

DBPLUS
Performance Monitor for Microsoft SQL Server
description of changes in version 2023.1

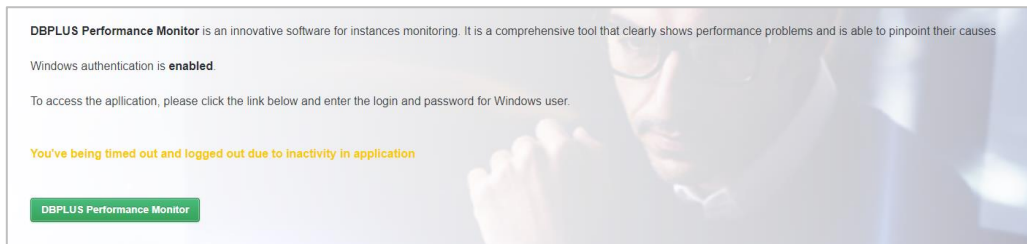
1	<i>Logging out of the application after user inactivity.....</i>	3
2	<i>Adding Audit log functionality.....</i>	4
3	<i>DBPLUS application configuration change history</i>	5
4	<i>User documentation in the application.....</i>	5
4.1.	<i>Headings in tables</i>	6
5	<i>Improvements in execution plans.....</i>	6
5.1.	<i>Improving EMPTY PLAN problems.....</i>	7
5.2.	<i>Streamlining for plan storage</i>	7
6	<i>Assigning categories for monitored instances.....</i>	8
7	<i>Improvements and bug fixes</i>	9
7.1.	<i>Update of wait dictionary not affecting performance</i>	9
7.2.	<i>Searching for instances in Configuration Wizard</i>	9
7.3.	<i>Dictionary of calendar filters</i>	10
7.4.	<i>Improved mechanism for importing instances for monitoring</i>	11

Below is a list of changes to the DBPLUS Performance Monitor system for Microsoft SQL Server database monitoring.

New in 2023.1 version

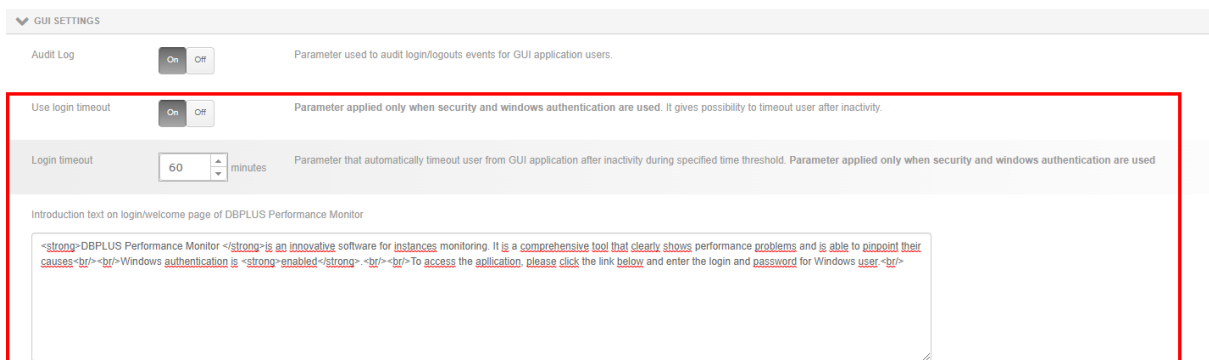
1 Logging out of the application after user inactivity

In the latest version, functionality has been added to log out a Performance Monitor application user after detected inactivity. If the application detects that a user does not perform an activity on a browser tab with the DBPLUS application for a period of 60 minutes (the default value), logout from the application will occur and a screen with logout information will be displayed.



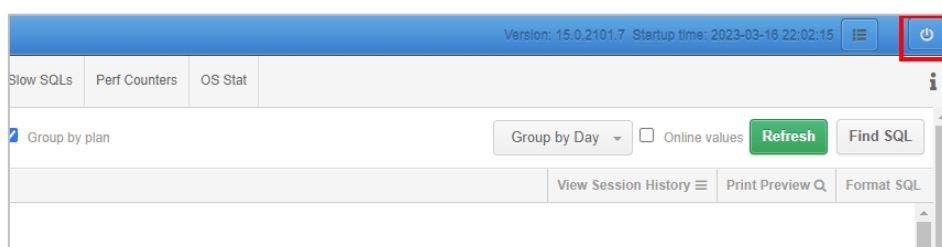
The **Use login timeout** and **Login timeout** parameter, available in the Configuration > Settings menu in the GUI Settings section, is responsible for the mechanism's operation. The parameter is available from Global settings and applies to the operation of the entire application for a given database platform.

In addition, the message that is presented after logging out is configurable. From the settings level, you can freely change the description according to your needs.

