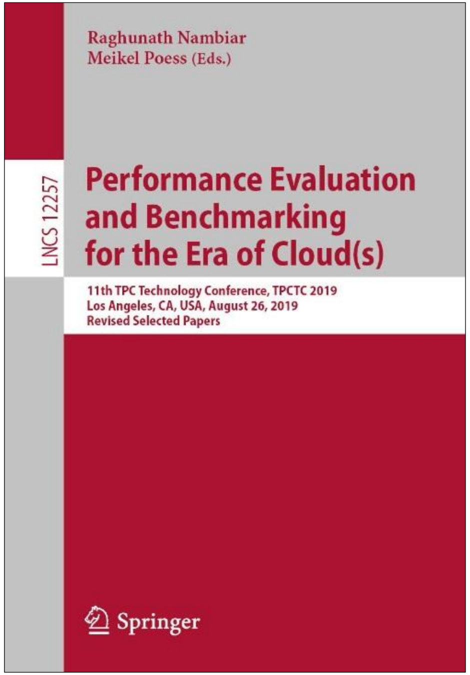
peakmarks

peakmarks® Monitoring

February 2025



peakmarks® presented its software at the 11th Technology Conference of the Transaction Processing Performance Council (TPC) 2019 in Los Angeles.

Copyright Information

Naming Conventions

Database name	ORA19C	/ ORA21C	/ ORA23AI	
Instance names	ORA19C	/ ORA21C	/ ORA23AI	for a single instance
	ORA19C1	/ ORA21C1	/ ORA23AI1	for RAC instance 1
	ORA19C2	/ ORA21C2	/ ORA23AI2	for RAC instance 2
peakmarks® PDB	PMK			
Connect string SYSTEM user	system/manager@SYSAWR			
Connect string peakmarks user	bench/bench@PMK			
peakmarks® base directory	../pmk			

Agenda

1 Introduction

2 Generating AWR Reports

3 Export Key Performance Metrics into CSV file

4 Platform Monitoring

5 Monitoring peakmarks® Runs

6 Monitoring peakmarks® Tests

7 Monitoring peakmarks® Jobs

8 More useful Monitoring Scripts

9 Summary of Scripts and Commands

peakmarks

Performance is not everything.
But without performance, everything is worth nothing.

Introduction

Introduction

peakmarks® provides scripts to report the key performance metrics of an Oracle database infrastructure – the KPM reports (see listing next slide).

These reports are described in detail in Part 4 of the peakmarks® documentation set.

Introduction

peakmarks® Key Performance Reports

SQL> @kpm_all

SQL> @kpm_query
SQL> @kpm_scan
SQL> @kpm_ioread
SQL> @kpm_iowrite
SQL> @kpm_lgwr
SQL> @kpm_dbwr
SQL> @kpm_dl
SQL> @kpm_da
SQL> @kpm_tp
SQL> @kpm_tpplus
SQL> @kpm_tpio
SQL> @kpm_pls
SQL> @kpm_algorithm

Introduction

Besides the KPM reports, peakmarks® provides additional scripts for monitoring runs, tests, and jobs.

These scripts may help engineers better understand the internal processes of peakmarks® in case of failures or unexpected results.

These scripts generate useful output for communicating with peakmarks support in case of technical issues.

peakmarks

Simple. Representative. Fast.

Generating AWR Reports

Generating AWR Reports

peakmarks® creates AWR snapshots of the container database (CDB) at the beginning of each performance test and after the end of each test.

peakmarks® generates a SQL script to produce all AWR reports for a specific run located at …/pmk/awr

The generated scripts have the following name

- generate_awr_run_xxxx.sql

Connect to the SYSTEM account in the CDB and run the generated scripts.

Generating AWR Reports

```
$ sqlplus system/manager@SYSAWR

SQL*Plus: Release 19.0.0.0.0 - Production on Fri Jan 31 16:16:52 2025
Version 19.25.0.0.0

Copyright (c) 1982, 2024, Oracle.  All rights reserved.

Last Successful login time: Fri Jan 31 2025 09:29:14 +01:00

Connected to:
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.25.0.0.0

-----------------------------------------
Swiss Precision in Performance Management
Copyright (c) 2016-2025 www.peakmarks.com
-----------------------------------------

SYSTEM@SYSAWR SQL> @generate_awr_run_0024.sql
```

Generating AWR Reports

The peakmarks® configuration parameter AWRFORMAT determines the format of AWR reports, whether TEXT, HTML, or both.

The AWR reports follow these naming conventions:

awr_run_0017_tst_0001_dl_buffer -> local instance report

or

$$\text{awrg\_}\underbrace{\text{run\_0017}}_{\text{Run ID}}\text{\_}\underbrace{\text{tst\_0001}}_{\text{Test ID}}\text{\_}\underbrace{\text{dl\_buffer}}_{\text{Workload}}$$

-> global RAC cluster report

peakmarks

Swiss precision in performance measurement.

Export Key Performance Metrics into CSV file

Export key performance metrics into CSV file

Command pmk.export

Use command pmk.export to export all key performance metrics into CSV files in ../pmk/tmp directory for further processing

```
BENCH@PMK SQL> exec pmk.export

peakmarks Software. Copyright (c) 2016 - 2025 peakmarks Ltd. All rights reserved.
--------------------------------------------------------------------------------
Release.......................: 10.3
Build.........................: 250201

peakmarks command.............: pmk.export

PMK_PLATFORM data exported....: 1080 row(s)
PMK_RUNS data exported........: 24 row(s)
PMK_TESTS data exported.......: 509 row(s)

KPM_QUERY data exported.......: 48 row(s)
KPM_SCAN data exported........: 12 row(s)
KPM_IOREAD data exported......: 53 row(s)
KPM_IOWRITE data exported.....: 24 row(s)
KPM_LGWR data exported........: 62 row(s)
KPM_DBWR data exported........: 10 row(s)
KPM_DATALOAD data exported....: 62 row(s)
KPM_ANALYTICS data exported...: 47 row(s)
KPM_TP data exported..........: 177 row(s)
KPM_PLS data exported.........: 12 row(s)
KPM_PDB data exported.........: 2 row(s)

peakmarks pmk.export..........: completed.

PL/SQL procedure successfully completed.

BENCH@PMK SQL>
```

Export key performance metrics into CSV file

Contents in ../pmk/tmp directory

```
$ ls -altr
total 300
drwxr-xr-x 9 oracle oinstall 20480 Jan 29 16:23 ..
-rw-r--r-- 1 oracle asmdba    1859 Jan 29 20:40 alter_cdb.sql
-rw-r--r-- 1 oracle asmdba     900 Jan 29 20:40 alter_pdb.sql
-rw-r--r-- 1 oracle asmdba    3730 Jan 29 20:41 init.ora
-rw-r--r-- 1 oracle asmdba   48843 Jan 31 16:15 rplatform_000687778370.csv
-rw-r--r-- 1 oracle asmdba    3271 Jan 31 16:15 rrun_000687778370.csv
-rw-r--r-- 1 oracle asmdba   43305 Jan 31 16:15 rtst_000687778370.csv
-rw-r--r-- 1 oracle asmdba    2770 Jan 31 16:15 rkpm_query_000687778370.csv
-rw-r--r-- 1 oracle asmdba     742 Jan 31 16:15 rkpm_scan_000687778370.csv
-rw-r--r-- 1 oracle asmdba    5461 Jan 31 16:15 rkpm_ioread_000687778370.csv
-rw-r--r-- 1 oracle asmdba    1891 Jan 31 16:15 rkpm_iowrite_000687778370.csv
-rw-r--r-- 1 oracle asmdba    3244 Jan 31 16:15 rkpm_lgwr_000687778370.csv
-rw-r--r-- 1 oracle asmdba     398 Jan 31 16:15 rkpm_dbwr_000687778370.csv
-rw-r--r-- 1 oracle asmdba    4071 Jan 31 16:15 rkpm_dataload_000687778370.csv
-rw-r--r-- 1 oracle asmdba    3567 Jan 31 16:15 rkpm_analytics_000687778370.csv
-rw-r--r-- 1 oracle asmdba   11023 Jan 31 16:15 rkpm_tp_000687778370.csv
-rw-r--r-- 1 oracle asmdba     682 Jan 31 16:15 rkpm_pls_000687778370.csv
drwxr-xr-x 2 oracle oinstall 20480 Jan 31 16:15 .
-rw-r--r-- 1 oracle asmdba     171 Jan 31 16:15 rkpm_loadpdb_000687778370.csv
$
```

