

The first steps in NVS Greenex. User Guide

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Introduction.

The NVS Greenex Monitor program is designed, as the name suggests, to monitor mainly SAP and Oracle systems. Having in its composition "out of the box" a set of the most basic After checking, it monitors key parameters by notifying administrators by mail.

There are 3 main types of checks:

- Operating system level: the status of disks, RAM, and CPU.
- Database level: for SAP HANA, this is the state of memory, backups, and size.
- SAP ABAP application Server level: SM50 process busy , ST22 errors, the SM13 update mechanism.

In turn, reports can be conditionally:

- Trigger
- Statistical

The first ones track one numeric parameter and when the limit is exceeded, they generate a letter about

the excess by mail.

The latter collect various multifactorial statistics without analyzing any excess and are intended for regular reporting of the system status.

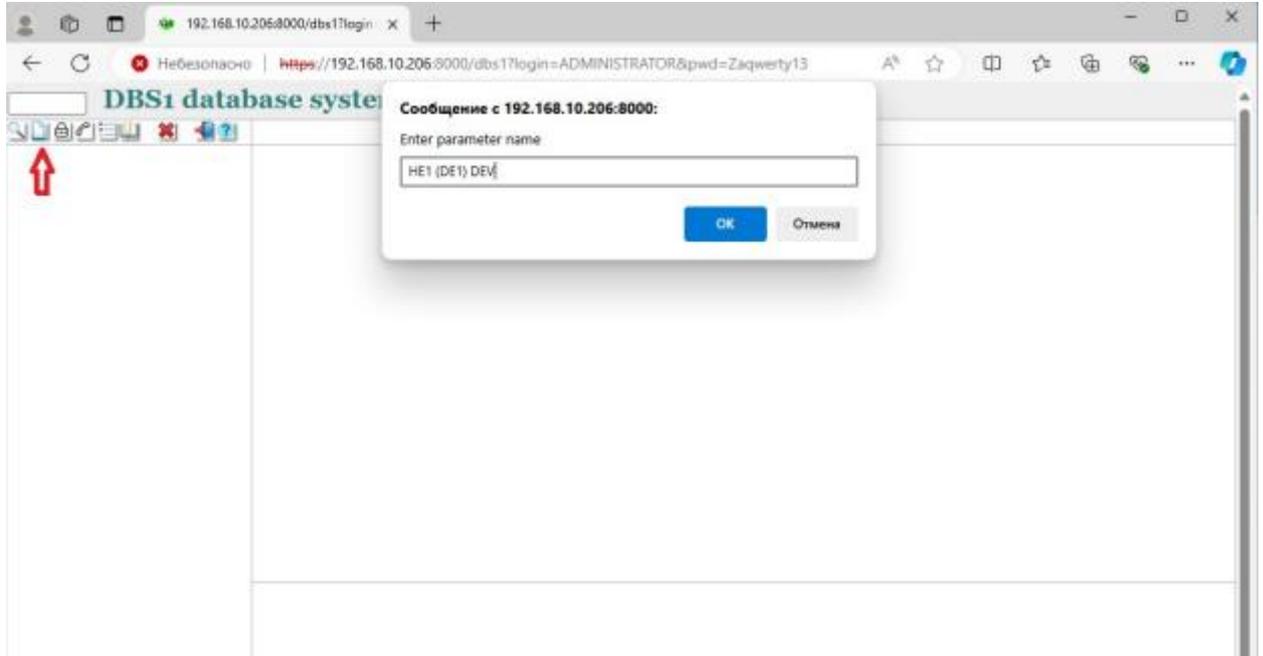
To deliver the results of the second type of reports, it is necessary to plan a separate mail distribution task, which in tabular form will generate letters for end users.

You can find more detailed information in the User's Instructions on the website www.nvs-itech.com

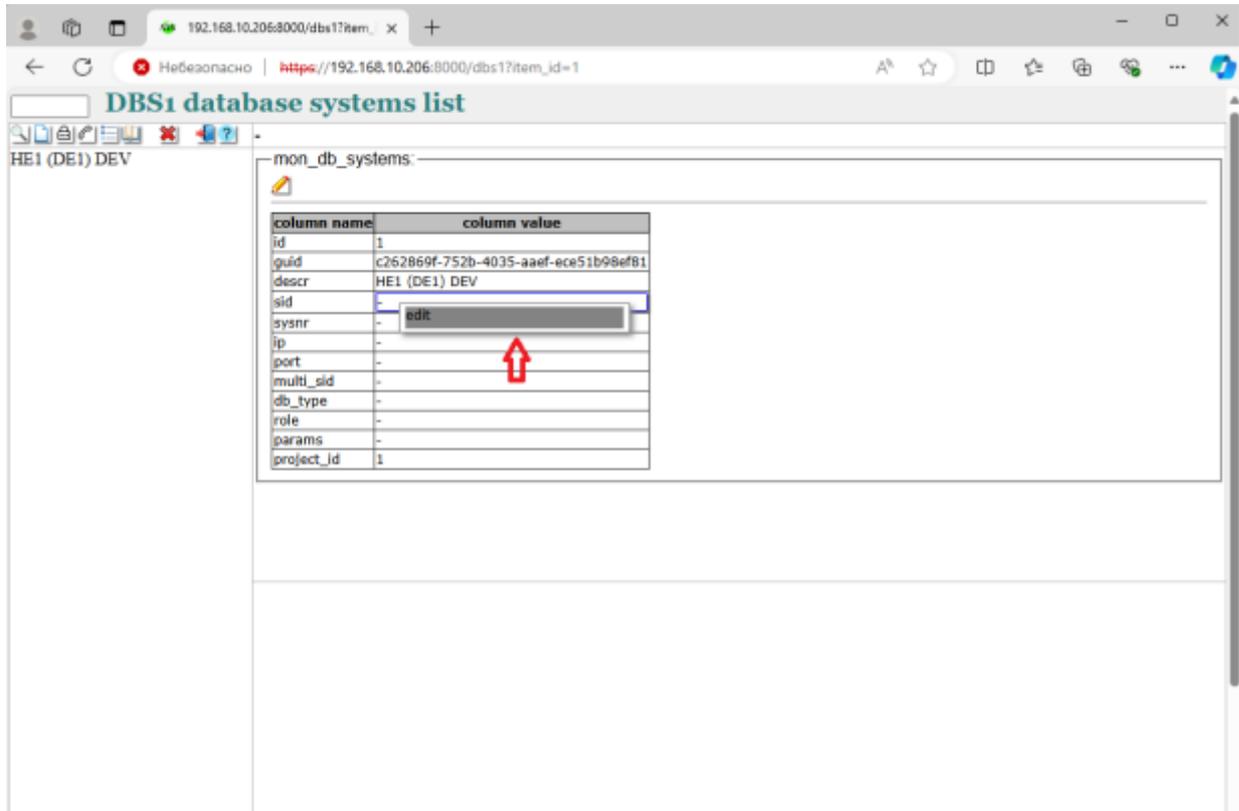
The first example.