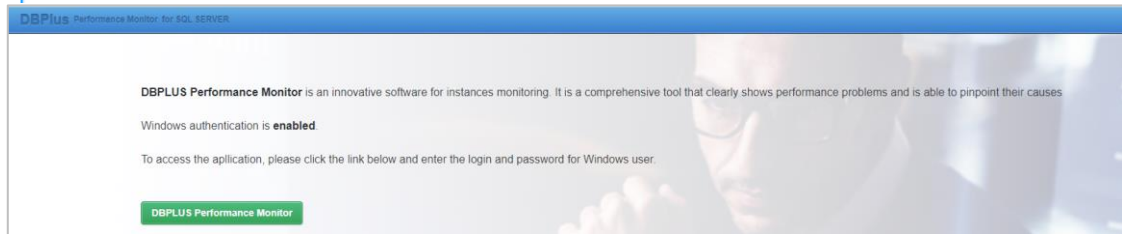


The functionality is enabled by default immediately after the update and the time after which the disconnection will occur is 60 minutes by default.

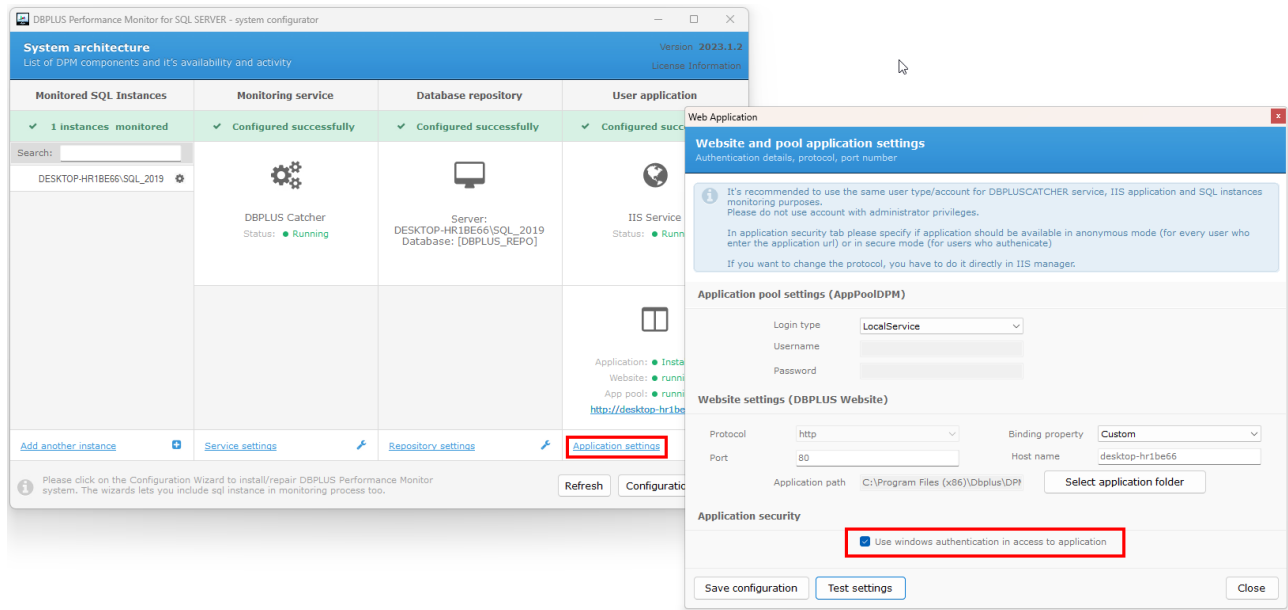
In addition, a button for the user to log out of the application has been added.



Logging out will display a message with the content, according to the configuration available in the Configuration menu.



Note: The logout functionality is available only for the application for which the Windows Authentication option has been enabled, accessible from the DBPLUS Configuration Wizard from the Windows server on which the application has been installed.



2 Adding Audit log functionality

In the latest version of the application, functionality for tracking the login and logout of DBPLUS application users has been added. Every event of user login and logout from the application is logged. The functionality is available regardless of the enabled Windows Authentication functionality. If authentication by a domain account is not enabled, Anonymous is entered in the log in the User field.

Logging information is available in the Servers monitor > Logs menu under Audit logs .

