

# SAP Landscape setup

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## Sample SAP landsacape

Let's describe our simple SAP landscape in order NVS will able to know and control every system.

This landscape is very simple and consists from single development DE1 and 2-node cluster production system PR2. This will be enough to understand how to work more complex real landscape.

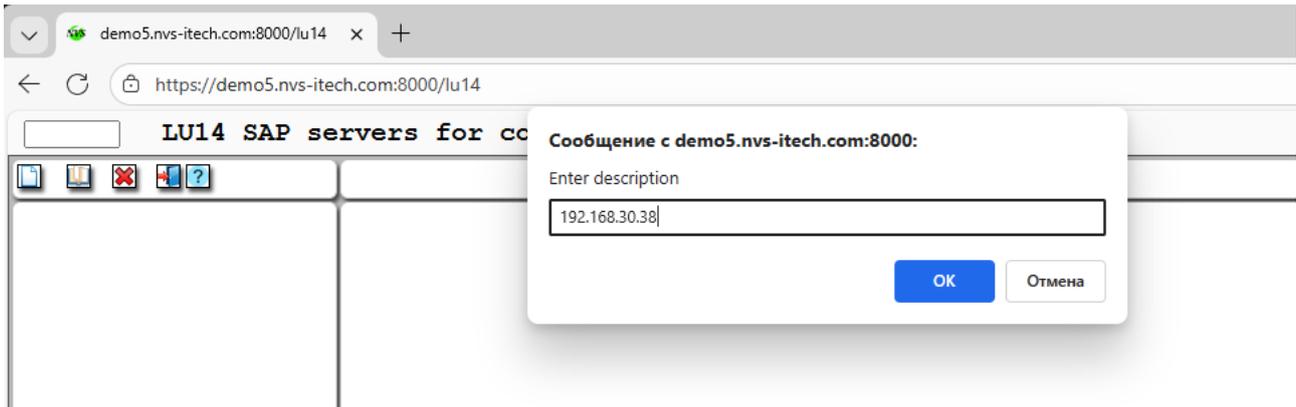
The picture below gives necessary details. In next chapters we take a look deeper.

	A	B	C	D	E	F
1						
2		Single SAP system				
3						
4		linux server	192.168.30.38	white38		
5		SAP Hana	DB	HE1	10	
6		SAP App	ASCS	DE1	01	
7						
8						
9		HA – SAP system (2 node cluster)				
10						
11		linux server	192.168.30.31	white31		
12		SAP App	ASCS	PR2	01	
13						
14		linux server	192.168.30.32	white32		
15		SAP Hana	DB	HR2	10	
16						
17		linux server	192.168.30.35	white35		
18		SAP App	ASCS	PR2	01	
19						
20		linux server	192.168.30.36	white36		
21		SAP Hana	DB	HR2	10	
22						
23						
24						
25						

## LU14 Linux servers

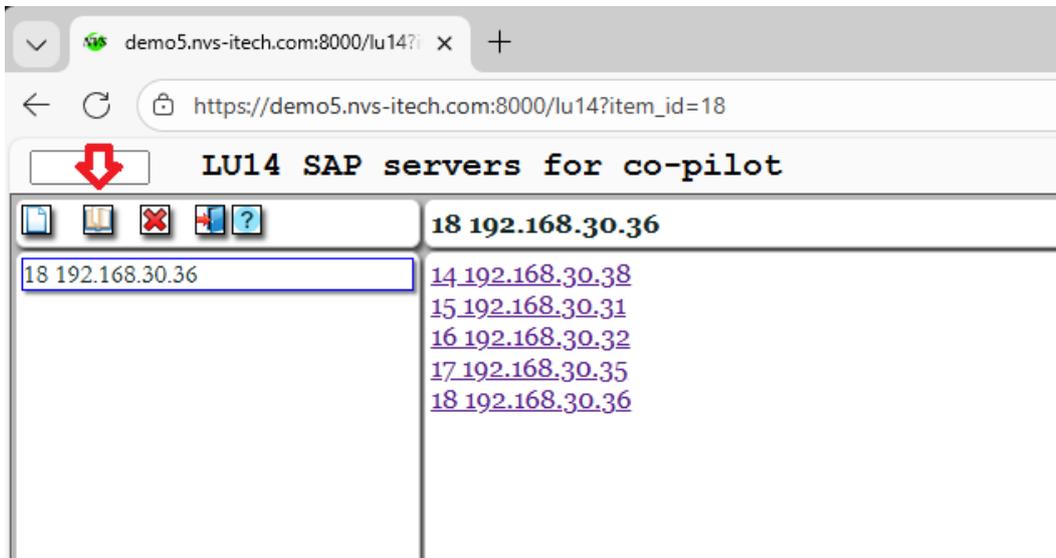
Let's begin from linux servers data. There is no difference between virtual or physical hardware.

Go to tcode LU14 and input new record. You can use hostname instead, but IP is more reliable. It's up to you. If every hostname is written in /etc/hosts or DNS both ways are OK.



