ RFC STAT [User=EX2TIBURAN ,per ...		33.195	EX2TIBURAN
15.09.2022	1-1	✓	17:32:03	EX2TIBURAN	trace Andrea	ATRA SQL SSUM ENQ RFC STAT [User=EX2TIBURAN ,per ...		32.810	EX2TIBURAN
15.09.2022	1-2	✓	17:31:59	EX2TIBURAN	trace Andrea	ATRA SQL SSUM ENQ RFC STAT [User=EX2TIBURAN ,per ...		380	EX2TIBURAN
15.09.2022	1-3	✓	17:31:59	EX2TIBURAN	trace Andrea	ATRA SQL SSUM ENQ RFC STAT [User=EX2TIBURAN ,per ...		5	EX2TIBURAN

STAD

If we want to display the last minutes user activities, we can use TX STAD.

Select the user and how many minutes do you want to display:

SAP Workload: Business Transaction Analysis

Search for Endtime

Search for RootContextID

Search for ConnectionID

Date

15.09.2022

Time

18:29:00

Length

00:10:00

Filter Parameter

Client

*

User

btchsto01cet

Transaction

*

Program

*

Task type

*

Resp. time

>=

ms

DB req.time

>=

ms

CPU time

>=

ms

Bytes req.

>=

KB

DB changes

>=

El.VMC Time

>=

ms

Display Mode

Show All Stats Records, Sorted by Time

Show all records, grouped by business transaction

Show Business Transaction Tots

Tools

Include statistics from memory

Include application statistics

Server selection

Additional Options

The last activities of the user are displayed.

SAP Workload: Single Statistical Records - Overview

Download Disp. mode Sel. fields Server ID

System: PEP Number of RFCs which responded (without errors): 12 (12)
 Analysed time: 15.09.2022 / 18:29:00 - 15.09.2022 / 18:39:00
 Display mode: All statistic records, sorted by time

Started	Server	Transaction	Program	T	Scr.	Wp	User	Response time (ms)	Time in WPs (ms)	Wait
		*	*			*	BTCHSTO01CET	0		
18:29:02	pep510-ap13_PEP		RSBTCRTE	B		74	BTCHSTO01CET	31	31	
18:29:02	pep510-ap13_PEP		RSBTCRTE	B		71	BTCHSTO01CET	34	34	
18:29:02	pep510-ap13_PEP		YRIWM AW ES	B		74	BTCHSTO01CET	1.243	1.243	
18:29:02	pep510-ap13_PEP		ZRPSE_COLLECT_BATCHES	B		71	BTCHSTO01CET	204	204	
18:29:08	pep510-ap13_PEP		RSBTCRTE	B		78	BTCHSTO01CET	33	33	
18:29:08	pep510-ap13_PEP		RSEOUT00	B		78	BTCHSTO01CET	27	27	
18:29:17	pep510-ap23_PEP		RSBTCRTE	B		77	BTCHSTO01CET	32	32	
18:29:17	pep510-ap23_PEP		RSNAST00	B		77	BTCHSTO01CET	66	66	
18:29:21	pep510-ap23_PEP		RSBTCRTE	B		77	BTCHSTO01CET	35	35	
18:29:21	pep510-ap23_PEP		RSEOUT00	B		77	BTCHSTO01CET	32	32	
18:29:24	pep510-ap23_PEP		RSBTCRTE	B		77	BTCHSTO01CET	38	38	
18:29:24	pep510-ap23_PEP		RSNAST00	B		77	BTCHSTO01CET	120	120	
18:29:36	pep510-ap21_PEP		RSBTCRTE	B		76	BTCHSTO01CET	40	40	
18:29:36	pep510-ap21_PEP		RLAUTA10	B		76	BTCHSTO01CET	45	45	
18:29:36	pep510-ap21_PEP		SD70AV2A	B		76	BTCHSTO01CET	74	74	
18:29:36	pep510-ap21_PEP		SD70AV2A	B		76	BTCHSTO01CET	74	74	
18:29:36	pep510-ap21_PEP		SD70AV2A	B		76	BTCHSTO01CET	69	69	
18:29:36	pep510-ap21_PEP		SD70AV2A	B		76	BTCHSTO01CET	60	60	
18:29:36	pep510-ap21_PEP		SD70AV2A	B		76	BTCHSTO01CET	80	80	
18:29:36	pep510-ap21_PEP		SD70AV2A	B		76	BTCHSTO01CET	56	56	
18:29:36	pep510-ap21_PEP		SD70AV2A	B		76	BTCHSTO01CET	63	63	
18:29:36	pep510-ap21_PEP		YROTC_TPSEXPORT_DE	B		76	BTCHSTO01CET	5.077	5.077	