DBPLUS
better performance

DBPLUS
Performance Monitor for Oracle
Description of changes in version 2019.1

Date: 28th March 2019

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Below we present a list of changes in the DBPLUS Performance Monitor application for monitoring Oracle databases.

1 New in 2019.1 version

1.1 *Standby data bases monitoring*

In the new version of the application the functionality of verification the status of archive log files being applied into Standby databases has been added. The information was added in the new Standby ArchiveLogs tab at the database details level, the full path is:

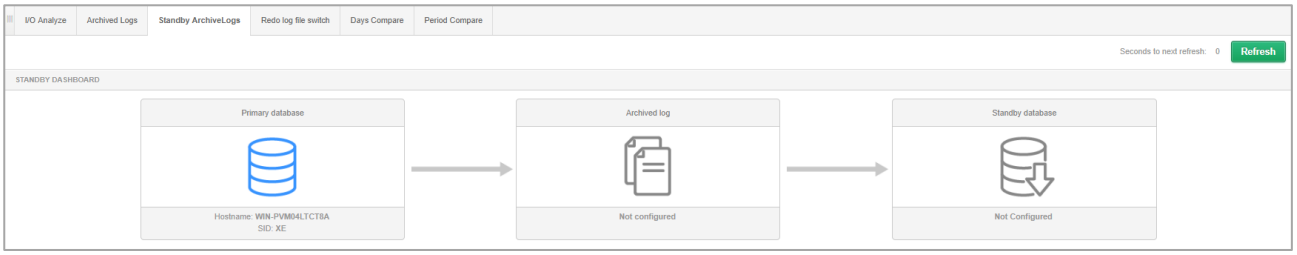
Database analysis>I/O Stats>Standby ArchiveLogs

Management of standby databases consists of check whether a given database has a dedicated standby database/databases.

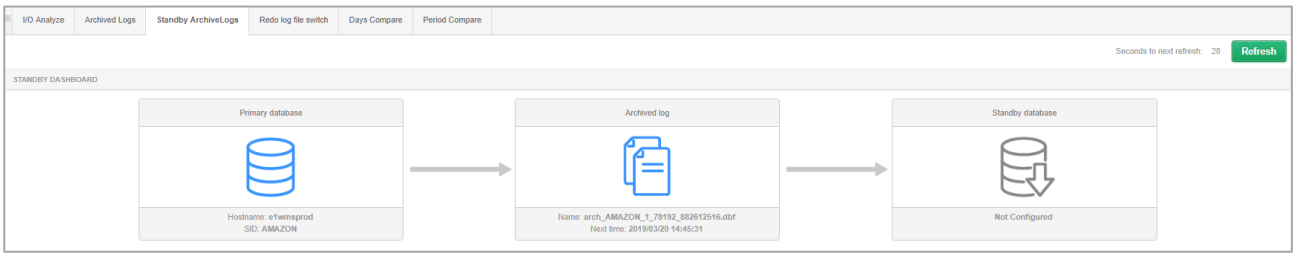
The tab is divided into three parts, which show from the left:

- The database icon with the host name and database SID,
- The name of the last archivedlog file (if the database is archived)
- A list of Standby databases where databases are refreshed based on ArchivedLog files.

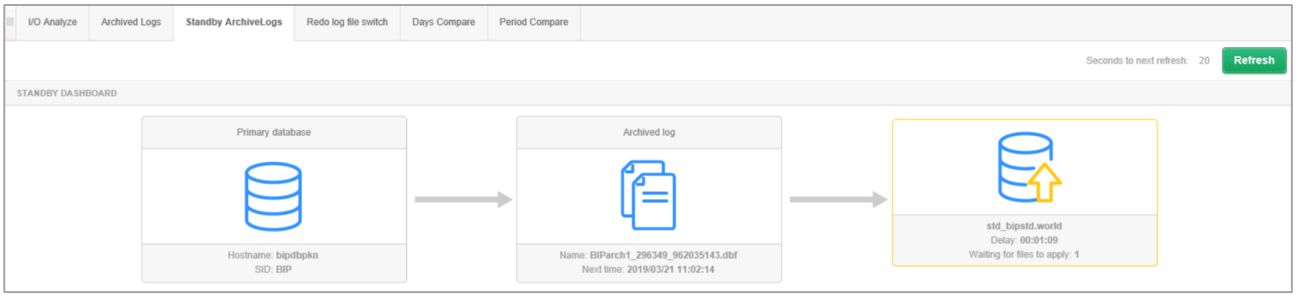
View when archive is not set in the monitored main database:



View when archive is set but there is no Standby base configured:



A view when the configuration of the Standby database is detected:



Under the Standby icon there is information about:

- Standby database name,

- Delays in the applied files between databases,
- The number of files transported to the Standby database, waiting to be loaded (APPLIED = NO) from the production database to the Standby database.

When archivedlog files are sent to more Standby databases, an icon with additional information will be presented for each database.

Information about Standby databases are read from the dictionary view each time after enter the tab. Then, the archiving status is verified based on the archivedlog files.

The pictograms that present the archivedlog file and the standby database are clickable. Click the ArchivedLog file icon displays a view that show the basic information about archived logs for the indicated period of time (by default the current day) in a given database.