Deletion procedure runtime						Audit logs	Logs
Date from: 2023/04/11 to 2023/04/11						Refresh	
Logdate	Operation	Browser	Client ip address	User	Asp.net SessionId		
2023-04-11 17:04:53	Logout (Close Browser)	Chrome	10.250.3.100	ICABOGUSZE	xjrex3vhtxoxdieqvtbrpw5e		
2023-04-11 17:04:54	Login	Chrome	10.250.3.100	ICABOGUSZE	xjrex3vhtxoxdieqvtbrpw5e		
2023-04-11 17:05:02	Logout (Close Browser)	Chrome	10.250.3.100	ICABOGUSZE	xjrex3vhtxoxdieqvtbrpw5e		
2023-04-11 17:05:03	Login	Chrome	10.250.3.100	ICABOGUSZE	xjrex3vhtxoxdieqvtbrpw5e		
2023-04-11 17:05:09	Logout (Close Browser)	Chrome	10.250.3.100	ICABOGUSZE	xjrex3vhtxoxdieqvtbrpw5e		
2023-04-11 17:05:09	Login	Chrome	10.250.3.100	ICABOGUSZE	xjrex3vhtxoxdieqvtbrpw5e		
2023-04-11 17:05:19	Logout (Close Browser)	Chrome	10.250.3.100	ICABOGUSZE	xjrex3vhtxoxdieqvtbrpw5e		
2023-04-11 17:05:20	Login	Chrome	10.250.3.100	ICABOGUSZE	xjrex3vhtxoxdieqvtbrpw5e		
2023-04-11 17:07:57	Logout (Close Browser)	Chrome	10.250.3.100	ICABOGUSZE	xjrex3vhtxoxdieqvtbrpw5e		
2023-04-11 17:07:58	Login	Chrome	10.250.3.100	ICABOGUSZE	xjrex3vhtxoxdieqvtbrpw5e		

The data is stored for a period of 30 days (default). The user can change the settings based on the parameter in the Configuration settings menu under HISTORY SETTINGS.

On

Off

Backups

1095

days

Number of days how long to keep backup details. After this period the data will not be available

On

Off

Trace session history

30

days

Number of days how long to keep history details for session traces. After this period the data will not be available

On

Off

30

days

▼

QUERY STATISTICS SETTINGS

Minimal query Elapsed Time

0.5

seconds

Param used as a threshold/minimal value for Elapsed/Cpu Time above which query statistics (for all executions) is included by monitoring process. Param is a number of seconds and default value is 0.5.

Monitor tracewrite statements

On

Off

Enable or disable in monitoring process TRACEWRITE statements ran from Sql Profiler tool. It's recommended to disable such type of statements to have better visibility on the Instance Load for business sql queries.

3 DBPLUS application configuration change history

Functionality for tracking changes in DBPLUS Performance Monitor application parameter settings has been added. Starting with the latest version, changes in parameter values accessible from the **Configuration > Settings** menu are recorded in history. Changes from both Global settings and dedicated instance level parameters are tracked.

Settings

Waits settings

Dashboard thresholds

Object Size Settings

Global settings

Instance settings

Save

Restore defaults

▼

HISTORY SETTINGS

Detailed statistics

30

days

Main parameter for all statistics. Number of days how long to keep details for all statistics in DBPLUS database repository. After this period the data will be aggregated and available grouped by day only

On

Off

Statement statistics

33

days

Number of days how long to keep details statistics for statements. After this period the data will be aggregated and available grouped by day only

On

Off

Session/Locks statistics

30

days

Number of days how long to keep details for Session details (Active, Sort and Undo usage) and Locks details. After this period the detailed data will be not available

On

Off

30

days

On

Off

30

days

On

Off

365

days

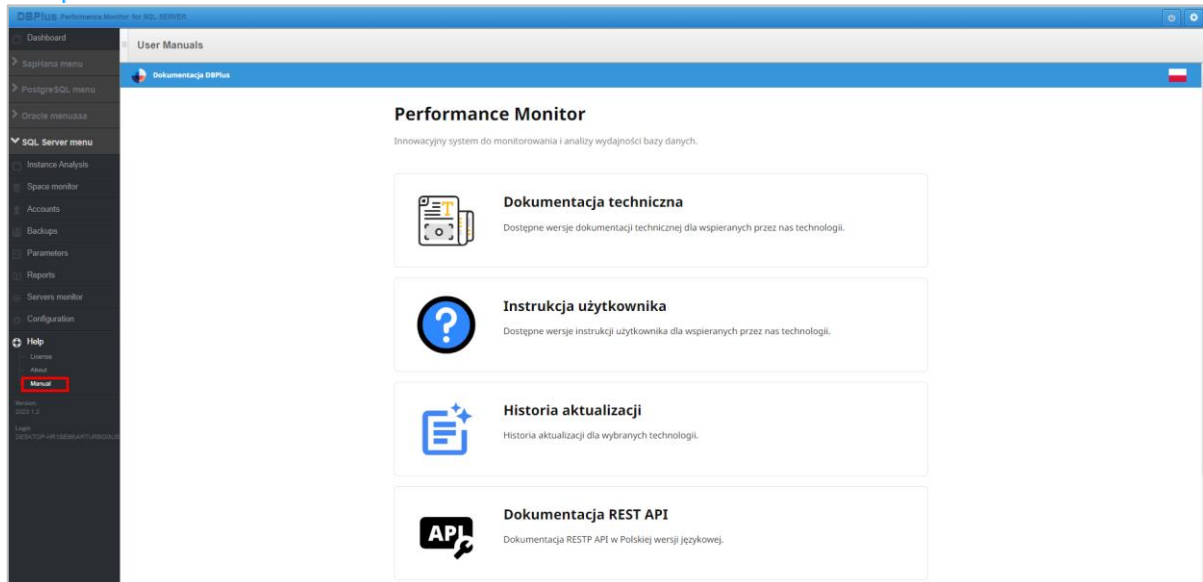
An example of the view of changes in settings available in the DBPLUS application.

