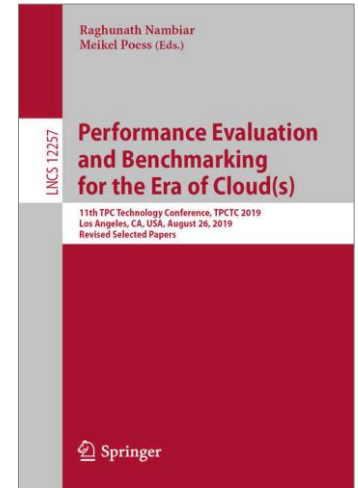


peakmarks[®] Monitoring

peakmarks[®] Version 10.2

March 2024



peakmarks[®] showcased its software
at the 2019 TPC Technology
Conference in Los Angeles.



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Database name	ORA19C / ORA21C / ORA23c	
Instance names	ORA19C / ORA21C / ORA23C	for a single instance
	ORA19C1 / ORA21C1 / ORA23C1	for RAC instance 1
	ORA19C2 / ORA21C2 / ORA23C2	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	



[MBps] megabyte per second

[GBps] gigabyte per second

[dbps] database blocks per second

[rbps] redo blocks per second

[dbpt] database blocks per transaction

[s] seconds

[ms] milliseconds

[μs] microseconds

[IOPS] I/O operations per second

[qps] queries per second

[rps] rows per second

[tps] transactions per second

[kBpt] kilobyte per transaction

[Mops] million operations per second

Nodes number of cluster nodes

Jobs number of workload processes

BuCache Database Buffer Cache

FlCache Database or Exadata Flash Cache

In the following reports, the key performance metrics are marked red.



Simple. Representative. Fast.

Platform Monitoring



The Oracle database has some limited information about the infrastructure

peakmarks® stores this information for each peakmarks 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

Thu 03-Aug-2023 09:06:35

Storage Configuration
-----

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

Database.....: PMK           Oracle.....: 19.20.0
Instance.....: ORA19C1       Build.....: 230801
RAC nodes....: 2            Platform....: PMEXA01.LAB.LOCAL

  Storage
Run parameter                Value
-----
 0 Exadata Storage Cells      3
  file path DATA              +DATA
  file path RECO               +DATA
  redundancy DATA             HIGH
  redundancy RECO              HIGH

5 rows selected.

BENCH@PMK SQL>
```



Server System

```
BENCH@PMK SQL> @show_server
```

```
Thu 03-Aug-2023 09:06:45
```

Server Configuration

```
Run.....:
```

```
Parameter...:
```

```
Database.....: PMK           Oracle.....: 19.20.0
Instance.....: ORA19C1       Build.....: 230801
RAC nodes....: 2            Platform....: PMEXA01.LAB.LOCAL
```

Server		
Run parameter		Value

0 Cluster nodes		2
Cores		48
Exadata System		TRUE
Memory [GByte]		754.105
Operating System		Linux x86 64-bit
Sockets		2
Threads		96

} Per instance

```
7 rows selected.
```

```
BENCH@PMK SQL>
```

Database System

```
BENCH@PMK SQL> @show_database

Thu 03-Aug-2023 09:06:55

Database Configuration
-----

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

Database.....: PMK           Oracle.....: 19.20.0
Instance.....: ORA19C1       Build.....: 230801
RAC nodes....: 2           Platform....: PMEXA01.LAB.LOCAL

      Database
Run parameter                Value
-----
 0 Database ID                3728762636
  REDO log file size [GByte]   4.000
  REDO log mode                NOARCHIVELOG
  Replication                  UNKNOWN

4 rows selected.