Planning an information report on the state of SAP HANA memory.

Creating a record for the database. In the DBS1 transaction, use the button bar at the top left of the screen to create a new entry in the list of databases to monitor



Use the context menu to edit the parameters



The screenshot shows a web browser window with the URL https://192.168.10.206:8000/dbs1?item_id=1. The page title is "DBS1 database systems list". The main content area displays a table titled "mon_db_systems:" with the following data:

column name	column value
id	1
guid	c262869f-752b-4035-aaef-ec51b98ef81
descr	HE1 (DE1) DEV
sid	-
sysnr	-
ip	-
port	-
multi_sid	-
db_type	-
role	-
params	-
project_id	1

The "sysnr" cell is selected, and a context menu is open over it, showing an "edit" option. A red arrow points to the "edit" option.

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Create a user to connect to the database.

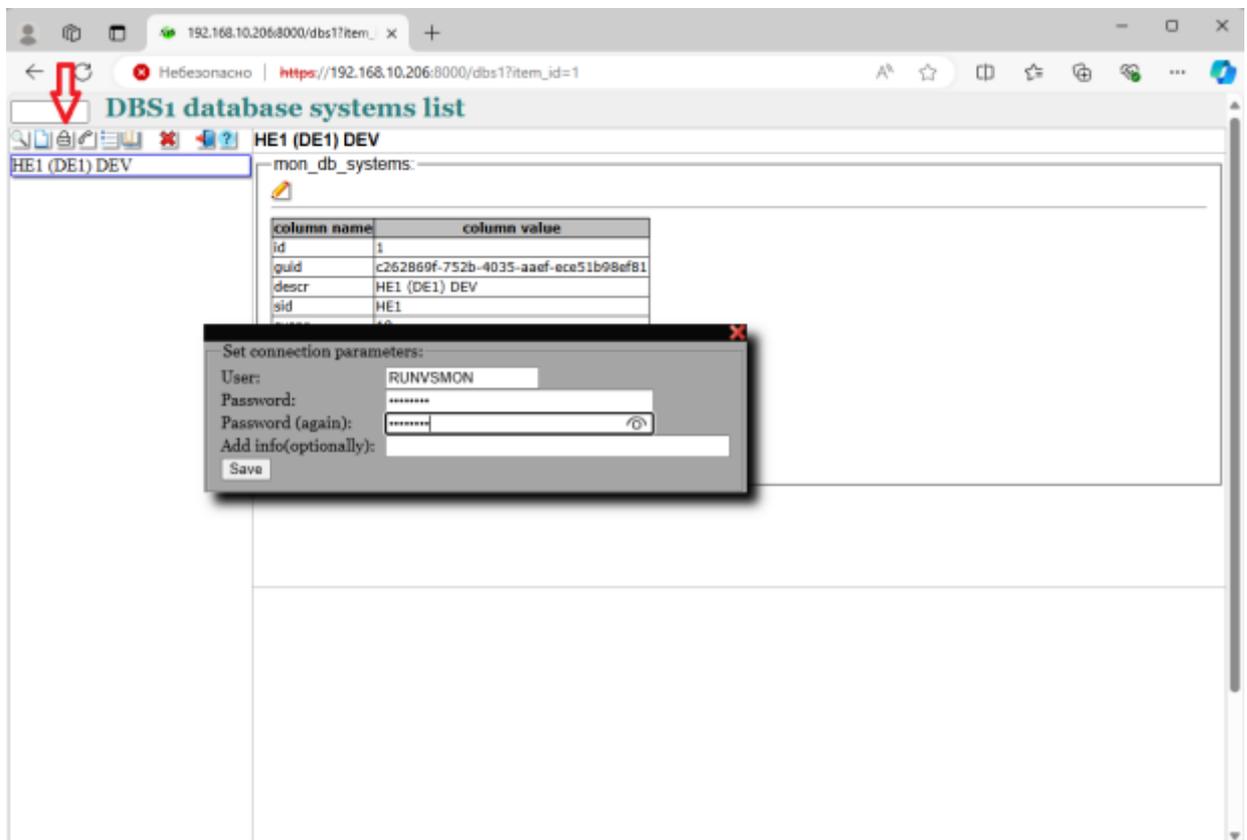
To do this, use SAP HANA Studio to connect to the tenant under the SYSTEM user and execute the SQL script, without forgetting to change the username / password to the current ones :

```
CREATE USER RUNVSMON PASSWORD "Init1234" NO FORCE_FIRST_PASSWORD_CHANGE VALID FROM NOW UNTIL FOREVER;
```

```
ALTER USER RUNVSMON DISABLE PASSWORD LIFETIME;
```

```
GRANT MONITORING TO RUNVSMON
```

Next, enter the appropriate data in DBS1:



Check the connection, if successful, you should see a green flag and the database version.

DBS1 database systems list

HE1 (DE1) DEV

mon_db_systems:

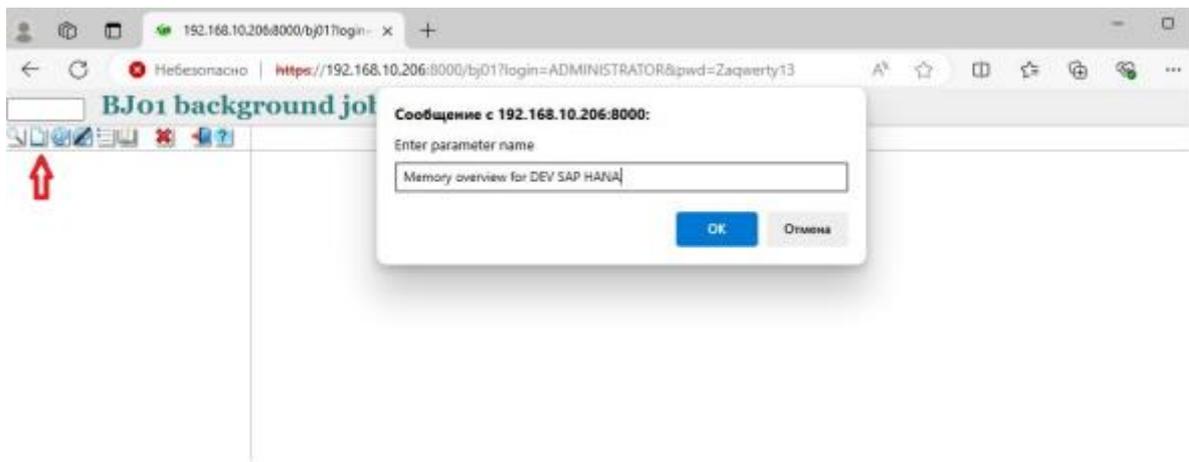
column name	column value
id	1
guid	c262869f-752b-4035-aaef-ec51b90ef01
descr	HE1 (DE1) DEV
sid	HE1
sysnr	10
ip	green197
port	31015
multi_sid	-
db_type	SAPHANA
role	DEV
params	-
project_id	1

2.00.048.00.1591276203

Scheduling a background task to collect statistics from memory.