Export key performance metrics into CSV file

CSV files about configuration, runs and tests

File	Description	Corresponding monitoring script
rplatform	Most important Oracle instance configuration parameter	SQL> @show_instance
rrun	Run information	SQL> @show_runs
rtst	Test information	SQL> @show_tests
rkpm_pdb	Key performance metrics of peakmarks® database load	SQL> @show_pdb

Each file has a unique database ID included in its name, e.g.

rkpm_analytics_001221114020.csv

Unique ID of pluggable
peakmarks database

Export key performance metrics into CSV file

Format rplatform.csv

Column	Description	Comment
B	Database ID	Unique database id of peakmarks® PDB
C	Run ID	
D	Parameter class	DBS (database), INS (instance), SRV (server), STO (storage)
E	Parameter name	
F	Parameter value	

Export key performance metrics into CSV file

Format rrun.csv

Column	Description	Comment
B	Database ID	Unique database id of peakmarks® PDB
C	Run ID	
D	Run type	
E	Run status	
F	Run test counter	
G	Run begin	
H	Run end	
I	Runtime target in [min]	
J	Number of database errors	
K	Number of peakmarks errors	
L	Run remark	

Export key performance metrics into CSV file

Format rtst.csv

Column	Description	Comment
B	Database ID	Unique database id of peakmarks® PDB
C	Run ID	
D	Test ID	
E	Test begin	
F	Test end	
G	Test status	
H	Workload name	
I	Workload parameter	
J	ALC	Adaptive load control
K	Number of nodes	
L	Number of jobs	
M	DOP	Oracle degree of parallelism

Export key performance metrics into CSV file

Format rkpm_pdb.csv

Column	Description	Comment
B	Database ID	Unique database id of peakmarks® PDB
C	Run ID	
D	Database size in [Gbyte]	
E	Number of nodes	
F	Number of jobs	
G	CPU busy utilization in [%]	
H	Number of database writer processes	
I	Number of log writer processes	
J	Number of loaded rows	Total number of rows peakmarks® database
K	Database load time in [min]	

Export key performance metrics into CSV file

CSV files about key performance metrics

File	Description	Corresponding monitoring script
rkpm_analytics	Data analytics performance	SQL> @show_instance
rkpm_dataload	Data load performance	SQL> @show_runs
rkpm_dbwr	Database writer performance	SQL> @show_tests
rkpm_ioread	Storage I/O read performance	SQL> @kpm_ioread
rkpm_iowrite	Storage I/O write performance	SQL> @kpm_iowrite
rkpm_lgwr	Log writer performance	SQL> @kpm_lgwr
rkpm_pls	PL/SQL application code performance	SQL> @kpm_pls
rkpm_query	Server query performance	SQL> @kpm_query
rkpm_scan	Server scan performance	SQL> @kpm_scan
rkpm_tp	Online transaction processing performance	SQL> @kpm_tp

Export key performance metrics into CSV file

All rkpm files starts with the same basic information in the first columns

Column	Description	Comment
B	Database ID	Unique database id of peakmarks PDB
C	Run ID	From SQL> @show_runs.sql
D	Test ID	From SQL> @show_tests.sql
E	Workload name	
F	Number of nodes	
G	Number of jobs	
H	DOP	Oracle degree of parallelism
I	CPU busy utilization in [%]	

Columns B to I are generic, all other columns starting with J are specific

Export key performance metrics into CSV file

Format rkpm_analytics.csv

Column	Description	Comment
J	Scan rate in [rps]	Scan rate in rows per second
K	Scan rate in [MBps]	Scan rate in mega byte per second

Format rkpm_dataload.csv

Column	Description	Comment
J	Data load rate in [rps]	Data load rate in rows per second
K	Data load rate in [MBps]	Data load rate in mega byte per second

Format rkpm_dbwr.csv

Column	Description	Comment
J	Database blocks written back in [dbps]	Database blocks per second written back

Export key performance metrics into CSV file

Format rkpm_ioread.csv

Column	Description	Comment
J	Workload parameter	Update ratio in [%]
K	Physical reads in [IOPS]	Physical read operations per second
L	IO service time in [ms]	
M	Physical reads in [MBps]	
N	Physical reads in [MBps] from flash cache	

Format rkpm_iowrite.csv

Column	Description	Comment
J	Workload parameter	Update ratio in [%]
K	Physical writes in [IOPS]	Physical write operations per second
L	Physical writes in [dbps]	Number of physical blocks written back
M	Physical writes in [MBps]	Physical writes in mega bytes per second

Export key performance metrics into CSV file

Format rkpm_lgwr.csv

Column	Description	Comment
J	Transaction throughput in [tps]	Transactions per second
K	Transaction response time in [ms]	
L	Oracle event log file sync latency in [ms]	

Format rkpm_pls.csv

Column	Description	Comment
J	Workload parameter	Workload dependent
K	Operations per second in [Mops]	Million operations per second
L	Algorithm processing time in [s]	

Export key performance metrics into CSV file

Format rkpm_query.csv

Column	Description	Comment
J	SQL query throughput in [qps]	SQL executions in queries per second
K	SQL query response time in [ms]	
L	Logical reads per second in [dbps]	Logical reads in database blocks per second

Format rkpm_scan.csv

Column	Description	Comment
J	Buffer cache scan rate in [MBps]	

Export key performance metrics into CSV file

Format rkpm_tp.csv

Column	Description	Comment
J	Workload parameter	Ratio of update transactions in [%]
K	SQL execution throughput in [eps]	SQL executions per second
L	Transaction throughput in [tps]	Transactions per second
M	Transaction response time in [ms]	
N	IO service time in [ms]	
O	Oracle event log file sync latency in [ms]	

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Platform Monitoring

Platform Monitoring

The Oracle database has limited information about the infrastructure.

peakmarks® stores this information for run and provides the following scripts:

SQL> @show_storage

SQL> @show_server

SQL> @show_database

SQL> @show_instance

SQL> @show_peakmarks

SQL> @show_all

Storage System

```
BENCH@PMK SQL> @show_storage

Fri 31-Jan-2025 16:21:00

Storage Configuration
---------------------

Run.........:  24
Parameter...:

Database....:  PMK                 Oracle......:  19.25.0
Instance....:  ORA19C1             Build.......:  250201
RAC nodes...:  2                   Platform....:  peakmarks Ref System

     Storage
 Run parameter                           Value
---- ----------------------------------- ------------------------------------------------
  24 Exadata Storage Cells               3
     OMF - file path DATA                +DATAC1
     OMF - file path RECO                +DATAC1
     OMF - file system options           SETALL
     OMF - redundancy DATA               NORMAL
     OMF - redundancy RECO               NORMAL

6 rows selected.

BENCH@PMK SQL>
```