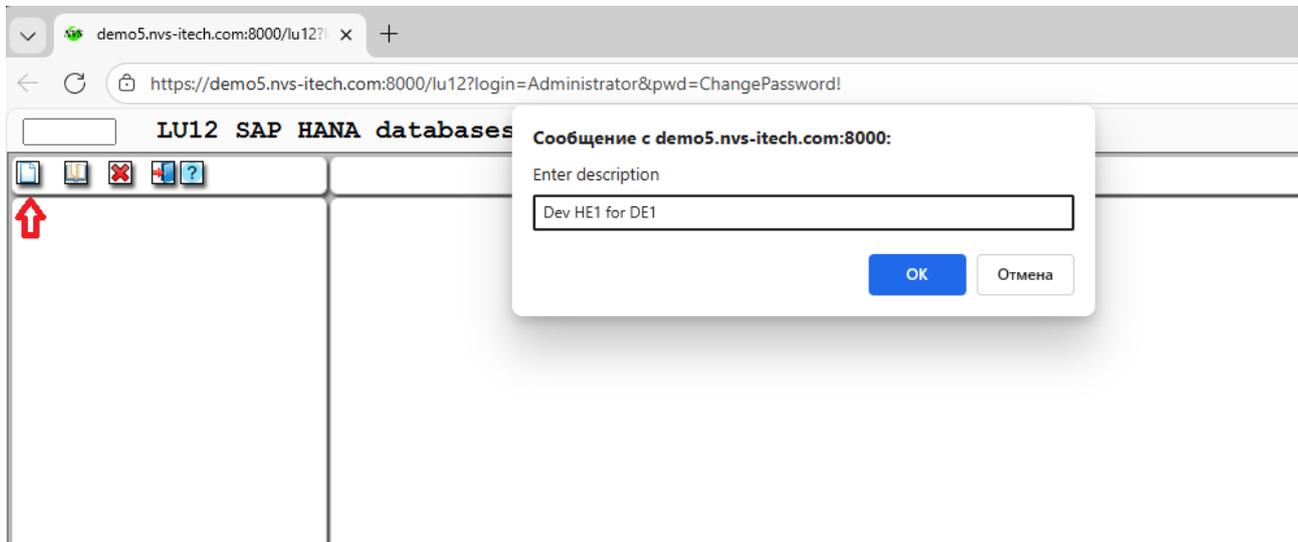
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Finally we have to see 5 servers



## LU12 SAP Hana databases

Go to tcode LU12 and create record for SAP Hana.



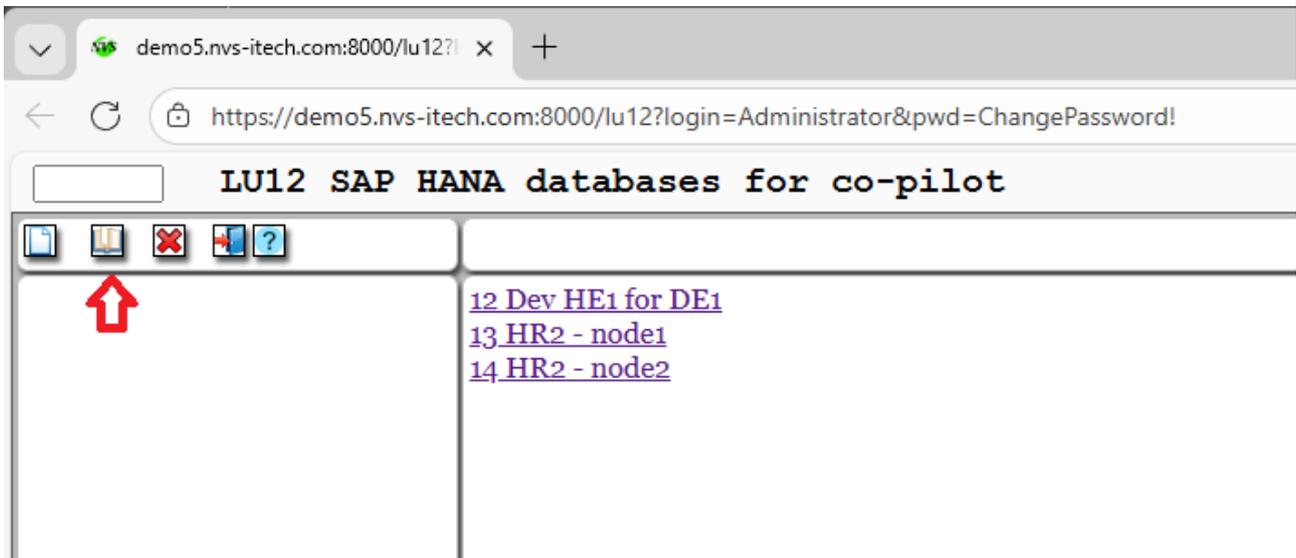
Fill SID, SAP NR and make relation between SAP Hana and linux server:

Field sapcontrol leave empty. Here we don't need it.

