

DBPLUS
Performance Monitor for PostgreSQL
description of changes in version 2023.4

Date: December 2023.

Table of contents

1	<i>Manage email sending from the app.....</i>	3
2	<i>Minor fixes and improvements.....</i>	5
2.1.	<i>Improved query parsing mechanism</i>	5
2.2.	<i>Improved grouping of instances on the Dashboard screen.....</i>	5

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

New in version 2023. 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.

Mail settings	General settings	Alerts definition	Reasons & Problems definition	Events subscription	Adhoc Alerts calculator	Exclude alerts	
							Refresh
EMAIL SUBSCRIPTION LIST							Add new email address
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 radoslaw.makuch@dbplus.pl, artur.boguszewski@dbplus...	<input checked="" type="checkbox"/>	Instances: CRMSQL	radoslaw.makuch@dbplus.pl , artur.boguszewski@dbplus.pl , jacek.wronka@dbplus.pl	All reasons			
Template for radoslaw.makuch@dbplus.pl, artur.boguszewski@dbplus.pl...	<input checked="" type="checkbox"/>	Instances: NAV_BG_P_G0408, NAV_HU_S_G0001, NAV_HR_P_G021...	radoslaw.makuch@dbplus.pl , jacek.wronka@dbplus.pl , artur.boguszewski@dbplus.pl	All reasons			
Template for radoslaw.makuch@dbplus.pl	<input checked="" type="checkbox"/>	Instances: NAV_LV_P_U0213, NAV_CZ	radoslaw.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: SQL G021	radoslaw.makuch@dbplus.pl	All reasons			
Template for dbplus	<input checked="" type="checkbox"/>	Instances: SQLU0408\CDRI	radoslaw.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

Template name: Enabled

SELECT INSTANCE: 7 items selected

Select All Expand All Collapse All

ENOVA-SQL01\VENOVA

TECH (category)

- SQLU0001\TECH01
- SQLU0214\TECH04
- SQLG0214\TECH04

TESTING (category)

- ICD_FC test

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

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 - PostgreSQL instance 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.

- **Client - High network wait detections**

Verifies the level of network-related waits.

- **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

- **I/O - Increase of query processing time caused by I/O**

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

2 Minor fixes and improvements

2.1. Improved query parsing mechanism

In the latest version, we have added exceptions for the query parsing mechanism to generate an execution plan. Queries of type: call, cursor or pl-sql batch will not be subject to the parsing mechanism due to the lack of an execution plan.

2.2. 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, we have added a checkbox **[Common]** after selecting which only those instances will be displayed that meet the condition of assigning categories selected in the field **Category filter**.

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

