

PDMX Suite Installation Guide

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1. Introduction

This guide explains the Produmex Suite Installer. This tool allows for the complete installation and configuration of the PDMX suite and its components.

The components you can install with this tool are the Produmex Tools, the Produmex License server, the Produmex SB1 Notification listener and the Produmex FatClient. The Produmex add-on is registered and installed like a regular SAP add-on, however Produmex uses an Add-on loader to upload the files to the database.

How to do this will be described in this guide.

2. Prerequisites

The prerequisites for the installation of the PDMX Suite for SAP Business One are:

- Windows Server 2008 (minimum)
- Installation of MS SQL Server 2008 or 2012
- Installation of SAP Business One 9 (only 32-bit version is supported)
- Installation of .NET 4.6.2 framework (Every machine running PMX)
- Installation of Crystal Reports basic runtime for Visual Studio 2008
- Administrative rights
- A valid Produmex license-file.
- The ComLicenseBridge (Only SQL environment, on server where SAP license service is running)

After installing the .NET 4.6.2, restart the computer before any other install or upgrade process.

For some prerequisites you can have a look at:

<ftp://public:Avaya789@ftp.produmex.name/Install/Prerequisites>

If these are not installed on your computer, please install these prior to the installation of the PDMX suite components.

Note: if you have any antivirus software installed, you need to add the .exe of the Produmex Suite Installer as an exception.

Note: When using an operation system as Windows server 2012, Windows 8 or higher you need to install the following hotfix: <http://support.microsoft.com/kb/2803760>. This hotfix can only be installed by a direct support request to Microsoft.

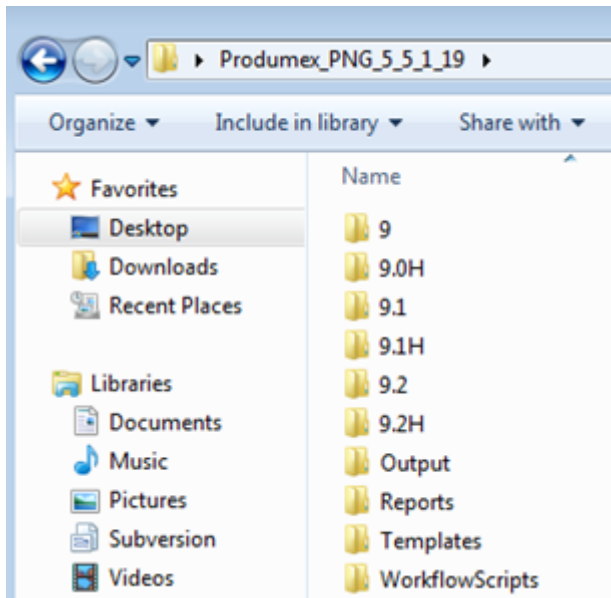
Please make sure all prerequisites are installed, otherwise Produmex will not work!

3. Executing a new installation

In this and the following sections we will describe how to perform a full and new installation of the PDMX suite. First, copy the Produmex Installation Zip File to your computer (Produmex_PNG_XXX.zip) Extract it to a directory (e.g. with the same name as the version number e.g. {driveletter}:\Produmex_PNG_523) Preferably, do not extract it within the {driveletter}:\Program Files directory as this might cause interference with installed components later.

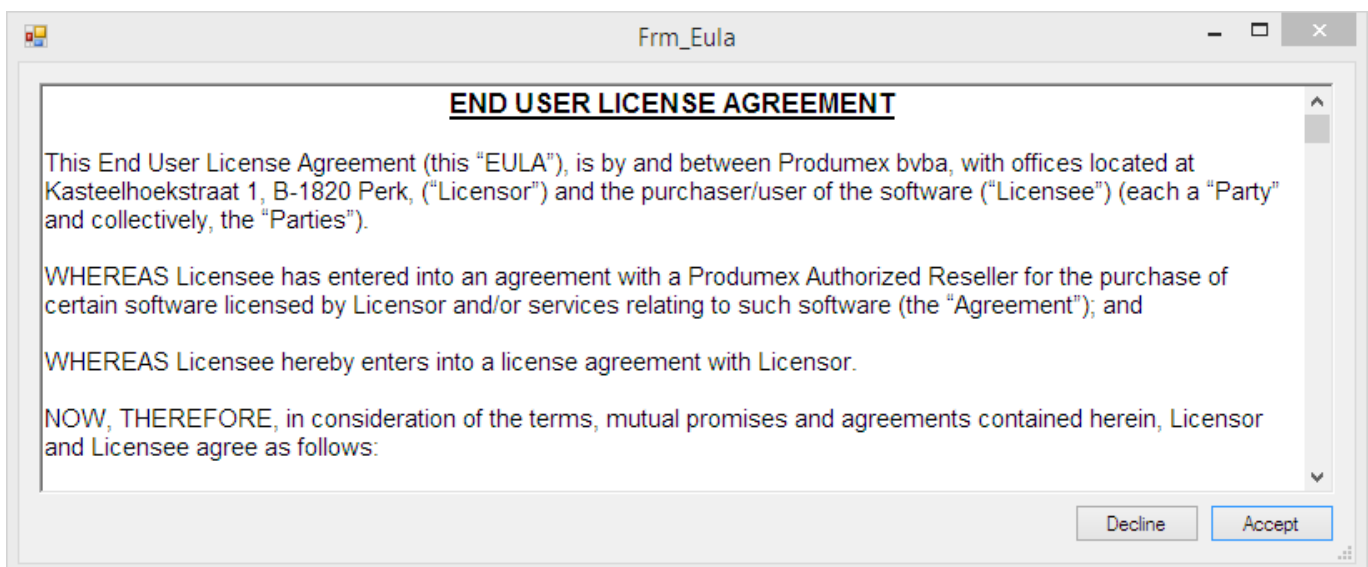
We recommend to keep this directory on a shared folder accessible from all servers. That way you can use the same configuration when you need to install and upgrade multiple components on separate systems (e.g.: a SAP server and a terminal server).

When opening the unzipped folder, we need to select the folder corresponding to our SAP version we are running. The supported SAP versions depend on which PDMX Build you are installing. See here an example with folders for SAP Versions 9.0 / 9.0 HANA / 9.1 / 9.1 HANA / 9.2 / 9.2 HANA.



Afterwards, locate the directory of the Produmex Suite installer (e.g: Produmex_PNG_4_1_1_2\9\ProdumexSuiteInstaller) and execute the .exe. Make sure you have administrator privileges when executing this application.

After launching the .exe file, the End User Licence Agreement window will open up. Produmex can only be installed if the License Agreement is accepted.



After accepting the License Agreement, the system proceeds to PDMX Suite Installer.

Now we can start the configuration, in the following chapters will be describe step-by-step the fields you need to fill in.

3.1. Starting a fresh installation

These steps below detail the initial setup of the PDMX Suite Installer. This configuration can be saved and reused for upgrades. It can also be modified. (see point ADDING DATABASE TO EXISTING INSTALLATION - To be constructed).

3.1.1. General Tab

Produmex Suite Installer
Produmex Suite for SAP Business One

Computer name: DEV_SAP9_FR **1** Target environment
System assignment: DEV **Production** **Test**

General + |

Common connection settings

SAP license server: DEV_SAP9_FR:30000 **2** DB user name: sa **5**
DB server address: DEV_SAP9_FR **3** DB password: B1Admin **6**
DB server type: MSSQL2008 **4** DB culture: en-US **7**

SAP Business One connections

Environment	Alias	Company database	PMX database	SAP user name	SAP password	SBO connection	Direct connection
Production 8	SBODemo_US 9	SBODemo_US 10	PMX_SBODemo_US 11	manager 12	produmex 13	..test... 14	..test... 15

Produmex Add-On
Visible passwords ☒

Save

3.1.1.1. System/server related fields

1. Shows the name of the server we are currently running the SuiteInstaller on. It's recommended to start the installation on the SAP server. In the example, our SAP server name is DEV_SAP9_FR.
2. Fill the domain name of the server where the SAP license service is installed. This should be exactly the same as what has been configured in SLD. This should include the port number of the SAP license server. On MSSQL, the port number is typically 30000, and on HANA the port number is typically 40000.
3. Fill the domain name of the server where the database is installed. On HANA, the port number of the database server should also be included. The default port number is usually 30015.
4. Select the type of the database management system installed on the server
5. Fill the database username that has dbo rights on the SBO company database(s)
6. Fill the Database user password
7. Fill the database culture

3.1.1.2. Database/company related fields

8. Select Production or Test environment. This field corresponds with the Target Environment that is selected on top of the PDMX SuiteInstaller. This feature can be used to install 2 different versions of the PDMX Suite on 1 server. One version can be the TEST version, and the other version can be the PRODUCTION version. In this field, we will tell the system which database/company will be part of the production environment, and which database/company will be used as a test database. When doing an initial demo installation, you can leave it as is on production.

9. Fill the Alias for the so-called “ConnectionString”. This will be the name we will use throughout the rest of the installation and configuration. It’s highly recommended to use the database name as your alias. This to avoid any confusion.

10. Fill the name of the company database. In the given example it is “SBODemo_US”.

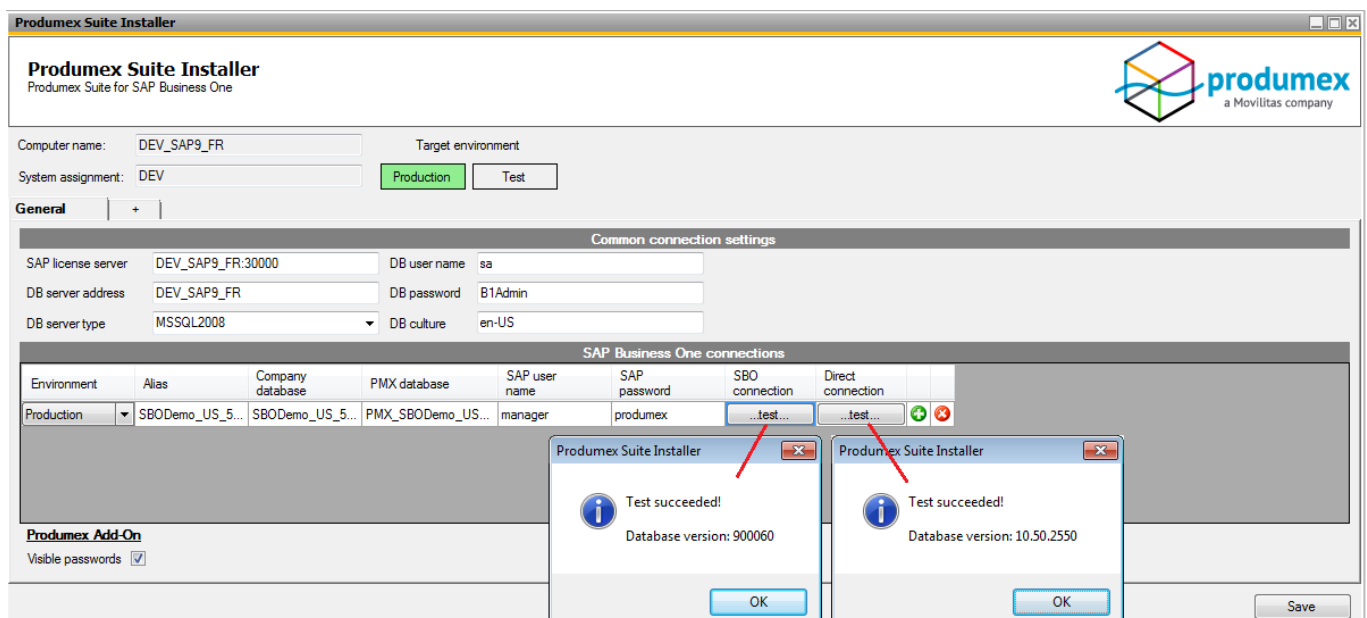
11. Fill the name of the PDMX database. When doing an initial installation, the PDMX database does not exist yet. So it will be created based on the name we give here. It’s recommended to use the company database name, with a PMX_ prefix. So in the given example it becomes “PMX_SBODemo_US”.

12. Fill the SAP User name. Typically the manager user is used here.

13. Fill the SAP User password After this data has all been filled, we can test the connections. For this we have 2 buttons saying “...test...” for each database/company we have added.

14. This button will test the SBO connection through DI-API – click it to start the test.

15. This button will test the direct SQL connection through SQL Native Client – click to test.



When these tests have succeeded, make sure to hit the Save button on the bottom right corner. When saving this configuration, the system will create a .config file that we will re-use later for potential upgrades.

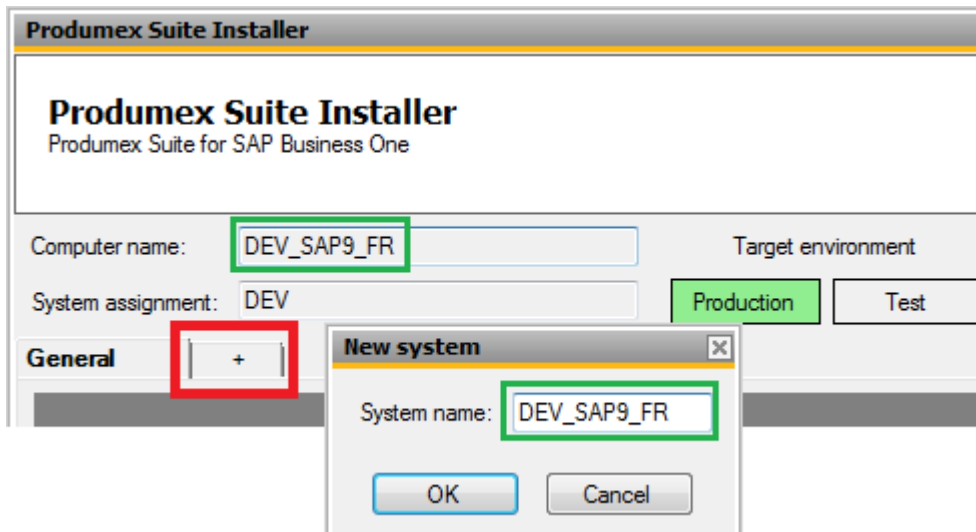
3.1.2. Creating a new TAB per server

For each server that will have a PDMX Suite component installed, we will make a new tab in the SuiteInstaller screen. Typically, we have at least 2 servers.

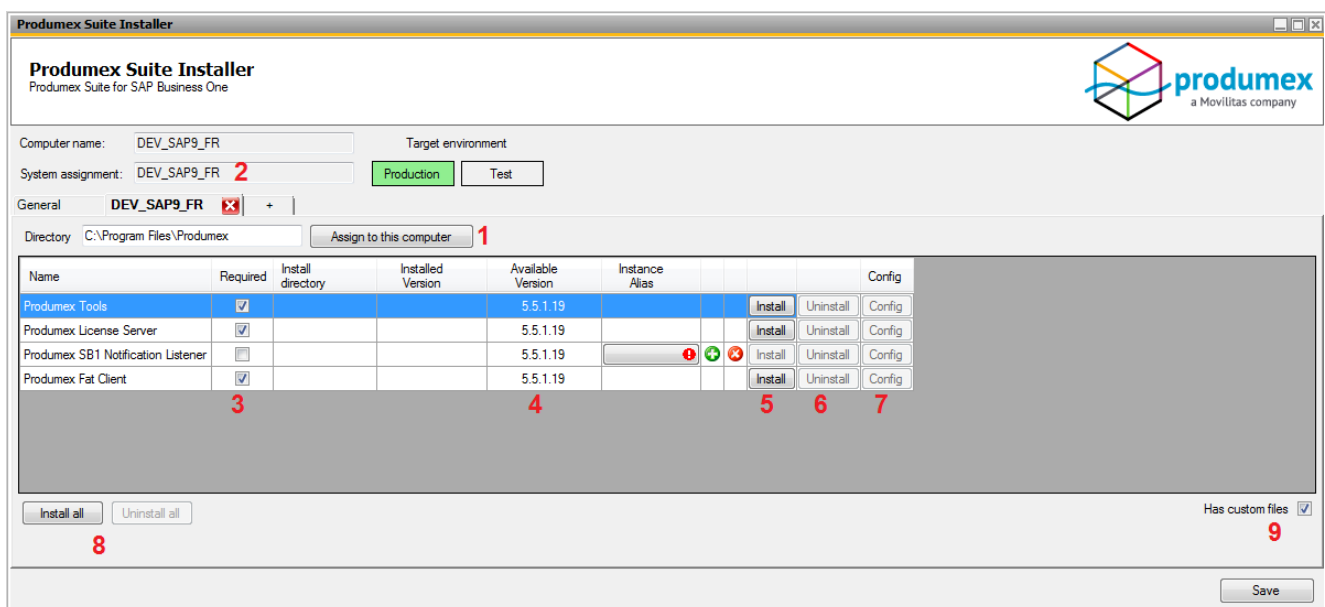
- SAP server with the Produmex Tools, Fat Client & License Service (and other optional services) installed.
- Terminal server with the Produmex Fat Client (= scanner application) installed.

We can now add a new tab (for the SAP server in this example) by clicking on the + icon next to the

General tab → Then fill the name of the SAP server:



3.1.2.1. Select required components for server



1. With this button, we can tell the application that this is the server we are currently working on. This will be saved so the SuiteInstaller will open on the correct tab, depending on what server you are opening it on. So we need to start by pushing this button to assign this server.

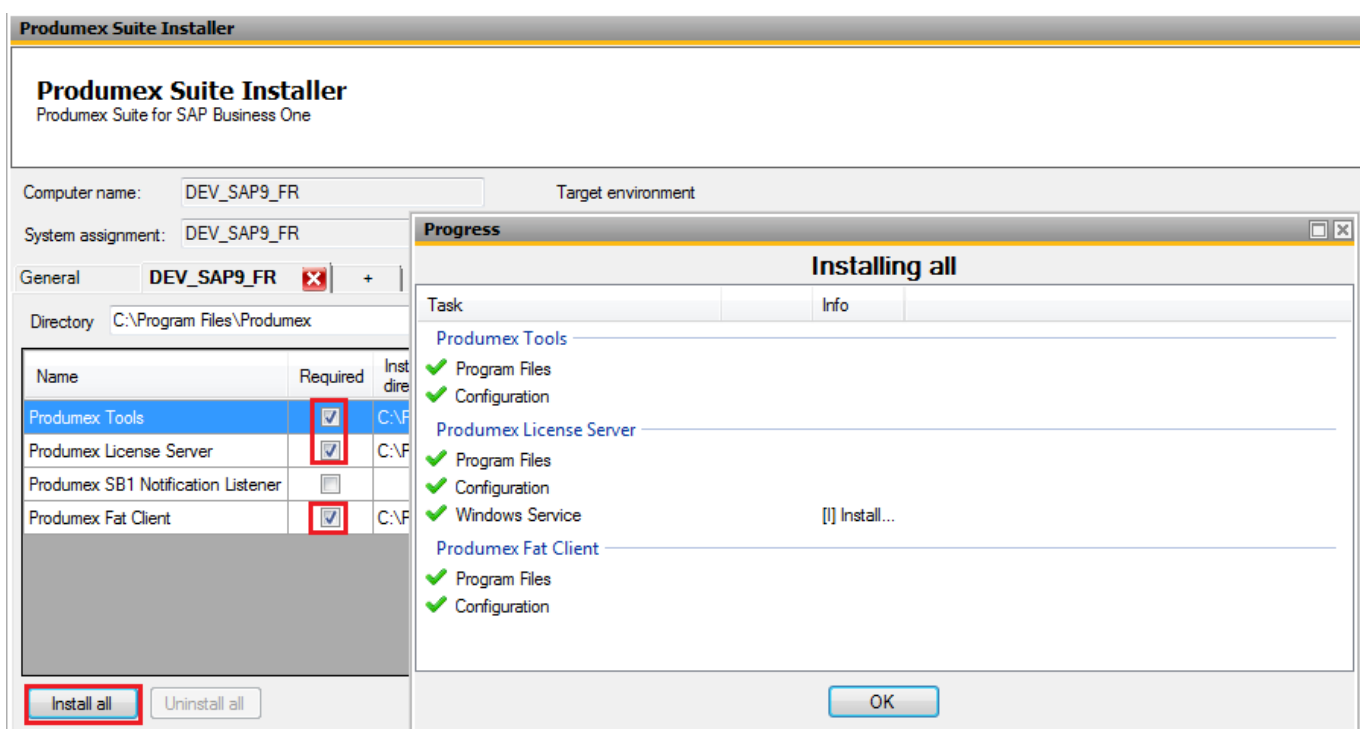
2. When the button was pushed, we can see the name of the server appearing on the “System assignment” field.