BENCH@PMK SQL>
```

Database Instance

```
BENCH@PMK SQL> @show_instance
```

```
Thu 03-Aug-2023 09:07:00
```

Instance Configuration

```
-----
```

```
Run.....:
```

```
Parameter...:
```

```
Database....: PMK                Oracle.....: 19.20.0  
Instance....: ORA19C1            Build.....: 230801  
RAC nodes...: 2                  Platform....: PMEXA01.LAB.LOCAL
```

Instance Run parameter	Value
-----	-----
0 DB Cache - col store [GByte]	8.000
DB Cache - memopt [GByte]	19.500
DB Cache - recycle [GByte]	19.500
DB Cache - row store [GByte]	384.000
DML Locks	1152
Log Buffer [MByte]	512.000
Process Memory [GByte]	301.641
Processes - All	1152
Processes - DBWRs	12
Processes - Database Jobs	576
Processes - LGWRs	9
Processes - Parallel Query	768

Per instance

```
12 rows selected.
```

```
BENCH@PMK SQL>
```

Peakmarks Configuration

```
BENCH@PMK SQL> @show_peakmarks
```

```
Thu 03-Aug-2023 09:07:06
```

```
peakmarks Configuration Parameters
```

```
-----
```

```
Run.....:
```

```
Parameter...:
```

```
Database.....: PMK           Oracle.....: 19.20.0
Instance.....: ORA19C2       Build.....: 230801
RAC nodes....: 2            Platform....: PMEXA01.LAB.LOCAL
```

peakmarks			
Run	Parameter	Value	Remark

16	AWRFORMAT	BOTH	format of Oracle AWR reports: NONE, TEXT, HTML, BOTH
	CPUCOUNT	96	number of logical CPUs: 2 ... 1024
	DBCACHE	378	size of database buffer cache in [GByte]: 8 ... 8192
	DBSIZE	2048	size of peakmarks database in [GByte]: 64 ... 65536
	FLASHCACHE	KEEP	database or Exadata flash cache usage: NONE, DEFAULT, KEEP
	LICENSEKEY	C279-5DF7-8566-8F15	peakmarks license key
	LOADER	16	number of peakmarks loader processes: 4 ... 128
	PLATFORM	PMEXA01.LAB.LOCAL	platform description, mixed case supported, max. 20 character
	RUNTIME	3	runtime target in [min]: 1 ... 720
			03-AUG-2023 05:36

Per instance

```
9 rows selected.
```

```
BENCH@PMK SQL>
```



Swiss precision in measuring.

Monitoring peakmarks Runs



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