Column name	Column value
id	12
description	Dev HE1 for DE1
sid	HE1
sys_nr	10
sapcontrol	
server_id	<input type="text"/>
hostname	14 192.168.30.38 15 192.168.30.31 16 192.168.30.32 17 192.168.30.35 18 192.168.30.36

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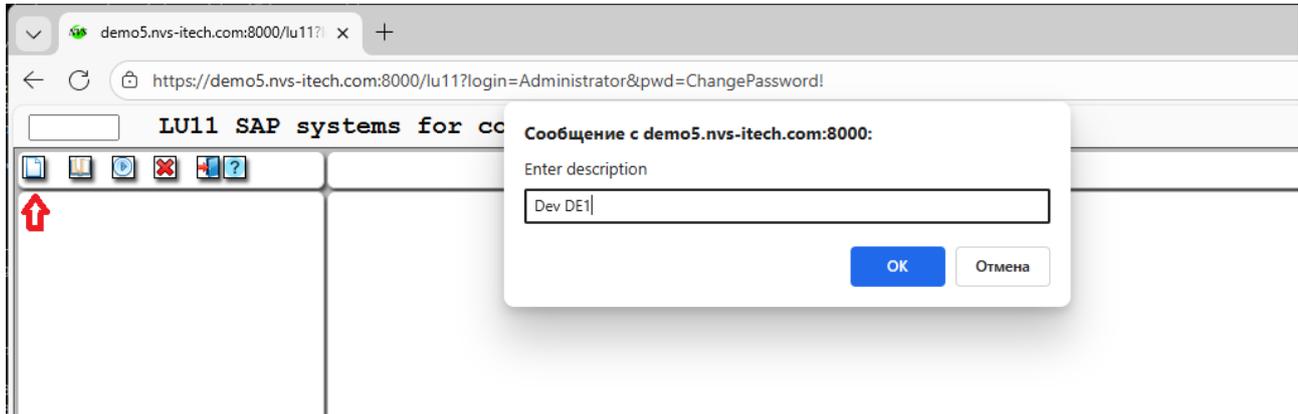
In this sample we have 3 databases: One for single system and two for HA in every datacenter.



## LU11 SAP systems

Sap systems as a combination of database and application server you can input in tcode LU11.

Create a new one by button with blank paper.

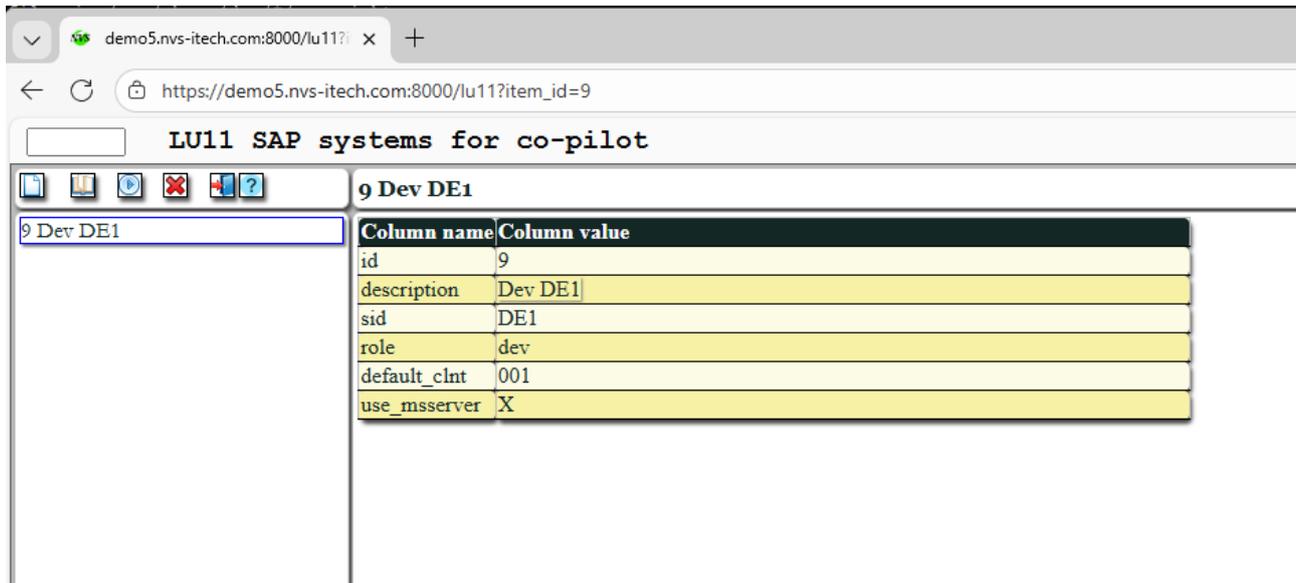


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Give role : dev, test or prod.

Default client - parameter login/system\_client in SAP profile.

Use\_msserver set X or leave empty. This will be explained later.