3. With these checkboxes, we can decide what will have to be installed on this server. Typically, a SAP server has the Tools, License Server & Fat Client installed. If we need a SB1 Notification Listener, this is typically also installed on the SAP server.

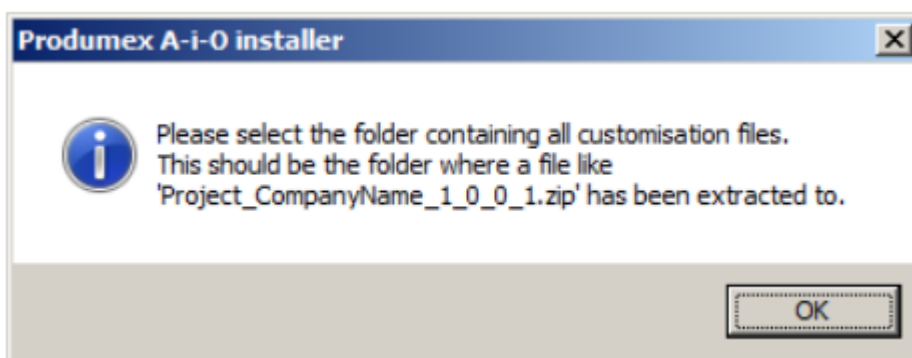
4. This shows the version of the PDMX Suite that we are about to install.

5. These Install buttons allow us to install the components one by one.
6. These Uninstall buttons allow us to uninstall the components one by one.
7. Config button will be used for the Tools & License Server (and for the optional SB1 Notification Listener).
8. Install / uninstall all: these buttons will install or uninstall all the checked components.
9. Has custom files checkbox indicates if there are custom files to be installed, such as customer specific workflowscripts. If this is tagged, you will be prompted for the directory where the custom files are unzipped to. This directory will have a name such as "Project_OEC_1_0_0_327".

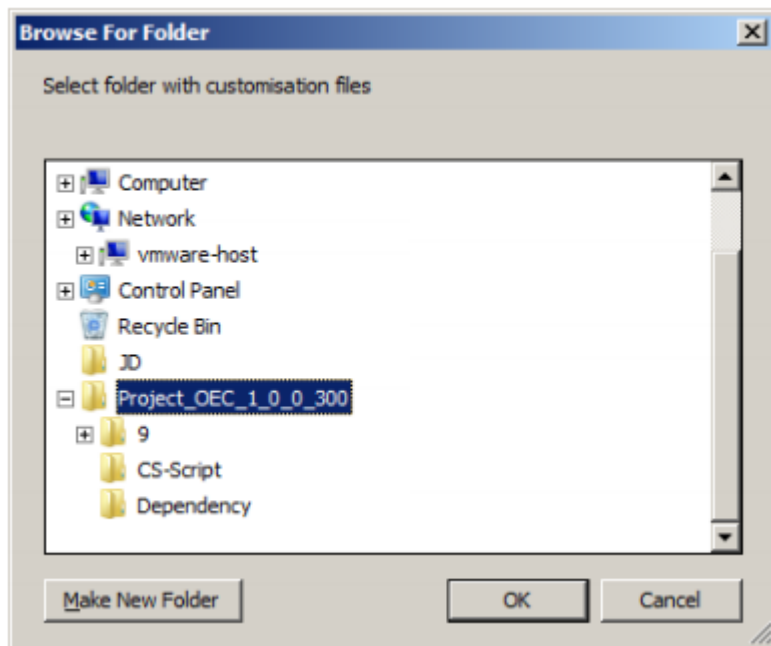
So in our example, we have checked the Tools, License Server & Fat Client. If we click on "install all" (8), it will do the installation of all these components:



Note: if you tagged "Has custom files" on, on the General tab you will be prompted to locate the directory.



Afterwards you need to locate the directory where you can find these files.

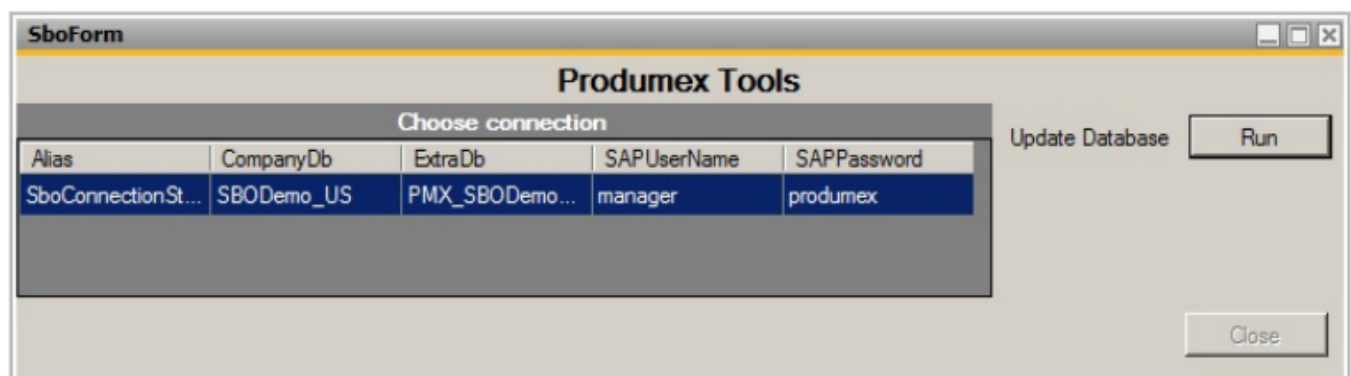


3.2. Component configuration

All components, except the Fat Client, have their own configuration that needs to be set up.

3.2.1. Produmex tools configuration

Here you can see the configuration screen for the Produmex tools. Here you can select an instance alias which will connect to a company database that will be updated to the most recent PDMX version.



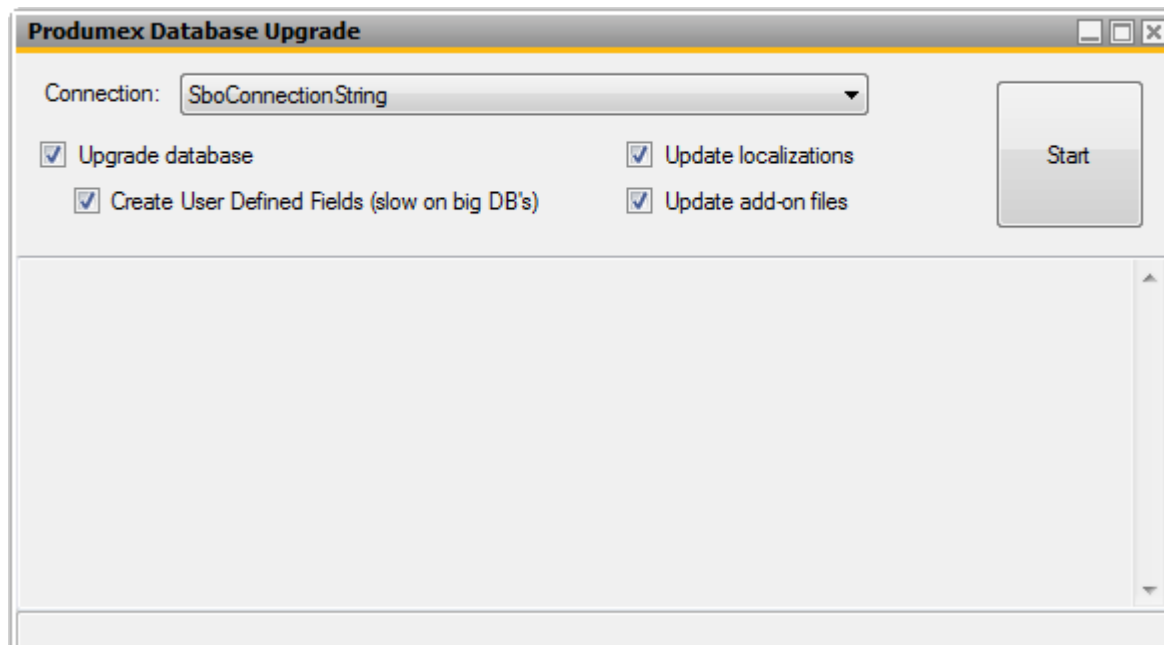
When you click the “Run” button will start the UpdateDatabase tool.

This tool consists of 3 steps, which you can enable or disable by using the checkboxes on the top of the window:

- Upgrade database
- Update localizations
- Update add-on files

You can also change the connection to use by using the drop-down list on the top of the window. The

drop-down list is filled with all connection strings found in the configuration file of the UpdateDatabase tool.

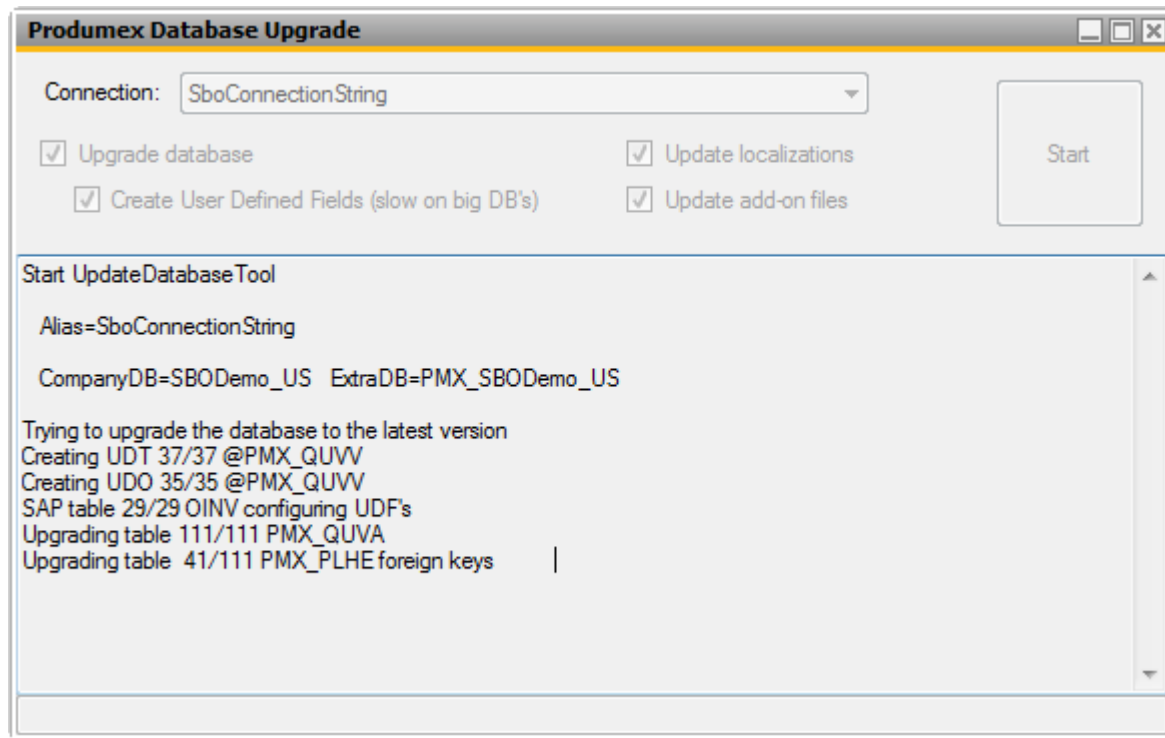


3.2.1.1. Upgrade database

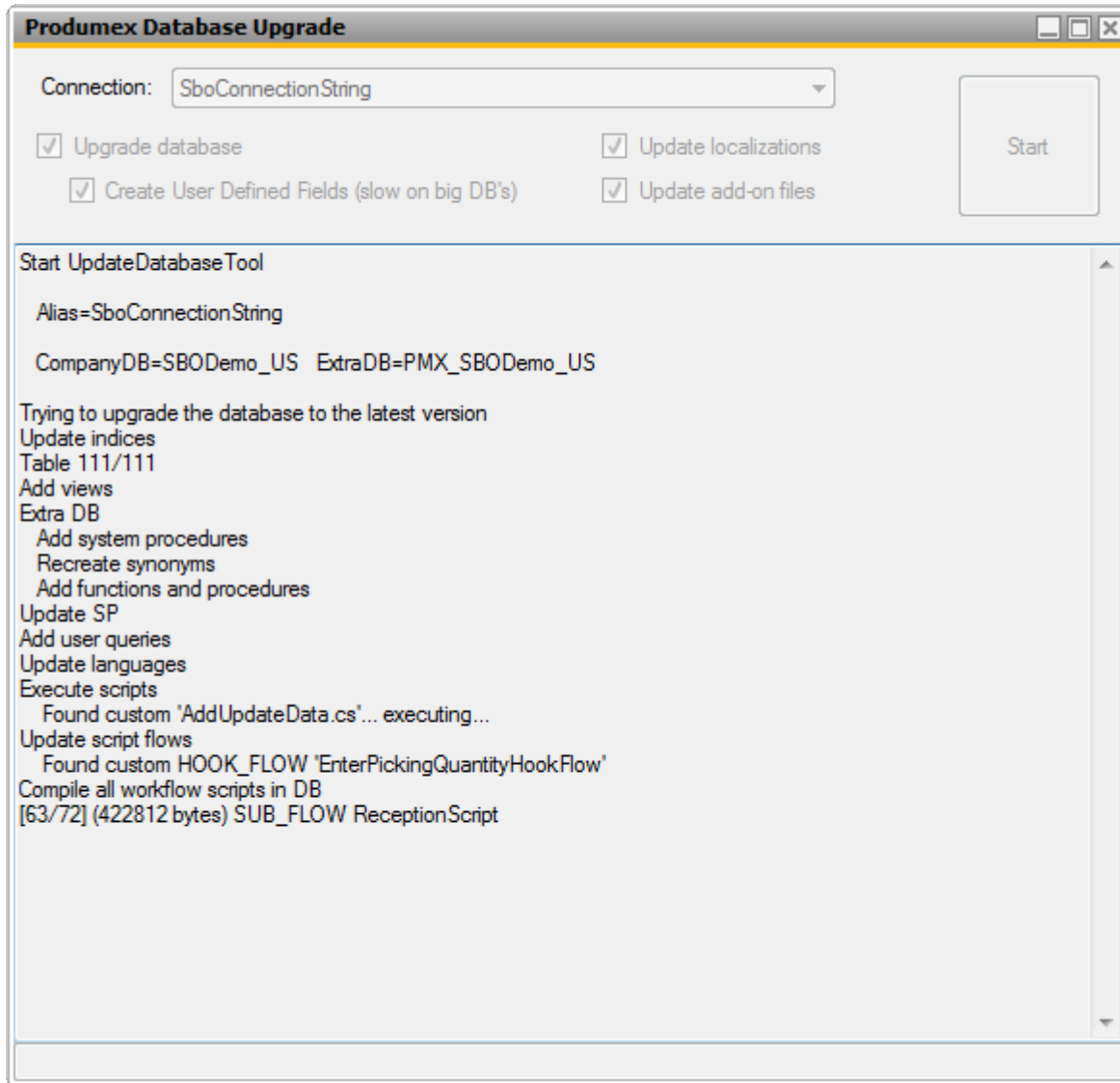
In the first step, the tool will upgrade your database to the most recent PDMX version. This step will only be executed if the "Upe database" checkbox is activated.

During this step, UDF's might need to be created in SAP. Seeing how this is an intensive action, this action is optional, but vital if you want to complete a full installation.

You can disable the creation of UDF's by deactivating the "Create User Defined Fields (slow on big DB's)" checkbox on the top of the window. In this case, you will have to create the UDF's manually in SAP; the UpdateDatabase tool will prompt you to do so.



Here the tool displays its actions. When starting from a new database without previous version of PDMX suite installed, it will adjust the database by first adding UDT's, UDO's, adding UDF's to SAP tables, creating PMX-tables, foreign keys, etc..



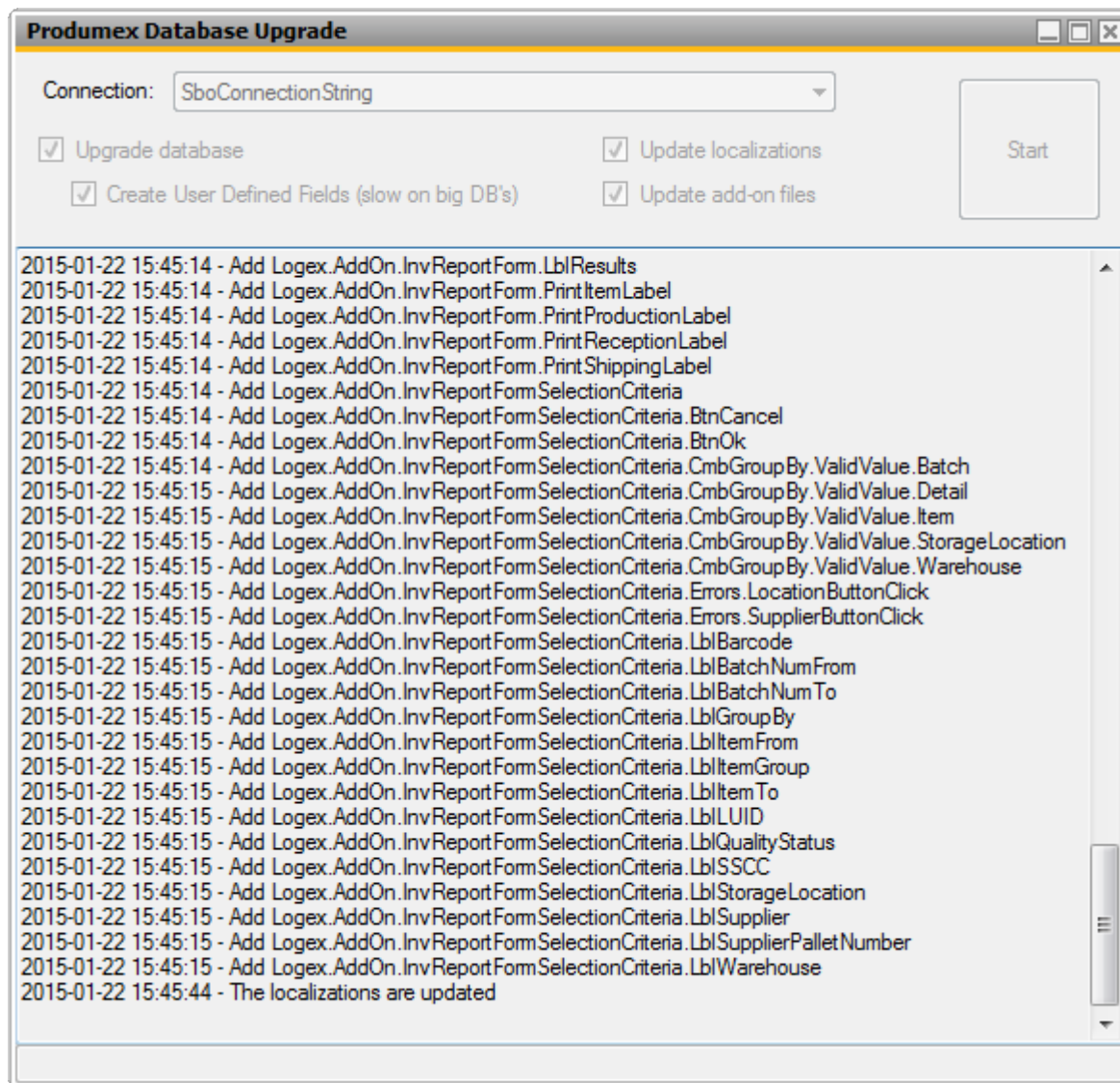
When this tool is running, and you have selected customer specific files in the previous steps you will see these kinds of messages:

- “Found custom ‘AddUpdateData.cs’: updates the database with custom UDF’s/UDT’s, PMX-tables, etc..This cs-script executes custom database-adjustments specific for that customer.
- “Found custom ‘: If a custom script is found and inserted to the database, you can see the name of the script here. In this example a EnterPickingQuantityHookFlow is inserted into the database or updated if it already exists.

