

DBPLUS
Performance Monitor for MS SQL
description of changes in version 2023.2

Date: July 5, 2023

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The following is a list of changes to DBPLUS Performance Monitor for monitoring MS SQL databases.

New features in version 202 3.2

1 Ability to copy links to application pages

In the latest version, we have added the functionality of copying links to a given application page. A user will be able to send a link to a given application page along with its contents as part of data analysis in the DBPLUS Performance Monitor application. This makes it possible to quickly transfer between users the analysis performed in the Performance Monitor application.

The ability to copy links is available from the instance's performance details by clicking on the link icon in the upper right corner of the screen.

The screenshot shows the DBPLUS Performance Monitor interface. At the top, there are navigation tabs: Instance Load, Waits, Latches & Literals, SQL Analyze, SQL Details, Load Trends, Compare Trends, Top SQL, SQL 3D, Top Day, Slow SQLs, Perf Counters, and OS Stat. Below these is a search bar with filters for Instance ID (0x372749AEDF291411), From (2023/06/22 00:00), To (2023/07/05 23:59), and options for 'Connect queries with the same text' and 'Group by plan'. A 'Group by Hour' dropdown is also visible. The main area displays a SQL query under the 'STATEMENT TEXT' tab. A red box highlights a notification in the top right corner that reads: 'Url link to page https://sqlmon.intercars.local/DPM/performance_s... params_hash=3176137175 has been copied to clipboard'. Below the query is a 'SQL STATISTICS' table with columns for Date, Plan hash, Database, Elapsed Time, Cpu Time, Rows processed, Executions, Disk Reads, Buffers Get, Buffers Write, Buffer Quality, and Elapsed Time per 1 Exec.

Date	Plan hash	Database	Elapsed Time	Cpu Time	Rows processed	Executions	Disk Reads	Disk Reads	Buffers Get	Buffers Write	Buffer Quality	Elapsed Time per 1 Exec
			[Seconds]	[Seconds]			[Blocks]	[MB]	[Blocks]	[Blocks]	[%]	[Seconds]
2023-07-05 11	0x2690F034377E5D1B	Navision HU	2 500.8	90.6	921 537	1	5 419 576	42 340 MB	12 911 425	0	70.4	2 500.7513

When the button is clicked, the link is automatically added to the clipboard. The link contains a coded configuration, which is only available to read from the Performance Monitor application.

In order to open the page using the link, the user must have access to the application and the database instance to which the submitted link applies. Example url form:

https://hostname/DPM/performance_system_stat.aspx?params_hash=3976213247

Improve saving of settings on application pages

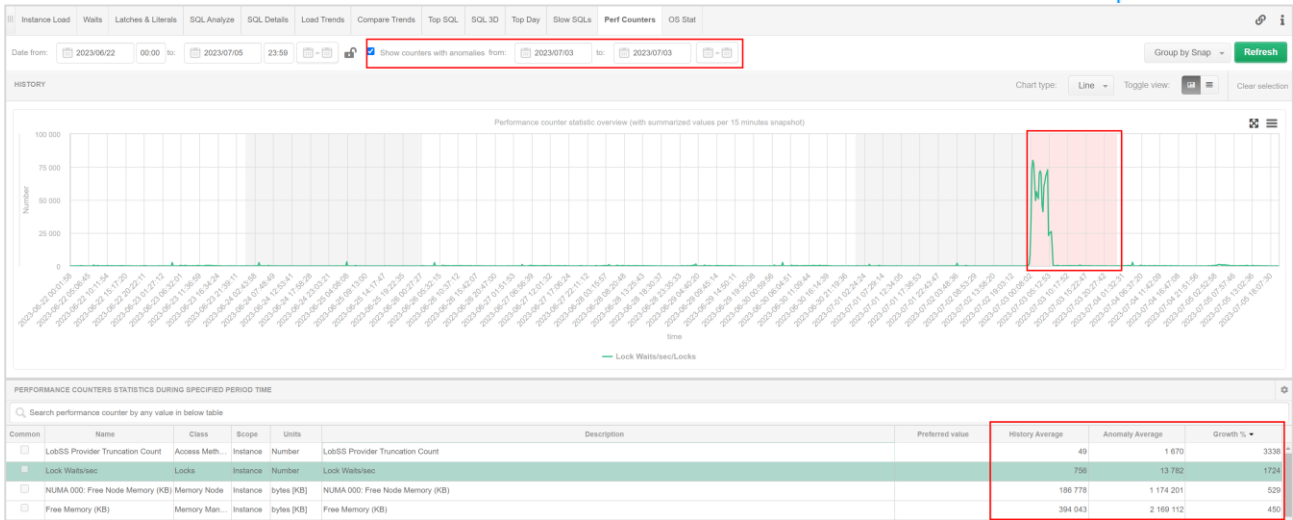
In addition, the mechanism for remembering settings on application pages while working with the tool has been improved. Remembering the last settings on the pages of the application allows you to go and return to subsequent pages in the application without any problems. Upon return, the user's last settings are remembered and displayed as they were during the previous entry.