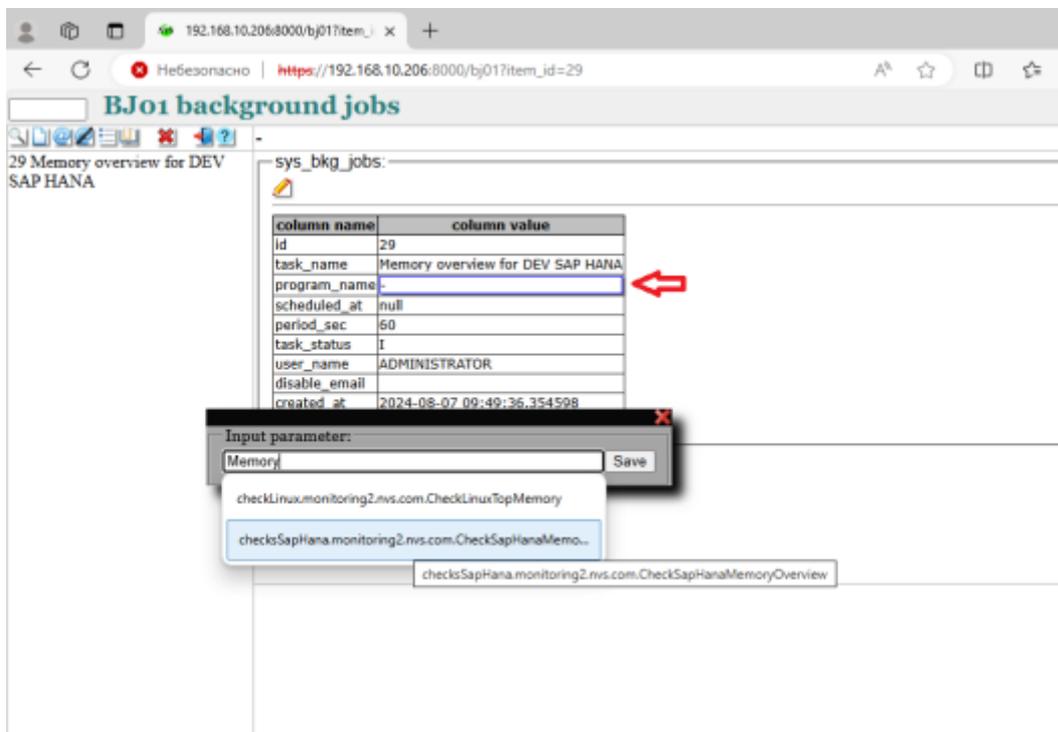
This task (background job) will collect information by querying databases and writing the response to the monitoring table. In this example, we will limit ourselves to just one database.

Select the report type CheckSapHanaMemoryOverview . To find out the full list, see the table of contents.



Enter the full name of the report. In our case, this is

checksSapHana.monitoring2.nvs.com.CheckSapHanaMemoryOverview



Specify the start time and the frequency of the task.

BJ01 background jobs

29 Memory overview for DEV SAP HANA

column name	column value
id	29
task_name	Memory overview for DEV SAP HANA
program_name	checksSapHana-monitoring2.nvs.com.CheckSapHanaMemoryOverview
scheduled_at	null
period_sec	60
task_status	3
user_name	ADMINISTRATOR
disable_email	
created_at	2024-08-07 09:49:36.354598

Input parameter:
07.08.2024 09:51 Save

Август 2024 -

Пн	Вт	Ср	Чт	Пт	Сб	Вс	08	09	10
							10	11	12
29	30	31	1	2	3	4	5	6	7
8	9	10	11	12	13	14	15	16	17
18	19	20	21	22	23	24	25	26	27
28	29	30	31	1	2	3	4	5	6
7	8	9	10	11	12	13	14	15	16

Очистить Сбросить

BJ01 background jobs

60

29 Memory overview for DEV SAP HANA

column name	column value
id	29
task_name	Memory overview for DEV SAP HANA
program_name	checksSapHana-monitoring2.nvs.com.CheckSapHanaMemoryOverview
scheduled_at	2024-08-07 09:51:00.0
period_sec	60
task_status	3
user_name	ADMINISTRATOR
disable_email	
created_at	2024-08-07 09:49:36.354598

Period of job:
HH: 0 MM: 2 SS: 0 Save

A list of the systems to be checked is required for each check. Specify the database that was created earlier