```
SQL> @show_runs
```

```
SQL> @jrn (for peakmarks support analysis only)
```

peakmarks runs could have one of the following states

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

Monitoring peakmarks Runs



BENCH@PMK SQL> @show_runs

Thu 03-Aug-2023 20:05:18

peakmarks Run(s)

Database....: PMK Oracle.....: 19.20.0
 Instance....: ORA19C1 Build.....: 230801
 RAC nodes...: 2 Platform....: PMEXA01.LAB.LOCAL

Run Type	Status	Tests	Run begin	Run end	Elapsed time [min]	Database errors	peakmarks errors	Remark
1	Auto	OK	1 02-AUG 15:21:24	02-AUG 16:05:33	44.16	0	0	pmk.load_pdb 2 x 2,048 GByte with 2 x 16 loader processes
2	Auto	OK	1 02-AUG 16:10:29	02-AUG 16:11:14	0.75	0	0	pmk.populate
3	Smart	E	21 02-AUG 16:13:27			0	0	pmk.start_run workload group SRV
4	Auto	OK	1 02-AUG 16:26:21	02-AUG 16:27:10	0.81	0	0	pmk.populate
5	Smart	E	21 02-AUG 16:27:23			0	0	pmk.start_run workload group SRV
6	Auto	OK	1 02-AUG 16:43:46	02-AUG 16:44:34	0.79	0	0	pmk.populate
7	Smart	E	21 02-AUG 16:44:53			0	0	pmk.start_run workload group SRV
8	Manual	OK	1 02-AUG 17:54:27	02-AUG 17:57:46	3.33	0	0	pmk.start_run workload group MANUAL
9	Smart	OK	21 02-AUG 17:58:08	02-AUG 19:07:27	69.33	0	0	pmk.start_run workload group SRV
10	Smart	OK	6 02-AUG 19:07:28	02-AUG 19:27:19	19.86	0	0	pmk.start_run workload group SRV-MIXED
11	Smart	F	160 02-AUG 19:27:24	02-AUG 22:17:56	170.54	82	492	pmk.start_run workload group STO with increment 4 and parameter 20
12	Smart	F	128 02-AUG 22:18:00	03-AUG 01:58:16	220.26	130	780	pmk.start_run workload group LGWR with increment 8
13	Smart	OK	32 03-AUG 01:58:17	03-AUG 02:14:57	16.66	0	0	pmk.start_run workload group DBWR with increment 4
14	Smart	OK	64 03-AUG 02:14:59	03-AUG 03:20:29	65.50	0	0	pmk.start_run workload group DL with increment 8
15	Smart	OK	74 03-AUG 03:20:31	03-AUG 05:36:06	135.59	0	0	pmk.start_run workload group DA with increment 4
16	Smart	OK	161 03-AUG 05:36:11	03-AUG 12:46:35	430.40	0	0	pmk.start_run workload group TP with increment 4 and parameter 20
17	Smart	OK	32 03-AUG 12:46:37	03-AUG 14:26:29	99.87	0	0	pmk.start_run workload group TP-MIXED1 with increment 4
18	Smart	OK	32 03-AUG 14:26:30	03-AUG 15:27:49	61.32	0	0	pmk.start_run workload group TP-MIXED2 with increment 4
19	Smart	OK	32 03-AUG 15:27:50	03-AUG 17:12:40	104.82	0	0	pmk.start_run workload group PLS
20	Smart	OK	5 03-AUG 17:12:40	03-AUG 17:29:37	16.94	0	0	pmk.start_run workload group PLS-MIXED
21	Manual	OK	14 03-AUG 17:43:11	03-AUG 18:30:28	47.28	0	0	pmk.start_run workload group MANUAL

21 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  
  
Mon 31-Jul-2023 09:38:33  
  
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

Mon 31-Jul-2023 09:44:31

peakmarks Journal
-----

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

Database....: PMK           Oracle.....: 19.17.0
Instance....: ORA19C2       Build.....: 230801
RAC nodes...: 2            Platform...: PMEXA01.LAB.LOCAL

Node Program      Test      Msg# Timestamp      Message
-----
1 pmk.start_run  0         1 16-APR 09:51:49.590 MSG-23131: peakmarks Software. Copyright (c) 2016 - 2023 peakmarks Ltd. All rights reserved
1 pmk.start_run  0         2 16-APR 09:51:49.592 MSG-23132: -----
1 pmk.start_run  0         3 16-APR 09:51:49.592 MSG-23133: Release.....: 10.1
1 pmk.start_run  0         4 16-APR 09:51:49.592 MSG-23134: Build.....: 230801
1 pmk.start_run  0         5 16-APR 09:51:49.593 MSG-23135: peakmarks command.....: pmk.start_run
1 pmk.start_run  0         6 16-APR 09:51:50.110
1 pmk.start_run  0         7 16-APR 09:51:50.110 PCM-31522: Server Configuration
1 pmk.start_run  0         8 16-APR 09:51:50.110 PCM-31523: -----
1 pmk.start_run  0         9 16-APR 09:51:50.110 PCM-31521: Cluster nodes.....: 2
1 pmk.start_run  0        10 16-APR 09:51:50.111 PCM-31521: Cores.....: 36
1 pmk.start_run  0        11 16-APR 09:51:50.111 PCM-31521: Exadata System.....: TRUE
1 pmk.start_run  0        12 16-APR 09:51:50.111 PCM-31521: Memory [GByte].....: 755.288
1 pmk.start_run  0        13 16-APR 09:51:50.111 PCM-31521: Operating System.....: Linux x86 64-bit
1 pmk.start_run  0        14 16-APR 09:51:50.111 PCM-31521: Sockets.....: 2
1 pmk.start_run  0        15 16-APR 09:51:50.111 PCM-31521: Threads.....: 72
```