SHOW ARCHIVED LOGS DATA

Date from: 2019/03/20 to: 2019/03/20 Refresh

Standby name	First scn	Next scn	First time	Next time	Completion time	Archived	Deleted	Status	Applied
/amazon/arch/a	1347970750580	1347970752740	2019:03:19 23:4	2019:03:20 00:2	2019:03:20 00:2	YES	NO	Available	NO
/amazon/arch/a	1347970752740	1347970754261	2019:03:20 00:2	2019:03:20 01:0	2019:03:20 01:0	YES	NO	Available	NO
/amazon/arch/a	1347970754261	1347970755096	2019:03:20 01:0	2019:03:20 01:1	2019:03:20 01:1	YES	NO	Available	NO
/amazon/arch/a	1347970755096	1347970756474	2019:03:20 01:1	2019:03:20 01:4	2019:03:20 01:4	YES	NO	Available	NO
/amazon/arch/a	1347970756474	1347970758392	2019:03:20 01:4	2019:03:20 02:3	2019:03:20 02:3	YES	NO	Available	NO
/amazon/arch/a	1347970758392	1347970760073	2019:03:20 02:3	2019:03:20 03:0	2019:03:20 03:0	YES	NO	Available	NO
/amazon/arch/a	1347970760073	1347970762598	2019:03:20 03:0	2019:03:20 04:0	2019:03:20 04:0	YES	NO	Available	NO
/amazon/arch/a	1347970762598	1347970764852	2019:03:20 04:0	2019:03:20 04:4	2019:03:20 04:4	YES	NO	Available	NO
/amazon/arch/a	1347970764852	1347970766717	2019:03:20 04:4	2019:03:20 05:1	2019:03:20 05:1	YES	NO	Available	NO
/amazon/arch/a	1347970766717	1347970770186	2019:03:20 05:1	2019:03:20 06:0	2019:03:20 06:0	YES	NO	Available	NO

Click on the dedicated Standby database icon displays the dedicated information about transfer status archivedlog file for the indicated period of time (by default the current day) in the Standby database. Information available on the Standby database is below:

SHOW LOGS FOR STANDBY DATABASE: STD_BIPSTD.WORLD

Date from: 2019/03/21 to: 2019/03/21 Refresh

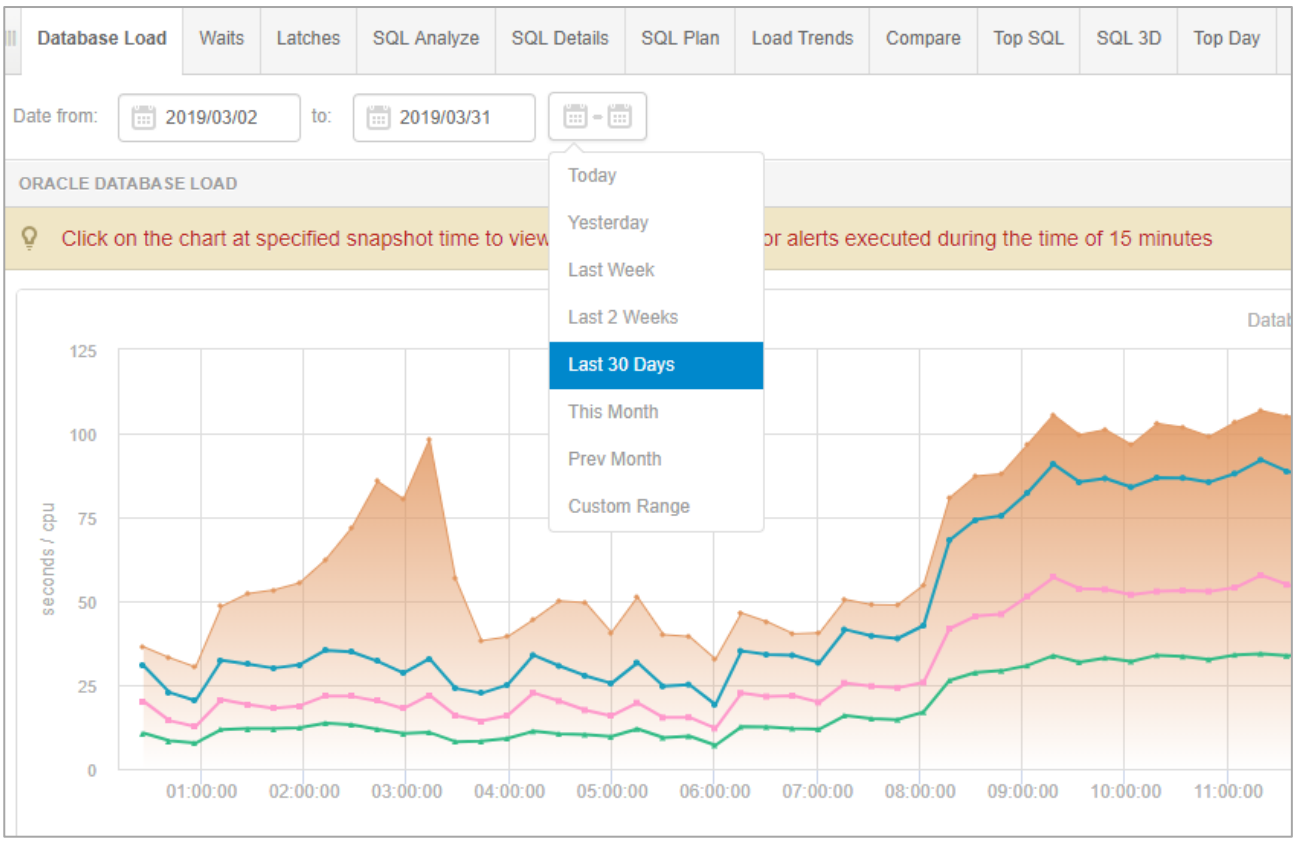
Standby name	First scn	Next scn	First time	Next time	Completion time	Archived	Deleted	Status	Applied
std_bipstd.w...	80016923822	80016942114	2019:03:21...	2019:03:21...	2019:03:21...	YES	NO	Available	NO
std_bipstd.w...	80016897729	80016923822	2019:03:21...	2019:03:21...	2019:03:21...	YES	NO	Available	YES
std_bipstd.w...	80016892638	80016897729	2019:03:21...	2019:03:21...	2019:03:21...	YES	NO	Available	YES
std_bipstd.w...	80016883074	80016892638	2019:03:21...	2019:03:21...	2019:03:21...	YES	NO	Available	YES
std_bipstd.w...	80016857699	80016883074	2019:03:21...	2019:03:21...	2019:03:21...	YES	NO	Available	YES
std_bipstd.w...	80016825775	80016857699	2019:03:21...	2019:03:21...	2019:03:21...	YES	NO	Available	YES
std_bipstd.w...	80016799069	80016825775	2019:03:21...	2019:03:21...	2019:03:21...	YES	NO	Available	YES
std_bipstd.w...	80016766678	80016799069	2019:03:21...	2019:03:21...	2019:03:21...	YES	NO	Available	YES
std_bipstd.w...	80016736574	80016766678	2019:03:21...	2019:03:21...	2019:03:21...	YES	NO	Available	YES
std_bipstd.w...	80016713200	80016736574	2019:03:21...	2019:03:21...	2019:03:21...	YES	NO	Available	YES