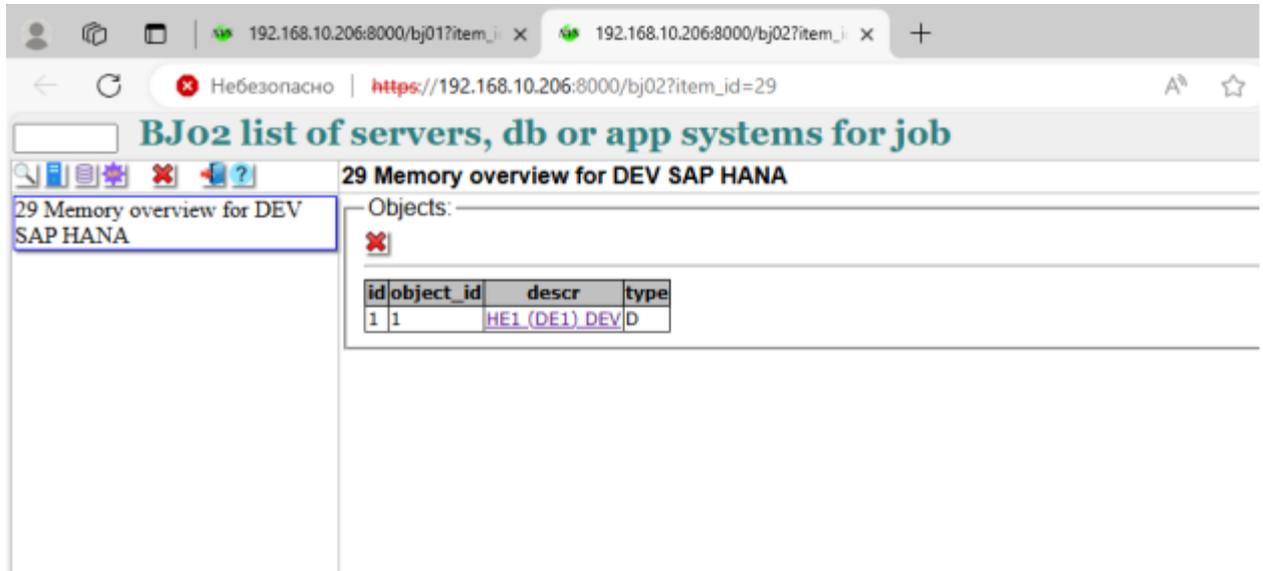
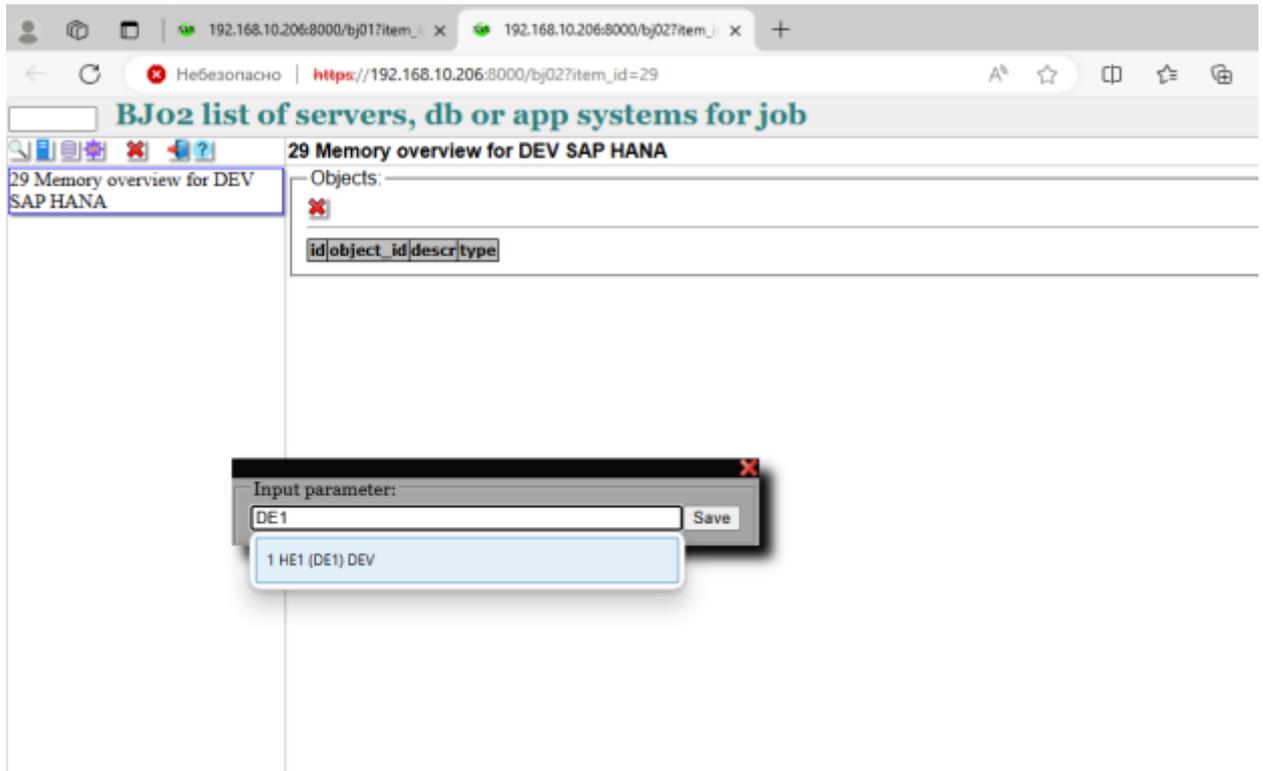
The screenshot shows a web browser window with the URL https://192.168.10.206:8000/bj01?item_id=29. The page title is "BJ01 background jobs". The main content area displays a table of background jobs. The first job is selected, and a context menu is open over its name. A red arrow points to the "object list" option in the menu.

name	column	value
29		
Memory overview for DEV SAP HANA		
program_name		ChecksSapHana.monitoring2.nvs.com.CheckSapHanaMemoryOverview
scheduled_at		2024-08-07 09:51:00.0
period_sec		120
task_status		1
user_name		ADMINISTRATOR
disable_email		
created_at		2024-08-07 09:49:36.354598
keep_days		30

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The link will take you to the BJ02 transaction where you can add the necessary database.

Use the context menu or the buttons on the taskbar at the top left



Immediately after the job is created, its status is set to "I", which means initial. Change the status to A – active so that the task starts its work. To stop, the status is D – deactivate

The screenshot shows a web browser window with the URL https://192.168.10.206:8000/bj01?item_id=29. The page title is "BJ01 background jobs". The main content area displays a table with the following data:

column name	column value
id	29
task_name	Memory overview for DEV SAP HANA
program_name	checksSapHana_monitoring2.nvs.com.CheckSapHanaMemoryOverview
scheduled_at	2024-08-07 09:51:00.0
period_sec	120
task_status	I
user_name	ADMINISTRATOR
disable_email	
created_at	2024-08-07 09:49:36.354598

An "Input parameter" dialog box is open, showing a dropdown menu with "A Active (ready to schedule)" selected and a "Save" button.

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After the task runs according to the schedule, check the result:

the green background on the task means that the elapsed time since the last execution does not exceed the period. In other words, there is no delay in the schedule

The screenshot shows a web browser window with the URL https://192.168.10.206:8000/bj01?item_id=29. The page title is "BJ01 background jobs". Below the title, there is a section for "29 Memory overview for DEV SAP HANA". A dropdown menu is open, showing options: "object list", "recipients", "parameters", "show last results", and "show results for object". A red arrow points to the "show last results" option. Below the menu, there is a table with the following data:

object_type	result_value	result_msg	is_alert	checked_at	past_min
D	0,0			2024-08-07 10:06:59,0	1 minute
D	0,0			2024-08-07 10:04:59,0	3 minutes

The monitor records the result of the check in tabular form and you can check the data directly from the BJ01 transaction

The screenshot displays the SAP monitoring interface for 'BJ01 background jobs'. The main section is titled '29 Memory overview for DEV SAP HANA'. Below this, there is a table showing the 'Last 30 check results'. A red arrow points to the first row of this table. Below the check results table, there is a detailed table showing memory usage metrics for the system.

id	object_id	object_type	result_value	result_msg	is_alert	checked_at	past_min
3	1	D	0.0			2024-08-07 10:08:59.0	1 minute
2	1	D	0.0			2024-08-07 10:06:59.0	3 minutes
1	1	D	0.0			2024-08-07 10:04:59.0	5 minutes

Name	Total_GB	Detail_GB	Detail2_Gb	
License memory limit	214748364			
License usage	44	41 2024-04-01-2024-04-30 44 2024-05-01-2024-05-31 22 2024-06-01-2024-06-30 21 2024-07-01-2024-07-31 21 2024-08-01-2024-08-07		
Physical memory available	31	31 green197		
Physical memory used	16.000000	16.000000 green197		
Global allocation limit	28.000000	28.000000 green197		
HANA instance memory allocated	26.000000	26.000000 green197		
HANA instance memory peak used	24.000000	24.000000 green197		
HANA instance memory used	20.000000	20.000000 green197		
HANA shared memory	6.000000	6.000000 green197		
HANA heap memory used	10.000000	10.000000 green197	2.000000 Pool/RowStore/Tables/Cpb/Tree 1.000000 Pool/ColumnStore/Main/Dictionary/RowDict 1.000000 Pool/PersistenceManager/PersistentSpace/Default_PA/DataPage 1.000000 Pool/Statistics 1.000000 Pool/PersistenceManager/VarSizeEntry/FreeSpaceInformation 0.000000 Pool/SerializedObject 0.000000 Pool/PersistenceManager/UnifiedTableContainer 0.000000 Pool/PersistenceManager/PersistentSpace/RowStore/PA	

Scheduling a task to send a report by mail.