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

Node	Program	Test	Msg#	Timestamp	Message
1	pmk.start_run	0	17	16-APR 09:51:50.112	PCM-31524: Storage Configuration
1	pmk.start_run	0	18	16-APR 09:51:50.112	PCM-31525: -----
1	pmk.start_run	0	19	16-APR 09:51:50.112	PCM-31521: Exadata Storage Cells.....: 3
1	pmk.start_run	0	20	16-APR 09:51:50.112	PCM-31521: file path DATA.....: +DATAC1
1	pmk.start_run	0	21	16-APR 09:51:50.112	PCM-31521: file path RECO.....: +RECO C1
1	pmk.start_run	0	22	16-APR 09:51:50.113	PCM-31521: redundancy DATA.....: NORMAL
1	pmk.start_run	0	23	16-APR 09:51:50.113	PCM-31521: redundancy RECO.....: NORMAL
1	pmk.start_run	0	24	16-APR 09:51:50.113	
1	pmk.start_run	0	25	16-APR 09:51:50.113	PCM-31526: Database Configuration
1	pmk.start_run	0	26	16-APR 09:51:50.113	PCM-31527: -----
1	pmk.start_run	0	27	16-APR 09:51:50.113	PCM-31521: Database ID.....: 3927165785
1	pmk.start_run	0	28	16-APR 09:51:50.114	PCM-31521: REDO log file size [GByte]....: 4.000
1	pmk.start_run	0	29	16-APR 09:51:50.114	PCM-31521: REDO log mode.....: NOARCHIVELOG
1	pmk.start_run	0	30	16-APR 09:51:50.114	PCM-31521: Replication.....: UNKNOWN
1	pmk.start_run	0	31	16-APR 09:51:50.114	
1	pmk.start_run	0	32	16-APR 09:51:50.114	PCM-31528: Instance Configuration
1	pmk.start_run	0	33	16-APR 09:51:50.114	PCM-31529: -----
1	pmk.start_run	0	34	16-APR 09:51:50.115	PCM-31521: DB Cache - col store [GByte]..: 8.000
1	pmk.start_run	0	35	16-APR 09:51:50.115	PCM-31521: DB Cache - memopt [GByte]....: 19.000
1	pmk.start_run	0	36	16-APR 09:51:50.115	PCM-31521: DB Cache - recycle [GByte]....: 19.000
1	pmk.start_run	0	37	16-APR 09:51:50.115	PCM-31521: DB Cache - row store [GByte]..: 378.000
1	pmk.start_run	0	38	16-APR 09:51:50.115	PCM-31521: DML Locks.....: 1024
1	pmk.start_run	0	39	16-APR 09:51:50.116	PCM-31521: Log Buffer [MByte].....: 512.000
1	pmk.start_run	0	40	16-APR 09:51:50.116	PCM-31521: Process Memory [GByte].....: 151.057
1	pmk.start_run	0	41	16-APR 09:51:50.116	PCM-31521: Processes - All.....: 864
1	pmk.start_run	0	42	16-APR 09:51:50.116	PCM-31521: Processes - DBWRs.....: 9
1	pmk.start_run	0	43	16-APR 09:51:50.116	PCM-31521: Processes - Database Jobs.....: 432
1	pmk.start_run	0	44	16-APR 09:51:50.116	PCM-31521: Processes - LGWRs.....: 9
1	pmk.start_run	0	45	16-APR 09:51:50.116	PCM-31521: Processes - Parallel Query....: 576

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

Node	Program	Test	Msg#	Timestamp	Message
1	pmk.start_run	0	47	16-APR 09:51:50.117	CFG-41622: peakmarks Configuration
1	pmk.start_run	0	48	16-APR 09:51:50.117	CFG-41623: -----
1	pmk.start_run	0	49	16-APR 09:51:50.117	CFG-41621: AWRFORMAT.....: HTML
1	pmk.start_run	0	50	16-APR 09:51:50.117	CFG-41621: CPUCOUNT.....: 72
1	pmk.start_run	0	51	16-APR 09:51:50.118	CFG-41621: DBCACHE.....: 378
1	pmk.start_run	0	52	16-APR 09:51:50.118	CFG-41621: DBSIZE.....: 2048
1	pmk.start_run	0	53	16-APR 09:51:50.118	CFG-41621: FLASHCACHE.....: KEEP
1	pmk.start_run	0	54	16-APR 09:51:50.118	CFG-41621: LICENSEKEY.....: NONE
1	pmk.start_run	0	55	16-APR 09:51:50.118	CFG-41621: LOADER.....: 18
1	pmk.start_run	0	56	16-APR 09:51:50.118	CFG-41621: PLATFORM.....: PMEXA01.LAB.LOCAL
1	pmk.start_run	0	57	16-APR 09:51:50.118	CFG-41621: RUNTIME.....: 3
1	pmk.start_run	0	58	16-APR 09:51:50.119	
1	pmk.start_run	0	59	16-APR 09:51:50.119	LKM-42541: peakmarks License
1	pmk.start_run	0	60	16-APR 09:51:50.119	LKM-42542: -----
1	pmk.start_run	0	61	16-APR 09:51:50.119	LKM-42543: License subscriber.....: Peakmarks Customer Support, Zurich
1	pmk.start_run	0	62	16-APR 09:51:50.119	LKM-42544: License type.....: Limited trial license subscription
1	pmk.start_run	0	63	16-APR 09:51:50.123	LKM-42545: Peakmarks serial number.....: 02C8-59E3-BAC9-B191
1	pmk.start_run	0	64	16-APR 09:51:50.123	LKM-42546: Peakmarks license expiration..: 01-MAY-2023
1	pmk.start_run	0	65	16-APR 09:51:50.123	LKM-42547: Compatibility release.....: 19
1	pmk.start_run	0	66	16-APR 09:51:50.123	LKM-42548: Compatibility edition.....: EE and XP