Close					
Date from: 2023/04/01 to: 2023/04/04		Refresh			
User	Settings Server	Change time	Parameter name	Old value	New value
DESKTOP-HR1BE66VARTURBOGUSZE...	DESKTOP-HR1BE66VARTURBOGUSZE...	2023-04-04 17:13:47	Minimal query Elapsed Time	0.5	0.01
DESKTOP-HR1BE66VARTURBOGUSZE...	Global	2023-04-04 17:10:23	Statement statistics	30	33
DESKTOP-HR1BE66VARTURBOGUSZE...	Global	2023-04-04 16:36:50	Introduction text	le...	D...
DESKTOP-HR1BE66VARTURBOGUSZE...	Global	2023-04-04 15:47:10	Login timeout	0	1
DESKTOP-HR1BE66VARTURBOGUSZE...	Global	2023-04-04 15:46:33	Login timeout	1	0
DESKTOP-HR1BE66VARTURBOGUSZE...	Global	2023-04-04 15:38:26	Login timeout	60	1
DESKTOP-HR1BE66VARTURBOGUSZE...	Global	2023-04-04 15:08:30	Login timeout	40	60
DESKTOP-HR1BE66VARTURBOGUSZE...	Global	2023-04-03 10:35:36	Introduction text	D...	le...
DESKTOP-HR1BE66VARTURBOGUSZE...	Global	2023-04-03 10:35:21	Login timeout	60	40
DESKTOP-HR1BE66VARTURBOGUSZE...	Global	2023-04-03 10:35:00	Monitor jobs	ON	OFF

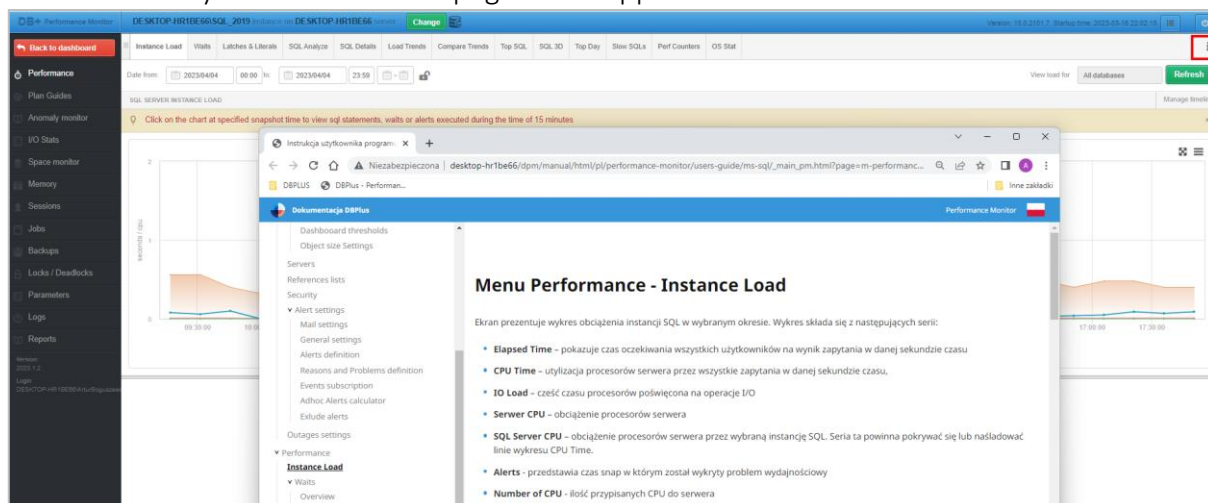
4 User documentation in the application

A new version of documentation has been added in the latest version. The documentation is collectively available as before in the main menu **Help > Manual**.

In addition to a standard user's guide describing the operation of the functionalities included in the application, there is also technical documentation and an update history describing changes for recent versions of the application.



In addition, access to the user manual is available from any page in the application by clicking on the "i" icon in the upper right corner. Clicking on a given page will open a manual showing a description of the functionality for the dedicated page in the application.