1.2 *Quick dates selection from the calendar*

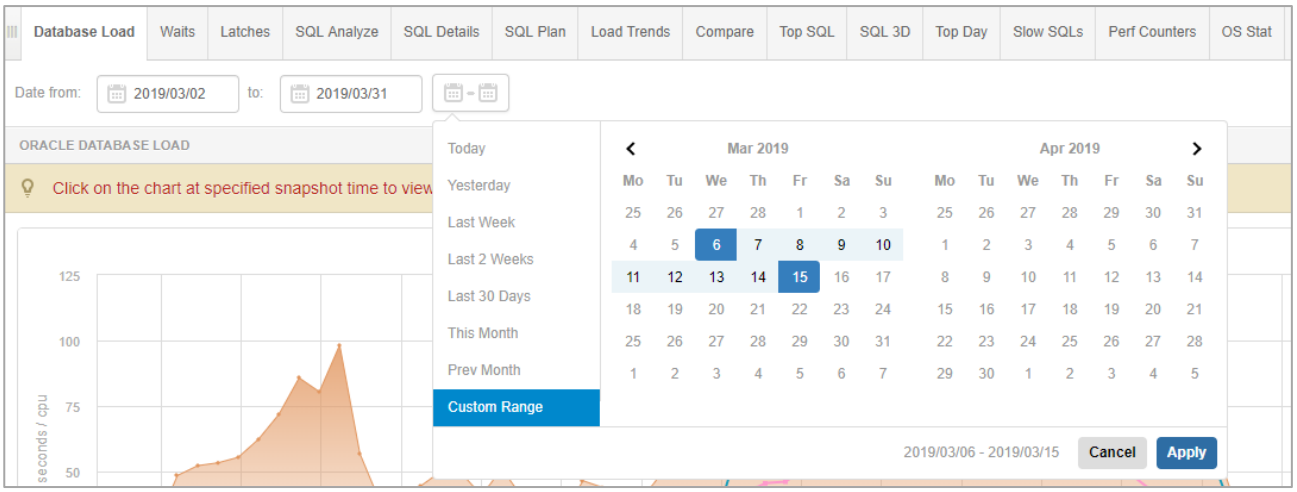
In the new version, we've added a new improvement on most main screens: quick date selection. After click the button user have few options to choose:

- Today,
- Yesterday
- Last Week,
- Last 2 Weeks,
- Last 30 days,
- This Month - the scope of the current month from 1 to the last day of the month,
- Prev Month - the scope of the previous month from 1 to the last day of the month,
- Custom Range – manually select a date range.

After select any range from the list, click the [**Refresh**] button to refresh the page. An example screen below:



To select a date range in the Custom Range, first select the start date, then choose the end date. Accept by click the [**Apply**] button.



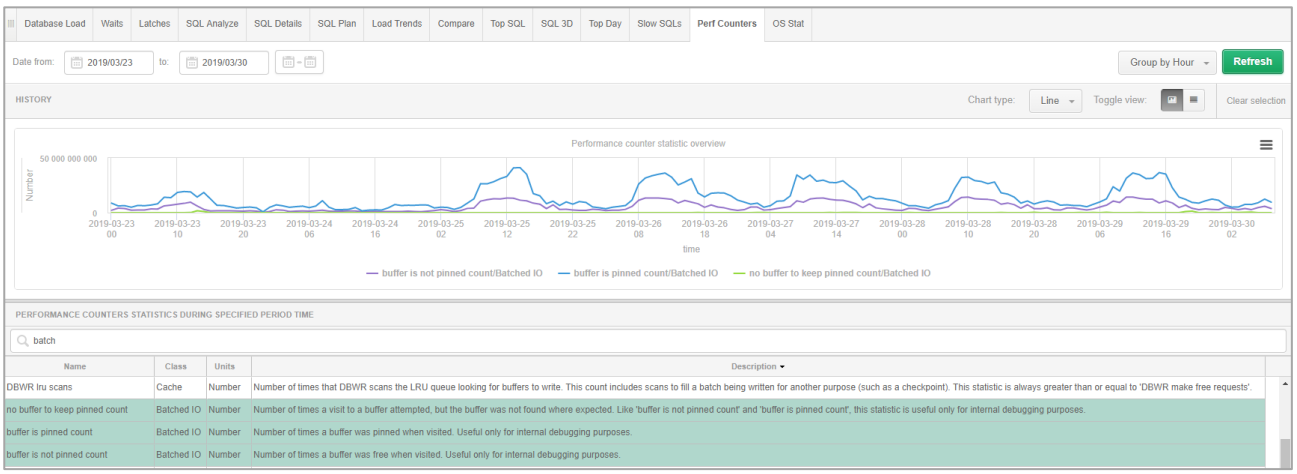
1.3 *Performance statistic browser – Perf Counters*