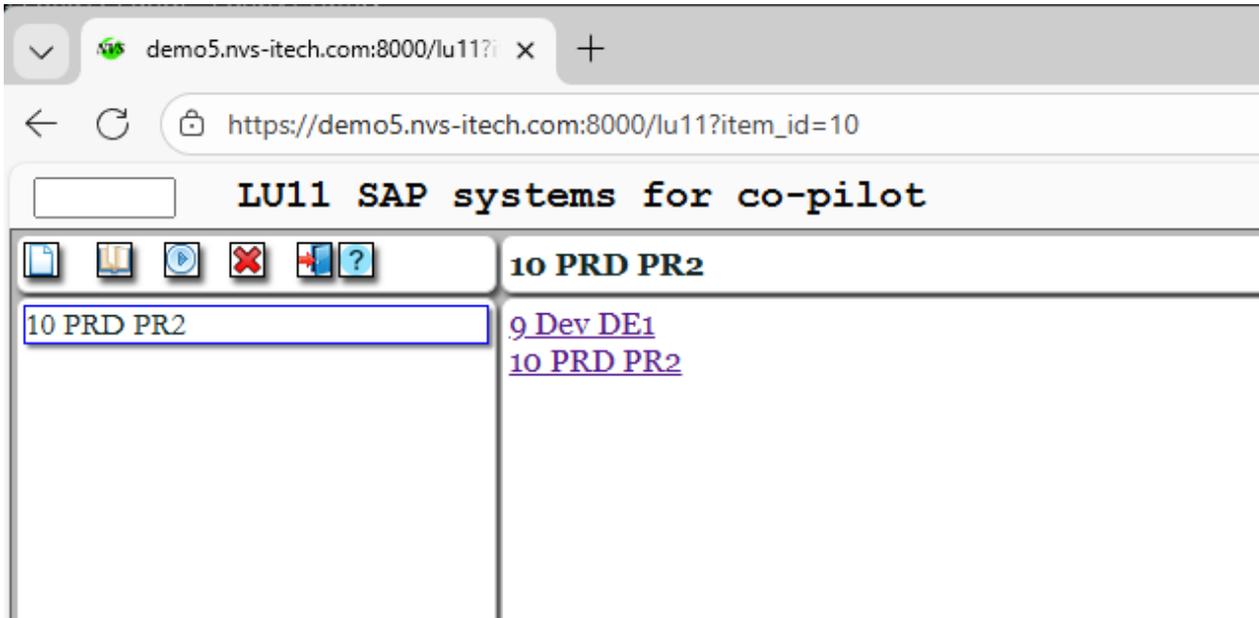


The screenshot shows a web browser window with the address bar containing 'demo5.nvs-itech.com:8000/lu11?item\_id=9'. The page title is 'LU11 SAP systems for co-pilot'. Below the title, there is a list of system entries, with '9 Dev DE1' selected. To the right of the list, a table displays the details for this system.

Column name	Column value
id	9
description	Dev DE1
sid	DE1
role	dev
default_clnt	001
use_msserver	X

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We will see a list of SAP systems:



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To be able control SAP we need to know which components exist in system:

From LU11 – select system and with context menu open its component list:

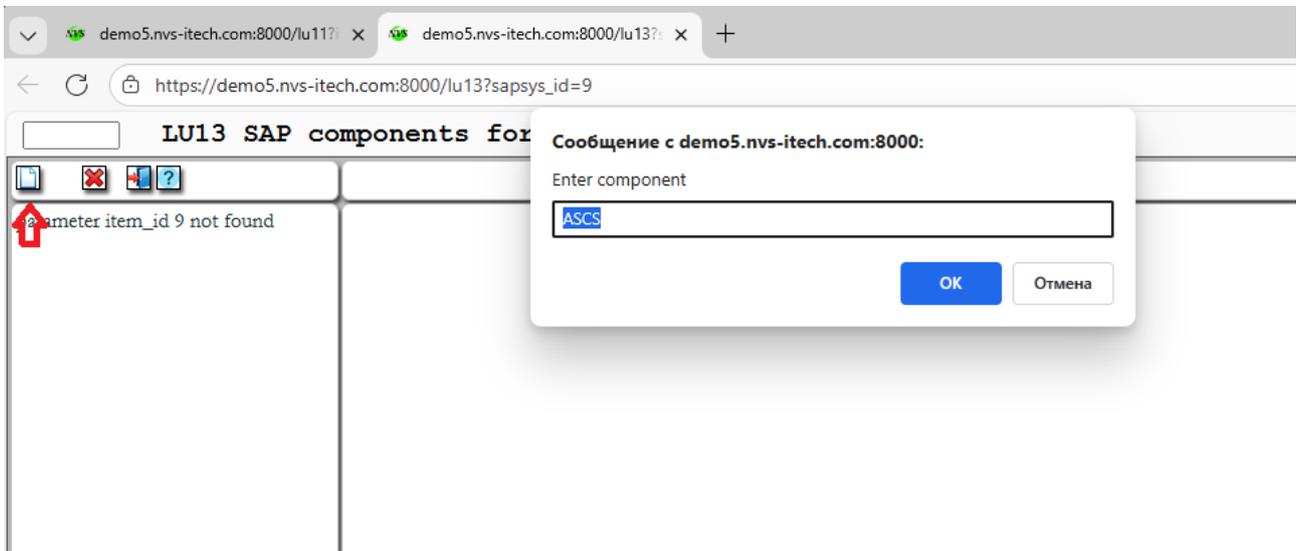
The screenshot shows a web browser window with the address bar containing 'demo5.nvs-itech.com:8000/lu11?item\_id=9'. The page title is 'LU11 SAP systems for co-pilot'. A context menu is open over the item '9 Dev DE1', listing 'components', 'credentials', and 'database'. A red arrow points to the 'components' option. To the right, a table displays the following data:

Column name	Column value
	9
description	Dev DE1
id	DE1
role	dev
default_clnt	001
use_msserver	X

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For SAP system must exist at least one component – ASCS – central SAP service.