4.1. Headings in tables

Another change concerns the addition of information about the data available in the tables accessible from the application. Starting with the latest version, for each table after hovering over the header

Sessions													
Tempdb usage sessions													
Log usage sessions													
Sessions history													
Active sessions / Tempdb sessions / Log usage sessions history													
<input checked="" type="checkbox"/> Active sessions <input checked="" type="checkbox"/> Users only Min elapsed time: 0 sec. Sid: <input type="text"/> All databases: <input type="text"/> Query hash: <input type="text"/> Login name: <input type="text"/> <input type="button" value="Refresh"/>													
Show additional filters													
SESSION LIST (LAST REFRESHED: 17:35:59) <input type="button" value="Kill session"/>													
Logon time	Sess. Id	Query Hash	Login name	Original Login name	Status	Last request start time	Elapsed Time (seconds)	Cpu Time (seconds)	Windows username	Host name	Program	Context info	Blocked session
2023-04-04 17:...	66	0x1A3DE62...	dbplus	dbplus	running	2023-04-04 17:35:59	0	0.006	Windows user name for the client if the session is using Windows Authentication or a trusted connection. This value is NULL for internal sessions and non-domain users.	US Performan...	DPM GUI	0	DBPLUS_REPO
2023-04-03 16:...	71	0x5E68919...	dbplus	dbplus	running	2023-04-03 16:40:03	89.756	0.051		US Performan...		0	master

5 Improvements in execution plans

We have made a number of changes related to the functionality of collecting as well as storing execution plans in the repository.

5.1. Improving EMPTY PLAN problems

One of the main changes is related to reading plans from system views. As of the latest version, we have changed the way we collect new plans, as well as for plans for which we have not been able to collect a plan so far (EMPTY PLAN designation), the application will collect plans every time a query is run in an MSSQL instance and the threshold statistics for all runs of a given query are exceeded.

5.2. Streamlining for plan storage

Predefined execution plans

As part of the update, a fix has been uploaded to reduce the size of the DBPLUS repository due to a change in the way technical (predefined) plans are stored for which no plans are generated in MSSQL.

Instance Load	Waits	Latches & Literals	SQL Analyze	SQL Details	Load Trends	Compare Trends	Top SQL	SQL 3D	Top Day	Slow SQLs	Perf Counters	OS Stat
Date from: <div><div>2023/04/05</div><div>00:00</div></div> to: <div><div>2023/04/05</div><div>23:59</div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div></div>												

Multiple versions of execution plans

The current application logic saves each all versions of execution plans that are executed by queries. In a situation where a very large number of versions of queries are generated on instances that are executed with the same plan, there is a risk of large data growth in the repository.

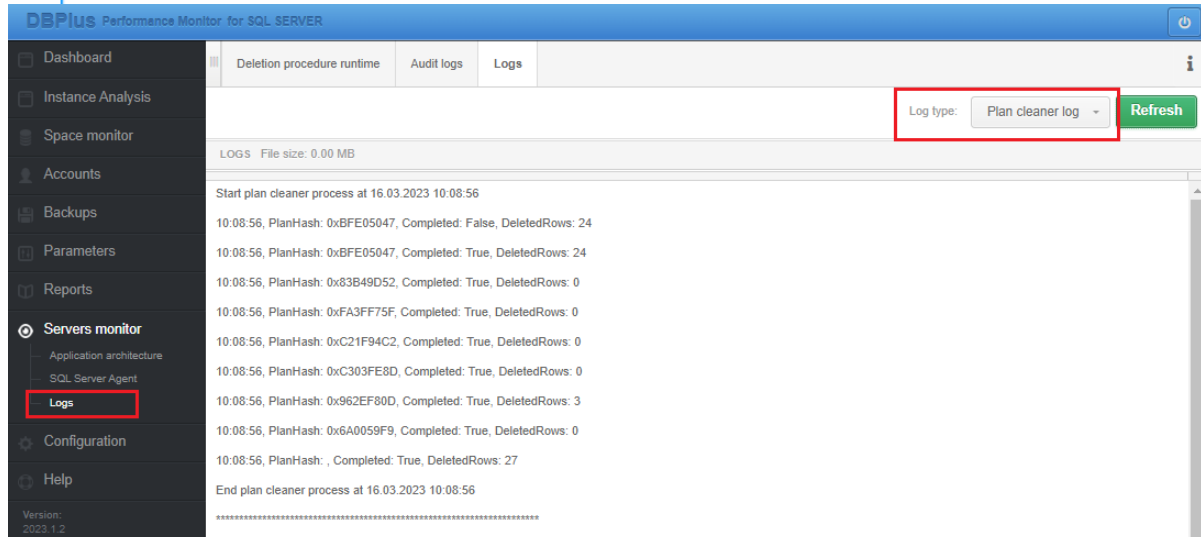
As part of the latest version, a new parameter **Keep multiple plan versions** has been added, enabled by default. The parameter prevents the collection of redundant execution plans and keeps a maximum of 100 versions of a given plan in the repository.

