

DBPLUS
Performance Monitor for Oracle
description of changes in version 2023.4

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

News in version 202 3.4

1. Manage email sending from the app

In the latest version of the application, the functionality for managing the sending of email addresses informing about alerts has been modified. Alert information is sent based on events detected by the Anomaly Monitor module. This module analyzes performance trends in the monitored instance and if a problem occurs, the information will be presented in the Performance Monitor application and, if email dispatch has been configured, information about the event will be sent to the specified address.

The improvement introduced in the latest version allows full configuration of email dispatch. The user can indicate which events are to be informed by email.

Configuration is available from the Configuration - Alert settings menu under the **Events subscription** tab.

Template name	Enabled	Instances assigned	Subscribers	Reasons assigned	
Template for icadmin	<input checked="" type="checkbox"/>	All instances	icadmin@int	All reasons	
DBPLUS	<input checked="" type="checkbox"/>	Categories: BIZ, NAV-dev&test, NAV-primary, Instances: SQL22	artur.boguszewski@dbplus.pl	SQL statement - executions, SQL statement - disk reads, SQL state...	
Template for radostaw.makuch@dbplus.pl, artur.boguszewski@dbplus...	<input checked="" type="checkbox"/>	Instances: CRMSQL	radostaw.makuch@dbplus.pl , artur.boguszewski@dbplus.pl , jacek.wronka@dbplus.pl	All reasons	
Template for radostaw.makuch@dbplus.pl, artur.boguszewski@dbplus.pl...	<input checked="" type="checkbox"/>	Instances: NAV_BG_P_G0408, NAV_HU_S_G0001, NAV_HR_P_G021...	radostaw.makuch@dbplus.pl , jacek.wronka@dbplus.pl , SQL.Server.Perfor...	All reasons	
Template for radostaw.makuch@dbplus.pl	<input checked="" type="checkbox"/>	Instances: NAV_LV_P_U0213, NAV_CZ	radostaw.makuch@dbplus.pl	New SQL statement, Change Plan, SQL statement - executions	
Template for SQLServer	<input checked="" type="checkbox"/>	Instances: NAV_UA_P	artur.boguszewski@dbplus.pl , icadmin@int	All reasons	
Template for damian.	<input checked="" type="checkbox"/>	Instances: SQL0021	radostaw.makuch@dbplus.pl	All reasons	
Template for dbplus	<input checked="" type="checkbox"/>	Instances: SQLU0408\CDRI	radostaw.makuch@dbplus.pl , artur.boguszewski@dbplus.pl	All reasons	

After uploading the latest application update, the email subscription data will be aggregated and grouped, a template name will be created for each entry - **Template name**.

By default, each entry will contain email sending configurations for each event (alert) **Reasons assigned** will be completed with the value All reason.

The user can add a new entry, change the configuration or delete the shipping configuration.

Adding a new configuration is possible using the **[Add new email address]** button. Within the configuration, the user first indicates for which instances you want alert information to be sent. Instances are grouped into categories. The user has the option to select the entire category or a single instance.

SUBSCRIPTION EMAIL FORM [X]

Template name: Enabled

SELECT INSTANCE 7 items selected

Select All Expand All Collapse All

ENOVA-SQL01\ENOVA

▲ TECH (category)

SQLU0001\TECH01

SQLU0214\TECH04

SQLG0214\TECH04

▲ TESTING (category)

ICD_FC test

EMAIL ADDRESS LIST [Add new email](#) 1 email specified

artur.boguszewski@dplus.pl

REASON / ALERTS SELECTIONS 3 reason items specified

Select All	Class Name	Reason Description
<input checked="" type="checkbox"/>	New SQL statement	New SQL statement
<input checked="" type="checkbox"/>	Change Plan	Change of the Execution Plan
<input type="checkbox"/>	SQL statement - executions	Increase query executions
<input checked="" type="checkbox"/>	SQL statement - disk reads	Increase query disk block reads
<input type="checkbox"/>	SQL statement - buffer gets	Increase query buffer block reads

The next step is to add an email address to which information about performance problems will be sent. You can add one or multiple email addresses as part of the configuration.

The last step is to select events for which information is to be sent. The list of events depends on the alerts configured in the **Reasons & Problems** tab **definitions** supplemented with detections sewn in the application code. By default, the following events are available:

- **SQL statement - time increase - Increase of query processing time**

Indicates an increase in the duration of the Elapsed time query.

- **SQL statement - executions - Increase query executions**

An increase in the number of executions of a given query compared to the statistics collected by monitoring.

- **SQL statement - disk reads - Increase query disk block reads**

The event reports the return of the number of data blocks read by the query under investigation.

- **SQL statement - buffer gets - Increase query buffer block reads**

The event informs about the increase in the number of blocks read in memory by the query.

- **Online -Database is not available**

Event information is sent when the monitored instance is not available.