In the new version of the application, the management of performance indicators available in the Perf Counters tab has been modified. A number of improvements have been added, i.a.:

Collect performance statistics after a day. Until now, performance statistics for each parameter have been collected after the snap and stored for a maximum 30 days period. After the change, detailed statistics (15 minutes) are available so far for a period of 30 days. After this period, historical data is available after a day.

In the table, a column with description has been added that stores information about the descriptions of the indicators placed in the table (**Description column**).

The process of storing statistics has been improved. After the change, the data will no longer generate as much space as before, which means that the Repository DBPLUS database will be reduced the display process has accelerated.

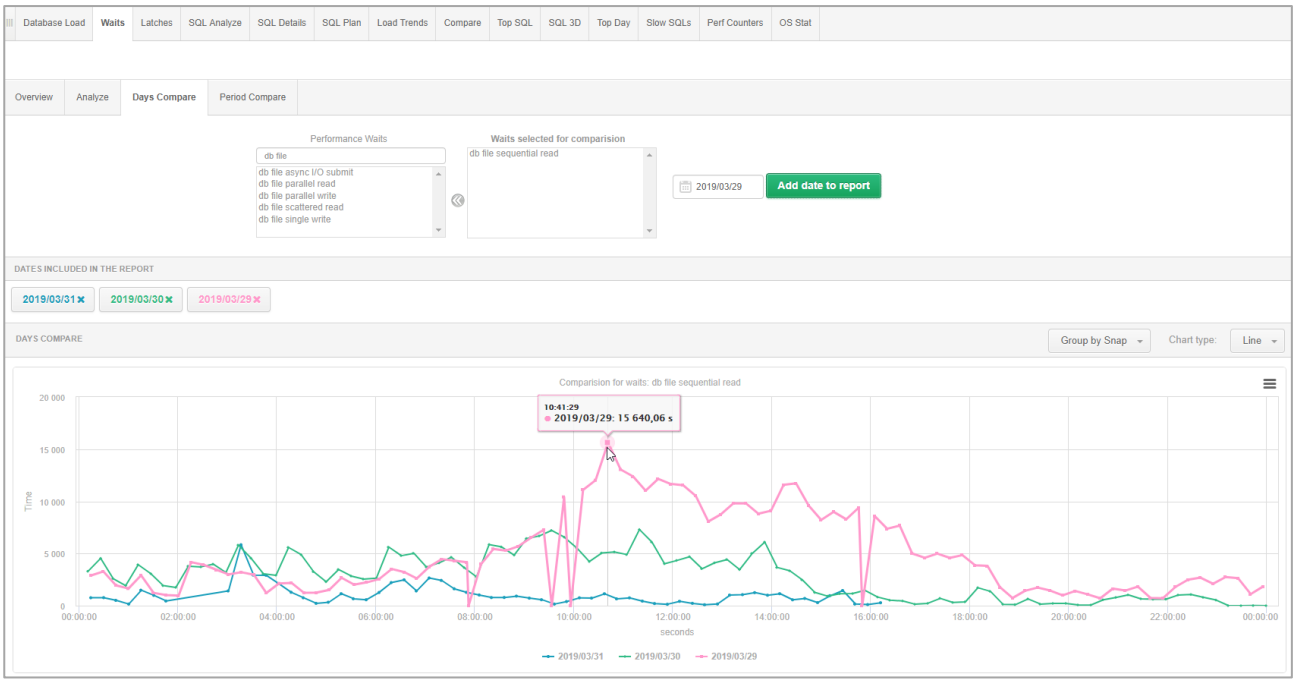


1.4 *Compare the wait level*

In the new version of the application, we added the ability to compare the wait level in a given period of time. Compare is possible from the instance details in the Waits tab. Two modes are available:

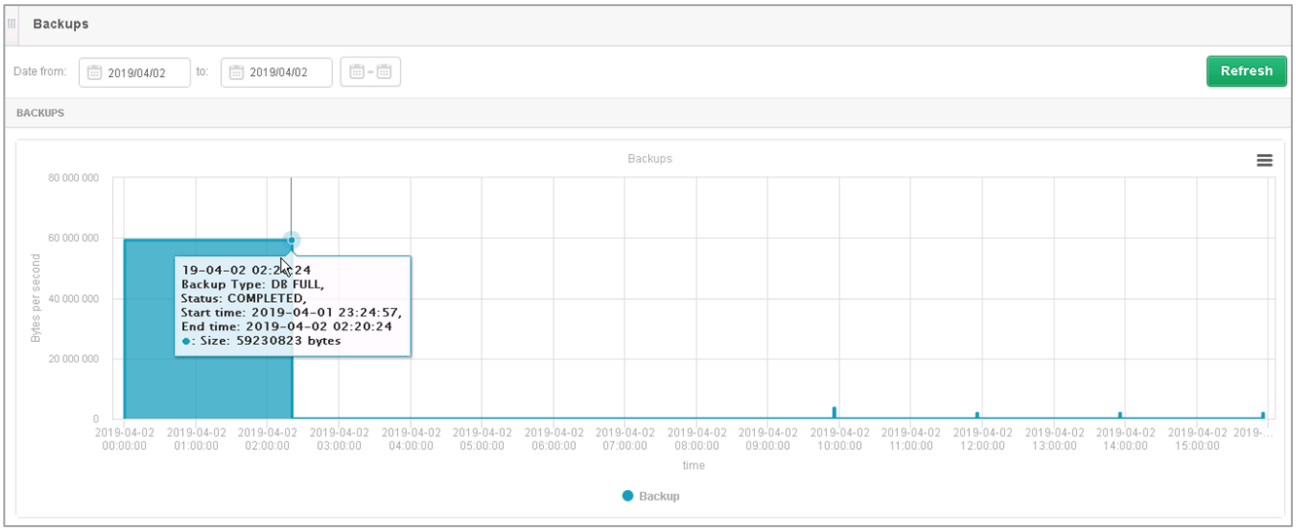
- Days Compare
- Period Compare

To compare wait level, select the type of wait to be compared first (one or more types), then select specific days to compare (Days Compare) or whole period of days (Period Compare).



1.5 *Improve monitoring of the Backups*

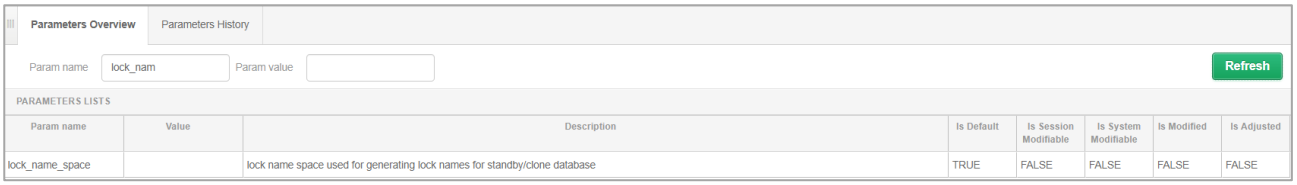
In the new version of the application, the process of monitoring database backup performance has been improved. Data is presented from the database details in the Backups tab. The information allows you to verify the execution time and history of performed backups.
The previous problem concerned the cases of databases in which the backup process was long-term (over 1 day), in such cases the presentation of data on the graph was incorrect. The change consists in improving the presentation of data about the backup process on the chart and includes improving the display of information in the summary table.
Below is a screen show backup monitoring contain information about the backup type, date and backup size.



1.6 *General improvements*

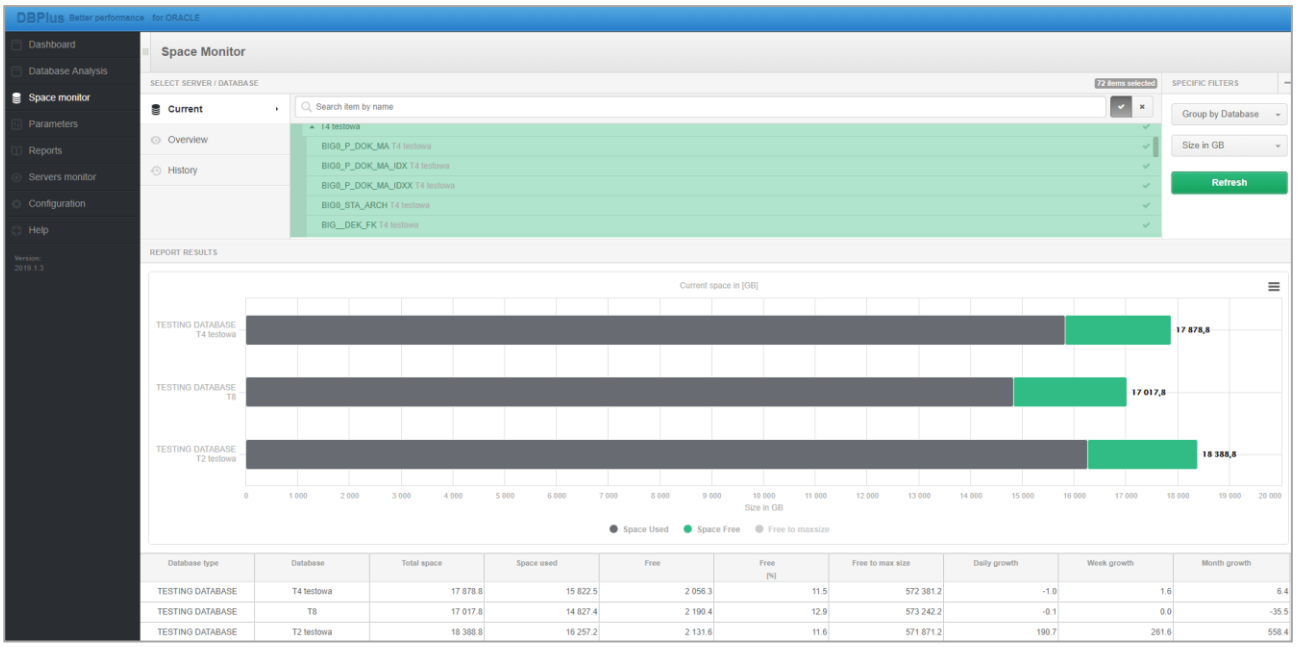
1.6.1 Improve the search of database parameters

In the new version of the application, the search of database parameters has been improved. In earlier versions, if the parameter was entered in the filter, returning only one row from the query, the application informed about the lack of such a parameter. The error has been corrected in the new version, the data is returned correctly.



1.6.2 Presentation of aggregate data in Space Monitor

In the new version, we have improved the presentation of aggregate data in the Space Monitor main menu. In earlier versions, when user select specific Tablespace for comparison, in some cases the result was not presented correctly. In the current version, the problem has been corrected and the data is presented correctly in each tab.