3.2.1.2. Update localizations

The second step performs an update for the localizations. This step will update any translations to the most recent version of the current PDMX suite version.

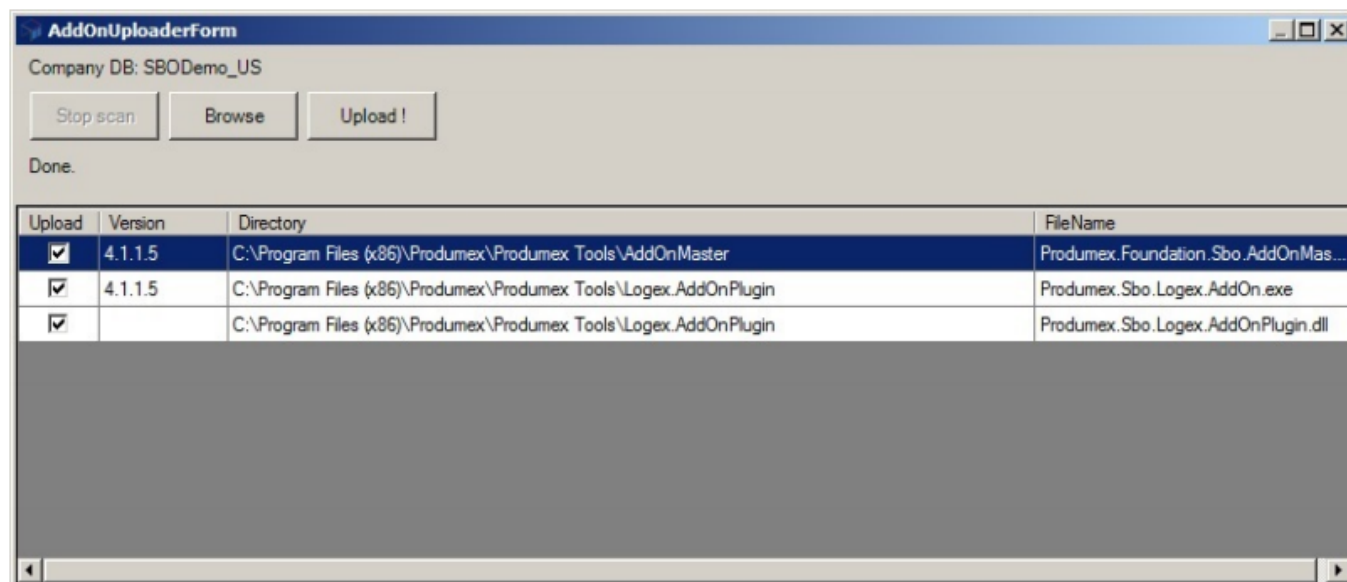
This step will only be executed if the “Update localizations” checkbox is activated.



3.2.1.3. Update add-on files

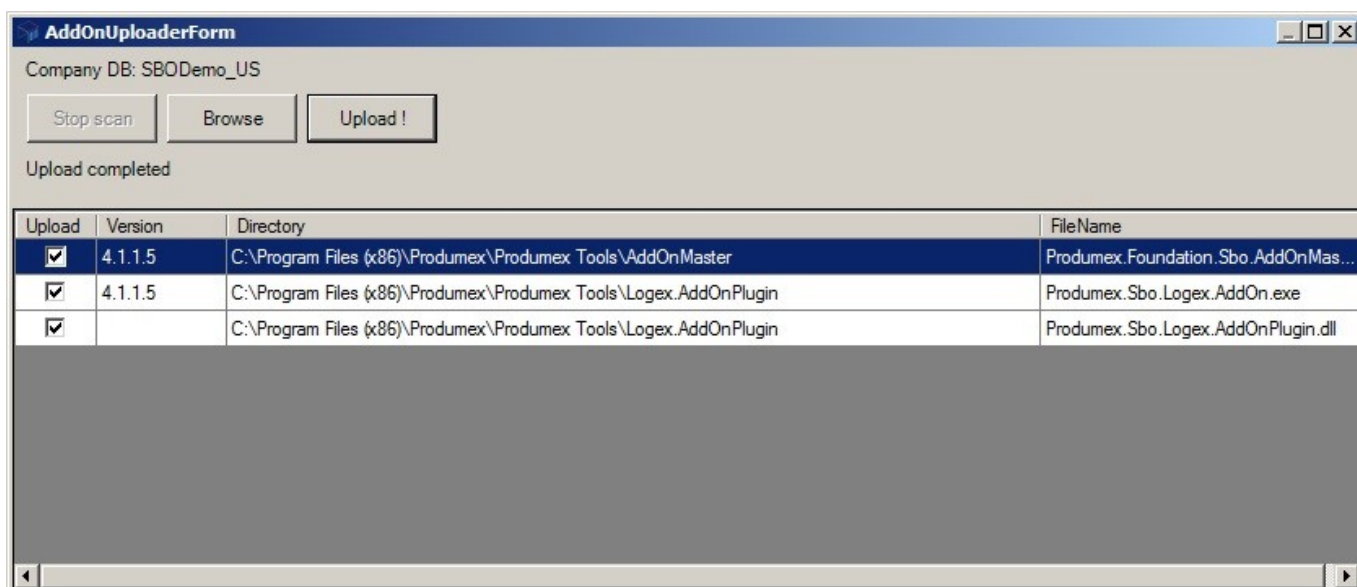
The final step you have the option to upload the PDMX suite add-on files necessary to run the PDMX suite add-on.

This step will only be executed if the “Update add-on files” checkbox is activated.

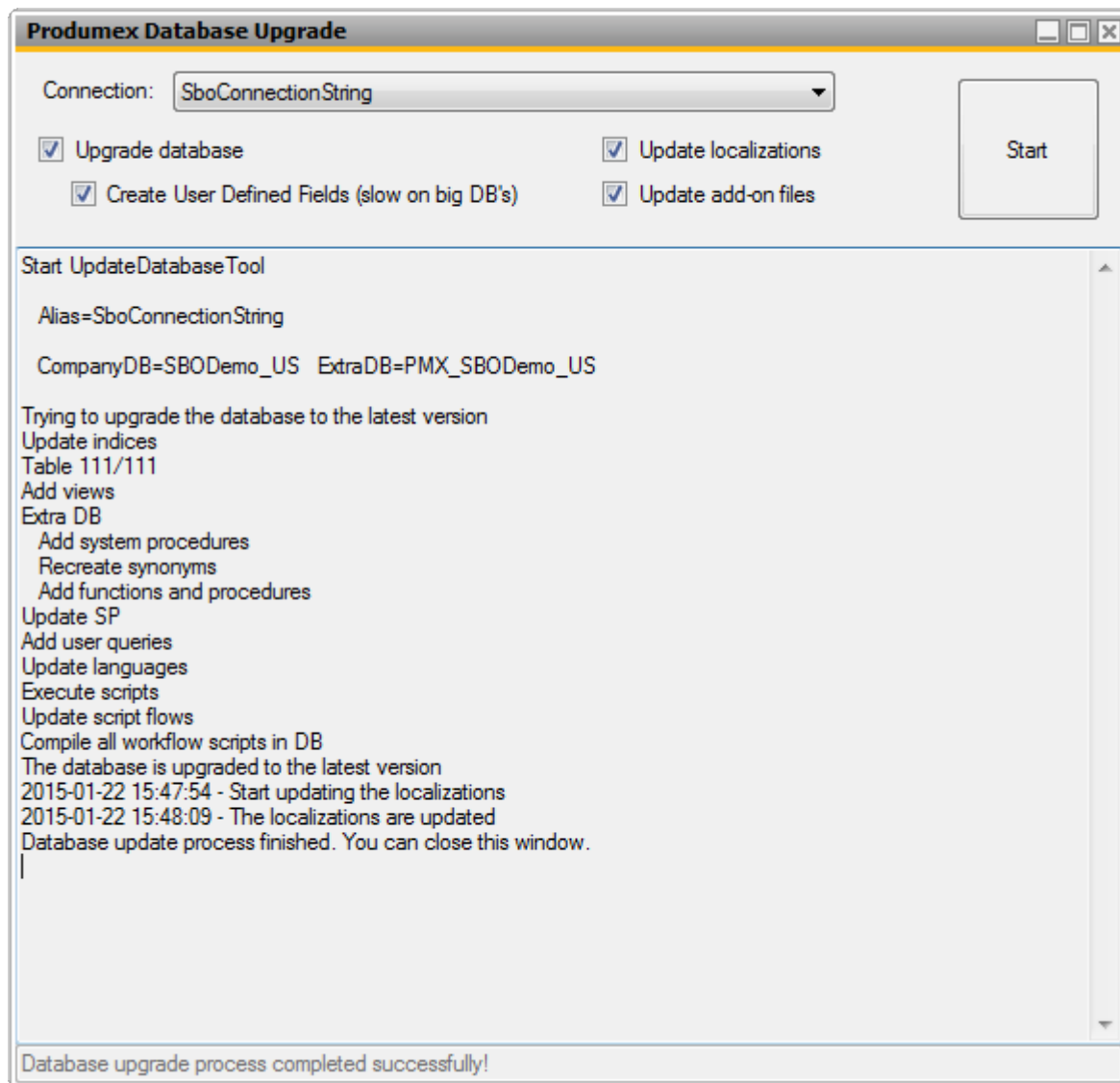


In this screen you can see the files required to upload. By default the Add-on Uploader will search in the build directory in which it is located.

Select the row(s) corresponding to the installation you are doing, and click 'Upload'. After uploading, close the screen.



3.2.1.4. Closing the tool



After all the selected steps have been executed, you can close the screen. To do so, press the 'x' cross in the top-right corner of the window.

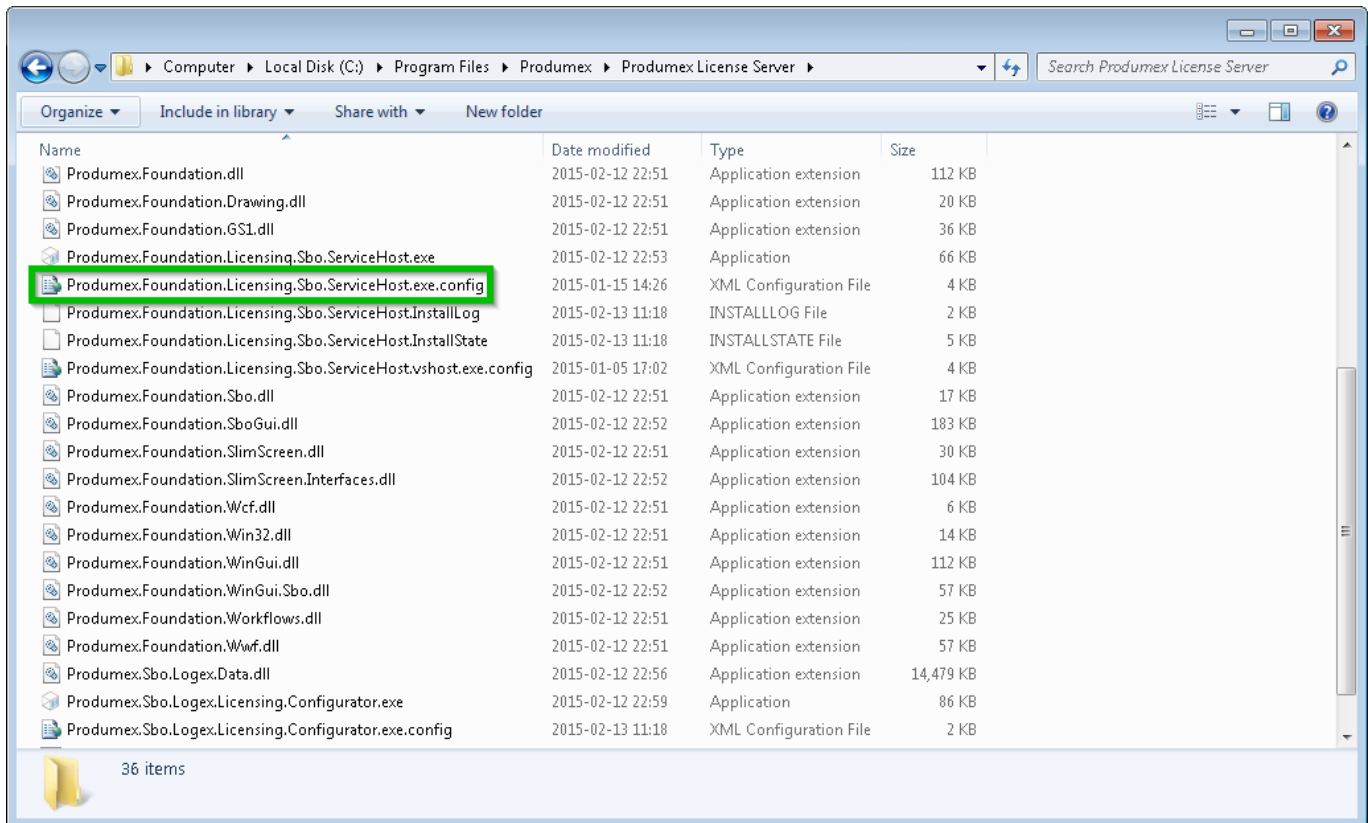
3.2.2. Produmex License Server configuration

3.2.2.1. Additional installation steps for SAP HANA

If you are using SAP HANA, you need to update the Produmex License Server's configuration file. This file is located in the installation folder of Produmex License Server, for example C:\Program Files (x86)\Produmex\Produmex License Server\

The configuration file is called 'Produmex.Foundation.Licensing.Sbo.ServiceHost.exe.config'

See the picture below to locate it more easily:



Open that file with a text editor (e.g. notepad), and locate the section called 'appSettings':

```
<appSettings>
  <add key="TransactionIsolation" value="ReadCommitted" />
  <add key="TransactionTimeout" value="00:10:00" />
  <!--<add key="SapLicenseServer" value="localhost:30000"/>-->
  <!--<add key="SapLicenseServer" value="localhost:40000"/>-->
</appSettings>
```

Locate the line that contains 'SapLicenseServer', and do the following:

- uncomment that line (remove the '<!--' and '->' at the beginning and at the end of the line)
- replace the license server (default: localhost:40000) by the actual SAP license server's address (in this example: imdbhdb:40000)

```
<appSettings>
  <add key="TransactionIsolation" value="ReadCommitted" />
  <add key="TransactionTimeout" value="00:10:00" />
  <!--<add key="SapLicenseServer" value="localhost:30000"/>-->
  <add key="SapHanaLicenseServer" value="imdbhdb:40000" />
</appSettings>
```

Finally, save the configuration file.

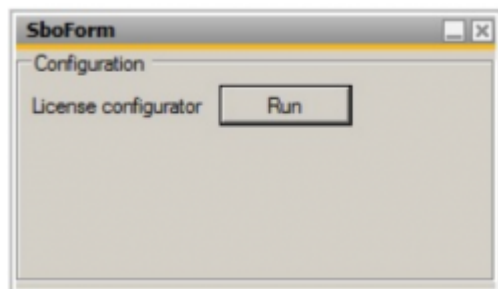
3.2.2.2. Configuration

You will need to get a license file from Produmex. To create this file, we need the Hardware Key of the SAP installation.

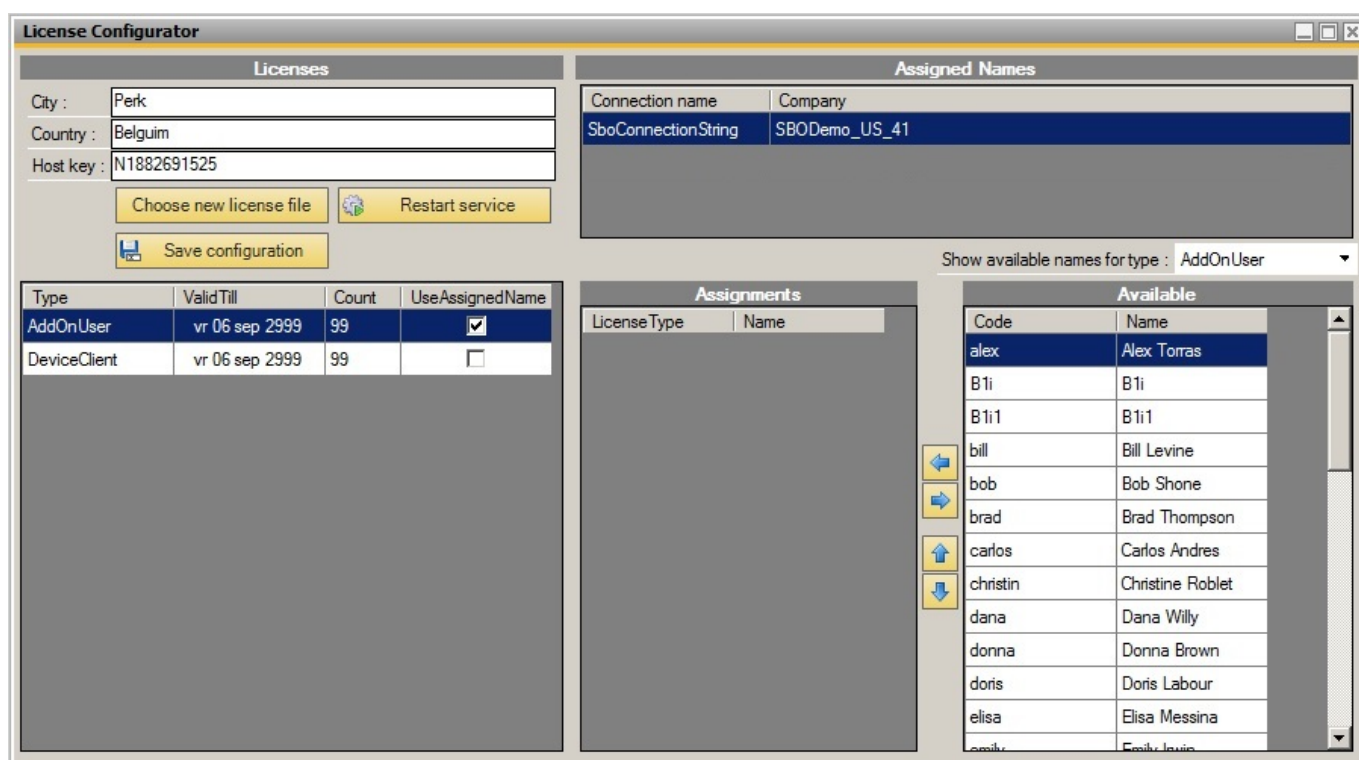
After that Produmex will send you a license file. You will have to put this file into the installation folder of the Produmex Licensing Module. After renaming the file to 'PmxLicenseData.xml', you can start the configurator.