Platform Monitoring

Server System

```
BENCH@PMK SQL> @show_server

Fri 31-Jan-2025 16:21:41

Server Configuration
--------------------

Run.........:  24
Parameter...:

Database....:  PMK                Oracle......:  19.25.0
Instance....:  ORA19C1            Build.......:  250201
RAC nodes...:  2                  Platform....:  peakmarks Ref System

     Server
 Run parameter                             Value
---- ------------------------------------ ------------------------------------------------
  24 Cluster nodes                         2
     Cores                                 48
     Exadata System                        TRUE
     Memory [GByte]                        764.308
     Operating System                      Linux x86 64-bit
     Sockets                               2
     Threads                               96

7 rows selected.

BENCH@PMK SQL>
```

Per instance

Database System

```
BENCH@PMK SQL> @show_database

Fri 31-Jan-2025 16:22:51

Database Configuration
----------------------

Run.........:  24
Parameter...:

Database....:  PMK                  Oracle......:  19.25.0
Instance....:  ORA19C1              Build.......:  250201
RAC nodes...:  2                    Platform....:  peakmarks Ref System

     Database
 Run parameter                           Value
---- ----------------------------------- ----------------------------------------------
  24 Block size [Byte]                   8,192
     Database ID                         687778370
     Default tablespace type             BIGFILE
     Flashback                           NO
     Full database cache                 NO
     Local UNDO enabled                  TRUE
     Protection                          MAXIMUM PERFORMANCE
     REDO force logging                  NO
     REDO log file size [GByte]          4.000
     REDO log mode                       NOARCHIVELOG

10 rows selected.

BENCH@PMK SQL>
```

Platform Monitoring

Database Instance

```
BENCH@PMK SQL> @show_instance

Fri 31-Jan-2025 16:23:27

Instance Configuration
----------------------

Run.........:  24
Parameter...:

Database....:  PMK                Oracle......:  19.25.0
Instance....:  ORA19C1            Build.......:  250201
RAC nodes...:  2                  Platform....:  peakmarks Ref System

     Instance
 Run parameter                            Value
---- ------------------------------------ ------------------------------------------------
  24 DB Cache - col store [GByte]         8.000
     DB Cache - huge pages                ONLY
     DB Cache - memopt [GByte]            19.500
     DB Cache - recycle [GByte]           27.000
     DB Cache - row store [GByte]         383.000
     General  - MTTR fast start [sec]     60
     General  - Recycle bin               OFF
     General  - UNDO retention [sec]      0
     Memory   - aggr PGA limit [GByte]    100.859
     Memory   - log buffer [MByte]        512.000
     Memory   - max SGA memory [GByte]    383.000
     ParQuery - Force local               TRUE
     ParQuery - Min percent               100
     ParQuery - Policy                    MANUAL
     ParQuery - Processes                 768
     Process  - All                       2304
     Process  - DBWRs                     15
     Process  - DML Locks                 3456
     Process  - Database Jobs             576
     Process  - LGWRs                     9
     RscMgr   - Limit                     FALSE
     RscMgr   - Plan                      force:

22 rows selected.

BENCH@PMK SQL>
```

Per instance

peakmarks® Configuration

```
BENCH@PMK SQL> @show_peakmarks

Fri 31-Jan-2025 16:24:24

peakmarks Configuration Parameters
----------------------------------

Run.........:  24
Parameter...:

Database....:  PMK                Oracle......:  19.25.0
Instance....:  ORA19C1            Build.......:  250201
RAC nodes...:  2                  Platform....:  peakmarks Ref System

     peakmarks
 Run Parameter        Value                  Remark                                                                        Last change
---- ---------------- ---------------------- ----------------------------------------------------------------------------- ----------------
  24 AWRFORMAT        BOTH                   format of Oracle AWR reports: NONE, TEXT, HTML, BOTH                          31-JAN-2025 07:50
     CPUCOUNT         96                     number of logical CPUs: 2 ... 2048 per instance                               31-JAN-2025 07:50
     DBCACHE          383                    size of database buffer cache in [GByte]: 8 ... 32768 per instance            31-JAN-2025 07:50
     DBSIZE           4096                   size of peakmarks database in [GByte]: 64 ... 65536 per instance              31-JAN-2025 07:50
     FLASHCACHE       KEEP                   database or Exadata flash cache usage: NONE, DEFAULT, KEEP                    31-JAN-2025 07:50
     LOADER           24                     number of peakmarks loader processes: 4 ... 128 per instance                  31-JAN-2025 07:50
     PLATFORM         peakmarks Ref System   platform description, mixed case supported, max. 32 character                 31-JAN-2025 07:50
     RUNTIME          3                      runtime target in [min]: 1 ... 720                                            31-JAN-2025 07:50

8 rows selected.

There are some rules for changing the peakmarks configuration parameters
. Increase values in following sequence: DBSIZE, DBCACHE, CPUCOUNT, LOADER and INCREMENT
. Decrease values in following sequence: INCREMENT, LOADER, CPUCOUNT, DBCACHE and DBSIZE

BENCH@PMK SQL>
```

Per instance

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Monitoring peakmarks® Runs

Monitoring peakmarks® Runs

peakmarks® stores information for each run and provides the following monitoring scripts (the next peakmarks® run will overwrite the journal)

SQL> @show_runs	
SQL> @jrn	for peakmarks® support analysis only
SQL> @jrn_time	file name with timestamp, for peakmarks® support analysis only

peakmarks® runs could have one of the following states

▪ EXE	run currently executing
▪ OK	run successfully executed
▪ WARN	run has failures
▪ ABORT	run was aborted by command pmk.stop_run