When you return to the Dashboard screen, the memorization is cleared.

2 Search for anomalies in performance statistics

In the latest version, we have added a mechanism for finding anomalies in the database statistics. The data is available at the level of details of the monitored instance in the **Perf Counters** tab.

The anomaly search mechanism can be started by selecting **Show counters with anomalies**. Then fill in the period in which the anomaly search mechanism will be activated. The search involves verifying the level of the performance indicator for which the values in the indicated period deviate from the trend for the last 30 days from the indicated search period.



The result of the search is a list of indicators for which trend anomalies were detected in the indicated period. In addition, the table presents columns showing:

- **History average** - the historical average value for a given indicator
- **Anomaly Average** - the average value of the indicator during the anomaly search period
- **Growth%** - growth as a percentage between historical and comparative value.

3 Improvements

3.1. Automatic refresh of data after checkbox selection

The logic associated with clicking a checkbox on application pages has been changed. In the latest version, clicking a checkbox or unchecking it refreshes the data on the page. The change will improve the operation and ergonomics of the application.

3.2. Improved support for detection of locks caused by DDL operations

In the latest version, the lock detection mechanism in which DDL operations were the locking process has been improved.

3.3. Improving content search in the app

The fix relates to improving the search for content on Pages in the application containing special characters. In some cases when the searched text contained the '_' character, the search did not work properly. The change applies to Pages AND functionality available on Pages: Parameters, Sessions, Object Size Explore and SQL Find functionality.

The SQL Find functionality allows you to search for queries in the monitored database. One of the search options is to search the query by the entered phrase. In case the searched text contained special characters (e.g., such as '_') this resulted in returning an incorrect search result.

3.4. Improved presentation of AlwaysOn status on the Dashboard screen

Improved performance of AlwaysOn status refresh and AlwaysOn related dashboard screen data when changing node Secondary to Primary.

3.5. Adding All session series to session history

As part of the latest version, functionality has been added to collect information about the number of sessions connected to an instance. Until now, this information was collected in the main thread (every 15 minutes), which was insufficient for some problems.

Information about the number of all sessions is visible in the **Sessions** menu under **Active Session/Tempdb session/Log usage session history**. Session data is downloaded every 60 seconds

(the default value with the possibility to change it at the configuration level). Only information on the number of sessions is downloaded.

We can read the information in tabular form in the **All Sessions** column.

Logdate	Active Sessions	All Sessions	Sessions using Tempdb	Tempdb Space Used (MB)	Log Usage Sessions	Log Usage Record Count	Log Space Used (MB)
2023-07-05 13:01:35	69	131	23	1 952.8 MB	20	4002	1.9 MB
2023-07-05 13:01:04	5	113	22	1 952.3 MB	16	2736	1.5 MB
2023-07-05 13:00:34	4	110	22	1 952.3 MB	17	712	0.4 MB
2023-07-05 13:04:09	4	98	32	1 954.9 MB	15	3268	1.5 MB
2023-07-05 11:08:13	3	97	31	1 944.1 MB	21	1402365	611.4 MB
2023-07-05 13:04:40	3	95	34	1 973.8 MB	6	20009	7.5 MB
2023-07-05 08:14:16	1	88	21	1 926.5 MB	4	546420	832.3 MB
2023-07-05 11:44:27	1	87	29	1 949.9 MB	1	3820	2.1 MB
2023-07-05 13:05:11	2	85	33	1 956.7 MB	15	47740	17.1 MB

And on the **Active Sessions** chart after changing the presentation to a chart in the **Toggle View** option.