Press “new” button and create ASCS component.



For 2-node high-available production system add ASCS twice – in every datacenter.

Write system number and make relation to linux server where that component (service) lives.

The screenshot shows the SAP LU13 configuration page for system 9) Dev DE1. The browser address bar indicates the URL is https://demo5.nvs-itech.com:8000/lu13?sapsys\_id=9. The page title is "LU13 SAP components for system: 9) Dev DE1". On the left, a list contains "20 ASCS". On the right, a table displays the configuration details for this component.

Column name	Column value
id	20
component	ASCS
sys_nr	01
sapcontrol	
server_id	14
hostname	192.168.30.38

The screenshot shows the SAP LU13 configuration page for system 10) PRD PR2. The browser address bar indicates the URL is https://demo5.nvs-itech.com:8000/lu13?sapsys\_id=10. The page title is "LU13 SAP components for system: 10) PRD PR2". On the left, a list contains "21 ASCS" and "22 ASCS". On the right, a table displays the configuration details for the selected component.

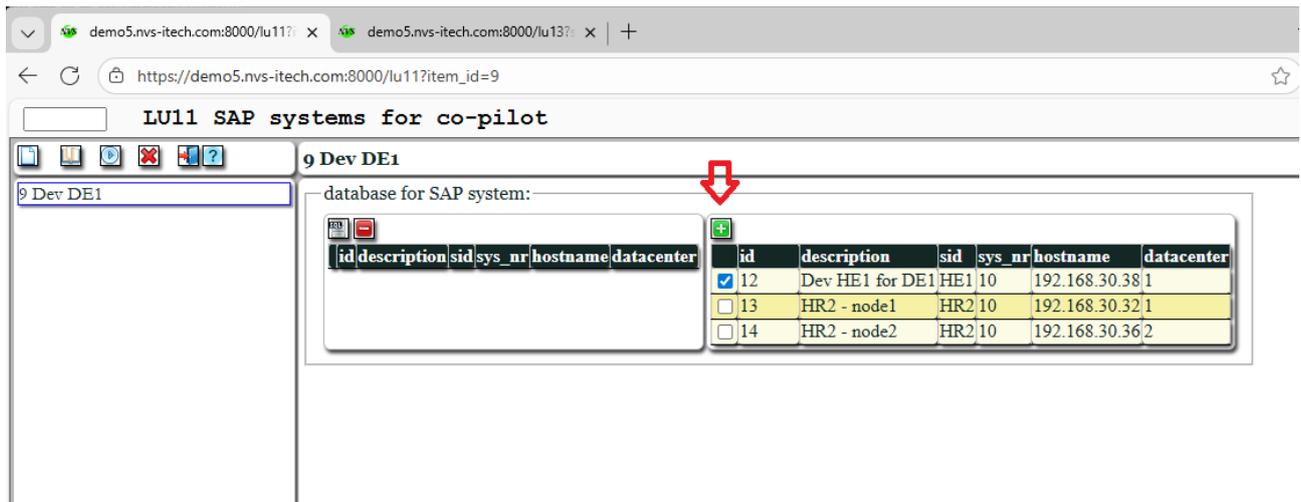
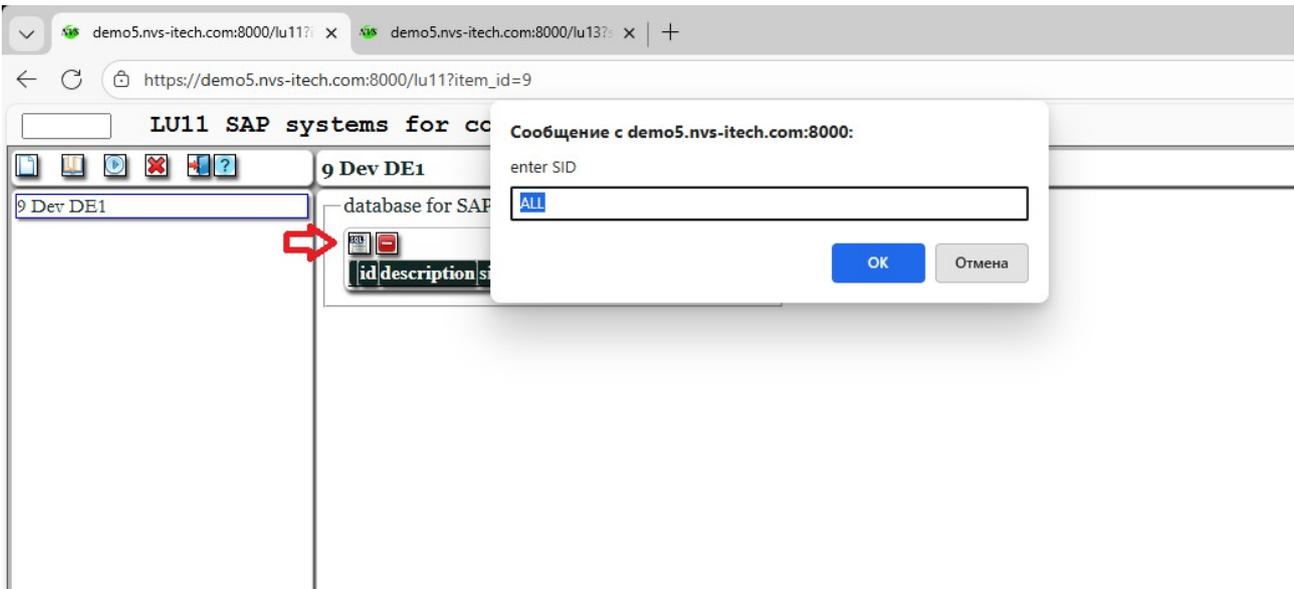
Column name	Column value
id	21
component	ASCS
sys_nr	01
sapcontrol	
server_id	15
hostname	192.168.30.31