Make sure the file name is correct. If known extensions are hidden, and you fill in 'PmxLicenseData.xml' as name, the file is actually called 'PmxLicenseData.xml'.

Afterwards you can run the config of the Produmex license configurator; this will show the following screen.

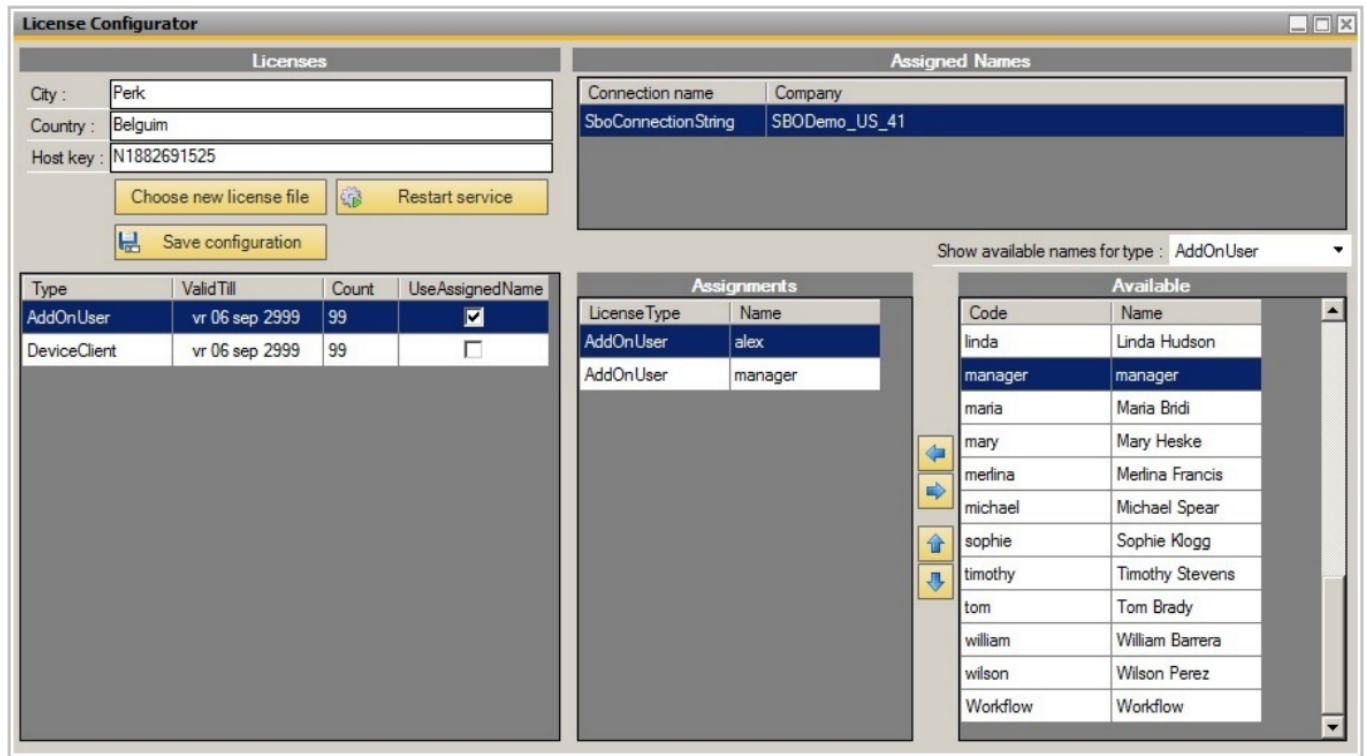


Clicking the "Run" button will start the license configurator.

A screenshot of the 'License Configurator' application window. The window is divided into several sections. On the left, there are input fields for 'City' (Perk), 'Country' (Belguim), and 'Host key' (N1882691525). Below these are buttons for 'Choose new license file', 'Restart service', and 'Save configuration'. In the center, there is a table titled 'Licenses' with columns 'Type', 'ValidTill', 'Count', and 'UseAssignedName'. The table has two rows: 'AddOnUser' and 'DeviceClient'. To the right of the 'Licenses' table is a section titled 'Assigned Names' with a table showing 'Connection name' and 'Company'. Below this is a section titled 'Assignments' with a table showing 'LicenseType' and 'Name'. On the far right, there is a section titled 'Available' with a table showing 'Code' and 'Name'. The 'Available' table lists various user names like 'alex', 'B1i', 'bill', etc. There are also navigation buttons between the 'Assignments' and 'Available' sections.

Now you can link users to the license. This is only needed if 'UseAssignedName' is set to true.

After linking users, you need to click 'Save configuration'. Even if 'UseAssignedName' is set to false for all types, you need to save the configuration by clicking the "Save configuration button".



So now the configuration is done, and the only thing to do now is to (re)start the Produmex License service.

This can be done by clicking the “Restart service” button.

IMPORTANT: If you restart the service for the first time, and it does not start, make sure you have installed the COM License bridge AND .NET Framework 3.5 SP1. (See “Prerequisites” section)

Note: When changes have been made to the configuration of the Produmex License, you need to restart the Produmex License service.

3.2.3. Types of license

3.2.3.1. Produmex Professional License

This is the license that is needed to run the add-on in SAP. On the license configuration this is called ‘AddOnUser’.

These licenses have to be ‘assigned’ to specific user(s).

This means that these ‘assigned’ user(s) are used to limit the group of users entitled for a PDMX License.

But it’s possible that you have for example only 3 licenses, and there are 6 users in the list of assigned users:

License Configurator

Licenses

City :

Country :

Host key :

Type	ValidTill	Count	UseAssignedName
AddOnUser	do 31 dec 2099	3	<input checked="" type="checkbox"/>
DeviceClient	do 31 dec 2099	3	<input type="checkbox"/>

Assigned Names

Connection name	Company
SBODemo_US_43	SBODemo_US_43

Show available names for type : AddOnUser

Assignments

License Type	Name
AddOnUser	manager
AddOnUser	alex
AddOnUser	bill
AddOnUser	bob
AddOnUser	brad
AddOnUser	carlos

Available

Code	Name
alex	alex
B1i	B1i
B1i1	B1i1
bill	bill
bob	bob
brad	brad
carlos	carlos
christin	christin
dana	dana
donna	donna
doris	doris
elisa	elisa

This will result in: the first 3 users from this list of 6 users that starts up the Produmex Add-on, will get a license.

(So within this list of 6, the principle of "first come, first served" is valid)

3.2.3.2. Produmex Terminal user

This is the license needed to run a flow on a device.

These are typically scanners or touchscreens.

On the license configuration this is called 'DeviceUser'.

These licenses are 'Unassigned' licenses.

So every running Produmex.Sbo.Logex.Execute.FatClient.exe, will occupy 1 license.

So this also works with the "first come, first served" principle.

3.2.3.3. Produmex 3PL license

This license is needed to use the additional functionality for 3PL invoicing.

On the license configuration this is called 'Mod_3PL'.

This license is an 'Unassigned' license.

There will be 99999 licenses available.

3.2.3.4. Produmex EDI license

This license is needed to use the additional functionality for EDI messages.

On the license configuration this is called 'Mod_EDI'.

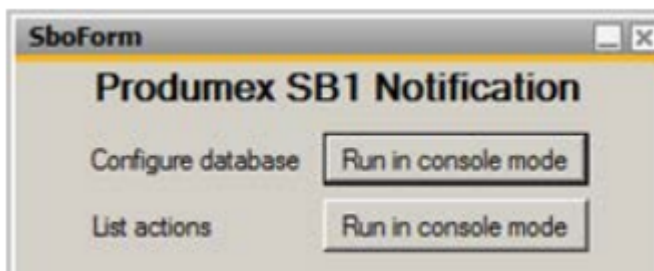
This license is an 'Unassigned' license.

There will be 99999 licenses available.

3.2.4. Produmex SB1 Notification listener

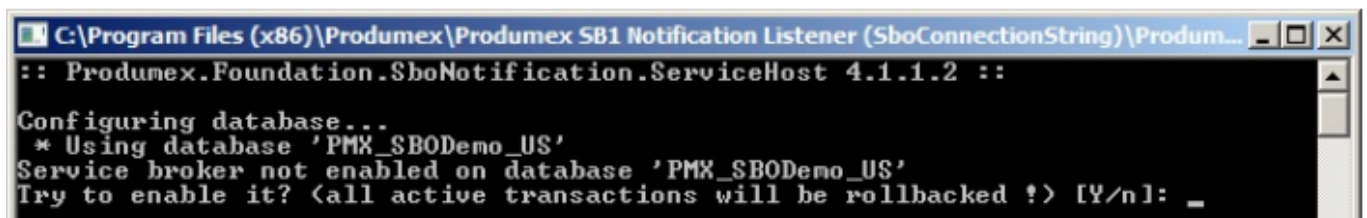
3.2.4.1. Configuring the database

In order to activate the SB1 Notification listener, you need to enable the service broker; first you click the config button of the Produmex SB1 Notification Listener. This will show the following screen:



Click the "Run in console Mode" button of the configuration database option. This will show the following console.

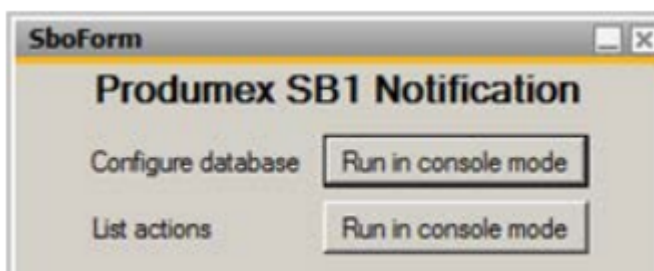
*Note: do **NOT** perform this action on an environment with active users.*



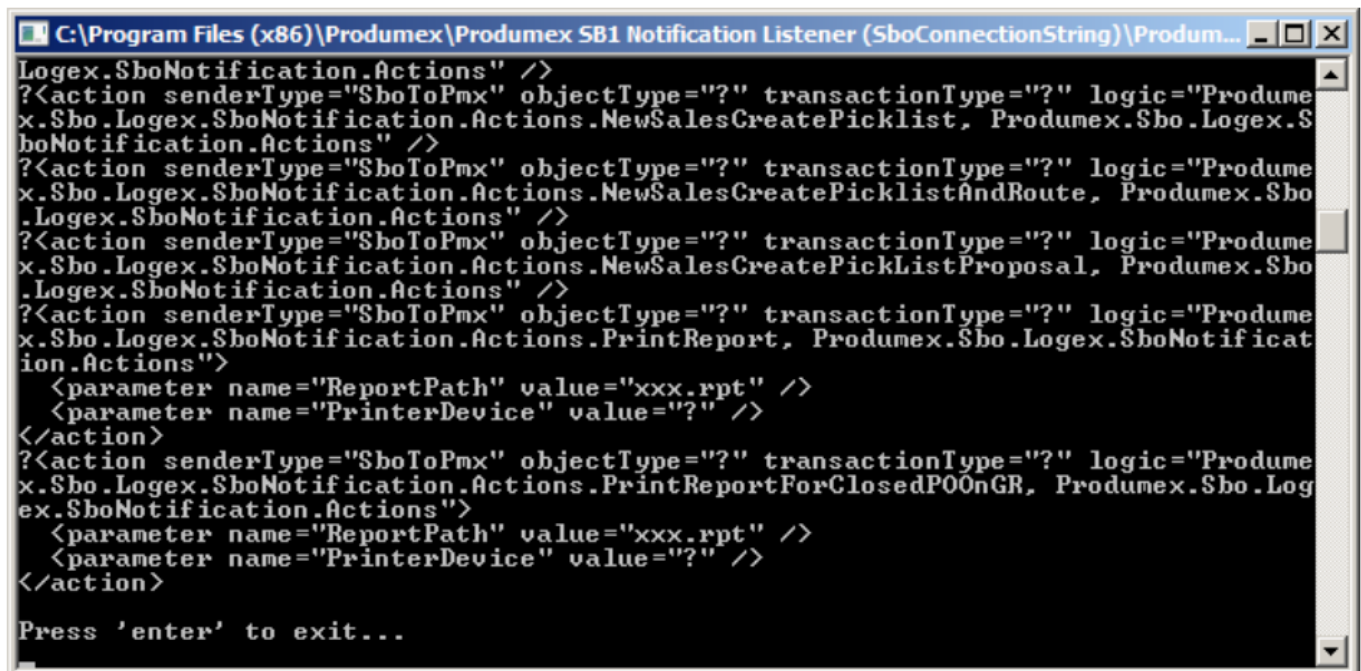
Simply hit ENTER to finish the database configuration.

3.2.4.2. Listing the actions

You need to list any actions where that the Produmex SB1 Notificationlistener needs to listen to. To do this click the "Run in console mode" of the list actions option.



The tool will add the actions to the config-file located in the installation folder of the Produmex SB1 Notificationlistener.



```
C:\Program Files (x86)\Produmex\Produmex SBI Notification Listener (SboConnectionString)\Produm...
Logex.SboNotification.Actions" />
?<action senderType="SboToPmx" objectType="?" transactionType="?" logic="Produme
x.Sbo.Logex.SboNotification.Actions.NewSalesCreatePicklist, Produmex.Sbo.Logex.S
boNotification.Actions" />
?<action senderType="SboToPmx" objectType="?" transactionType="?" logic="Produme
x.Sbo.Logex.SboNotification.Actions.NewSalesCreatePicklistAndRoute, Produmex.Sbo
.Logex.SboNotification.Actions" />
?<action senderType="SboToPmx" objectType="?" transactionType="?" logic="Produme
x.Sbo.Logex.SboNotification.Actions.NewSalesCreatePicklistProposal, Produmex.Sbo
.Logex.SboNotification.Actions" />
?<action senderType="SboToPmx" objectType="?" transactionType="?" logic="Produme
x.Sbo.Logex.SboNotification.Actions.PrintReport, Produmex.Sbo.Logex.SboNotificat
ion.Actions">
  <parameter name="ReportPath" value="xxx.rpt" />
  <parameter name="PrinterDevice" value="?" />
</action>
?<action senderType="SboToPmx" objectType="?" transactionType="?" logic="Produme
x.Sbo.Logex.SboNotification.Actions.PrintReportForClosedP00nGR, Produmex.Sbo.Log
ex.SboNotification.Actions">
  <parameter name="ReportPath" value="xxx.rpt" />
  <parameter name="PrinterDevice" value="?" />
</action>

Press 'enter' to exit...
```

Afterwards press ENTER to exit.

3.3. Adaptation of stored procedures

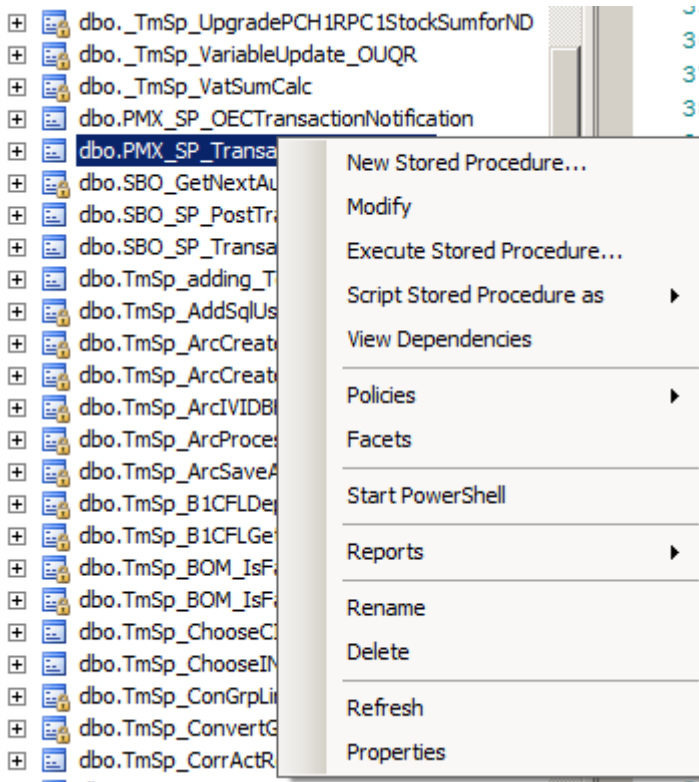
3.3.1. Enable the standard PMX stored procedure

3.3.1.1. With Microsoft SQL Server

After the configuration is done you need to enable the (custom) stored procedures in the stored procedure of SAP named "SBO_TransactionNotification".

When applying the Produmex Add-on the first time to a database you will also need to adapt the stored procedure "SBO_SP_TransactionNotification"

- To do this open "SQL Server Management Studio" and connect to your database server.
- Expand the "Databases" folder and locate the database to which you want to apply the Produmex Add-on.
- Open this database directory and open the "Programmability\Stored Procedures" subdirectory.
- Locate the "dbo.PMX_SP_TransactionNotification" stored procedure, right-click it and select "Modify".



Locate the “Produmex Logex Addon Code” at the end of this stored procedure (see illustration below)

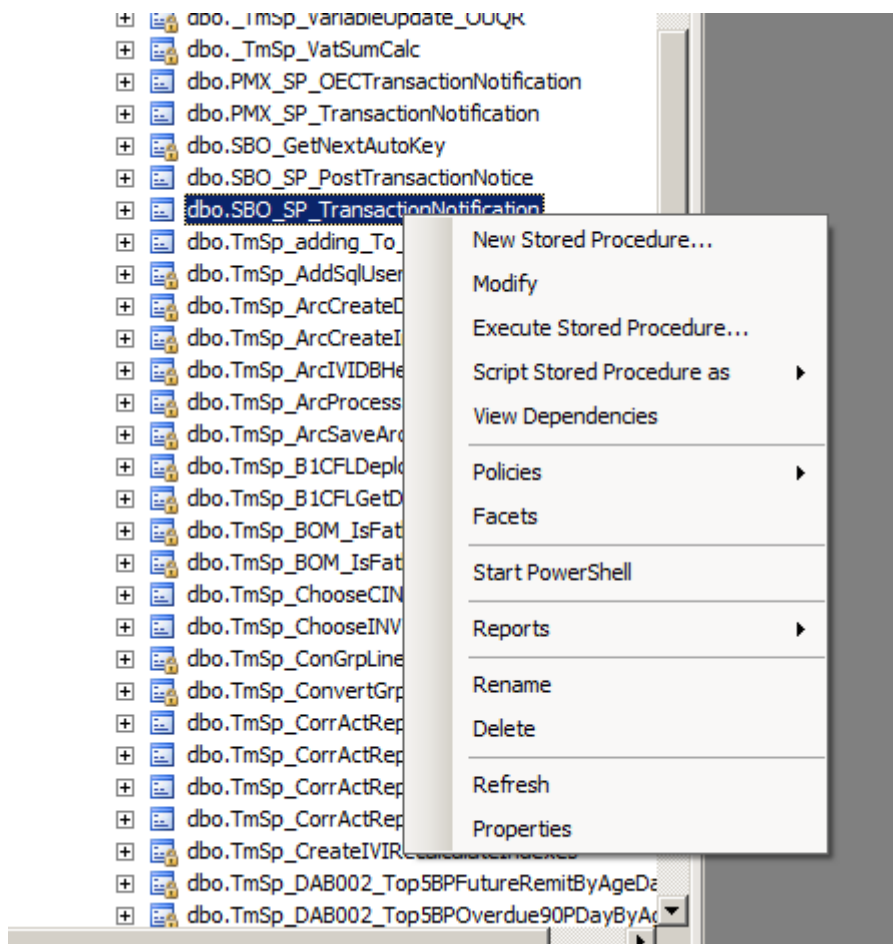
```

8113 |
8114 | ----Following code must be added to the stored procedure SBO_SP_TransactionNotification
8115 | ----to execute the PMX stored procedure:
8116 |
8117 | -----
8118 | ----Start executing Produmex Logex Addon code
8119 | -----
8120 | --BEGIN TRY
8121 | -- EXEC [dbo].[PMX_SP_TransactionNotification]
8122 | -- @object_type,
8123 | -- @transaction_type,
8124 | -- @num_of_cols_in_key,
8125 | -- @list_of_key_cols_tab_del,
8126 | -- @list_of_cols_val_tab_del,
8127 | -- @error = @error OUTPUT,
8128 | -- @error_message = @error_message OUTPUT
8129 | --END TRY
8130 | --BEGIN CATCH
8131 | -- SET @error = ERROR_NUMBER()
8132 | -- SET @error_message = ERROR_MESSAGE()
8133 | -- DECLARE @msg as NVARCHAR(255)
8134 | -- SET @msg = SUBSTRING('PMX_SP: sql error ' + CAST(ERROR_NUMBER() AS NVARCHAR) + ' : ' + ERROR_MESSAGE()
8135 | -- + ISNULL( ' line ' + CAST(ERROR_LINE() AS NVARCHAR), '' ) + ISNULL( ' in ' + ERROR_PROCEDURE(), '' ),1,255)
8136 | -- EXEC xp_logevent 999999, @msg, ERROR
8137 | --END CATCH;
8138 | -----
8139 | ----End executing Produmex Logex Addon code
8140 | -----

```

Copy the “Produmex Logex Addon Code”.