Settings	Waits settings	Dashboard thresholds	Object Size Settings	Global settings	Instance settings	Save	Restore defaults
Use sql statement length limit	<input type="checkbox"/> ON <input type="checkbox"/> OFF	Setting used during collecting statistics data for running queries. You can set the maximum sql statement length that will be stored in system repository. Statements with greater length will be truncated.					
Interval for cursor checking	<input type="text" value="120"/> seconds	The interval time in seconds between each snapshot of FETCH API open cursor statements, made by DBPLUS CATCHER service. The parameter can be setup separately for each instance. In a case of high utilization by FETCH API statements, please consider lower value for this parameter. In a case of rarely executed cursors, please use bigger value for it.					
Keep multiple plan versions	<input type="checkbox"/> ON <input type="checkbox"/> OFF	Enable or disable storing multiple versions of plans. Multiple plan versions allow plans to be used as hint in plan guide script. It can impact significant growth of plans table in repository, particularly in cases where there are hundreds of query hashes that use specific plan.					
QUERY STATISTICS SETTINGS WITH EXTENDED EVENT'S FEATURE							
Minimal XEvent Elapsed Time	<input type="text" value="0.5"/> seconds	Param used as a threshold/minimal value for Elapsed Time above which single event (single query execution) is included by monitoring process. Param is a number of seconds and default value is 0.5.					
Monitor DDL statements	<input type="checkbox"/> ON <input type="checkbox"/> OFF	Enable or disable logic to collect load for DDL statements like ALTER, CREATE, DROP, DBCC. Utilization of such statements is gathered using extended event feature.					

Removal of unnecessary execution plans

Redundant data that was stored in the repository after the upgrade to the latest version will be removed. The upgrade will remove redundant predefined plans as well as redundant versions of plans for which there are more than 100 combinations of query hash, plan hash, databases.

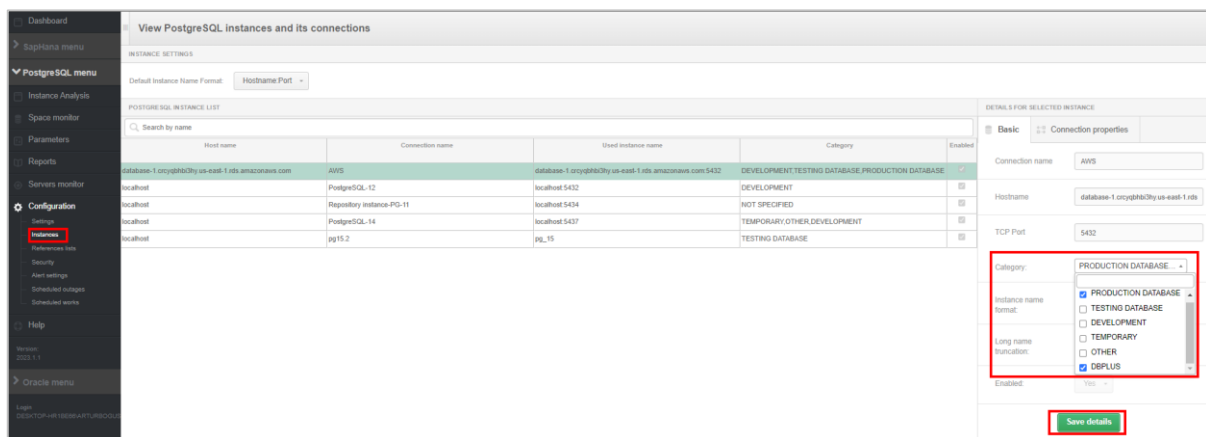
The user can see information about the deleted unnecessary plans in the Servers Monitor > Logs menu under the Plan Cleaner log option.