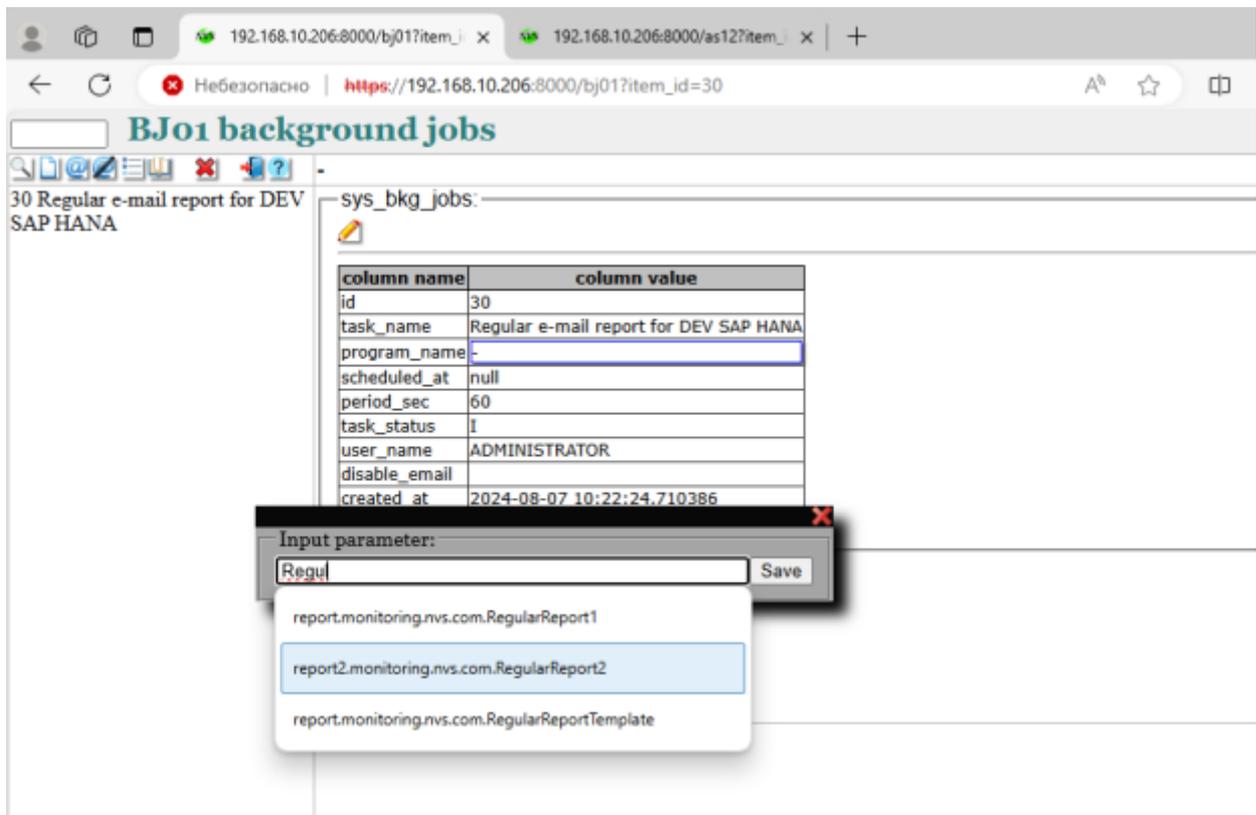
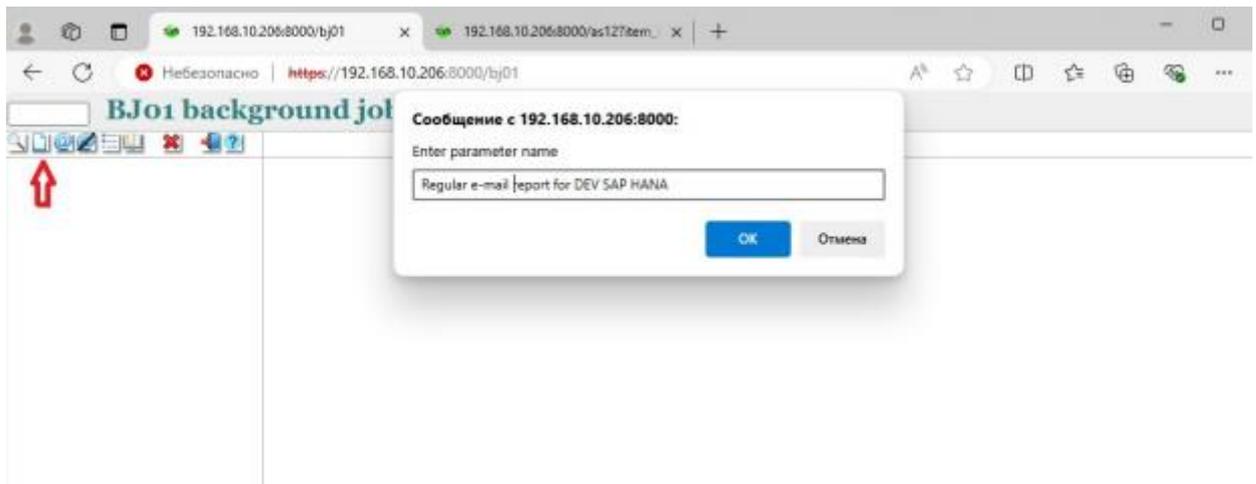
As mentioned above, the report