- **New SQL statement**

The event informs about a new query that is executed on the monitored instance, which accounts for a significant share of instance utilization.

- **Lock - High any locking wait detections**

The event reports the occurrence of blockages in the monitored instance.

- **Change Plan - Change of the Execution Plan**

It is responsible for monitoring the query plans. When a query runs on multiple plans, their statistics are compared. If it is detected that the query is running on a suboptimal plan, information about such an event is displayed as a change of execution plan.

- **Based on wait - High wait detections**

Detection examines trends for waits affecting the performance of the monitored instance. Historical data collected by monitoring is compared with the level of a given wait.

- **User I/O - Problem with I/O subsystem storage**

Informs the user about problems with the operation of the disk array.

- **User I/O - Problem with writes to I/O subsystem storage**

Informs the user of write problems in the disk array.

- **Alert Log - Oracle Alert Log problem**

The category is responsible for sending an email when ORA errors occur in the monitored instance.

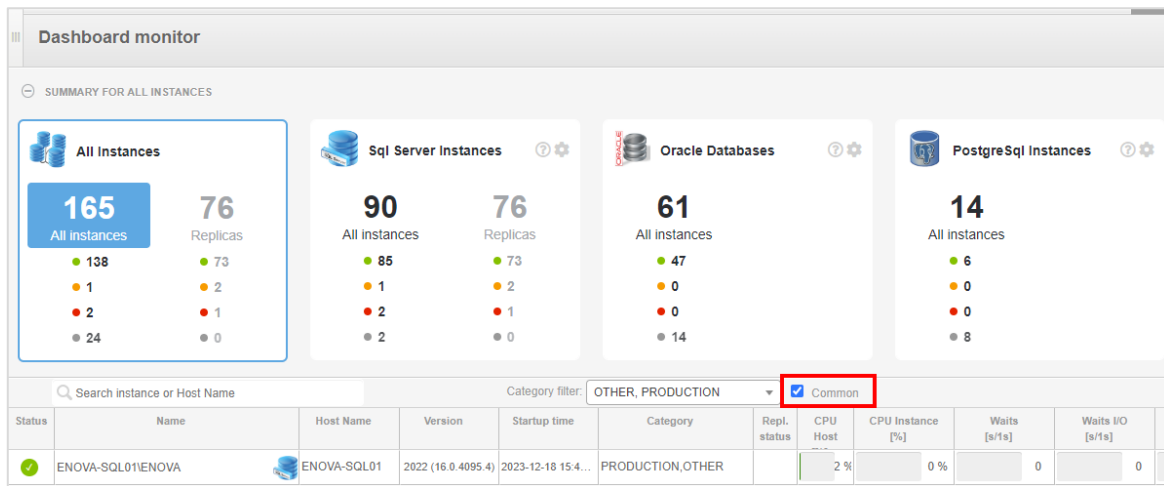
- **Concurrency - High buffer busy waits event**
- **Cpu - Problem with High Cpu Utilization**
- **Concurrency - High cursor: mutes S event. Many cursors open or statement parsing problem**
- **Concurrency - High cursor: pin S wait on event.**
- **Concurrency - High free buffer waits event.**
- **Concurrency - Row Cache Objects latch problem**
- **Concurrency - High simultaneous buffer access / cache buffer chain**
- **Concurrency - High shared pool usage**
- **Concurrency - High library cache lock event. Object/s compilation, altering or parsing cause a problem**
- **Concurrency - High library cache pin event. Object /s compilation cause a problem**
- **Configuration - UNDO management operations problem due to enq: HW - contention**
- **Configuration - Sequence.nextval operations problem due to high enq: SQ - contention**
- **Application - Missing index or DML operation problem. High enq: TM - contention event**
- **Other - Long transactions on the same object. High enq: TX - contention event**
- **Network - Waits on external host. High TCP Socket (KGAS) event.**
- **Other - High UNDO tablespace usage / latch: undo global data**
- **Other - High wait time to free latch/buffer**
- **Replication - Standby replication problem**

2. Minor fixes and improvements

2.1. Improved grouping of instances on the Dashboard screen

At the request of some of our customers, we have added the ability to filter database instances which have several categories assigned. For this purpose, a checkbox **[Common]** has been added, after selecting which only those instances will be displayed which meet the condition of assigning categories selected in the **Category filter** field.

Categories can be assigned in the **Configuration - Databases** menu, by selecting a category in the details for an instance.



2.2. Query Advisor functionality updates

The Query Advisor functionality has been updated in the latest version of the application. This functionality allows the user to automatically verify whether optimization is possible for the analyzed query, by adding a hint or setting up a new index.

The functionality is available from the SQL Details tab on the Show Plan Objects page.

In the latest version, support for more query types and syntax has been added, support for complex queries has been added, and the calculation of costs associated with calculating the correct path has been improved. The performance and speed of calculating the most optimal plan for the analyzed query has also been improved.