Monitoring peakmarks® Runs

```
BENCH@PMK SQL> @show_runs

Fri 31-Jan-2025 16:27:55

peakmarks Run(s)
----------------

Database....:  PMK               Oracle......:  19.25.0
Instance....:  ORA19C1           Build.......:  250201
RAC nodes...:  2                 Platform....:  peakmarks Ref System

                                                       Elapsed
                      Run             Run                 time Database peakmarks
 Run Type   Status  Tests begin           end                [min]   errors    errors Remark
---- ------ ------ ------ --------------- --------------- ---------- -------- --------- ---------------------------------------------------------------------------
   1 Auto       OK      1 29-JAN 20:48:07 29-JAN 22:35:41     107.57        0         0 pmk.load_pdb on 1 node, per instance 8192 GByte dbsize and 36 loader
   2 Auto       OK      1 29-JAN 22:53:59 29-JAN 22:55:06       1.12        0         0 pmk.warmup_pdb on 1 node, per instance 8192 GByte dbsize and 36 loader
   3 Smart      OK     25 29-JAN 22:55:07 30-JAN 00:23:15      88.14        0         0 pmk.start_smart, workload group SRV
   4 Smart      OK      7 30-JAN 00:23:16 30-JAN 00:47:59      24.72        0         0 pmk.start_smart, workload group SRV-MIXED2
   5 Smart      OK    160 30-JAN 00:48:03 30-JAN 02:55:03     126.99        0         0 pmk.start_smart, workload group STO, parameter 20, inc 8
   6 Smart      OK     96 30-JAN 02:55:05 30-JAN 04:56:23     121.29        0         0 pmk.start_smart, workload group LGWR, parameter 25, inc 8
   7 Smart      OK     32 30-JAN 04:56:24 30-JAN 05:14:06      17.69        0         0 pmk.start_smart, workload group DBWR, inc 8
   8 Smart      OK     96 30-JAN 05:14:08 30-JAN 07:14:34     120.42        0         0 pmk.start_smart, workload group DL, parameter 5, inc 8
   9 Smart      OK    102 30-JAN 07:14:36 30-JAN 08:36:01      81.41        0         0 pmk.start_smart, workload group DA, inc 8
  10 Smart      OK    161 30-JAN 08:36:05 30-JAN 13:43:31     307.44        0         0 pmk.start_smart, workload group TP, parameter 20, inc 8
  11 Smart      OK     65 30-JAN 13:43:33 30-JAN 15:19:51      96.30        0         0 pmk.start_smart, workload group TP-COMPLEX, inc 8
  12 Smart      OK      8 30-JAN 15:19:53 30-JAN 15:44:50      24.95        0         0 pmk.start_smart, workload group PLS-MIXED2
  13 Auto       OK      1 30-JAN 17:10:01 30-JAN 18:13:15      63.23        0         0 pmk.load_pdb on 2 nodes, per instance 4096 GByte dbsize and 24 loader
  14 Auto       OK      1 30-JAN 18:31:43 30-JAN 18:32:53       1.16        0         0 pmk.warmup_pdb on 2 nodes, per instance 4096 GByte dbsize and 24 loader
  15 Smart      OK     25 30-JAN 18:32:59 30-JAN 20:02:42      89.71        0         0 pmk.start_smart, workload group SRV
  16 Smart      OK      7 30-JAN 20:02:45 30-JAN 20:27:50      25.08        0         0 pmk.start_smart, workload group SRV-MIXED2
  17 Smart      OK    160 30-JAN 20:28:46 30-JAN 22:21:24     112.63        0         0 pmk.start_smart, workload group STO, parameter 20, inc 8
  18 Smart      OK     96 30-JAN 22:22:10 31-JAN 00:03:13     101.05        0         0 pmk.start_smart, workload group LGWR, parameter 25, inc 8
  19 Smart      OK     32 31-JAN 00:03:28 31-JAN 00:21:27      17.98        0         0 pmk.start_smart, workload group DBWR, inc 8
  20 Smart      OK     96 31-JAN 00:22:06 31-JAN 02:02:26     100.32        0         0 pmk.start_smart, workload group DL, parameter 5, inc 8
  21 Smart      OK    102 31-JAN 02:03:07 31-JAN 03:28:42      85.60        0         0 pmk.start_smart, workload group DA, inc 8
  22 Smart      OK    161 31-JAN 03:29:56 31-JAN 06:52:52     202.93        0         0 pmk.start_smart, workload group TP, parameter 20, inc 8
  23 Smart      OK     65 31-JAN 06:53:19 31-JAN 07:50:48      57.48        0         0 pmk.start_smart, workload group TP-COMPLEX, inc 8
  24 Smart      OK      8 31-JAN 07:50:51 31-JAN 08:16:11      25.34        0         0 pmk.start_smart, workload group PLS-MIXED2

24 rows selected.

BENCH@PMK SQL>
```

peakmarks® keeps a journal for each peakmarks® run with all important events

Monitoring with script jrn.sql

- Script has filters for peakmarks® tests, peakmarks® execution programs, and text
- E.g., searching for Oracle errors during the peakmarks® run

```
BENCH@PMK SQL> @jrn

Fri 31-Jan-2025 16:29:28

peakmarks Journal
-----------------

Program.....:
Test........:
Text........:  ORA-

no rows selected

BENCH@PMK SQL>
```

Journal header with information about peakmarks® installation and platform environment

```
BENCH@PMK SQL> @jrn

Fri 31-Jan-2025 16:30:41

peakmarks Journal
-----------------

Program.....:
Test........:
Text........:

Database....:  PMK                Oracle......:  19.25.0
Instance....:  ORA19C1            Build.......:  250201
RAC nodes...:  2                  Platform....:  peakmarks Ref System

Node Program          Test       Msg# Timestamp           Message
---- ---------------- ---- ---------- ------------------- ----------------------------------------------------------------------------
   2 pmk.export          0          1 31-JAN 16:15:44.884  MSG-23131: peakmarks Software. Copyright (c) 2016 - 2025 peakmarks Ltd. All rights reserved.
   2 pmk.export          0          2 31-JAN 16:15:44.886  MSG-23132: ----------------------------------------------------------------
   2 pmk.export          0          3 31-JAN 16:15:44.886  MSG-23133: Release.......................: 10.3
   2 pmk.export          0          4 31-JAN 16:15:44.887  MSG-23134: Build.........................: 250201
   2 pmk.export          0          5 31-JAN 16:15:44.887  MSG-23135: peakmarks command.............: pmk.export
   2 pmk.export          0          6 31-JAN 16:15:44.888
   2 pmk.export          0          7 31-JAN 16:15:44.889  PCM-31542: Server Configuration
   2 pmk.export          0          8 31-JAN 16:15:44.889  PCM-31543: --------------------
   2 pmk.export          0          9 31-JAN 16:15:44.893  PCM-31541: Cluster nodes.................: 2
   2 pmk.export          0         10 31-JAN 16:15:44.893  PCM-31541: Cores.........................: 48
   2 pmk.export          0         11 31-JAN 16:15:44.893  PCM-31541: Exadata System................: TRUE
   2 pmk.export          0         12 31-JAN 16:15:44.894  PCM-31541: Memory [GByte]................: 762.933
   2 pmk.export          0         13 31-JAN 16:15:44.894  PCM-31541: Operating System..............: Linux x86 64-bit
   2 pmk.export          0         14 31-JAN 16:15:44.894  PCM-31541: Sockets.......................: 2
   2 pmk.export          0         15 31-JAN 16:15:44.894  PCM-31541: Threads.......................: 96
```

Journal header with information about peakmarks® installation and platform environment (cont.)

```
Node Program          Test       Msg# Timestamp          Message
---- ---------------- ---- ---------- ------------------ ------------------------------------------------------------------------------------------
   2 pmk.export          0         17 31-JAN 16:15:44.894  PCM-31544: Storage Configuration
   2 pmk.export          0         18 31-JAN 16:15:44.894  PCM-31545: ---------------------
   2 pmk.export          0         19 31-JAN 16:15:44.896  PCM-31541: Exadata Storage Cells.........: 3
   2 pmk.export          0         20 31-JAN 16:15:44.896  PCM-31541: OMF - file path DATA..........: +DATAC1
   2 pmk.export          0         21 31-JAN 16:15:44.897  PCM-31541: OMF - file path RECO..........: +DATAC1
   2 pmk.export          0         22 31-JAN 16:15:44.897  PCM-31541: OMF - file system options.....: SETALL
   2 pmk.export          0         23 31-JAN 16:15:44.897  PCM-31541: OMF - redundancy DATA.........: NORMAL
   2 pmk.export          0         24 31-JAN 16:15:44.897  PCM-31541: OMF - redundancy RECO.........: NORMAL
   2 pmk.export          0         25 31-JAN 16:15:44.897
   2 pmk.export          0         26 31-JAN 16:15:44.897  PCM-31546: Database Configuration
   2 pmk.export          0         27 31-JAN 16:15:44.897  PCM-31547: ----------------------
   2 pmk.export          0         28 31-JAN 16:15:44.899  PCM-31541: Block size [Byte].............: 8,192
   2 pmk.export          0         29 31-JAN 16:15:44.899  PCM-31541: Database ID...................: 687778370
   2 pmk.export          0         30 31-JAN 16:15:44.900  PCM-31541: Default tablespace type.......: BIGFILE
   2 pmk.export          0         31 31-JAN 16:15:44.900  PCM-31541: Flashback.....................: NO
   2 pmk.export          0         32 31-JAN 16:15:44.900  PCM-31541: Full database cache...........: NO
   2 pmk.export          0         33 31-JAN 16:15:44.900  PCM-31541: Local UNDO enabled............: TRUE
   2 pmk.export          0         34 31-JAN 16:15:44.900  PCM-31541: Protection....................: MAXIMUM PERFORMANCE
   2 pmk.export          0         35 31-JAN 16:15:44.900  PCM-31541: REDO force logging............: NO
   2 pmk.export          0         36 31-JAN 16:15:44.900  PCM-31541: REDO log file size [GByte]....: 4.000
   2 pmk.export          0         37 31-JAN 16:15:44.901  PCM-31541: REDO log mode.................: NOARCHIVELOG
```