This code should now be pasted in the “SBO_SP_TransactionNotification” stored procedure, modify this stored procedure in the same way you modified the PMX_SP_TransactionNotification.



Paste the “Produemex Logex Addon Code” at the end of it. With a new installation you will see a marked area like “– ADD YOUR CODE HERE”.

```

277
278 ----Following code must be added to the stored procedure SBO_SP_TransactionNotification
279 ----to execute the PMX stored procedure:
280
281 -----
282 ----Start executing Produemex Logex Addon code for OEC
283 -----
284 --IF @error = 0
285 --BEGIN
286 -- BEGIN TRY
287 -- EXEC [dbo].[PMX_SP_OECTransactionNotification]
288 -- @object_type,
289 -- @transaction_type,
290 -- @num_of_cols_in_key,
291 -- @list_of_key_cols_tab_del,
292 -- @list_of_cols_val_tab_del,
293 -- @error = @error OUTPUT,
294 -- @error_message = @error_message OUTPUT
295 -- END TRY
296 -- BEGIN CATCH
297 -- SELECT @error = ERROR_NUMBER(), @error_message = ERROR_MESSAGE()
298 -- SET @msg = SUBSTRING('PMX_SP_NCF: sql error ' + CAST(ERROR_NUMBER() AS NVARCHAR) + ' : ' + ERROR_MESSAGE()
299 -- + ISNULL( ' line ' + CAST(ERROR_LINE() AS NVARCHAR), '' ) + ISNULL( ' in ' + ERROR_PROCEDURE(), '' ),1,255)
300 -- EXEC xp_logevent 999999, @msg, ERROR
301 -- END CATCH;
302 --END
303 -----
304 ----End executing Produemex Logex Addon code
305 -----

```

Afterwards you need to uncomment the SP by clicking the “uncomment” button in SQL management studio. The end result should look like this:


```

19
20 -- Return values
21 declare @error int -- Result (0 for no error)
22 declare @error_message nvarchar (200) -- Error string to be displayed
23 select @error = 0
24 select @error_message = N'Ok'
25
26 -----
27
28 -----
29 -----
30 --Start executing Produmex Logex Addon code
31 -----
32 BEGIN TRY
33 EXEC [dbo].[PMX_SP_TransactionNotification]
34 @object_type,
35 @transaction_type,
36 @num_of_cols_in_key,
37 @list_of_key_cols_tab_del,
38 @list_of_cols_val_tab_del,
39 @error = @error OUTPUT,
40 @error_message = @error_message OUTPUT
41 END TRY
42 BEGIN CATCH
43 SET @error = ERROR_NUMBER()
44 SET @error_message = ERROR_MESSAGE()
45 DECLARE @msg as NVARCHAR(255)
46 SET @msg = SUBSTRING('PMX_SP: sql error ' + CAST(ERROR_NUMBER() AS NVARCHAR) + ' : ' + ERROR_MESSAGE()
47 + ISNULL( ' line ' + CAST(ERROR_LINE() AS NVARCHAR), '' ) + ISNULL( ' in ' + ERROR_PROCEDURE(), '' ),1,255)
48 EXEC xp_logevent 999999, @msg, ERROR
49 END CATCH;
50 -----
51 --End executing Produmex Logex Addon code
52 -----
53
54
55 -- Select the return values
56 select @error, @error_message
57
58 end
59

```

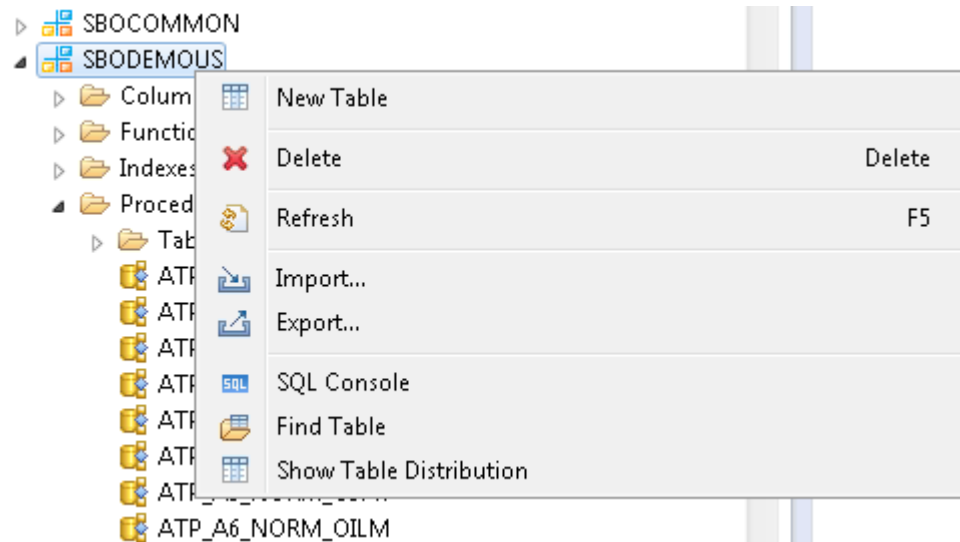
After these modifications. Execute the SBO_SP_TransactionNotification stored procedure.

3.3.1.2. With SAP HANA

After the configuration is done you need to enable the (custom) stored procedures in the stored procedure of SAP named “SBO_TRANSACTIONNOTIFICATION”.

When applying the Produmex Add-on the first time to a database you will also need to adapt the stored procedure “SBO_SP_TRANSACTIONNOTIFICATION”

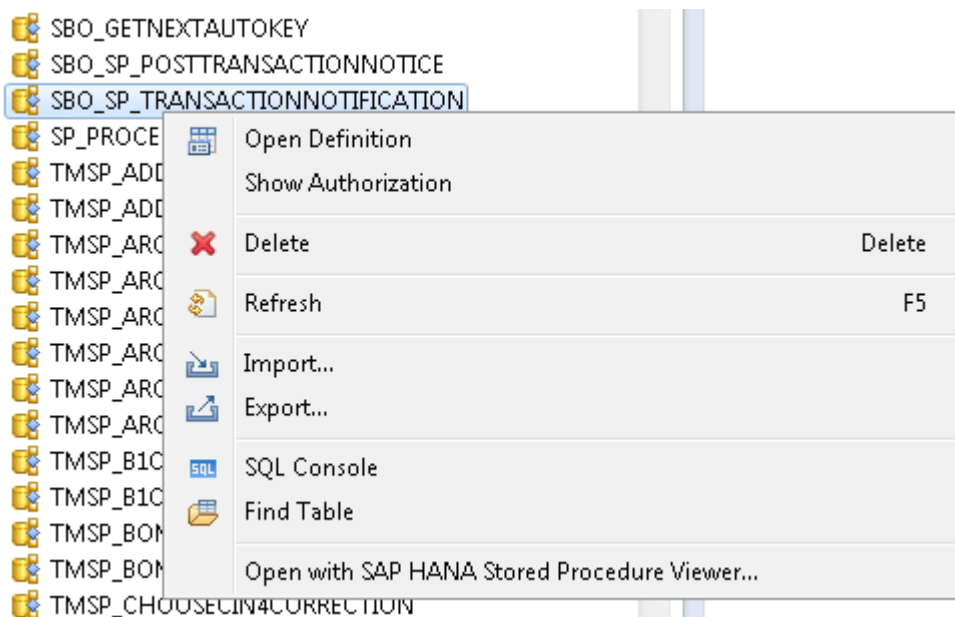
- To do this open “SAP HANA Studio” and connect to your SAP HANA server.
- Expand the “Catalog” folder and locate the schema to which you want to apply the Produmex Add-on.
- Right-click on this schema and select “SQL Console” to open a new SQL console



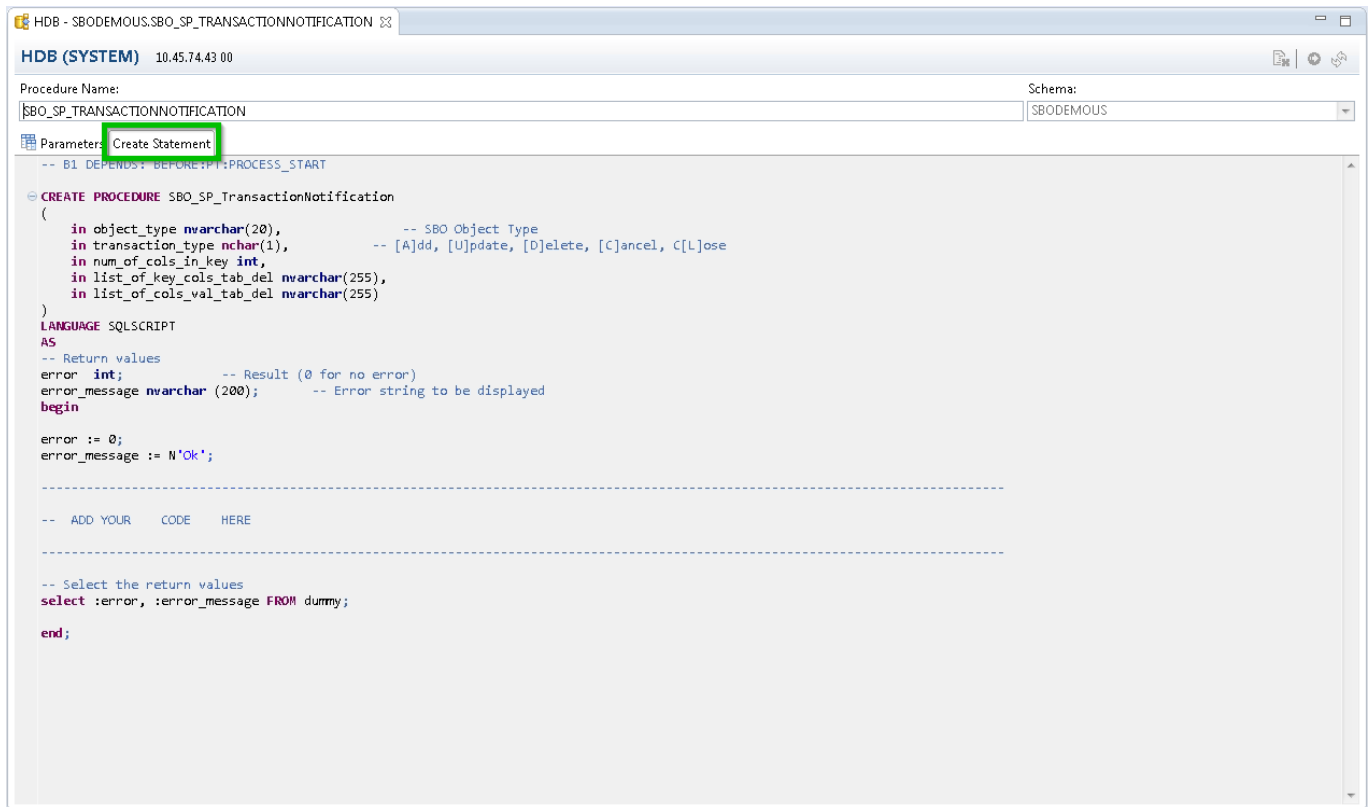
Keep this SQL console open during the whole process.

Then locate the “SBO_SP_TRANSACTIONNOTIFICATION” stored procedure:

- Expand the schema directory and open the “Procedures” subdirectory.
- Locate the “SBO_SP_TRANSACTIONNOTIFICATION” stored procedure, right-click it and select “Open Definition”.

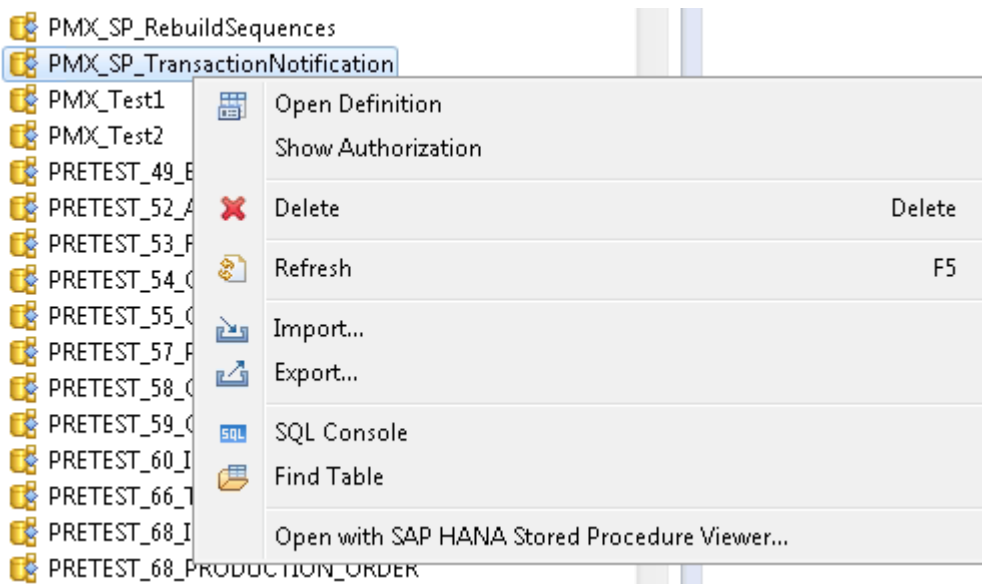


Open its content by opening the “Create statement” tab:

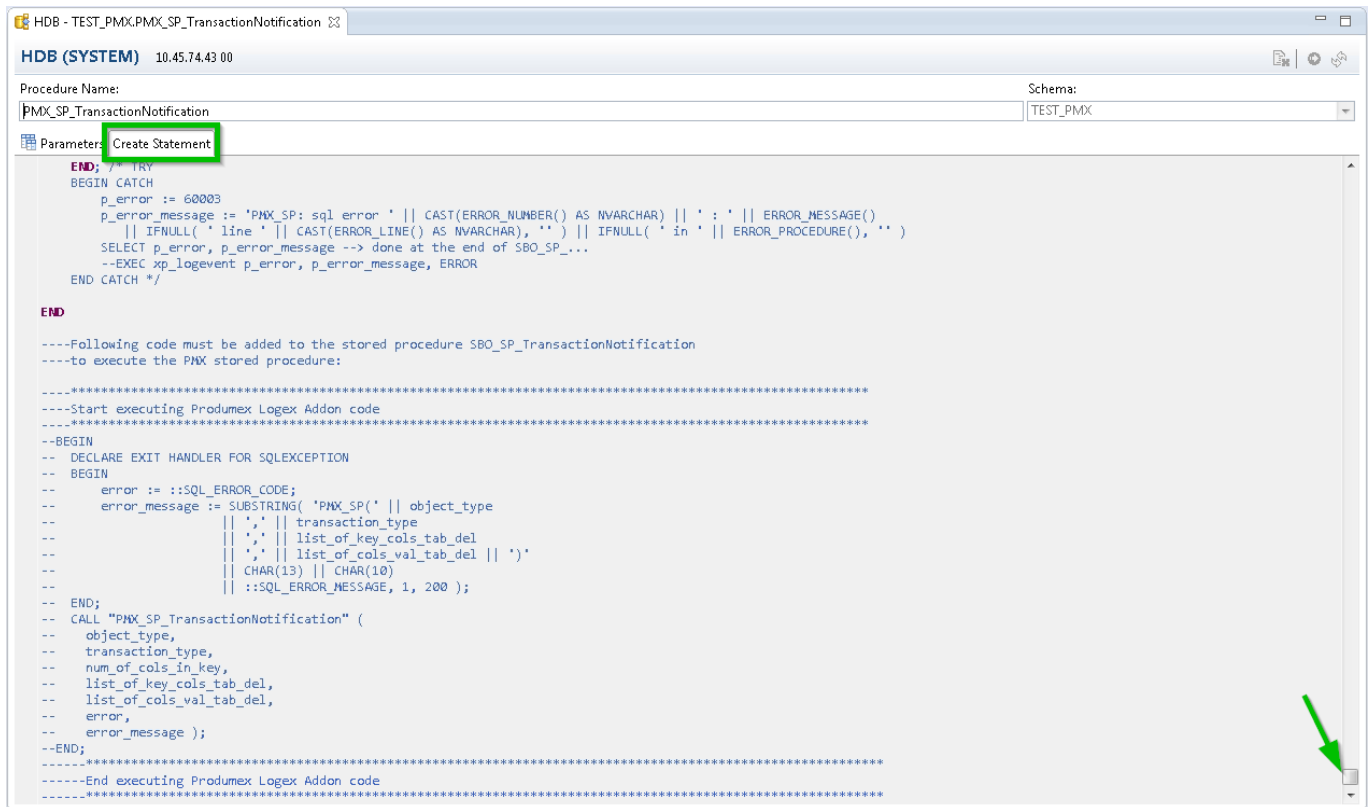


Copy the content into the SQL console.

Next, locate the “PMX_SP_TransactionNotification” stored procedure, right-click it and select “Open Definition”.



Open its content by opening the “Create statement” tab, and locate the “Produmex Logex Addon Code” at the end of this stored procedure (see illustration below)



- Copy the “Produmex Logex Addon Code”.
- This code should now be pasted into the SQL console, where you have already pasted the content of the “SBO_SP_TRANSACTIONNOTIFICATION” stored procedure. Paste the “Produmex Logex Addon Code” at the end of it. With a new installation you will see a marked area like “- ADD YOUR CODE HERE”.
- You also need to uncomment the copied code by removing the leading '-' from each line.
- Finally, add the following line on the top of your SQL console:

DROP PROCEDURE SBO_SP_TransactionNotification;

The SQL console should look like this

```

SQL *HDB - SQL Console 7
HDB (SYSTEM) 10.45.74.43 00 (Current Schema: SBODEMOUS)

SQL
DROP PROCEDURE SBO_SP_TransactionNotification;
CREATE PROCEDURE SBO_SP_TransactionNotification
(
    in object_type nvarchar(20),          -- SBO Object Type
    in transaction_type nchar(1),        -- [A]dd, [U]pdate, [D]elete, [C]ancel, [L]ose
    in num_of_cols_in_key int,
    in list_of_key_cols_tab_del nvarchar(255),
    in list_of_cols_val_tab_del nvarchar(255)
)
LANGUAGE SQLSCRIPT
AS
-- Return values
error int;          -- Result (0 for no error)
error_message nvarchar(200);  -- Error string to be displayed
begin

error := 0;
error_message := N'Ok';

-----

-- ADD YOUR CODE HERE

-----

-----Start executing Produmex Logex Addon code
-----
BEGIN
    DECLARE EXIT HANDLER FOR SQLEXCEPTION
    BEGIN
        error := ::SQL_ERROR_CODE;
        error_message := SUBSTRING( 'PHX_SP(' || object_type
                                || ',' || transaction_type
                                || ',' || list_of_key_cols_tab_del
                                || ',' || list_of_cols_val_tab_del || ' '
                                || CHAR(13) || CHAR(10)
                                || ::SQL_ERROR_MESSAGE, 1, 200 );
        --EXEC('ROLLBACK');
    END;
    CALL "PHX_SP_TransactionNotification" (
        object_type,
        transaction_type,
        num_of_cols_in_key,
        list_of_key_cols_tab_del,
        list_of_cols_val_tab_del,
        error,
        error_message );
END;
-----End executing Produmex Logex Addon code
-----

-- Select the return values
select :error, :error_message FROM dummy;

end;

```

Finally, execute the code in your SQL console to modify the SBO_SP_TRANSACTIONNOTIFICATION procedure.