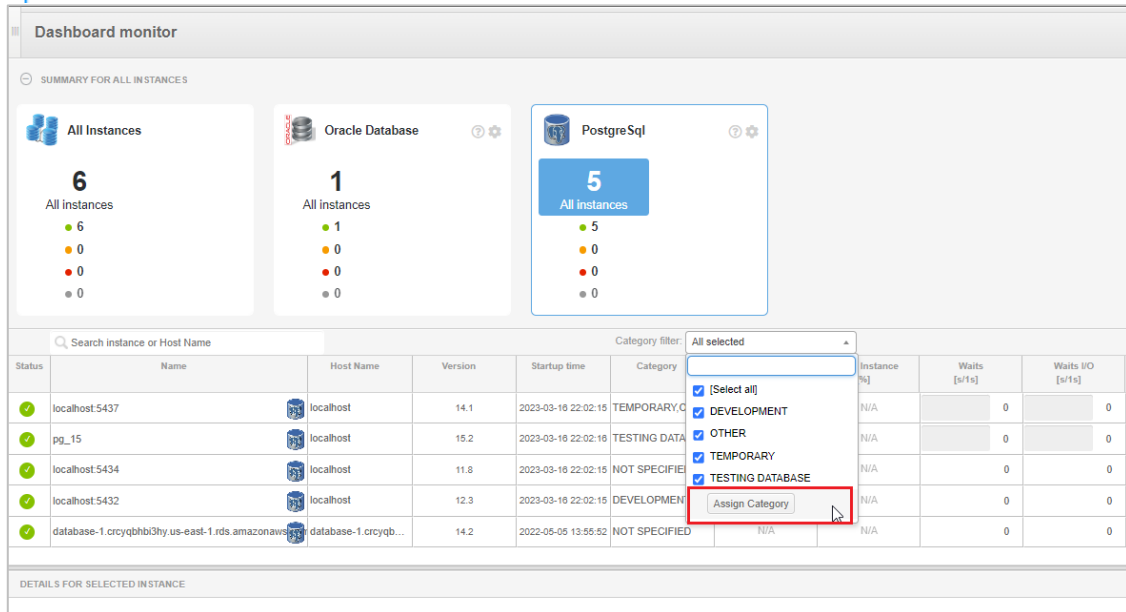
6 Assigning categories for monitored instances

In the latest version of the application, we have added functionality for assigning multiple categories to monitored instances. Until now, the functionality allowed assigning one category to one instance. As of the latest version, we have changed this limitation, allowing you to assign multiple categories for instances.

Assigning categories to instances is possible from the Configuration > Instances menu. On the screen, the user selects instances from the list and then in the menu on the right in the **Category** field indicates the category appropriate for the instance. After making changes, save the changes made.



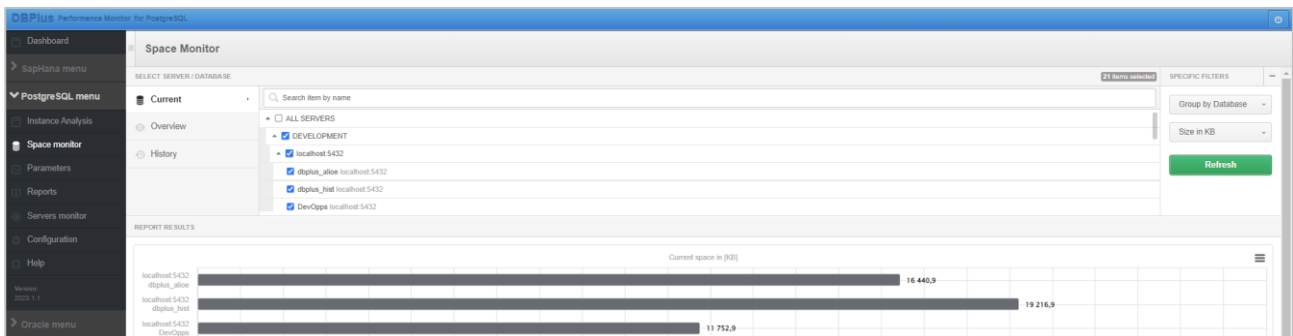
In addition, on the Dashboard screen in the Category group field, there is an option to redirect directly to a screen in which you can assign a category to an instance by selecting **Assign category**.



Pages where categories were used have also been modified and adjusted to support the assignment of multiple categories. In particular, the changes affect screens in the main menu such as:

- Space monitor
- Parameters
- Reports

On these pages, we have changed the way instances are selected for search by searching for instances using filters and selecting via checkbox.