Return to LU11 , select SAP system and specify SAP Hana database which belongs to this system:

The screenshot shows a web browser window with the URL [https://demo5.nvs-itech.com:8000/lu11?item\\_id=9](https://demo5.nvs-itech.com:8000/lu11?item_id=9). The page title is "LU11 SAP systems for co-pilot". The main content area displays a table for the SAP system "9 Dev DE1". A dropdown menu is open over the "9 Dev" label, with the "database" option selected and a red arrow pointing to it. The table below shows the following data:

Column name	Column value
id	9
description	Dev DE1
sid	DE1
role	dev
default_clnt	001
use_msserver	X

Link to DB according pictures below:



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Finally we should see something like this:

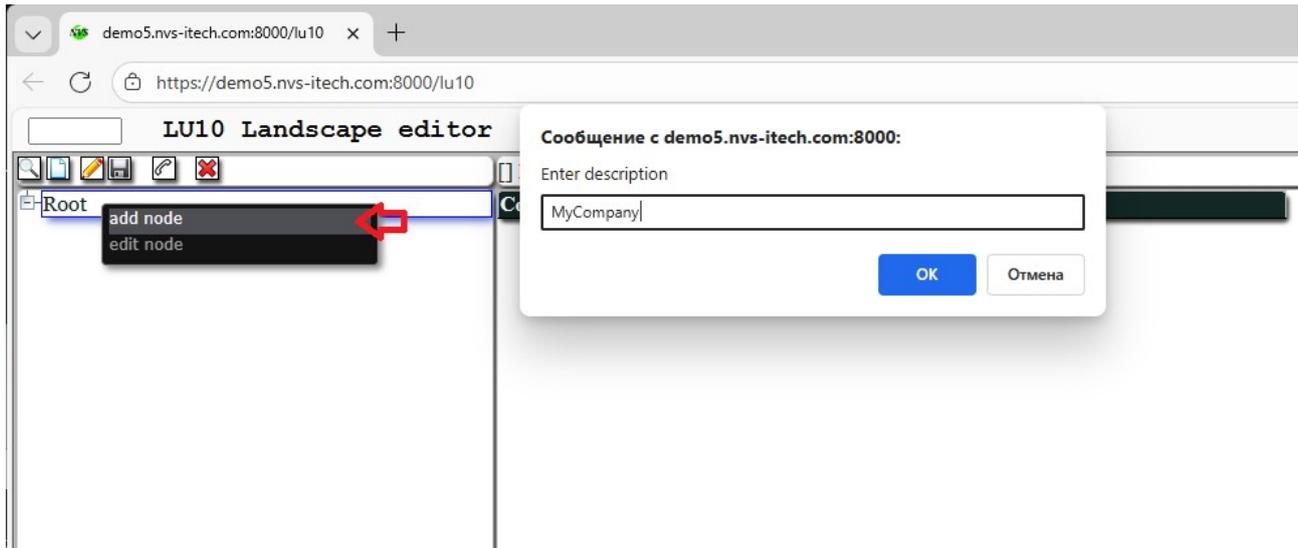
The screenshot shows a web browser window with the address bar containing `https://demo5.nvs-itech.com:8000/lu11?item_id=10`. The page title is "LU11 SAP systems for co-pilot". Below the title, there is a navigation bar with several icons and the text "10 PRD PR2". A sidebar on the left contains a list item "10 PRD PR2". The main content area displays "database for SAP system:" followed by a table with the following data:

id	description	sid	sys_nr	hostname	datacenter
<input type="checkbox"/> 13	HR2 - node1	HR2	10	192.168.30.32	1
<input type="checkbox"/> 14	HR2 - node2	HR2	10	192.168.30.36	2

## LU10 Landscape editor

To see our systems convenient way lets add them to landscape tree. Move to LU10 or use LU01 – context menu – landscape editor.

Create record about your company:



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Set appropriate type of tree branch. Others fields leave default.