1.6.3 Mechanism of scheduled monitoring suspension

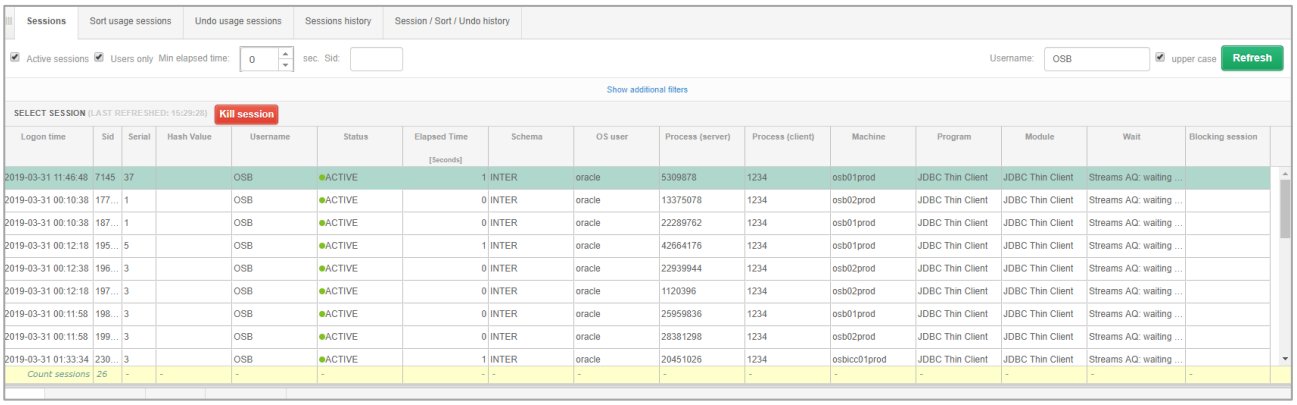
In cases of planned work or tests where it is not advisable to perform additional traffic on the database, it is possible to temporarily suspend DBPLUS monitoring on the connected database. In the new version, the configuration has been moved to the Configuration menu - the Outages setting menu and Timeline settings.

The mechanism of management of suspend monitoring was also improved to support all scenarios related to the re-added to the DBPLUS monitoring database.

1.6.4 Summary Statistics

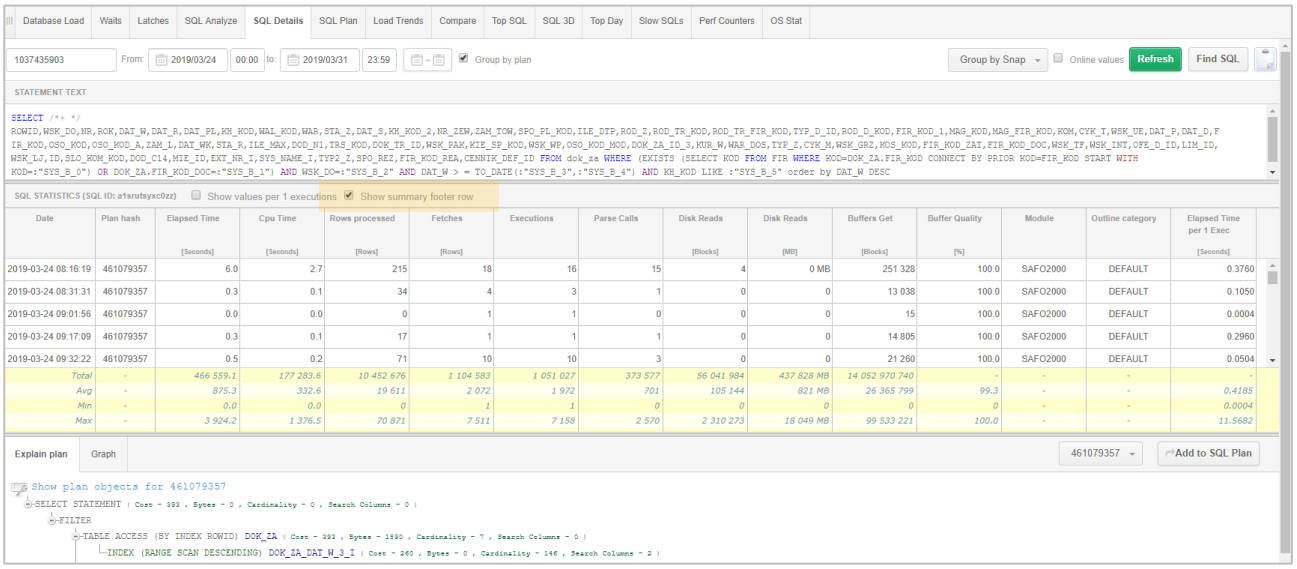
In the latest version, summary of the data presented in the tables has been added. Summary is available for the module:

- Session (online sessions) – information about number of active sessions is visible

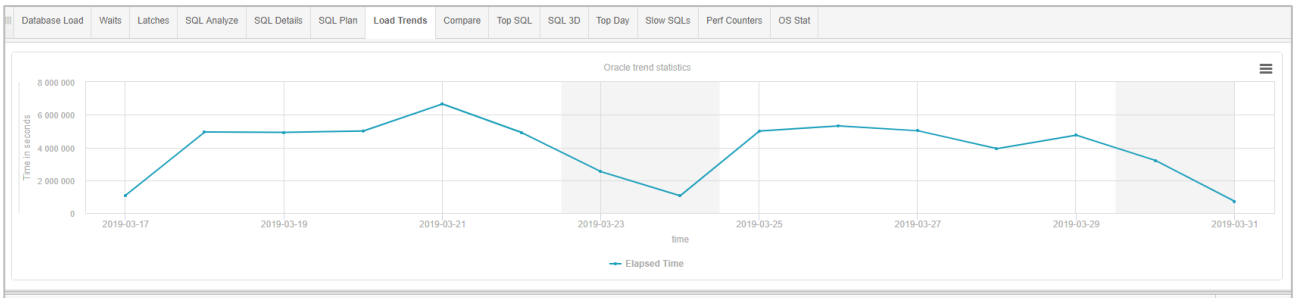


- SQL Details (query details) – the information is grouped into total (Total), medium (Avg), minimum (Max), maximum (Max) values.