Journal provides information about processing of performance test

Node	Program	Test	Msg#	Timestamp	Message
1	pmk.start_run	0	67	16-APR 09:51:50.129	PMK-81793: peakmarks workload group.....: STO started.
1	pmk.start_run	0	68	16-APR 09:51:54.792	PMK-81794: peakmarks configuration with...: 144 test(s) completed.
1	pmk.run	1	1	16-APR 09:51:56.379	
1	pmk.run	1	2	16-APR 09:51:56.379	TML-72521: process synchronisation test...: 1 started
1	pmk.bep-0001	1	1	16-APR 09:51:56.652	PMK-81826: bep process control ready for.: STO-READ with parameter 0; DOP 4
2	pmk.bep-0002	1	1	16-APR 09:51:58.245	PMK-81826: bep process control ready for.: STO-READ with parameter 0; DOP 4
1	pmk.run	1	3	16-APR 09:52:06.470	TML-72353: number of ready jobs.....: 2 after 10 seconds
1	pmk.run	1	4	16-APR 09:52:08.682	PSM-32521: database snapshot created.....: 12029 in 2.212 sec
1	pmk.run	1	5	16-APR 09:52:09.031	PSM-32517: peakmarks snapshot created.....: 529 in 0.346 sec
1	pmk.run	1	6	16-APR 09:52:09.032	TML-72355: all jobs.....: executing ...
1	pmk.bep-0001	1	2	16-APR 09:52:09.036	PMK-81828: bep process control running on: STO-READ with parameter 0; DOP 4
2	pmk.bep-0002	1	2	16-APR 09:52:09.038	PMK-81828: bep process control running on: STO-READ with parameter 0; DOP 4
1	pmk.bep-0001	1	3	16-APR 09:55:02.144	PMK-81831: bep process terminates.....: after 33 heat(s) and 0 trn(s); 173.033 s exe time;
1	pmk.bep-0001	1	4	16-APR 09:55:02.145	PMK-81832: bep process statistics.....: exectr 33; rowctr 66,000,000; txnctr 33;
1	pmk.bep-0001	1	5	16-APR 09:55:02.146	PMK-81833: bep process statistics.....: selctr 66,000,000; insctr 0; updctr 0
2	pmk.bep-0002	1	3	16-APR 09:55:04.387	PMK-81831: bep process terminates.....: after 33 heat(s) and 0 trn(s); 175.281 s exe time;
1	pmk.run	1	7	16-APR 09:55:04.387	TML-72356: all jobs.....: terminated
2	pmk.bep-0002	1	4	16-APR 09:55:04.388	PMK-81832: bep process statistics.....: exectr 33; rowctr 66,000,000; txnctr 33;
2	pmk.bep-0002	1	5	16-APR 09:55:04.388	PMK-81833: bep process statistics.....: selctr 66,000,000; insctr 0; updctr 0
1	pmk.run	1	8	16-APR 09:55:04.829	PSM-32517: peakmarks snapshot created.....: 530 in 0.314 sec
1	pmk.run	1	9	16-APR 09:55:11.214	PSM-32521: database snapshot created.....: 12030 in 6.384 sec
1	pmk.run	1	10	16-APR 09:55:11.341	TML-72522: process synchronisation test...: 1 completed