3.3.2. Enable a custom stored procedure.

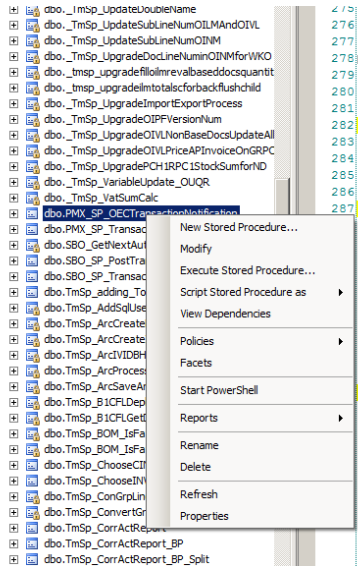
When installing a custom build, it is possible a custom stored procedure is added to the database and needs to be modified in the same way as the standard stored procedure.

Note: Produmex custom development usually only requires a modification of the SBO_SP_transactionNotification stored procedure. It is possible other kind of SAP stored need to be modified, although unlikely.

If this is the case, the stored procedures will be added on the company database in the same way a custom TransactionNotification stored procedure is added.

If you are unsure if such a modification is required, please contact your designated support address (eg: yourcompanyname.support@produemex.com) and one of our helpdesk administrator will contact you as soon as possible.

First you need to modify the custom stored procedure. In this example:
PMX_SP_OECTransactionNotification.

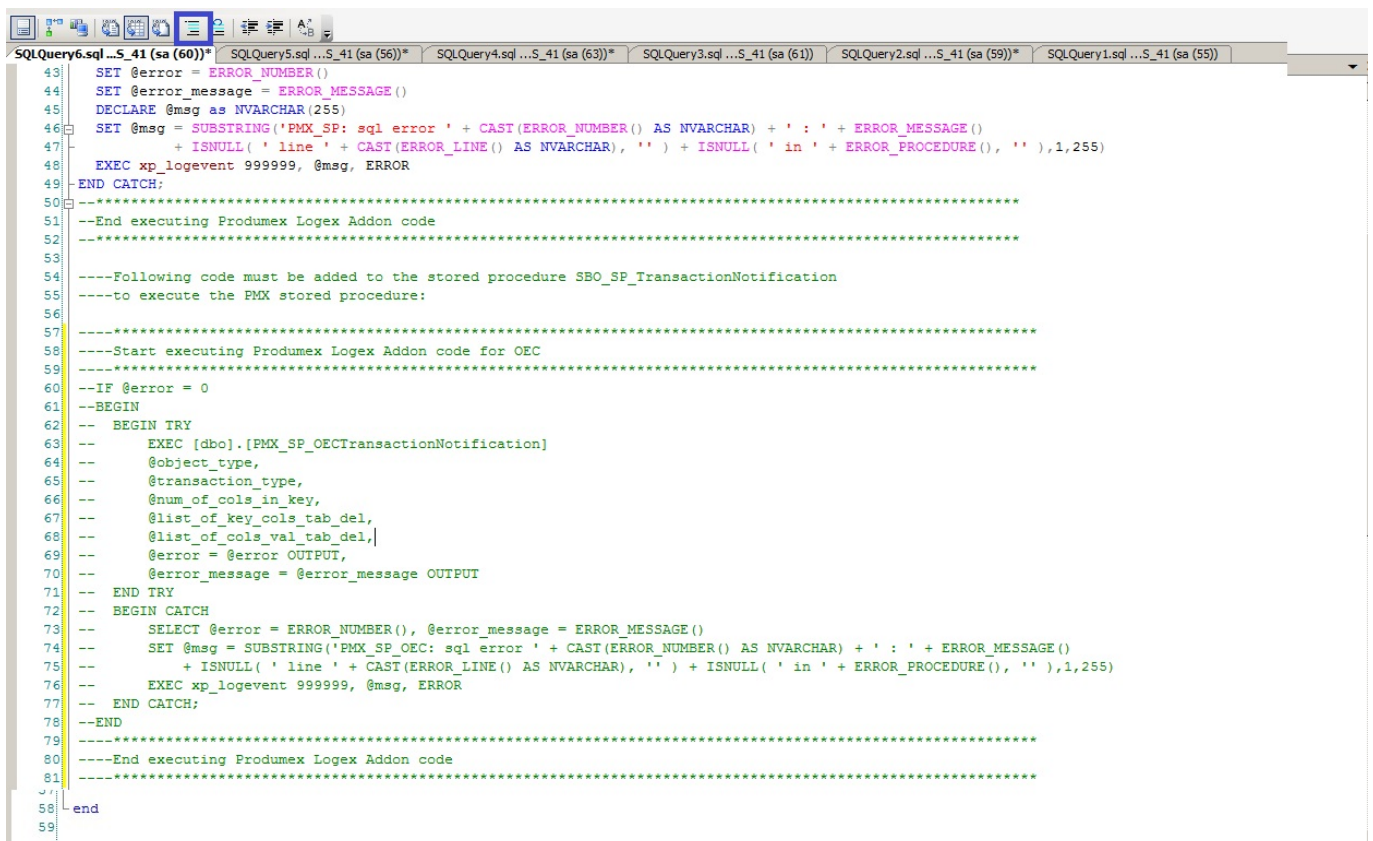


```

276 --END
277
278 -----Following code must be added to the stored procedure SBO_SP_TransactionNotification
279 -----to execute the PMX stored procedure:
280
281 -----
282 -----Start executing Produemex Logex Addon code for OEC
283 -----
284 --IF @error = 0
285 --BEGIN
286 -- BEGIN TRY
287 -- EXEC [dbo].[PMX_SP_OECTransactionNotification]
288 -- @object_type,
289 -- @transaction_type,
290 -- @num_of_cols_in_key,
291 -- @list_of_key_cols_tab_del,
292 -- @list_of_cols_val_tab_del,
293 -- @error = @error OUTPUT,
294 -- @error_message = @error_message OUTPUT
295 -- END TRY
296 -- BEGIN CATCH
297 -- SELECT @error = ERROR_NUMBER(), @error_message = ERROR_MESSAGE()
298 -- SET @msg = SUBSTRING('PMX_SP_OEC: sql error ' + CAST(ERROR_NUMBER() AS NVARCHAR) + ' : ' + ERROR_MESSAGE()
299 -- + ISNULL(' line ' + CAST(ERROR_LINE() AS NVARCHAR), '' ) + ISNULL(' in ' + ERROR_PROCEDURE(), '' ),1,255)
300 -- EXEC xp_logevent 999999, @msg, ERROR
301 -- END CATCH;
302 --END
303 -----End executing Produemex Logex Addon code
304 -----

```

Copy the commented text and modify the SBO_SP_TransactionNotification again. Add the text and uncomment it.



```

43 SET @error = ERROR_NUMBER()
44 SET @error_message = ERROR_MESSAGE()
45 DECLARE @msg as NVARCHAR(255)
46 SET @msg = SUBSTRING('PMX_SP: sql error ' + CAST(ERROR_NUMBER() AS NVARCHAR) + ' : ' + ERROR_MESSAGE()
47 + ISNULL(' line ' + CAST(ERROR_LINE() AS NVARCHAR), '' ) + ISNULL(' in ' + ERROR_PROCEDURE(), '' ),1,255)
48 EXEC xp_logevent 999999, @msg, ERROR
49 --END CATCH;
50 -----
51 -----End executing Produemex Logex Addon code
52 -----
53
54 -----Following code must be added to the stored procedure SBO_SP_TransactionNotification
55 -----to execute the PMX stored procedure:
56
57 -----
58 -----Start executing Produemex Logex Addon code for OEC
59 -----
60 --IF @error = 0
61 --BEGIN
62 -- BEGIN TRY
63 -- EXEC [dbo].[PMX_SP_OECTransactionNotification]
64 -- @object_type,
65 -- @transaction_type,
66 -- @num_of_cols_in_key,
67 -- @list_of_key_cols_tab_del,
68 -- @list_of_cols_val_tab_del,
69 -- @error = @error OUTPUT,
70 -- @error_message = @error_message OUTPUT
71 -- END TRY
72 -- BEGIN CATCH
73 -- SELECT @error = ERROR_NUMBER(), @error_message = ERROR_MESSAGE()
74 -- SET @msg = SUBSTRING('PMX_SP_OEC: sql error ' + CAST(ERROR_NUMBER() AS NVARCHAR) + ' : ' + ERROR_MESSAGE()
75 -- + ISNULL(' line ' + CAST(ERROR_LINE() AS NVARCHAR), '' ) + ISNULL(' in ' + ERROR_PROCEDURE(), '' ),1,255)
76 -- EXEC xp_logevent 999999, @msg, ERROR
77 -- END CATCH;
78 --END
79 -----End executing Produemex Logex Addon code
80 -----
81
82 end
83

```

The end result should look something like this:

```

28 |
29 | -----
30 | --Start executing Produmex Logex Addon code
31 | -----
32 | BEGIN TRY
33 |     EXEC [dbo].[PMX_SP_TransactionNotification]
34 |         @object_type,
35 |         @transaction_type,
36 |         @num_of_cols_in_key,
37 |         @list_of_key_cols_tab_del,
38 |         @list_of_cols_val_tab_del,
39 |         @error = @error OUTPUT,
40 |         @error_message = @error_message OUTPUT
41 | END TRY
42 | BEGIN CATCH
43 |     SET @error = ERROR_NUMBER()
44 |     SET @error_message = ERROR_MESSAGE()
45 |     DECLARE @msg as NVARCHAR(255)
46 |     SET @msg = SUBSTRING('PMX_SP: sql error ' + CAST(ERROR_NUMBER() AS NVARCHAR) + ' : ' + ERROR_MESSAGE()
47 |         + ISNULL(' line ' + CAST(ERROR_LINE() AS NVARCHAR), '') + ISNULL(' in ' + ERROR_PROCEDURE(), ''), 1, 255)
48 |     EXEC xp_logevent 999999, @msg, ERROR
49 | END CATCH;
50 | -----
51 | --End executing Produmex Logex Addon code
52 | -----
53 |
54 | --Following code must be added to the stored procedure SBO_SP_TransactionNotification
55 | --to execute the PMX stored procedure:
56 |
57 | -----
58 | --Start executing Produmex Logex Addon code for OEC
59 | -----
60 | IF @error = 0
61 | BEGIN
62 |     BEGIN TRY
63 |         EXEC [dbo].[PMX_SP_OECTransactionNotification]
64 |             @object_type,
65 |             @transaction_type,
66 |             @num_of_cols_in_key,
67 |             @list_of_key_cols_tab_del,
68 |             @list_of_cols_val_tab_del,
69 |             @error = @error OUTPUT

```

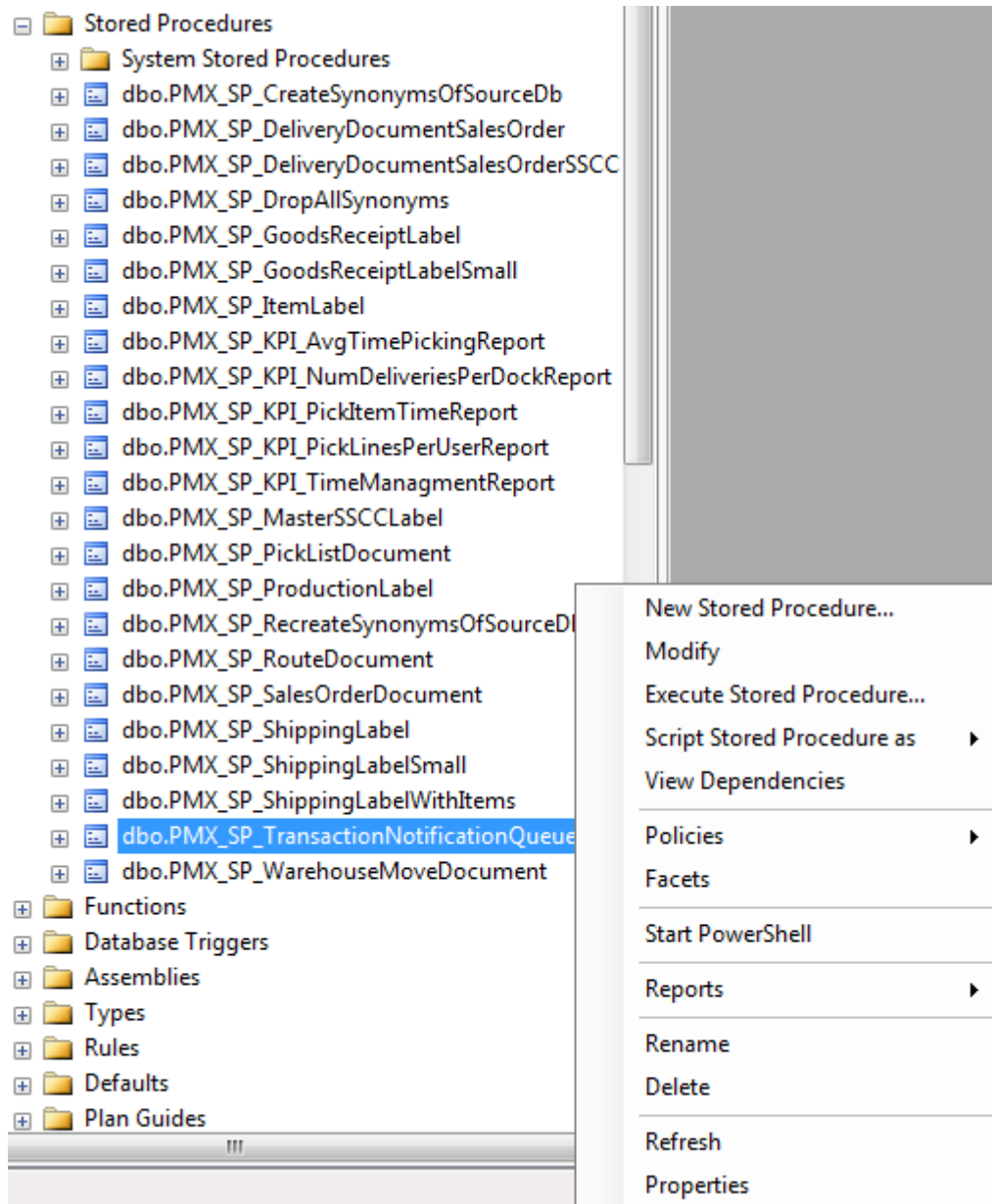
After these modifications. Execute the SBO_SP_TransactionNotification stored procedure.

3.3.3. Enable the Notification Listener stored procedure

After the Notification Listener configuration is done you need to enable the stored procedures in the stored procedure of SAP named "SBO_TransactionNotification".

This step is only necessary if you intend to use the SB1 Notification Listener.

- To do this open "SQL Server Management Studio" and connect to your database server.
- Expand the "Databases" folder and locate the **PMX database** (not the Company database) to which you want to apply the Produmex Add-on.
- Open this database directory and open the "Programmability\Stored Procedures" subdirectory.
- Locate the "dbo.PMX_SP_TransactionNotificationQueue" stored procedure, right-click it and select "Modify".



Locate the “Produmex SboNotification Queue Code” at the end of this stored procedure (see illustration below)

```

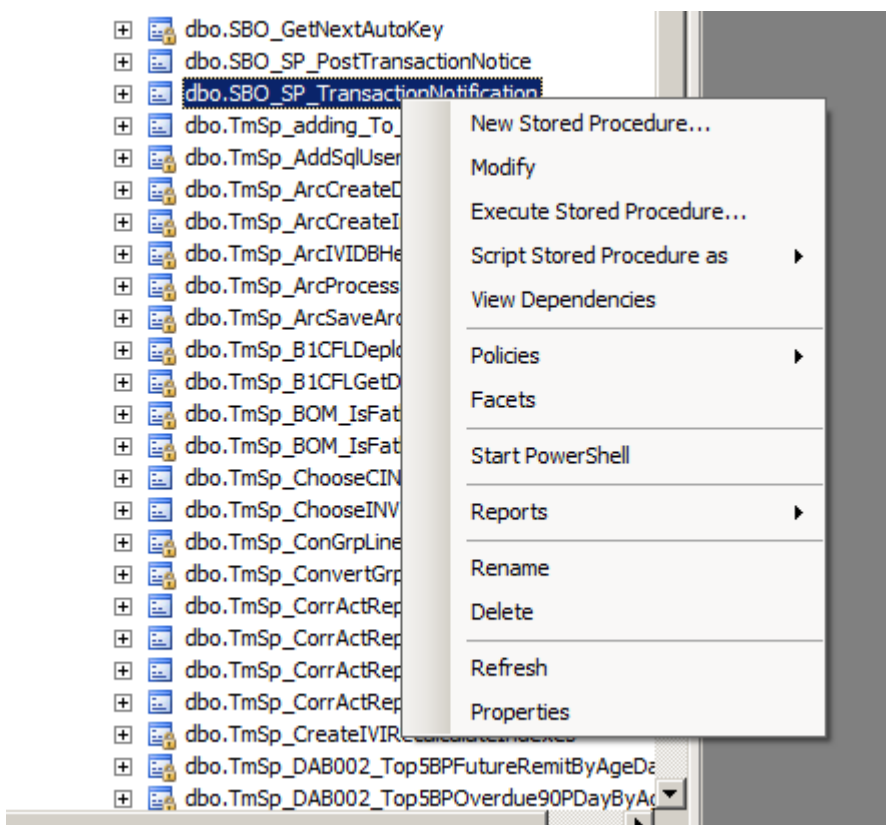
----Following code must be added to the stored procedure SBO_SP_TransactionNotification
----to execute the PMX stored procedure:

-----*****
----Start executing Produmex SboNotification Queue code
-----*****
--IF @error = 0 BEGIN
--  BEGIN TRY
--    EXEC [EXTRA-DB].[dbo].[PMX_SP_TransactionNotificationQueue]
--    @object_type,
--    @transaction_type,
--    @num_of_cols_in_key,
--    @list_of_key_cols_tab_del,
--    @list_of_cols_val_tab_del,
--    @error = @error OUTPUT,
--    @error_message = @error_message OUTPUT
--  END TRY
--  BEGIN CATCH
--    SELECT @error = ERROR_NUMBER(), @error_message = ERROR_MESSAGE()
--    DECLARE @msg2 as NVARCHAR(255)
--    SET @msg2 = SUBSTRING('PMX_NQ_SP: sql error ' + CAST(ERROR_NUMBER() AS NVARCHAR) + ' : ' + ERROR_MESSAGE()
--      + ISNULL( ' line ' + CAST(ERROR_LINE() AS NVARCHAR), '' ) + ISNULL( ' in ' + ERROR_PROCEDURE(), '' ),1,255)
--    EXEC xp_logevent 999999, @msg2, ERROR
--  END CATCH
--END
-----*****
----End executing Produmex SboNotification Queue code
-----*****

```

Copy the “Produmex SboNotification Queue Code”.