Monitoring peakmarks® Runs

Journal header with information about peakmarks® installation and platform environment (cont.)

```
Node Program           Test        Msg# Timestamp           Message
---- ---------------- ---- ---------- ------------------- --------------------------------------------------------------------------------------------
   2 pmk.export          0          39 31-JAN 16:15:44.901  PCM-31548: Instance Configuration
   2 pmk.export          0          40 31-JAN 16:15:44.901  PCM-31549: ----------------------
   2 pmk.export          0          41 31-JAN 16:15:44.903  PCM-31541: DB Cache - col store [GByte]..: 8.000
   2 pmk.export          0          42 31-JAN 16:15:44.903  PCM-31541: DB Cache - huge pages.........: ONLY
   2 pmk.export          0          43 31-JAN 16:15:44.903  PCM-31541: DB Cache - memopt [GByte].....: 19.500
   2 pmk.export          0          44 31-JAN 16:15:44.903  PCM-31541: DB Cache - recycle [GByte]....: 27.000
   2 pmk.export          0          45 31-JAN 16:15:44.904  PCM-31541: DB Cache - row store [GByte]..: 383.000
   2 pmk.export          0          46 31-JAN 16:15:44.904  PCM-31541: General  - MTTR fast start [se: 60
   2 pmk.export          0          47 31-JAN 16:15:44.904  PCM-31541: General  - Recycle bin........: OFF
   2 pmk.export          0          48 31-JAN 16:15:44.904  PCM-31541: General  - UNDO retention [sec: 0
   2 pmk.export          0          49 31-JAN 16:15:44.904  PCM-31541: Memory   - aggr PGA limit [GBy: 100.859
   2 pmk.export          0          50 31-JAN 16:15:44.904  PCM-31541: Memory   - log buffer [MByte].: 512.000
   2 pmk.export          0          51 31-JAN 16:15:44.904  PCM-31541: Memory   - max SGA memory [GBy: 383.000
   2 pmk.export          0          52 31-JAN 16:15:44.905  PCM-31541: ParQuery - Force local........: TRUE
   2 pmk.export          0          53 31-JAN 16:15:44.905  PCM-31541: ParQuery - Min percent........: 100
   2 pmk.export          0          54 31-JAN 16:15:44.905  PCM-31541: ParQuery - Policy.............: MANUAL
   2 pmk.export          0          55 31-JAN 16:15:44.905  PCM-31541: ParQuery - Processes..........: 768
   2 pmk.export          0          56 31-JAN 16:15:44.905  PCM-31541: Process  - All................: 2304
   2 pmk.export          0          57 31-JAN 16:15:44.905  PCM-31541: Process  - DBWRs..............: 15
   2 pmk.export          0          58 31-JAN 16:15:44.905  PCM-31541: Process  - DML Locks..........: 3456
   2 pmk.export          0          59 31-JAN 16:15:44.905  PCM-31541: Process  - Database Jobs......: 576
   2 pmk.export          0          60 31-JAN 16:15:44.905  PCM-31541: Process  - LGWRs..............: 9
   2 pmk.export          0          61 31-JAN 16:15:44.906  PCM-31541: RscMgr   - Limit..............: FALSE
   2 pmk.export          0          62 31-JAN 16:15:44.906  PCM-31541: RscMgr   - Plan...............: force:
```

Journal header with information about peakmarks® installation and platform environment (cont.)

```
Node Program          Test       Msg# Timestamp           Message
---- ---------------- ---- ---------- ------------------- ------------------------------------------------------------------------------------------
   2 pmk.export          0         64 31-JAN 16:15:44.906  CFG-41632: peakmarks Configuration
   2 pmk.export          0         65 31-JAN 16:15:44.906  CFG-41633: -----------------------
   2 pmk.export          0         66 31-JAN 16:15:44.911  CFG-41631: AWRFORMAT.....................: BOTH
   2 pmk.export          0         67 31-JAN 16:15:44.911  CFG-41631: CPUCOUNT......................: 96
   2 pmk.export          0         68 31-JAN 16:15:44.911  CFG-41631: DBCACHE.......................: 383
   2 pmk.export          0         69 31-JAN 16:15:44.911  CFG-41631: DBSIZE........................: 4096
   2 pmk.export          0         70 31-JAN 16:15:44.911  CFG-41631: FLASHCACHE....................: KEEP
   2 pmk.export          0         71 31-JAN 16:15:44.911  CFG-41631: LOADER........................: 24
   2 pmk.export          0         72 31-JAN 16:15:44.911  CFG-41631: PLATFORM......................: peakmarks Ref System
   2 pmk.export          0         73 31-JAN 16:15:44.911  CFG-41631: RUNTIME.......................: 3
   2 pmk.export          0         74 31-JAN 16:15:44.915
   2 pmk.export          0         75 31-JAN 16:15:44.915  LKM-43511: peakmarks License
   2 pmk.export          0         76 31-JAN 16:15:44.916  LKM-43512: -----------------
   2 pmk.export          0         77 31-JAN 16:15:44.916  LKM-43513: License type..................: Perpetual License
   2 pmk.export          0         78 31-JAN 16:15:44.916  LKM-43514: License subscriber............:
   2 pmk.export          0         79 31-JAN 16:15:44.916  LKM-43515: License contact...............:
   2 pmk.export          0         80 31-JAN 16:15:44.940  LKM-43516: peakmarks serial number.......: 651A-3132-240A-D8E0
   2 pmk.export          0         81 31-JAN 16:15:44.940  LKM-43517: peakmarks software expiration.: 01-APR-2028 00:00:00
   2 pmk.export          0         82 31-JAN 16:15:44.941  LKM-43518: Compatibility release.........: 19
   2 pmk.export          0         83 31-JAN 16:15:44.941  LKM-43519: Compatibility edition.........: EE
   2 pmk.export          0         84 31-JAN 16:15:44.941
   2 pmk.export          0         85 31-JAN 16:15:44.941  PMK-81821: peakmarks pmk.export..........: started.
   2 pmk.export          0         86 31-JAN 16:15:45.152  PMK-81822: peakmarks pmk.export..........: completed.
```