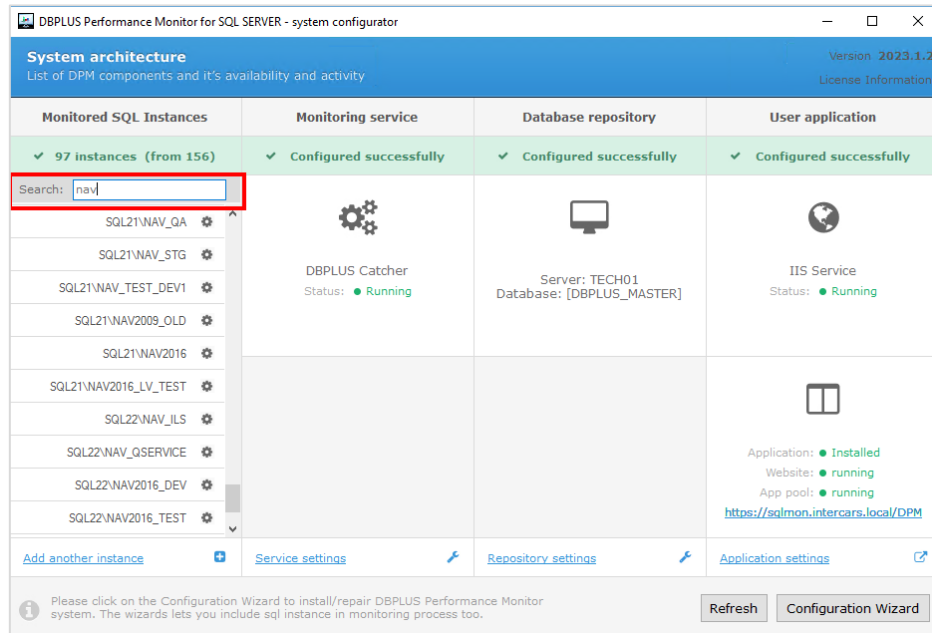
7 Improvements and bug fixes

7.1. Update of wait dictionary not affecting performance

The dictionary of waits that do not affect performance has been modified. In the latest version, we have added a "BROKER%" entry. The dictionary is available from the Configuration > Settings> Waits settings menu. It contains information about waits that do not affect the duration of queries executed in the monitored instance and are usually related to internal database processes.

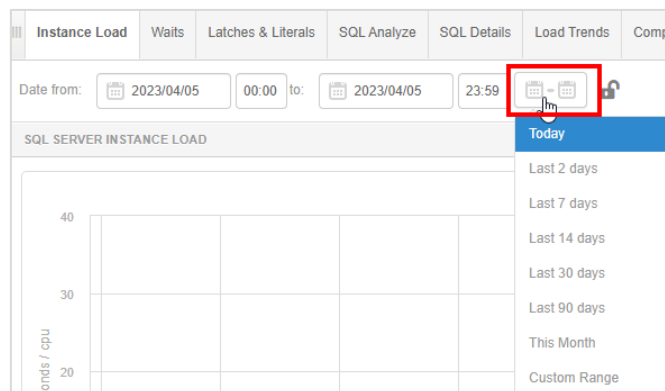
7.2. Searching for instances in Configuration Wizard

In the latest version, we have added instance search at the Configuration Wizard level. The search works on lowercase and uppercase letters, regardless of whether we started from the beginning of the name or search for a character in the middle of the instance name.

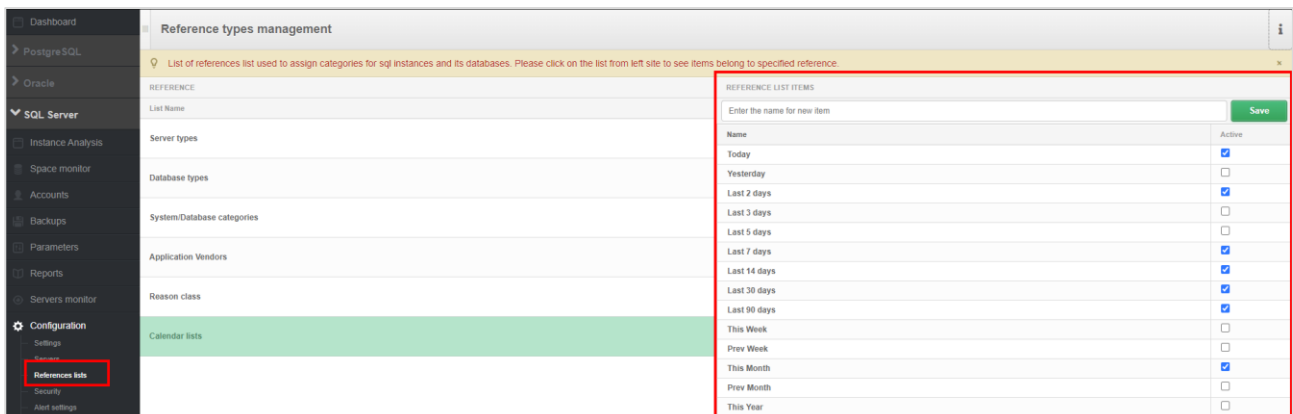


7.3. Dictionary of calendar filters

In the latest version, we added the ability to configure default calendar filters. From the latest version, users have the ability to modify the calendar filters available on the application pages. Changing the settings will cause modifications for all users of the application.



The dictionary data can be found on the page under Configuration > References lists at the **Calendar lists** level.



7.4. Improved mechanism for importing instances for monitoring

In the latest version, we have improved the mechanism for importing SQL instances from a flat file into monitoring. The problem consisted of misreading the port number of the imported instance. The problem has been corrected.