This code should now be pasted in the “SBO_SP_TransactionNotification” stored procedure, in the **Company database**. Modify this stored procedure in the same way you modified the PMX_SP_TransactionNotificationQueue



Paste the “Produmex SboNotification Queue Code” at the end of it, right after the code you have copied for the Produmex Addon stored procedure (see “Enable the standard PMX stored procedure”).


```


-----*****
-----End executing Produmex Logex Addon code
-----*****

-----Start executing Produmex SboNotification Queue code
-----*****
--IF @error = 0 BEGIN
--  BEGIN TRY
--    EXEC [PMX_DEMO_PMX_debug].[dbo].[PMX_SP_TransactionNotificationQueue]
--      @object_type,
--      @transaction_type,
--      @num_of_cols_in_key,
--      @list_of_key_cols_tab_del,
--      @list_of_cols_val_tab_del,
--      @error = @error OUTPUT,
--      @error_message = @error_message OUTPUT
--  END TRY
--  BEGIN CATCH
--    SELECT @error = ERROR_NUMBER(), @error_message = ERROR_MESSAGE()
--    DECLARE @msg2 as NVARCHAR(255)
--    SET @msg2 = SUBSTRING('PMX_NQ_SP: sql error ' + CAST(ERROR_NUMBER() AS NVARCHAR) + ' : ' + ERROR_MESSAGE()
--      + ISNULL(' line ' + CAST(ERROR_LINE() AS NVARCHAR), '') + ISNULL(' in ' + ERROR_PROCEDURE(), ''),1,255)
--    EXEC xp_logevent 999999, @msg2 , ERROR
--  END CATCH
--END
-----*****
-----End executing Produmex SboNotification Queue code
-----*****

```

Afterwards you need to uncomment the SP by clicking the “uncomment” button in SQL management studio.

The end result should look like this:



```

SQLQuery5.sql - P...MX_debug (sa (61))
-----*****
-----End executing Produmex Logex Addon code
-----*****

-----Start executing Produmex SboNotification Queue code
-----*****
IF @error = 0 BEGIN
  BEGIN TRY
    EXEC [PMX_DEMO_PMX_debug].[dbo].[PMX_SP_TransactionNotificationQueue]
      @object_type,
      @transaction_type,
      @num_of_cols_in_key,
      @list_of_key_cols_tab_del,
      @list_of_cols_val_tab_del,
      @error = @error OUTPUT,
      @error_message = @error_message OUTPUT
  END TRY
  BEGIN CATCH
    SELECT @error = ERROR_NUMBER(), @error_message = ERROR_MESSAGE()
    DECLARE @msg2 as NVARCHAR(255)
    SET @msg2 = SUBSTRING('PMX_NQ_SP: sql error ' + CAST(ERROR_NUMBER() AS NVARCHAR) + ' : ' + ERROR_MESSAGE()
      + ISNULL(' line ' + CAST(ERROR_LINE() AS NVARCHAR), '') + ISNULL(' in ' + ERROR_PROCEDURE(), ''),1,255)
    EXEC xp_logevent 999999, @msg2 , ERROR
  END CATCH
END
-----*****
-----End executing Produmex SboNotification Queue code
-----*****

```

After these modifications. Execute the SBO_SP_TransactionNotification stored procedure.

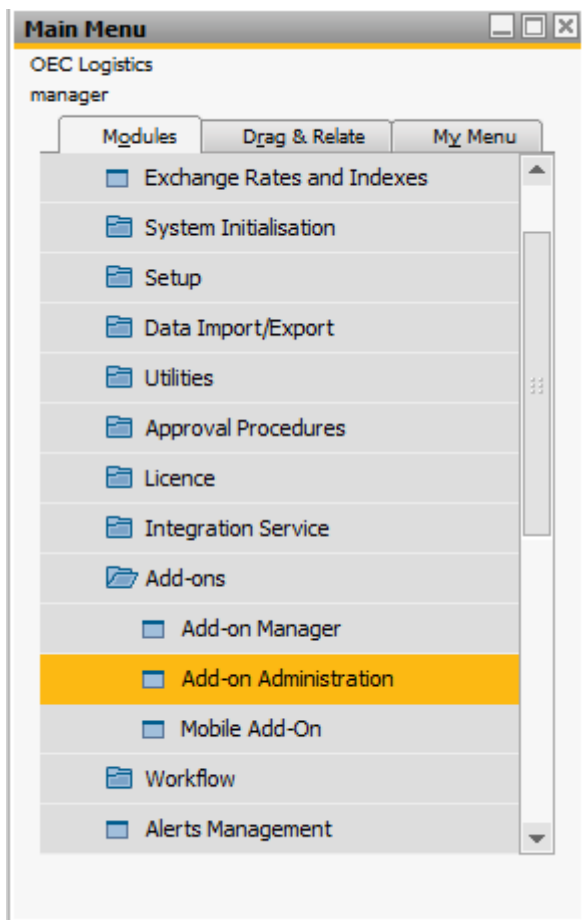
3.4. Registering the Produmex add-on

For our next step we need to register the Produmex add-on component in Sap Business One.

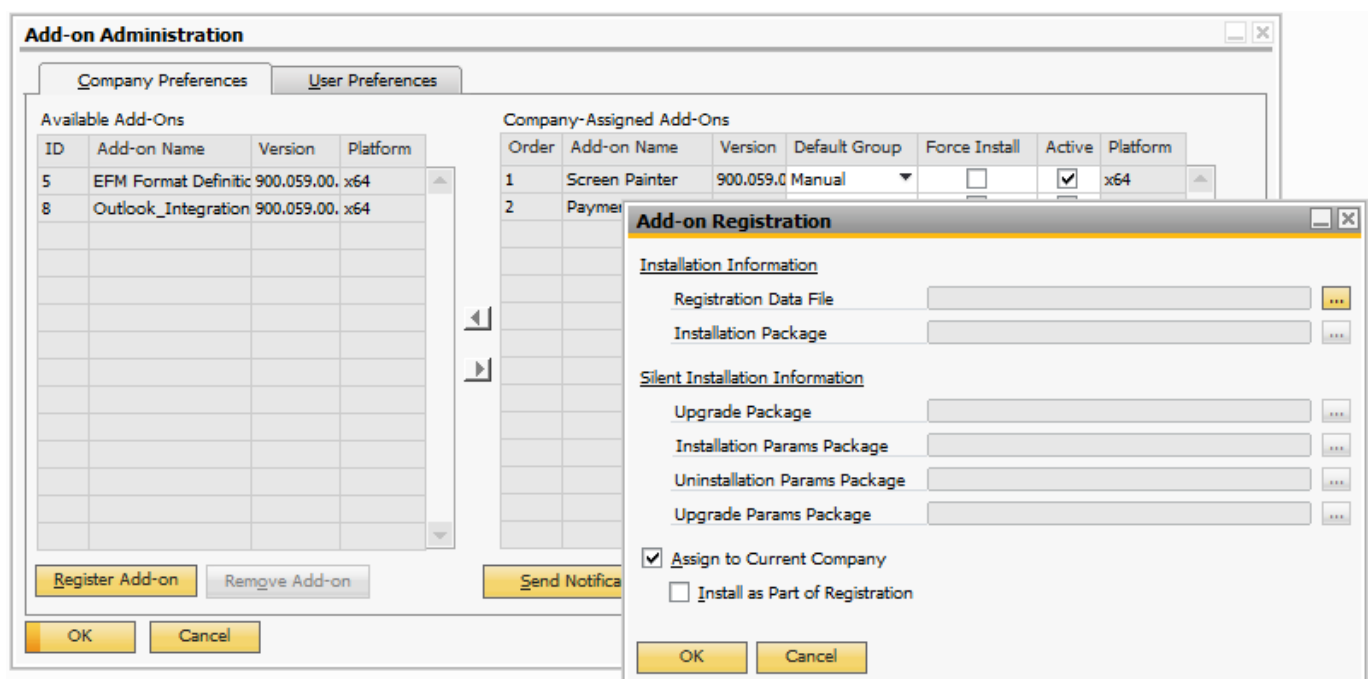
Note: Make sure you run SAP Business One Client as administrator and use the 32-bit version.

Sap Business One Client 64-bit is not supported.

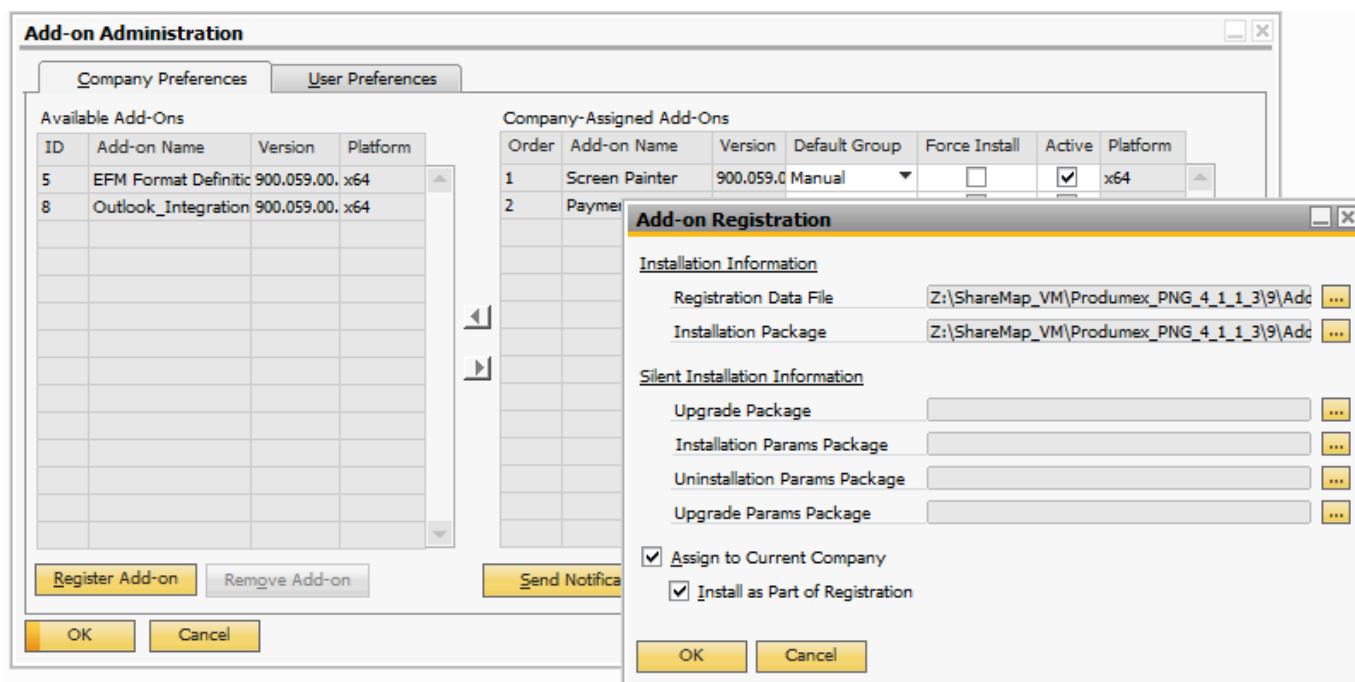
- In SAP Business One open the “Administration” module and then select “Add-On Administration”



- Select “Register Add-On” and select the “Produmex AddOnLoader6.ard” file that can be found in the installation file “.... \9\AddOnLoader”

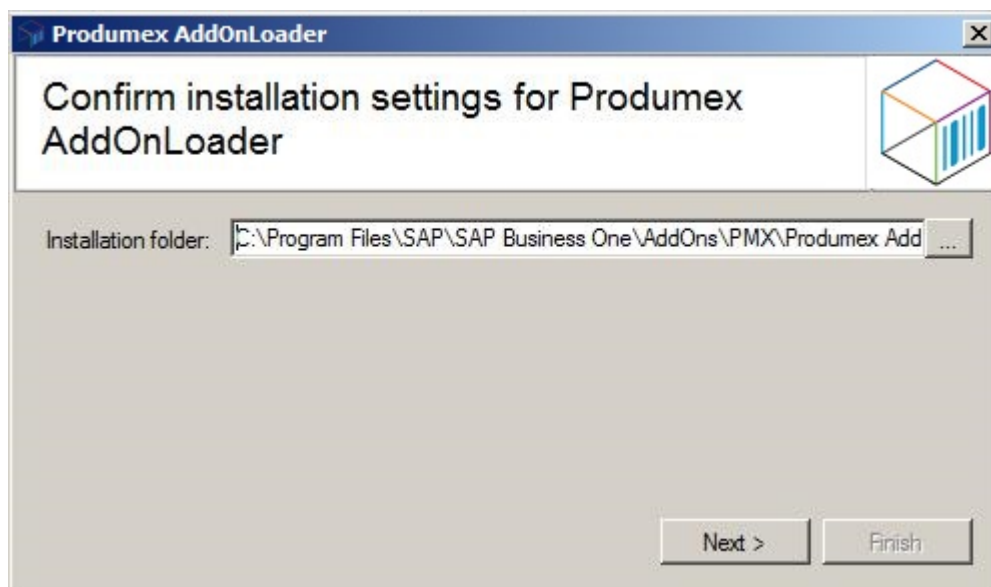


- Selecting this file will also open the associated add-on installation package

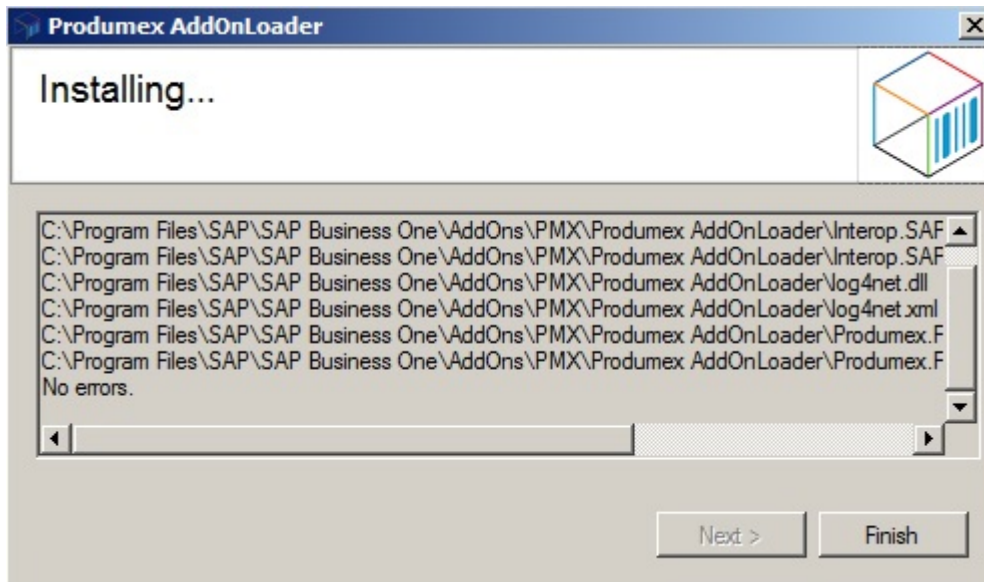


- Select the option “install as part of my registration”.

Select the installation folder, then press next.

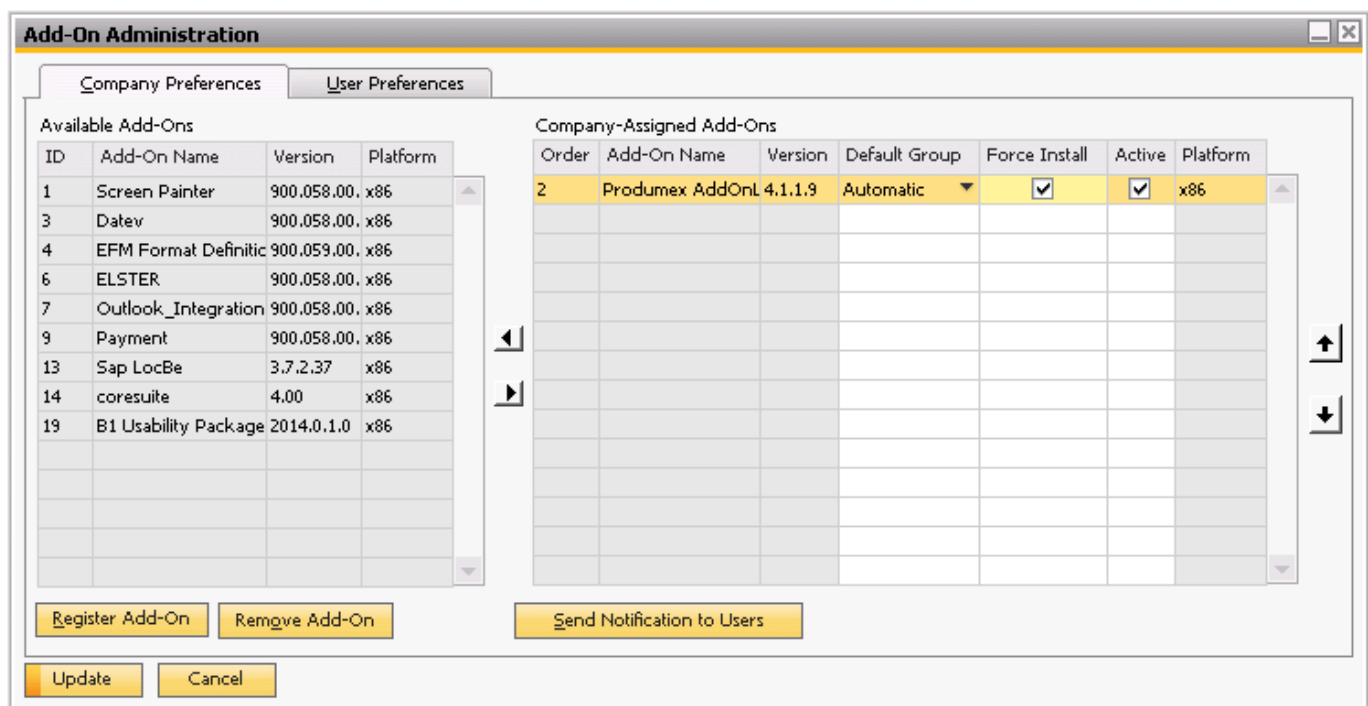


The installer opens and starts installing the Produemx add-on. Following the installation, SAP Business One needs to close and be restarted.