Monitoring peakmarks® Runs

Journal provides information about processing of performance test

```
Node Program          Test       Msg# Timestamp           Message
---- ---------------- ---- ---------- ------------------- ----------------------------------------------------------------------------------------------
   1 pmk.start_run       0         86 06-SEP 11:51:42.291 PMK-81793: Workload group................: PLS-MIXED passed with parameter
   1 pmk.start_run       0         87 06-SEP 11:51:42.291 PMK-81794: Increment for smart run.......: DEFAULT passed
   1 pmk.start_run       0         89 06-SEP 11:51:42.291 PMK-81796: peakmarks workload group......: PLS-MIXED started.
   1 pmk.start_run       0         90 06-SEP 11:51:42.406 PMK-81799: peakmarks configuration with..: 6 test(s) completed.
   1 pmk.pcp             1          1 06-SEP 11:51:52.579 TML-72351: process syncronisation test...: 1 started
   1 pmk.pcp             1          2 06-SEP 11:51:52.661 TML-72353: number of jobs submitted......: 8
   1 pmk.pep-0002        1          1 06-SEP 11:51:52.785 PMK-81826: workload process ready for....: PLS-ADD with parameter NU; DOP 1
   2 pmk.pep-0001        1          1 06-SEP 11:51:54.496 PMK-81826: workload process ready for....: PLS-ADD with parameter NU; DOP 1
   1 pmk.pep-0003        1          1 06-SEP 11:51:57.829 PMK-81826: workload process ready for....: PLS-ADD with parameter PI; DOP 1
   1 pmk.pep-0005        1          1 06-SEP 11:51:57.829 PMK-81826: workload process ready for....: PLS-BUILTIN with parameter NU; DOP 1
   1 pmk.pep-0007        1          1 06-SEP 11:51:57.832 PMK-81826: workload process ready for....: PLS-BUILTIN with parameter VC; DOP 1
   2 pmk.pep-0008        1          1 06-SEP 11:51:58.938 PMK-81826: workload process ready for....: PLS-BUILTIN with parameter VC; DOP 1
   2 pmk.pep-0004        1          1 06-SEP 11:51:58.952 PMK-81826: workload process ready for....: PLS-ADD with parameter PI; DOP 1
   2 pmk.pep-0006        1          1 06-SEP 11:51:58.980 PMK-81826: workload process ready for....: PLS-BUILTIN with parameter NU; DOP 1
   1 pmk.pcp             1          3 06-SEP 11:52:02.661 TML-72354: number of jobs started........: 8 after 10 seconds
   1 pmk.pcp             1          4 06-SEP 11:52:12.015 PSM-32521: database snapshot created.....: 2880 in 9.352 sec
   1 pmk.pcp             1          5 06-SEP 11:52:12.806 PSM-32517: peakmarks snapshot created....: 2085 in 0.791 sec
   2 pmk.pep-0004        1          2 06-SEP 11:52:12.807 PMK-81827: workload process running on...: PLS-ADD with parameter PI; DOP 1
   1 pmk.pep-0007        1          2 06-SEP 11:52:12.807 PMK-81827: workload process running on...: PLS-BUILTIN with parameter VC; DOP 1
   2 pmk.pep-0001        1          2 06-SEP 11:52:12.807 PMK-81827: workload process running on...: PLS-ADD with parameter NU; DOP 1
   1 pmk.pep-0003        1          2 06-SEP 11:52:12.807 PMK-81827: workload process running on...: PLS-ADD with parameter PI; DOP 1
   1 pmk.pep-0002        1          2 06-SEP 11:52:12.807 PMK-81827: workload process running on...: PLS-ADD with parameter NU; DOP 1
   1 pmk.pep-0005        1          2 06-SEP 11:52:12.807 PMK-81827: workload process running on...: PLS-BUILTIN with parameter NU; DOP 1
   1 pmk.pcp             1          6 06-SEP 11:52:12.807 TML-72358: lock in SHARED mode converted.: 8 job(s) start executing
   2 pmk.pep-0008        1          2 06-SEP 11:52:12.808 PMK-81827: workload process running on...: PLS-BUILTIN with parameter VC; DOP 1
   2 pmk.pep-0006        1          2 06-SEP 11:52:12.808 PMK-81827: workload process running on...: PLS-BUILTIN with parameter NU; DOP 1
   1 pmk.pcp             1          7 06-SEP 11:52:42.808 TML-72359: waiting for job termination...: 8 job(s)
   1 pmk.pep-0002        1          3 06-SEP 11:55:13.746 PMK-81830: workload process terminates...: after 61 heat(s) and 0 trn(s); 180.891 s exe time; 0.000 s avg trn time
   2 pmk.pep-0008        1          3 06-SEP 11:55:13.819 PMK-81830: workload process terminates...: after 61 heat(s) and 0 trn(s); 180.898 s exe time; 0.000 s avg trn time
   2 pmk.pep-0006        1          3 06-SEP 11:55:13.819 PMK-81830: workload process terminates...: after 61 heat(s) and 0 trn(s); 180.923 s exe time; 0.000 s avg trn time
   ...
   1 pmk.pcp             1          8 06-SEP 11:55:14.935 TML-72360: lock in EXCLUS mode converted.: 8 job(s) terminated
   1 pmk.pcp             1          9 06-SEP 11:55:15.549 TML-72361: global checkpoint.............: 1 completed in 0.613 s
   1 pmk.pcp             1         10 06-SEP 11:55:15.550 TML-72346: all job statistics for test...: 1 collected
   1 pmk.pcp             1         11 06-SEP 11:55:16.094 PSM-32517: peakmarks snapshot created....: 2086 in 0.543 sec
   1 pmk.pcp             1         12 06-SEP 11:55:20.376 PSM-32521: database snapshot created.....: 2881 in 4.282 sec
   1 pmk.pcp             1         13 06-SEP 11:55:20.529 TML-72363: process syncronisation test...: 1 completed
```

Monitoring peakmarks® Runs

Script jrn_time.sql without any filter and with timestamp in file name

```
BENCH@PMK SQL> @jrn_time

Sat 07-Sep-2024 09:39:09

peakmarks Journal
-----------------

Database....:  PMK                 Oracle......:  23.5.0
Instance....:  ORA23AI1            Build.......:  240901
RAC nodes...:  2                   Platform....:  peakmarks Ref System

Node Program          Test       Msg# Timestamp          Message
---- ---------------- ---- ---------- ------------------ --------------------------------------------------------------------------------------------------------------
   1 pmk.start_run       0          1 06-SEP 11:51:41.705 MSG-23131: peakmarks Software. Copyright (c) 2016 - 2024 peakmarks Ltd. All rights reserved.
   1 pmk.start_run       0          2 06-SEP 11:51:41.707 MSG-23132: --------------------------------------------------------------------------------
   1 pmk.start_run       0          3 06-SEP 11:51:41.707 MSG-23133: Release.......................: 10.2
   1 pmk.start_run       0          4 06-SEP 11:51:41.707 MSG-23134: Build.........................: 240901
   1 pmk.start_run       0          5 06-SEP 11:51:41.707 MSG-23135: peakmarks command.............: pmk.start_run
   1 pmk.start_run       0          6 06-SEP 11:51:42.280
   ...
```

```
BENCH@PMK SQL> host ls jrn*
jrn_240907_093910.lis

BENCH@PMK SQL>
```

peakmarks

Swiss precision in performance measurement.

peakmarks

Monitoring peakmarks® Tests

Monitoring peakmarks® Tests

peakmarks® stores information for each test and provides the following monitoring scripts:

SQL> @show_tests

SQL> @show_failedtests

SQL> @show_teststats for peakmarks® support analysis only

peakmarks® tests could have one of the following states

- R test registered
- E test currently executing
- OK test successfully executed
- F test has failures
- A test was aborted by command pmk.stop_run