To see the summary of statistics, select the new checkbox *Show Summary footer row*



- Load Trends – the information is grouped into total (Total), medium (Avg), minimum (Min), maximum (Max) values.



ORACLE TRENDS STATISTICS

Clear selection

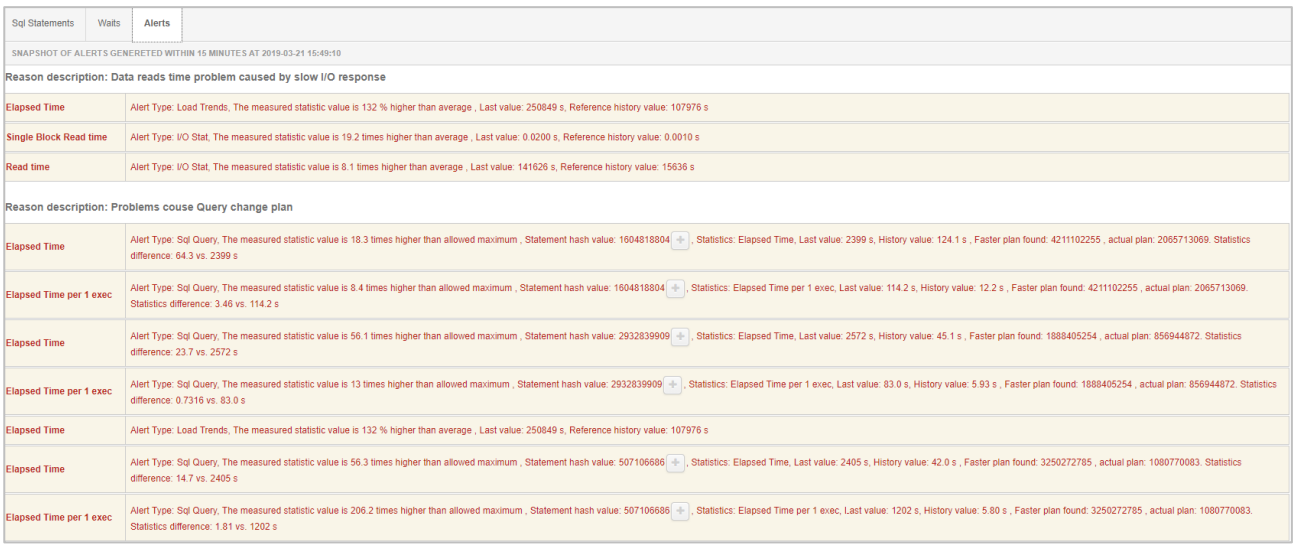
Click on the table column to view column statistic within specified period

Logdate	Elapsed Time [Minutes]	Cpu Time [Seconds]	Sorts [Rows]	Fetches [Rows]	Executions	Disk reads [Blocks]	Disk reads [MB]	Buffer gets [Blocks]	Rows processed [Rows]	Latches [Seconds]	Waits [Seconds]	Locks [Seconds]	Sessions	Active sessions
2019-03-22	81 866	1 784 330	1 374 669 572	10 659 674 736	9 425 026 675	2 610 975 538	20 398 246 MB	313 533 785 351	20 415 768 504	17 926	1 422 775	36 449	11 586	108
2019-03-23	42 155	984 462	663 666 171	5 604 897 344	5 055 260 993	3 937 765 643	30 763 794 MB	171 995 106 381	12 380 515 234	1 569	657 247	6 834	6 216	79
2019-03-24	17 480	419 759	362 753 646	2 538 276 086	2 291 580 095	3 084 666 577	24 098 958 MB	70 148 874 619	6 207 861 124	159	262 394	739	1 039	53
2019-03-25	83 485	1 797 419	1 470 528 323	11 360 814 479	10 005 685 509	2 588 503 965	20 222 687 MB	311 666 587 633	21 887 068 843	26 694	1 300 739	82 929	11 578	109
2019-03-26	88 561	1 867 759	1 438 149 371	11 681 122 457	10 424 022 643	2 912 905 203	22 757 072 MB	329 019 868 846	20 959 752 331	57 793	2 940 946	49 349	14 492	132
2019-03-27	83 720	1 844 879	1 409 060 930	11 149 804 752	9 880 063 484	2 803 574 054	21 902 922 MB	334 035 775 308	21 275 990 723	29 359	1 336 640	19 848	14 491	107
2019-03-28	65 570	1 392 223	1 029 736 685	8 143 729 154	7 181 499 101	2 069 245 892	16 165 984 MB	236 811 613 621	17 081 123 401	36 574	1 383 347	19 535	12 459	110
2019-03-29	79 199	1 677 710	1 274 815 682	9 593 215 276	8 366 543 393	1 779 343 753	13 901 123 MB	279 546 329 910	16 082 814 979	41 582	1 107 238	21 067	12 429	119
2019-03-30	53 414	1 227 877	750 724 387	6 058 956 628	5 431 936 330	2 437 431 436	19 042 433 MB	219 211 624 292	15 303 305 432	3 906	869 003	7 102	6 278	80
2019-03-31	11 817	267 482	183 057 409	1 656 201 080	1 527 327 684	1 291 004 576	10 085 973 MB	52 345 640 814	3 883 685 344	624	225 926	90	1 171	56
Total	*984 153*	*20 869 050*	*15 911 631 377*	*126 326 889 829*	*112 203 888 421*	*38 724 275 980*	*302 533 406 MB*	*3 642 240 759 092*	*248 748 857 474*	*327 493*	*19 066 505*	*472 914*	-	-
Avg	*65 610*	*1 391 270*	*1 060 775 425*	*8 421 792 655*	*7 480 259 228*	*2 581 618 399*	*20 168 894 MB*	*242 816 050 606*	*16 583 257 165*	*21 833*	*1 271 100*	*31 528*	*9 724*	*98*
Min	*11 817*	*267 482*	*183 057 409*	*1 656 201 080*	*1 527 327 684*	*1 291 004 576*	*10 085 973 MB*	*52 345 640 814*	*3 883 685 344*	*114*	*225 926*	*90*	*951*	*50*
Max	*111 009*	*1 867 759*	*1 470 528 323*	*11 689 524 963*	*10 450 819 496*	*3 937 765 643*	*30 763 794 MB*	*334 035 775 308*	*24 008 844 671*	*57 793*	*3 305 019*	*121 209*	*14 492*	*132*