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


```
BENCH@PMK SQL> @jrn_time

Sun 11-Feb-2024 15:47:23

peakmarks Journal
-----

Database....: PMK           Oracle.....: 19.17.0
Instance....: ORA19C1       Build.....: 240301
RAC nodes...: 2             Platform....: PMEXA01.LAB.LOCAL

Node Program      Test      Msg# Timestamp      Message
-----
1 pmk.start_run   0         1 11-FEB 15:09:45.946 MSG-23131: peakmarks Software. Copyright (c) 2016 - 2024 peakmarks Ltd. All rights reserved.
1 pmk.start_run   0         2 11-FEB 15:09:45.947 MSG-23132: -----
1 pmk.start_run   0         3 11-FEB 15:09:45.947 MSG-23133: Release.....: 10.2
1 pmk.start_run   0         4 11-FEB 15:09:45.948 MSG-23134: Build.....: 240301
1 pmk.start_run   0         5 11-FEB 15:09:45.948 MSG-23135: peakmarks command.....: pmk.start_run
1 pmk.start_run   0         6 11-FEB 15:09:46.156
...
```

Name	Date modified	Type	Size
 jrn_240211_154723	11.02.2024 15:47	LIS File	49 KB



The next peakmarks run will overwrite the journal



Swiss precision in measuring.

Monitoring peakmarks Tests



peakmarks® stores some information for each peakmarks 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



BENCH@PMK SQL> @show_tests

Thu 03-Aug-2023 19:19:59

peakmarks Test(s)

Run.....: 11

Test.....:

Workload....:

Database.....: PMK Oracle.....: 19.20.0
 Instance.....: ORA19C1 Build.....: 230801
 RAC nodes....: 2 Platform....: PMEXA01.LAB.LOCAL

Run	Test	Status	Workload	Para meter	ALC	Nodes	Jobs	DOP	Runtime target [min]	Test begin	Test end
11	117	OK	TP-MIXED	N/A	0	1	5	1	3	16-APR-2023 06:40:42	16-APR-2023 06:43:50
	118	OK	TP-MIXED	N/A	0	1	10	1	3	16-APR-2023 06:44:06	16-APR-2023 06:47:15
	119	OK	TP-MIXED	N/A	0	1	20	1	3	16-APR-2023 06:47:29	16-APR-2023 06:50:38
	120	OK	TP-MIXED	N/A	0	1	30	1	3	16-APR-2023 06:50:52	16-APR-2023 06:54:00
	121	OK	TP-MIXED	N/A	0	1	40	1	3	16-APR-2023 06:54:15	16-APR-2023 06:57:23
	122	OK	TP-MIXED	N/A	0	1	50	1	3	16-APR-2023 06:57:38	16-APR-2023 07:00:46

6 rows selected.

BENCH@PMK SQL>



BENCH@PMK SQL> @show_teststats

Thu 03-Aug-2023 19:20:13

peakmarks Test Statistics

Run.....:

Test.....:

Workload....:

Database.....: PMK Oracle.....: 19.20.0
 Instance.....: ORA19C1 Build.....: 230801
 RAC nodes....: 2 Platform....: PMEXA01.LAB.LOCAL

Run	Test	Status	Workload	Para meter	KPM value curr test	KPM value prev test	KPM value inc [%]	peakmarks snap 1	peakmarks snap 2	Database snap 1	Database snap 2
11	117	OK	TP-MIXED	N/A	20,402	0	0.00	429	430	11,928	11,929
	118	OK	TP-MIXED	N/A	73,626	20,402	260.88	431	432	11,930	11,931
	119	OK	TP-MIXED	N/A	158,769	73,626	115.64	433	434	11,932	11,933
	120	OK	TP-MIXED	N/A	242,347	158,769	52.64	435	436	11,934	11,935
	121	OK	TP-MIXED	N/A	291,146	242,347	20.14	437	438	11,936	11,937
	122	OK	TP-MIXED	N/A	317,487	291,146	9.05	439	440	11,938	11,939

6 rows selected.