Monitoring peakmarks® Tests

```
BENCH@PMK SQL> @show_tests

Sat 07-Sep-2024 09:42:11

peakmarks Test(s)
-----------------

Run.........:  40
Test........:
Workload....:

Database....:  PMK                  Oracle......:  23.5.0
Instance....:  ORA23AI1             Build.......:  240901
RAC nodes...:  2                    Platform....:  peakmarks Ref System

                                                             Runtime
                                Para                          target Test                 Test
 Run Test Status Workload      meter  ALC Nodes  Jobs  DOP   [min] begin                end
---- ---- ------ ------------ ------ ---- ----- ----- ---- ------- -------------------- --------------------
  40    1     OK TP-WARMUP       N/A    0     2    96    1       3 04-SEP-2024 13:03:49 04-SEP-2024 13:07:03

                                                             Runtime
                                Para                          target Test                 Test
 Run Test Status Workload      meter  ALC Nodes  Jobs  DOP   [min] begin                end
---- ---- ------ ------------ ------ ---- ----- ----- ---- ------- -------------------- --------------------
  40    2     OK TP-MIXED2       N/A    0     2     8    1       3 04-SEP-2024 13:07:28 04-SEP-2024 13:10:43
        3     OK TP-MIXED2       N/A    0     2    32    1       3 04-SEP-2024 13:11:09 04-SEP-2024 13:14:25
        4     OK TP-MIXED2       N/A    0     2    64    1       3 04-SEP-2024 13:14:51 04-SEP-2024 13:18:08
        5     OK TP-MIXED2       N/A    0     2    96    1       3 04-SEP-2024 13:18:35 04-SEP-2024 13:21:55
        6     OK TP-MIXED2       N/A    0     2   128    1       3 04-SEP-2024 13:22:22 04-SEP-2024 13:25:44
        7     OK TP-MIXED2       N/A    0     2   160    1       3 04-SEP-2024 13:26:13 04-SEP-2024 13:29:39
        8     OK TP-MIXED2       N/A    0     2   192    1       3 04-SEP-2024 13:30:09 04-SEP-2024 13:33:38
        9     OK TP-MIXED2       N/A    0     2   224    1       3 04-SEP-2024 13:34:09 04-SEP-2024 13:37:39
       10     OK TP-MIXED2       N/A    0     2   256    1       3 04-SEP-2024 13:38:11 04-SEP-2024 13:41:45
       11     OK TP-MIXED2       N/A    0     2   288    1       3 04-SEP-2024 13:42:18 04-SEP-2024 13:45:56
       12     OK TP-MIXED2       N/A    0     2   320    1       3 04-SEP-2024 13:46:29 04-SEP-2024 13:50:10
       13     OK TP-MIXED2       N/A    0     2   352    1       3 04-SEP-2024 13:50:44 04-SEP-2024 13:54:27
       14     OK TP-MIXED2       N/A    0     2   384    1       3 04-SEP-2024 13:55:03 04-SEP-2024 13:58:49

14 rows selected.

BENCH@PMK SQL>
```

```
BENCH@PMK SQL> @show_teststats

Sat 07-Sep-2024 09:44:18

peakmarks Test Statistics
-------------------------

Run.........:  40
Test........:
Workload....:

Database....:  PMK                 Oracle......:  23.5.0
Instance....:  ORA23AI1            Build.......:  240901
RAC nodes...:  2                   Platform....:  peakmarks Ref System

                                   Para        KPM value        KPM value KPM value    peakmarks    peakmarks     database     database
 Run Test Status Workload         meter        curr test        prev test   inc [%]       snap 1       snap 2       snap 1       snap 2
---- ---- ------ ------------ ------ ---------------- ---------------- --------- ------------ ------------ ------------ ------------
  40    1     OK TP-WARMUP      N/A                0                0      0.00        1,935        1,936        2,729        2,730

                                   Para        KPM value        KPM value KPM value    peakmarks    peakmarks     database     database
 Run Test Status Workload         meter        curr test        prev test   inc [%]       snap 1       snap 2       snap 1       snap 2
---- ---- ------ ------------ ------ ---------------- ---------------- --------- ------------ ------------ ------------ ------------
  40    2     OK TP-MIXED2      N/A           11,857                0      0.00        1,937        1,938        2,731        2,732
        3     OK TP-MIXED2      N/A           33,768           11,857     92.40        1,939        1,940        2,733        2,734
        4     OK TP-MIXED2      N/A           51,152           33,768     25.74        1,941        1,942        2,735        2,736
        5     OK TP-MIXED2      N/A           61,575           51,152     10.19        1,943        1,944        2,737        2,738
        6     OK TP-MIXED2      N/A           66,771           61,575      4.22        1,945        1,946        2,739        2,740
        7     OK TP-MIXED2      N/A           69,528           66,771      2.06        1,947        1,948        2,741        2,742
        8     OK TP-MIXED2      N/A           69,908           69,528      0.27        1,949        1,950        2,743        2,744
        9     OK TP-MIXED2      N/A           70,125           69,908      0.16        1,951        1,952        2,745        2,746
       10     OK TP-MIXED2      N/A           71,937           70,125      1.29        1,953        1,954        2,747        2,748
       11     OK TP-MIXED2      N/A           72,993           71,937      0.73        1,955        1,956        2,749        2,750
       12     OK TP-MIXED2      N/A           74,248           72,993      0.86        1,957        1,958        2,751        2,752
       13     OK TP-MIXED2      N/A           74,795           74,248      0.37        1,959        1,960        2,753        2,754
       14     OK TP-MIXED2      N/A           74,665           74,795     -0.09        1,961        1,962        2,755        2,756

14 rows selected.

BENCH@PMK SQL>
```

Monitoring peakmarks® Tests

```
BENCH@PMK SQL> @show_failedtests

Sat 07-Sep-2024 09:45:56

Failed peakmarks Test(s)
------------------------

Run.........:
Test........:

Database....:  PMK                 Oracle......:  23.5.0
Instance....:  ORA23AI1            Build.......:  240901
RAC nodes...:  2                   Platform....:  peakmarks Ref System

                                                          Runtime
                                            Para          target Test                 Test
 Run Test Status Workload      meter  ALC Nodes  Jobs  DOP  [min] begin                end
---- ---- ------ ------------ ------ ---- ----- ----- ---- ------- -------------------- --------------------
   2    1      A ADM-01          N/A    1     1    16    2       3 31-AUG-2024 11:53:11 31-AUG-2024 12:25:18

                                                          Runtime
                                            Para          target Test                 Test
 Run Test Status Workload      meter  ALC Nodes  Jobs  DOP  [min] begin                end
---- ---- ------ ------------ ------ ---- ----- ----- ---- ------- -------------------- --------------------
   6    1      F ADM-01          N/A    1     1    30    2       3 31-AUG-2024 15:16:50 31-AUG-2024 15:48:42

                                                          Runtime
                                            Para          target Test                 Test
 Run Test Status Workload      meter  ALC Nodes  Jobs  DOP  [min] begin                end
---- ---- ------ ------------ ------ ---- ----- ----- ---- ------- -------------------- --------------------
  29   26      A LGWR-LAT1       N/A    0     2   200    1       3 02-SEP-2024 08:43:13 03-SEP-2024 11:29:48

3 rows selected.

BENCH@PMK SQL>
```

peakmarks

Simple. Representative. Fast.