LU10 Landscape editor

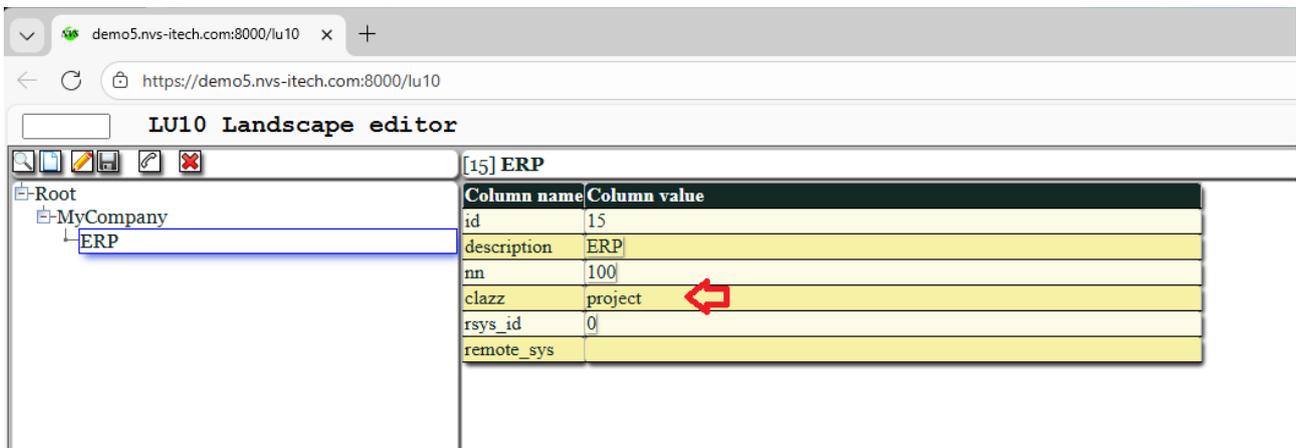
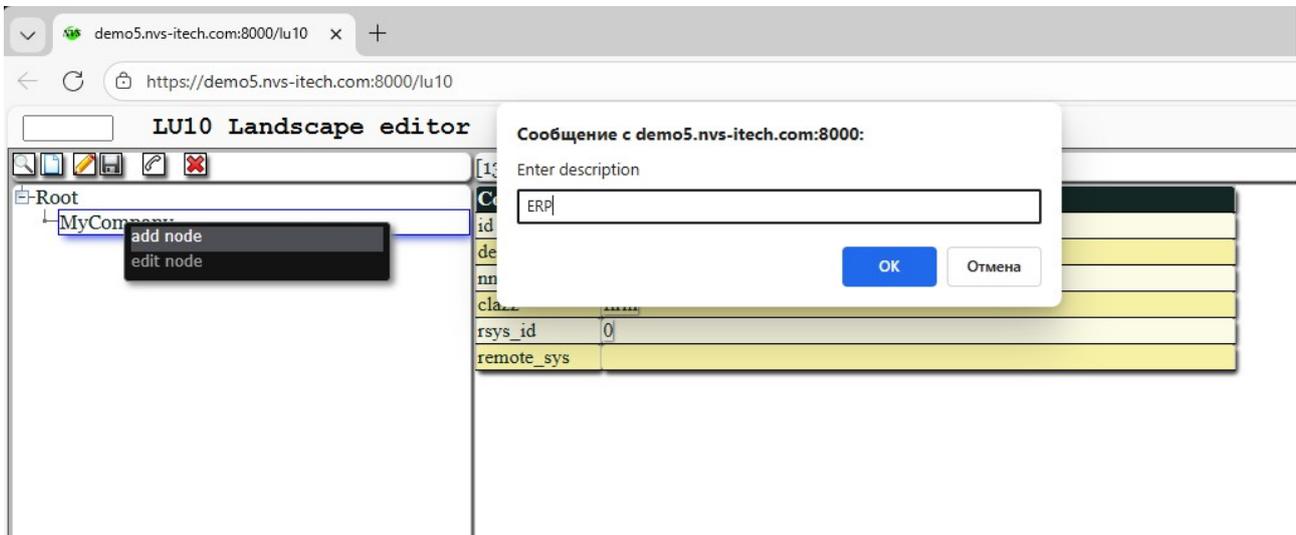
[13] MyCompany

Column name	Column value
id	13
description	MyCompany
nn	100
clazz	<input type="text"/>
rsys_id	0
remote_sys	