BENCH@PMK SQL>



```
BENCH@PMK SQL> @show_failedtests
```

```
Thu 03-Aug-2023 19:20:05
```

```
Failed peakmarks Test(s)
```

```
-----
```

```
Run.....: 11
```

```
Test.....:
```

```
Database.....: PMK           Oracle.....: 19.20.0
Instance.....: ORA19C2       Build.....: 230801
RAC nodes....: 2            Platform...: PMEXA01.LAB.LOCAL
```

Run	Test	Status	Workload	Para meter	ALC	Nodes	Jobs	DOP	Runtime target [min]	Test begin	Test end
11	97	F	STO-RANDOM	20	0	2	2	1	3	02-AUG-2023 21:36:40	02-AUG-2023 21:36:54
	98	F	STO-RANDOM	20	0	2	8	1	3	02-AUG-2023 21:37:06	02-AUG-2023 21:37:18
	99	F	STO-RANDOM	20	0	2	16	1	3	02-AUG-2023 21:37:31	02-AUG-2023 21:37:44
	100	F	STO-RANDOM	20	0	2	24	1	3	02-AUG-2023 21:37:56	02-AUG-2023 21:38:08
	101	F	STO-RANDOM	20	0	2	32	1	3	02-AUG-2023 21:38:21	02-AUG-2023 21:38:34

```
5 rows selected.
```

```
BENCH@PMK SQL>
```



Swiss precision in timing.

Monitoring peakmarks Jobs



peakmarks® stores some information for each peakmarks 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



```
BENCH@PMK SQL> @show_jobs
```

```
Thu 03-Aug-2023 19:20:22
```

```
peakmarks Job(s)
```

```
-----
```

```
Run.....: 11
Test.....: 117
Workload....:
```

```
Database....: PMK           Oracle.....: 19.20.0
Instance....: ORA19C2       Build.....: 230801
RAC nodes...: 2           Platform....: PMEXA01.LAB.LOCAL
```

Run	Test	Job	Node	Status	Workload	Parameter	ALC	DOP	Job begin	Job end	Database errors	peakmarks errors	Database job#	Database job command	Processed heats
11	117	1	1	OK	TP-LOOKUP	N/A	0	1	16-APR 06:40:28	16-APR 06:43:45	0	0	7,145	pmk.bep (11, 117, 1);	89
		117	2	1	OK	TP-LIGHT	40	0	16-APR 06:40:28	16-APR 06:43:42	0	0	7,146	pmk.bep (11, 117, 2);	77
		117	3	1	OK	TP-MEDIUM	30	0	16-APR 06:40:28	16-APR 06:43:43	0	0	7,147	pmk.bep (11, 117, 3);	72
		117	4	1	OK	TP-HEAVY	20	0	16-APR 06:40:28	16-APR 06:43:42	0	0	7,148	pmk.bep (11, 117, 4);	68
		117	5	1	OK	TP-REPORT	N/A	0	16-APR 06:40:28	16-APR 06:43:42	0	0	7,149	pmk.bep (11, 117, 5);	84



```
BENCH@PMK SQL> @show_jobstats1
```

```
Thu 03-Aug-2023 19:20:38
```

```
peakmarks Job Statistic(s) I
```

```
-----
```

```
Run.....: 11
Test.....: 117
Workload....:
```

```
Database....: PMK                Oracle.....: 19.20.0
Instance....: ORA19C2            Build.....: 230801
RAC nodes...: 2                  Platform....: PMEXA01.LAB.LOCAL
```

Run	Test	Job	Node	Status	Workload	Parameter	ALC	DOP	Workload begin	Workload end	Execution time [s]	Processed heats	Processed operations	Processed rows	Processed transactions	Processed data [byte]
11	117	1	1	OK	TP-LOOKUP	N/A	0	1	06:40:42	06:43:45	183.488	89	3,353,750	3,353,750	3,353,750	0
	117	2	1	OK	TP-LIGHT	40	0	1	06:40:42	06:43:42	180.249	77	247,740	346,836	247,740	0
	117	3	1	OK	TP-MEDIUM	30	0	1	06:40:42	06:43:43	181.565	72	56,880	1,848,227	56,880	0
	117	4	1	OK	TP-HEAVY	20	0	1	06:40:42	06:43:42	180.372	68	20,900	3,134,052	20,900	0
	117	5	1	OK	TP-REPORT	N/A	0	1	06:40:42	06:43:42	180.288	84	64,440	1,612,022	64,440	0



```
BENCH@PMK SQL> @show_jobstats2
```

```
Thu 03-Aug-2023 19:20:48
```

```
peakmarks Job Statistic(s) II
```

```
-----
```

```
Run.....:
```

```
Test.....:
```

```
Workload....:
```

```
Database....: PMK           Oracle.....: 19.20.0
Instance....: ORA19C1       Build.....: 230801
RAC nodes...: 2           Platform....: PMEXA01.LAB.LOCAL
```