checksSapHana.monitoring2.nvs.com.CheckSapHanaMemoryOverview is a type

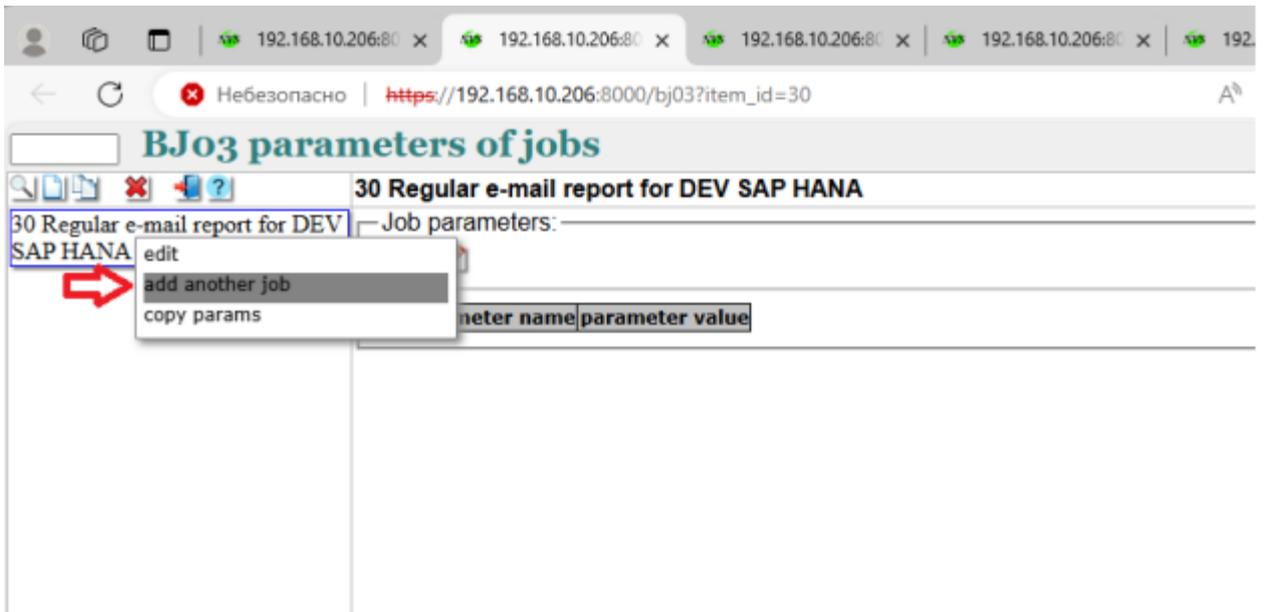
of statistics and does not generate alerts. To deliver the results of his work, we will create a new

regular background task of the type report 2.monitoring.nvs.com.Regular Report 2 .

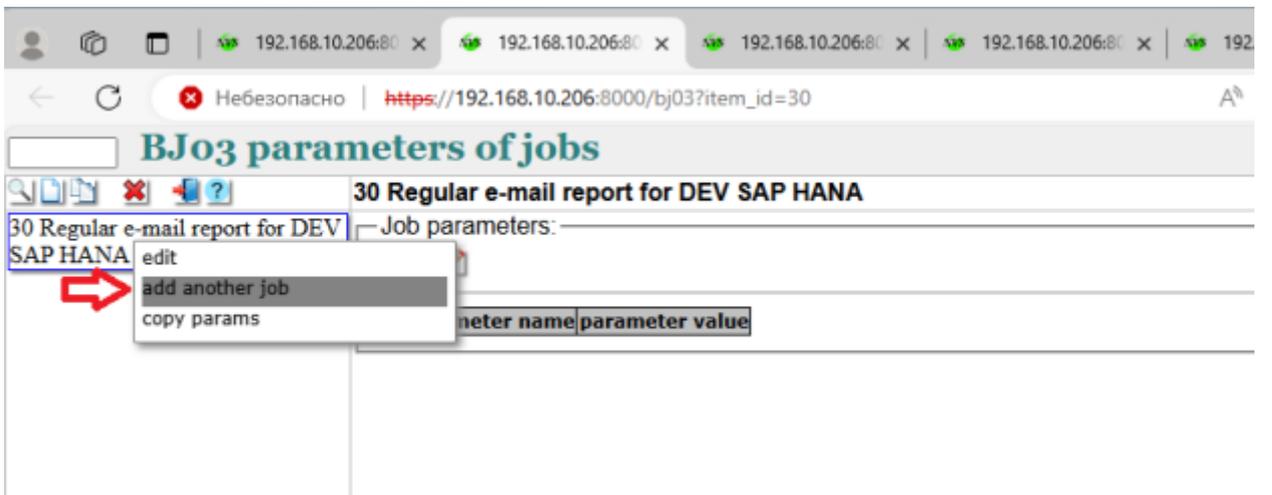
It scans the most recent results of other jobs and sends them in tabular form by mail.



We will indicate which results to include in the regular report: we will add our previous job to the list.



We follow the link to the BJO3 transaction



We add a job created earlier: it is his result that the monitor will send by mail.

Many systems can be included in one report, but for now we will limit ourselves to a single one.

The screenshot displays a web browser window with the URL https://192.168.10.206:8000/bj03?item_id=30. The page title is "BJo3 parameters of jobs". The main content area shows a job entry: "30 Regular e-mail report for DEV SAP HANA". Below the job title, there is a "Job parameters:" section with a table structure:

id	parameter name	parameter value
----	----------------	-----------------

An "Input parameter:" dialog box is overlaid on the page, featuring a text input field containing "Memc" and a "Save" button. A tooltip for "29 Memory overview for DEV SAP HANA" is also present.

Now the mail report will send job data based on the state of SAP HANA memory.

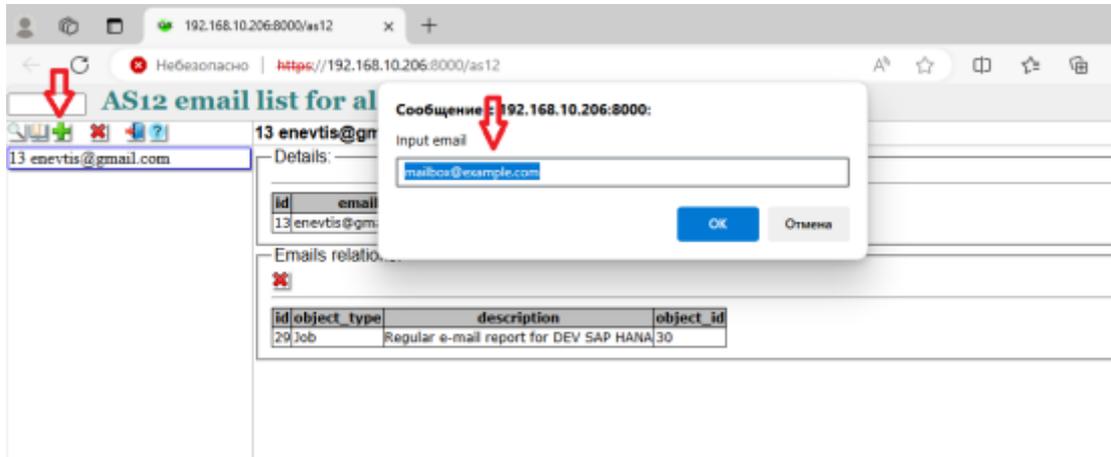
The screenshot shows a web browser window with the URL https://192.168.10.206:8000/bj03?item_id=30. The page title is "BJo3 parameters of jobs". The main content area is titled "30 Regular e-mail report for DEV SAP HANA". Below this title, there is a section for "Job parameters:" which contains a table with the following data:

id	parameter name	parameter value
24	job_id	29

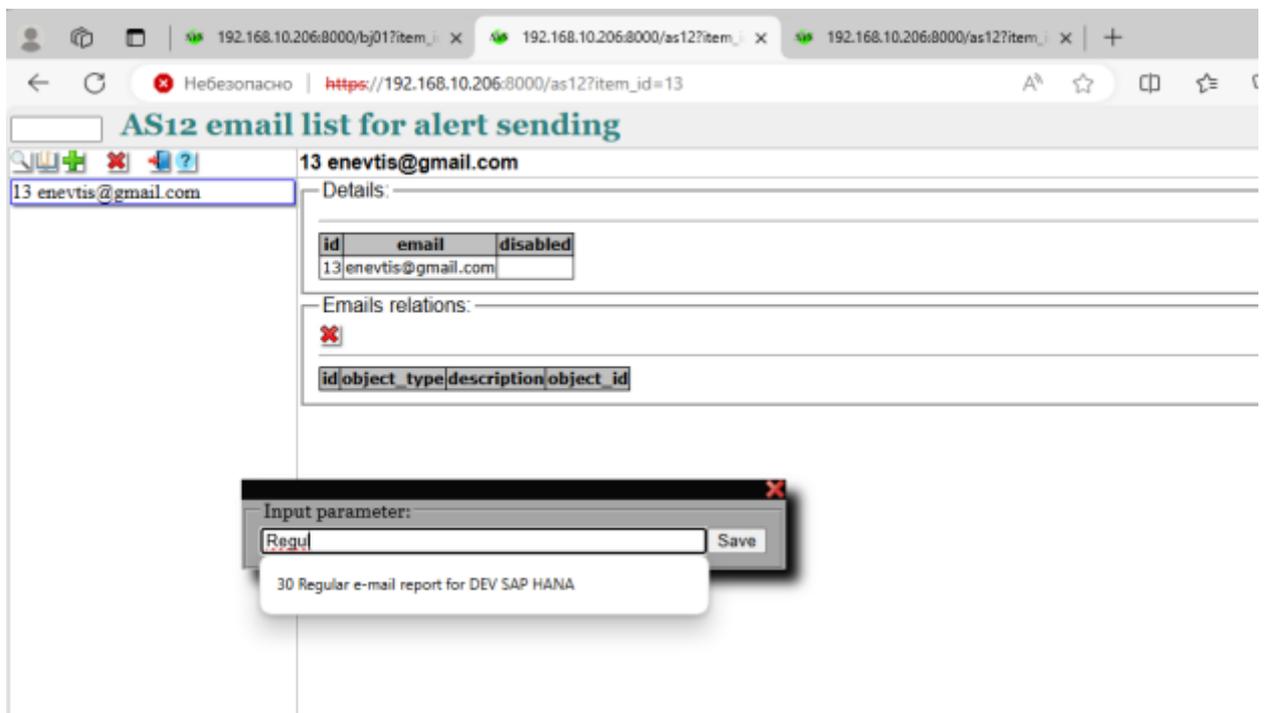
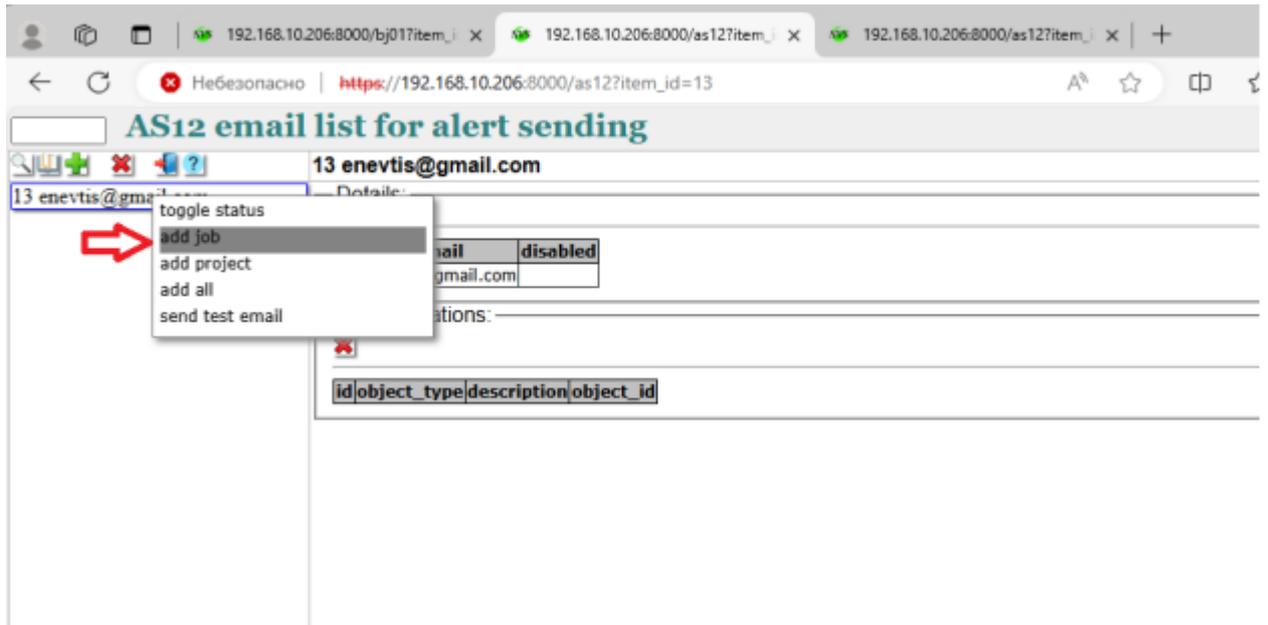
A red arrow points to the value "29" in the "parameter value" column of the table. To the left of the table, there is a sidebar with a search icon and a list of items, with "30 Regular e-mail report for DEV SAP HANA" selected.