- firm
- project
- sapsys
- sapsysprd

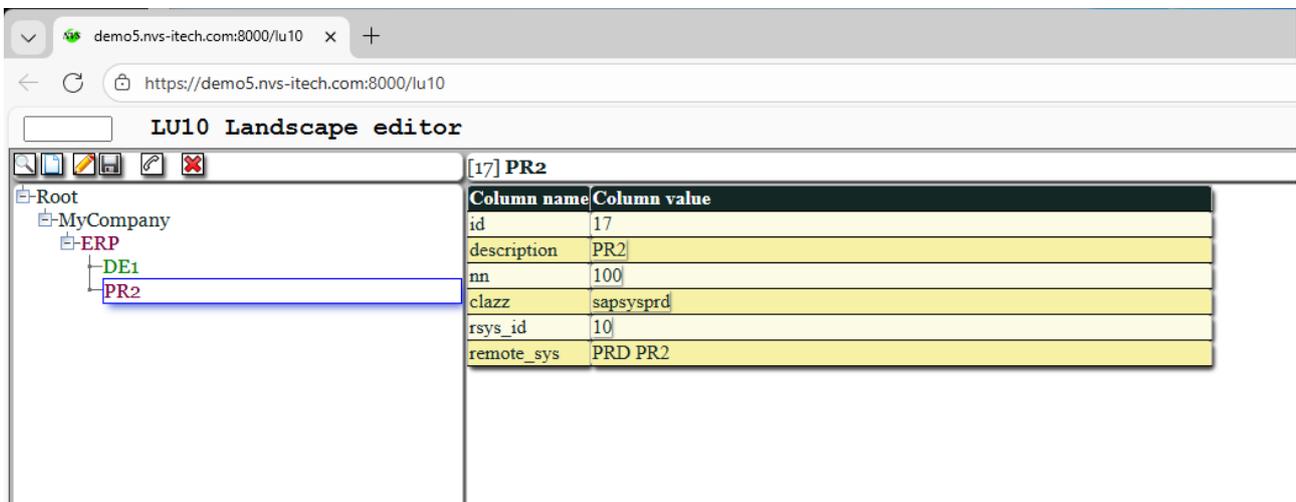
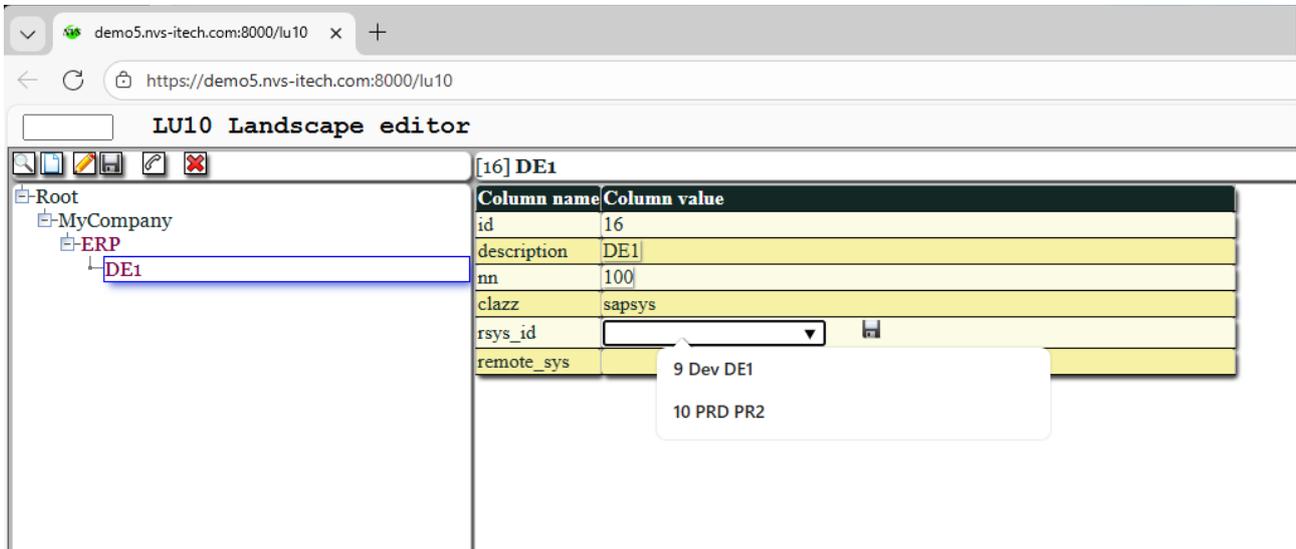
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Add project node. Here is ERP.



Finally add SAP system: sapsys for DE1 and sapsysprd for PR2. The last one means production system.

In drop-down list rsys\_id select SAP system which we have described earlier in LU11.



## LU01 Landscape viewer

Lets take a look at systems in landscape viewer. Don't pay attention at errors: it means that we omitted some important data which will add later.

The screenshot shows the SAP LU01 Landscape Viewer interface. The browser address bar indicates the URL is `https://demo5.nvs-itech.com:8000/lu01`. The page title is "LU01 SAP copilot". The main content area displays the system overview for system "DE1" in datacenter "1".

System: DE1 in datacenter: 1

id	component	sid	sys nr	hostname	status
20	ASCS	DE1	01	192.168.30.38	
12	SAP HANA DB	HE1	10	192.168.30.38	

Below the table, the time "13:06:29" is displayed. An error message is shown above the table: "ERROR: check input data:" with a list of errors:

- SAP app adm user is empty
- SAP db adm user is empty

The left sidebar shows a tree view with "Root", "MyCompany", "ERP", "DE1", and "PR2".

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The HA production system has to look like this:

The screenshot shows the SAP NetWeaver Administrator (NVA) interface for system PR2. The browser address bar shows `https://demo5.nvs-itech.com:8000/lu01`. The page title is "LU01 SAP copilot". The main content area displays the following information:

[sapsysprd-17:descr:PR2:sapsys\_id:10] PR2  
ERROR: check input data:

- SAP app adm user is empty
- SAP db adm user is empty

System:PR2 in datacenter: 1

id	component	sid	sys nr	hostname	status
21	ASCS	PR2	01	192.168.30.31	
13	SAP HANA DB	HR2	10	192.168.30.32	
Replication					

System:PR2 in datacenter: 2

id	component	sid	sys nr	hostname	status
22	ASCS	PR2	01	192.168.30.35	
14	SAP HANA DB	HR2	10	192.168.30.36	
Replication					

13:07:53

All data in NVS are saved in tables with prefix "slu\_". You can try to load bulk data with SQL scripts but this is out of scope this guide.