Run	Test	Job	Node	Status	Workload	Para meter	ALC	DOP	Processed rows	Selected rows	Inserted rows	Updated rows	Processed truncates	Truncate time [s]
11	117	1	1	OK	TP-LOOKUP	N/A	0	1	3,353,750	3,353,750	0	0	0	0.000
	117	2	1	OK	TP-LIGHT	40	0	1	346,836	247,740	0	99,096	0	0.000
	117	3	1	OK	TP-MEDIUM	30	0	1	1,848,227	1,421,376	0	426,851	0	0.000
	117	4	1	OK	TP-HEAVY	20	0	1	3,134,052	2,611,753	0	522,299	0	0.000
	117	5	1	OK	TP-REPORT	N/A	0	1	1,612,022	1,612,022	0	0	0	0.000



Simple. Representative. Fast.

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

```
-----  
Copyright (c) 2016 - 2024, peakmarks Ltd. All rights reserved.      support@peakmarks.com  
-----  
  
Document...:  sql_directory.txt  
  
Last update:  15-Feb-2024, MDR  
  
Location...:  ../doc directory  
  
Description:  directory of general peakmarks SQL reporting scripts,  
              supporting CDB architecture of Oracle 19c  
  
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)  
  
-----
```

```
Table of contents  
~~~~~  
  
1. Introduction  
2. Requirements  
3. ASM Volume Manager  
4. Database Monitoring  
5. Instance Monitoring  
6. Tablespace Monitoring  
7. User Monitoring  
8. Object Monitoring (tables, indexes, PL/SQL)  
9. UNDO & TX Monitoring  
10. System Monitoring  
11. Session Monitoring  
12. Process Monitoring  
13. I/O Monitoring  
14. DataGuard Monitoring  
15. Miscellaneous Scripts
```




Simple. Representative. Fast.

Export key performance metrics into CSV file



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 - 2023 peakmarks Ltd. All rights reserved.
-----
Release.....: 10.1
Build.....: 230801

peakmarks command.....: pmk.export

PMK_PLATFORM data exported....: 364 row(s)
PMK_RUNS data exported.....: 13 row(s)
PMK_TESTS data exported.....: 204 row(s)

KPM_QUERY data exported.....: 18 row(s)
KPM_SCAN data exported.....: 5 row(s)
KPM_IOREAD data exported.....: 15 row(s)
KPM_IOWRITE data exported.....: 10 row(s)
KPM_LGWR data exported.....: 29 row(s)
KPM_DBWR data exported.....: 6 row(s)
KPM_DATALOAD data exported....: 13 row(s)
KPM_ANALYTICS data exported...: 15 row(s)
KPM_TP data exported.....: 57 row(s)
KPM_PLS data exported.....: 35 row(s)

Export KPMs completed.....: in 0.76 sec elapsed time.

PL/SQL procedure successfully completed.

BENCH@PMK SQL>
```



Format rplatform.csv

- Column B Parameter workload parameter
- Column C ALC adaptive load control, if 0, use peakmarks® configuration parameter RUNTIME, otherwise the number of heats
- Column D Nodes number of RAC nodes used for this test
- Column E Jobs number of jobs used for this test, distributed over all nodes configured in column 4
- Column F DOP Oracle degree of parallelism for this test
- Column G Runtime overrules configuration parameter RUNTIME for this specific test
- Column H Comment additional information



Simple. Representative. Fast.

Summary of Scripts and Commands



Monitoring peakmarks runs

```
SQL> @show_runs
```

```
SQL> @jrn
```

```
SQL> @jrn_time
```

Export key performance metrics into CSV files

```
SQL> exec pmk.export
```

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
```



peakmarks Mission

Identify Key Performance Metrics for Oracle Database Platforms.

On-Premises and in the Cloud.

For Quality Assurance, Evaluations, and Capacity Planning.