Monitoring peakmarks® Jobs

Monitoring peakmarks® Jobs

peakmarks® stores information for each job and provides the following monitoring scripts

```
SQL> @show_jobs
SQL> @show_failedjobs
SQL> @show_jobstats1        for peakmarks® support analysis only
SQL> @show_jobstats2        for peakmarks® support analysis only
```

peakmarks job could have one of the following states

- R job registered
- E job currently executing
- OK job successfully executed
- F job has failures
- A job was aborted by command pmk.stop_run

Monitoring peakmarks® Jobs

```
BENCH@PMK SQL> @show_jobs

Sat 07-Sep-2024 09:47:11

peakmarks Job(s)
----------------

Run.........:  40
Test........:  2
Workload....:

Database....:  PMK                 Oracle......:  23.5.0
Instance....:  ORA23AI1            Build.......:  240901
RAC nodes...:  2                   Platform....:  peakmarks Ref System

                                          Para              Job             Job                 Database peakmarks Database Database                         Processed
 Run Test  Job Node Status Workload      meter  ALC  DOP begin           end                   errors    errors     job# job command                         heats
---- ---- ---- ---- ------ ------------ ------ ---- ---- --------------- --------------- -------- --------- -------- ---------------------------- ----------
  40    2    1    2     OK TP-LIGHT         30    0    1 04-SEP 13:07:19 04-SEP 13:10:31        0         0   68,891 pmk.pep (40, 2, 1);                  38
        2    2    1     OK TP-LIGHT         30    0    1 04-SEP 13:07:20 04-SEP 13:10:33        0         0   68,892 pmk.pep (40, 2, 2);                  36
        2    3    1     OK TP-MEDIUM        20    0    1 04-SEP 13:07:15 04-SEP 13:10:29        0         0   68,893 pmk.pep (40, 2, 3);                  46
        2    4    2     OK TP-MEDIUM        20    0    1 04-SEP 13:07:13 04-SEP 13:10:29        0         0   68,894 pmk.pep (40, 2, 4);                  45
        2    5    1     OK TP-HEAVY         10    0    1 04-SEP 13:07:15 04-SEP 13:10:28        0         0   68,895 pmk.pep (40, 2, 5);                  61
        2    6    2     OK TP-HEAVY         10    0    1 04-SEP 13:07:13 04-SEP 13:10:29        0         0   68,896 pmk.pep (40, 2, 6);                  62
        2    7    2     OK DL-BUFFER         2    0    1 04-SEP 13:07:19 04-SEP 13:10:31        0         0   68,897 pmk.pep (40, 2, 7);                  36
        2    8    1     OK DL-BUFFER         2    0    1 04-SEP 13:07:20 04-SEP 13:10:28        0         0   68,898 pmk.pep (40, 2, 8);                  36
```

Monitoring peakmarks® Jobs

```
BENCH@PMK SQL> @show_jobstats1

Sat 07-Sep-2024 09:50:00

peakmarks Job Statistic(s) I
----------------------------

Run.........:  40
Test........:  2
Workload....:

Database....:  PMK                  Oracle......:  23.5.0
Instance....:  ORA23AI1             Build.......:  240901
RAC nodes...:  2                    Platform....:  peakmarks Ref System

                                                                 Execution
                                           Para               Workload Workload        time  Processed           Operations                 Rows       Transactions                 Data
 Run Test  Job Node Status Workload        meter  ALC  DOP begin    end               [s]      heats                total                total              total                total
---- ---- ---- ---- ------ ------------ ------ ---- ---- -------- -------- ----------- ---------- -------------------- -------------------- ------------------ --------------------
  40    2    1    2     OK TP-LIGHT         30    0    1 13:07:28 13:10:31     183.287         38              406,680              528,684            406,680                    0
        2    2    1     OK TP-LIGHT         30    0    1 13:07:28 13:10:33     184.996         36              359,410              467,233            359,410                    0
        2    3    1     OK TP-MEDIUM        20    0    1 13:07:28 13:10:29     181.551         46              103,370            3,100,003            103,370                    0
        2    4    2     OK TP-MEDIUM        20    0    1 13:07:28 13:10:29     181.454         45              119,250            3,577,166            119,250                    0
        2    5    1     OK TP-HEAVY         10    0    1 13:07:28 13:10:28     180.172         61               52,470            7,217,020             52,470                    0
        2    6    2     OK TP-HEAVY         10    0    1 13:07:28 13:10:29     181.600         62               51,130            7,030,008             51,130                    0
        2    7    2     OK DL-BUFFER         2    0    1 13:07:28 13:10:31     183.065         36              379,758              758,000            379,758          227,400,000
        2    8    1     OK DL-BUFFER         2    0    1 13:07:28 13:10:28     180.116         36              415,830              830,000            415,830          249,000,000
```

Monitoring peakmarks® Jobs

```
BENCH@PMK SQL> @show_jobstats2

Sat 07-Sep-2024 09:52:34

peakmarks Job Statistic(s) II
-----------------------------

Run.........:  40
Test........:  2
Workload....:

Database....:  PMK                Oracle......:  23.5.0
Instance....:  ORA23AI1           Build.......:  240901
RAC nodes...:  2                  Platform....:  peakmarks Ref System

                                                                                                                                Tot Trunc   Avg Trunc
                                             Para                        Rows             Selected             Inserted              Updated  Processed        time        time
 Run Test  Job Node Status Workload         meter  ALC  DOP             total                 rows                 rows                 rows  truncates         [s]         [s]
---- ---- ---- ---- ------ ------------ ------ ---- ---- -------------------- -------------------- -------------------- -------------------- ---------- ----------- -----------
  40    2    1    2     OK TP-LIGHT         30    0    1              528,684              406,680                    0              122,004          0       0.000       0.000
        2    2    1     OK TP-LIGHT         30    0    1              467,233              359,410                    0              107,823          0       0.000       0.000
        2    3    1     OK TP-MEDIUM        20    0    1            3,100,003            2,583,379                    0              516,624          0       0.000       0.000
        2    4    2     OK TP-MEDIUM        20    0    1            3,577,166            2,980,387                    0              596,779          0       0.000       0.000
        2    5    1     OK TP-HEAVY         10    0    1            7,217,020            6,560,261                    0              656,759          0       0.000       0.000
        2    6    2     OK TP-HEAVY         10    0    1            7,030,008            6,389,168                    0              640,840          0       0.000       0.000
        2    7    2     OK DL-BUFFER         2    0    1              758,000                    0              758,000                    0         35      10.938       0.313
        2    8    1     OK DL-BUFFER         2    0    1              830,000                    0              830,000                    0         35      10.981       0.314
```

peakmarks

Swiss precision in performance measurement.

peakmarks

More useful Monitoring Scripts

More useful Monitoring Scripts

The directory ../pmk/sql contains many more useful SQL monitoring scripts.

A list of all available SQL scripts that are not part of the peakmarks® Software can be found in the file 2024_sql_directory.pdf in the directory ../pmk/sql

Heading of file 2024_sql_directory.pdf

```
--------------------------------------------------------------------------------------------
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--------------------------------------------------------------------------------------------

Document...:    sql_directory.txt

Last update:    01-Sep-2024, MDR

Location...:    ../doc directory

Description:    directory of general peakmarks SQL reporting scripts,
                supporting CDB architecture of Oracle 19c, 21c and 23ai

Notes......:    . these scripts are helpful in monitoring Oracle databases
                . they provide all information in a self-explanatory shape
                . most scripts can be used independently of peakmarks(R) Software
                . the directory with these scripts, e.g. ../sql, should be defined in the
                  environment variable ORACLE_PATH (Linux) or in the registry variable
                  SQLPATH (Windows)

--------------------------------------------------------------------------------------------
```

```
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1. Introduction
2. Requirements
3. ASM Volume Manager
4. Database Monitoring
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9. UNDO & TX Monitoring
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13. I/O Monitoring
14. DataGuard Monitoring
15. Miscellaneous Scripts

peakmarks

Simple. Representative. Fast.

Summary of Scripts and Commands

Summary of Scripts and Commands

Monitoring peakmarks® runs

SQL> @show_runs

SQL> @jrn

SQL> @jrn_time

Monitoring peakmarks® tests

SQL> @show_tests

SQL> @show_failedtests

SQL> @show_teststats

Monitoring peakmarks® jobs

SQL> @show_jobs

SQL> @show_failedjobs

SQL> @show_jobstats1

SQL> @show_jobstats2

Export key performance metrics into CSV files

SQL> exec pmk.export

peakmarks Mission

Identify Key Performance Metrics for Oracle Database Platforms.

On-Premises and in the Cloud.

For Quality Assurance, Evaluations, and Capacity Planning.