Adding mailing list recipients

The program must know who to send emails to, so we will specify the current email address in the AS12 transaction



Now specify that the emails for the previously created job will be sent to the added address



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This is what it will look like in the end : to the address enevtis@gmail.com letters on report No. 30 will be sent

Regular e-mail report for DEV SAP HANA

AS12 email list for alert sending

13 enevtis@gmail.com

Details:

id	email	disabled
13	enevtis@gmail.com	

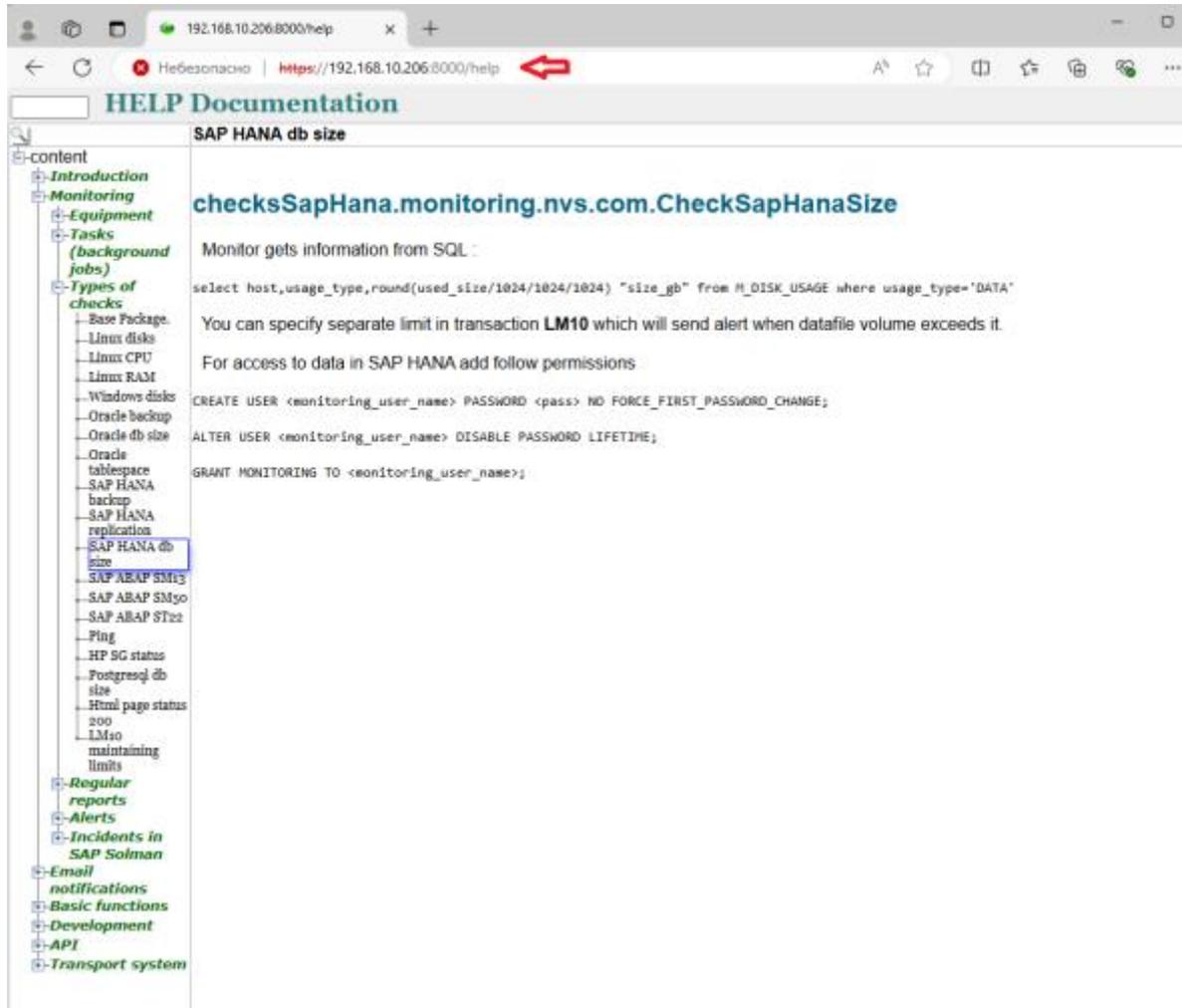
Emails relations:

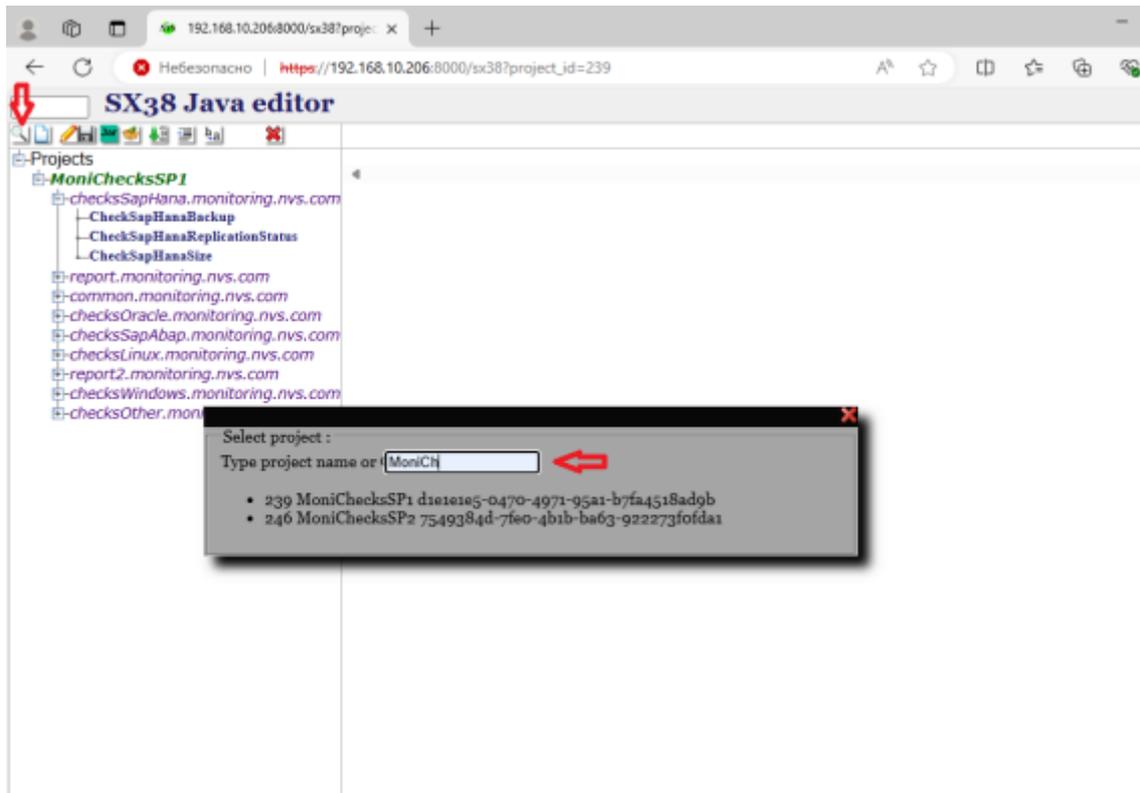
id	object_type	description	object_id
29	Job	Regular e-mail report for DEV SAP HANA	30

How to see the full list of checks

You can get the data in the built-in help, or see it directly in

the SX38 code editor. The latter will show all the modules installed in the system





Conclusion.

This guide describes the simplest scenario, which nevertheless gives an idea of the next steps needed to configure the NVS Greenex monitor.

You can add new types of checks included in the basic set, as well as develop new ones in the Java language. For more information, see the Developer's Guide.

For more information, use the user's instructions, the built-in help or materials on the developer's website.

Thanks for choosing NVS Greenex!