When a single row is presented in the table, the summary will not be presented.

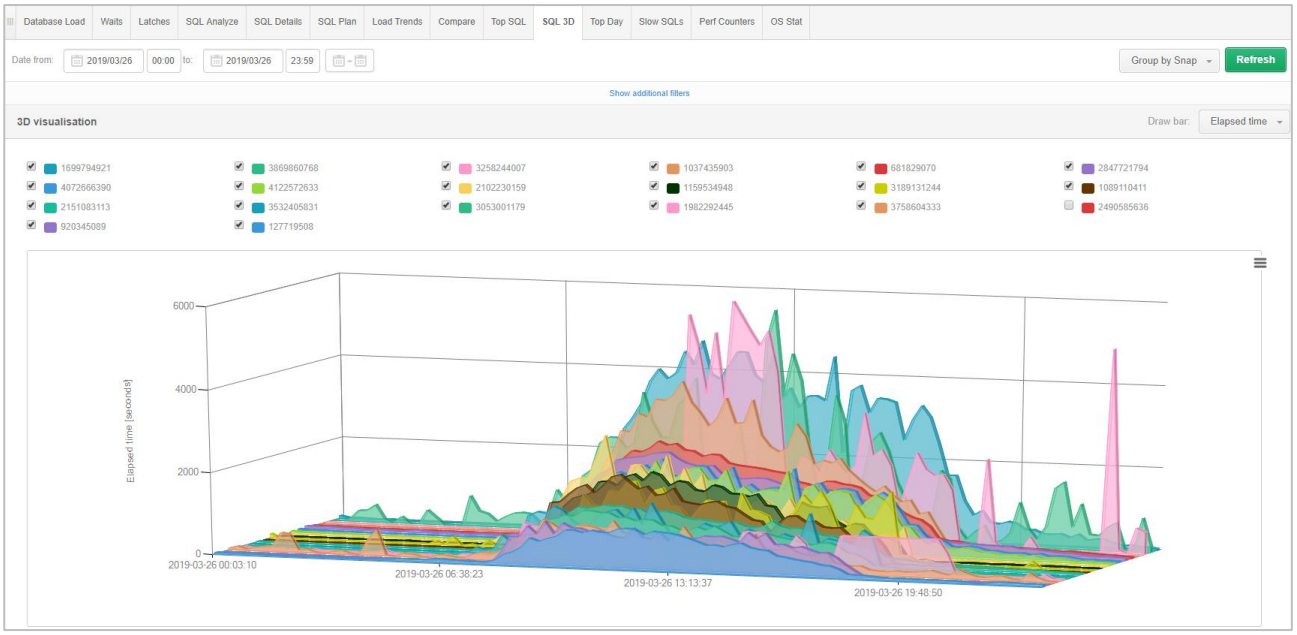
1.6.5 Change the alerts information display

We have modified the way of displaying information about alerts in the Database Load tab. In some cases, when there were many different types of alerts in a given snap, the alert information presented below the graph displayed in an inconsistent format, which resulted in the extension of the grid. In the new version the view has been improved.



1.6.6 Improving data loading on the SQL 3D screen

In the latest version of the application, the ergonomics of data presentation on the SQL 3D page has been improved. The improvement consisted in changing the way of searching for queries in the Repository database. After the changes are made, the data presented on the website is presented faster.


Database Load
Waits
Latches
SQL Analyze
SQL Details
SQL Plan
Load Trends
Compare
Top SQL
SQL 3D
Top Day
Slow SQLs
Perf Counters
OS Stat
Date from:
2019/03/26
00:00
to:
2019/03/26
23:59
Group by Snap
Refresh
Show additional filters
3D visualisation
Draw bar:
Elapsed time
1699794921
3869860768
3258244007
1037435903
681829070
2847721794
4072666390
4122572633
2102230159
1159534948
3189131244
1089110411
2151083113
3532405831
3053001179
1982292445
3758604333
2490585636
920345089
127719508
Elapsed time [seconds]
6000
4000
2000
0
2019-03-26 00:03:10
2019-03-26 06:38:23
2019-03-26 13:13:37
2019-03-26 19:48:50