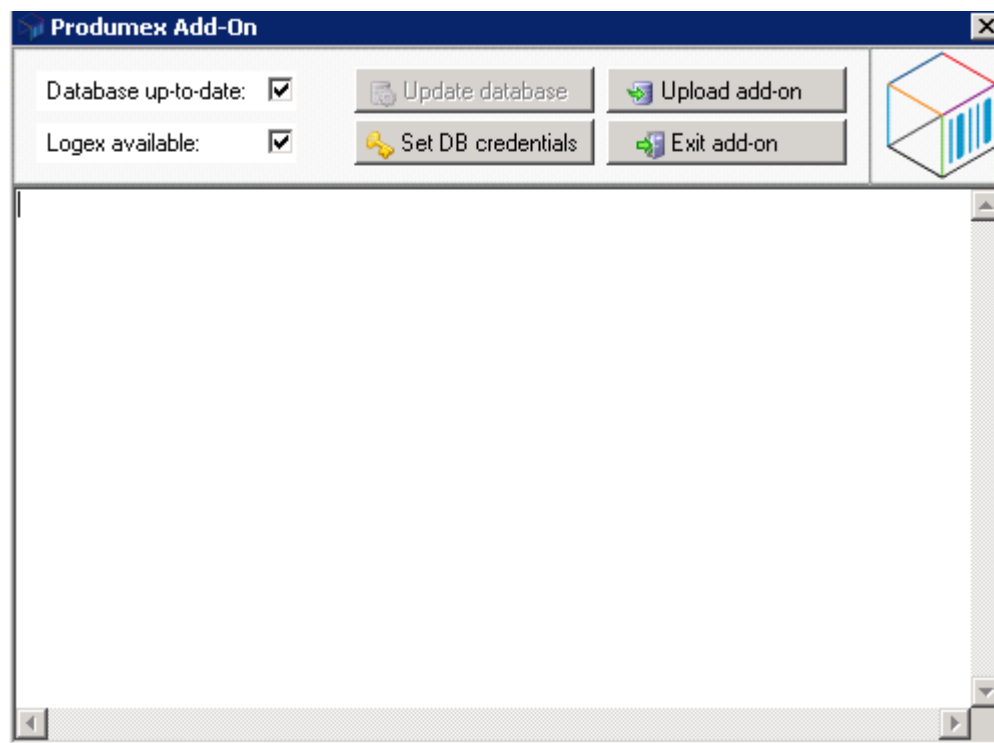
Restart SBO, open the “Administration” module and then select “Add-On Administration”.

- In the “Company Preferences Tab” select the Produmex Add-On and tick the options “Active”, “Automatic” and “Force Install”. Then click update.



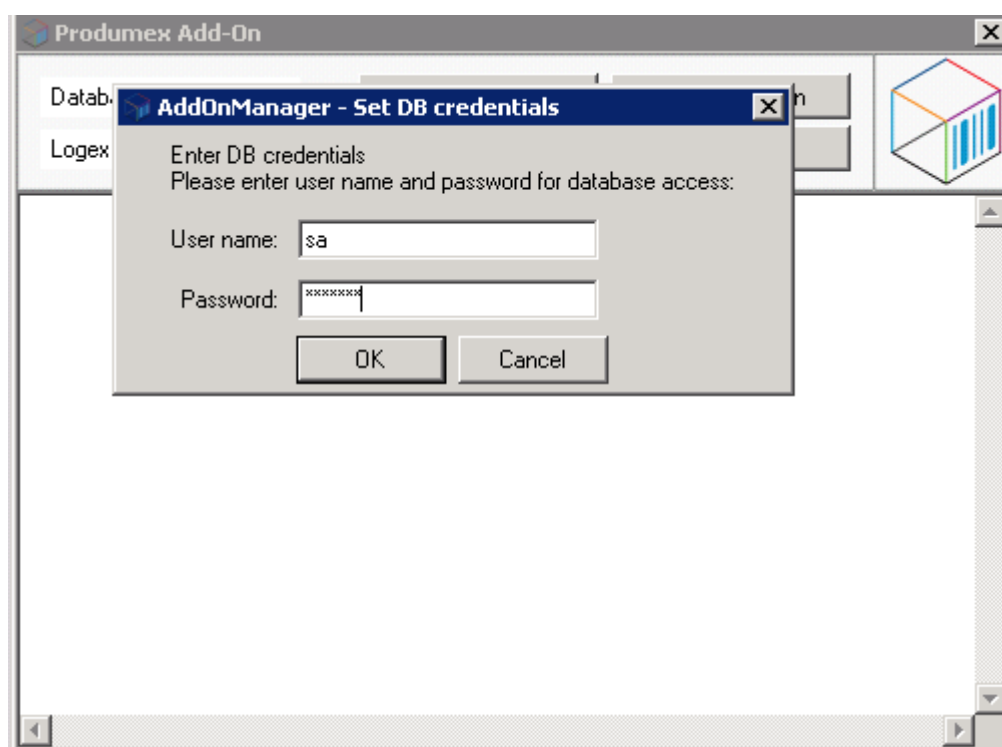
- In the “User Preferences Tab”, select the Produmex Add-On, select the user ‘manager’ and verify that for the Produmex Add-On the preferences are set to automatic.
- Next go to “Add-On Manager” function, select “installed add-ons”.
- If the Produmex Add-On is not running, select it and click “start”.

The following screen appears:



First click Update database to perform the needed database changes. (Only if database is not up to date yet).

Click the button 'Set DB Credentials' to provide the needed data.



When credentials are set, you can click the button 'Exit Add-on'. This will start downloading the needed files for the add-on.

The Produmex Add-On is now installed and ready to be used.

3.5. Configuration for clients

3.5.1. Organizational structure

Organizational structure - Produmex Logex AddOn v4.1.0.9999

Search

Code: PDMX
Name: Produmex

General | Defaults | Extension parameter | Production | SSCC | Reports | Print events | Zone types | Page s

Language: English (3)
Company logo URL:
DB user name: sa
DB password:
PMX License Server: localhost

Logistic carriers
☒ Store logistic carriers on 1 storage location by warehouse
☐ Move all logistic carriers on reception
 Quality status for logistic carriers: Released (RELEASED)

☐ Select driver when loading
☐ Select license plate when loading
☐ Select trailer number when loading
☐ Goods receipt requires suppl. ref
☐ Goods receipt automatically prints item labels
☐ Use inventory returnable items on documents
☐ Disable item selection in flows
☐ Set vat group returnable items on documents
☐ Pick list proposal allowed to exceed order
☐ Do not lock stock on picking (Pick lists can be created even if no stock is available)
☐ Allow over picking
☐ Count colli after picking

Ok Cancel Close

Make sure the IP address or host name of the server where the PMX License Server is running is filled in, add-on clients will require this to be able to connect.

You can do this initially on the SBO license server itself because the add-on will try to connect locally if this field is empty.

If it is not possible to run the add-on on the machine running the PMX License Server, you will have to enter this information in the database, after creating the company element. Table "PMX_OSCO", field "SboLicenseServerAddress": only enter the IP address or host name, no port or other information is allowed.

4. Performing a version update

4.1. Uninstalling and installing the components.

Installing a new version of PDMX suite over an older version is similar to installing a completely new version. This chapter will explain every step that needs to be taken to perform a version update. Seeing some steps are equal to the steps of a completely new installation, this chapter will not go into detail on these steps. For more details, please refer to the instructions described in the previous chapters.

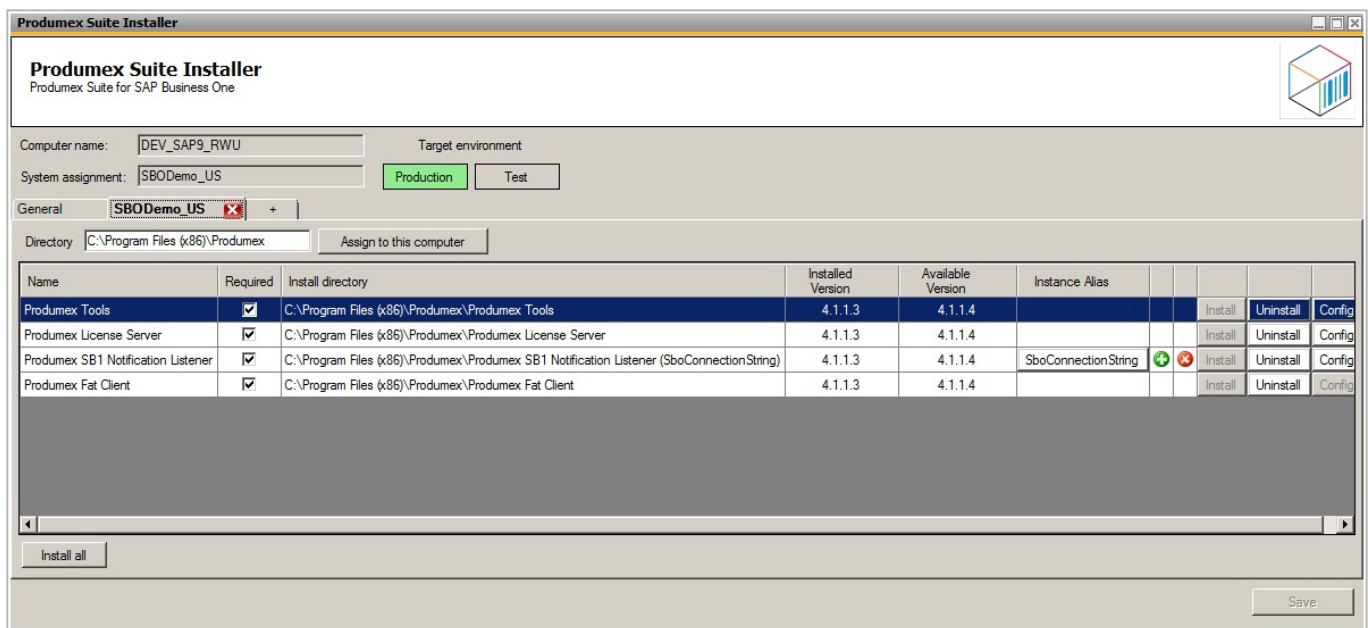
First, make sure **no one is logged in the SAP live environment, neither SAP users nor Device-clients**. To verify this, check the Task manager and disconnect every user that still has a connection open to the server.

Device-clients like touchscreen-terminals and scanners keep most of their data in cache, such as company settings and any installation files. When these devices boot, they will connect to the server and retrieve the new scripts and other installation files.

As a best practice, copy the configuration file (*ProdumexInstallConfig.xml*) of your previous installation in the ProdumexSuiteInstaller directory of your new version. In this way you will not have to specify your SAP Business One databases manually.

Second, we need to remove the old components. To do this, start the Produmex Suite installer **as an administrator**.

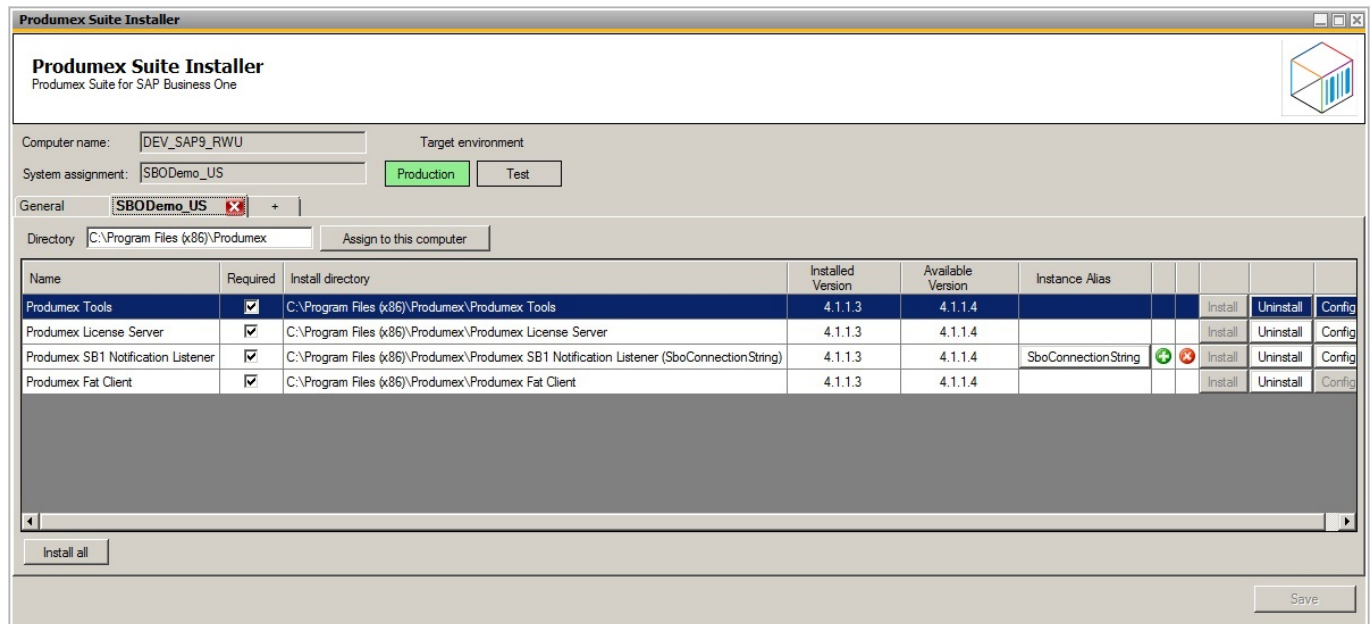
In order to proceed with the upgrade, you have to accept the End User Licence Agreement.



Then, click the uninstall button of each component to remove the component.

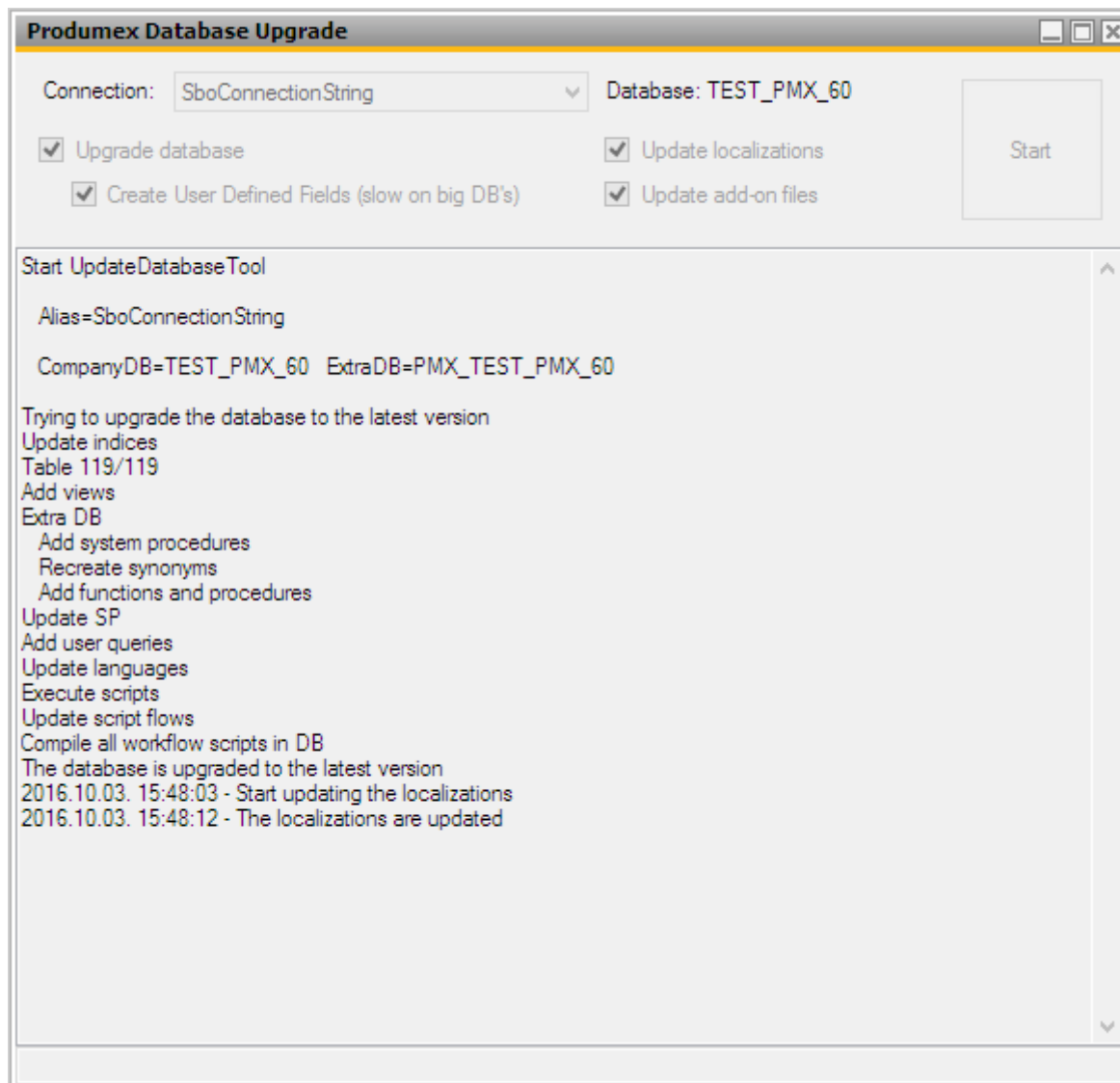
Note: It is not necessary to remove the "Produmex Licensing Server" for the installation of a new version of the Produmex Add-on. In case it is not removed, the "Produmex Licensing Module" will not have to be re-installed during the installation process. If you do need to reinstall the Produmex License Server, make sure you back up the PmxLicenseData.xml file from the install directory so you can use this after the installation.

Afterwards, you need to install every component. Now you need to run the UpdateDatabase tool by clicking the config button of the Produmex Tools component.



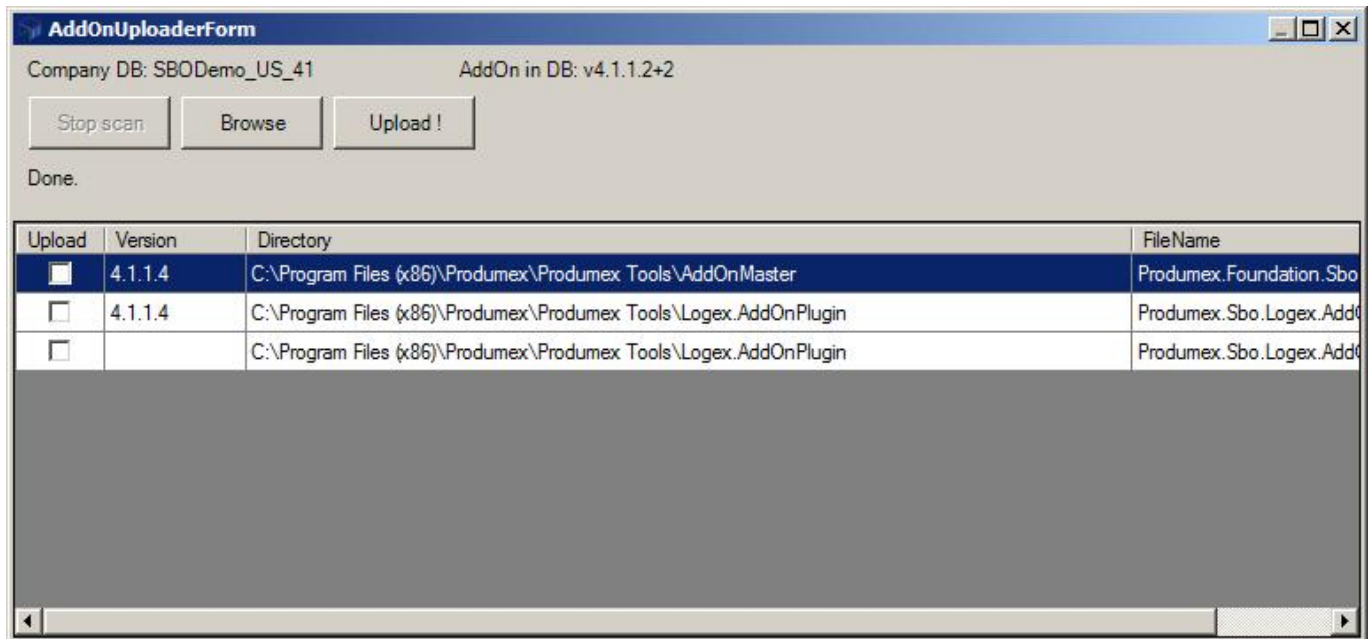
4.2. Configuration of the components.

Running the UpdateDatabase tool is similar as installing a new version. Only the steps taken are somewhat different:



Here the UpdateDatabase tool will look for the version installed and add every database modification it needs. Just like in previous steps taken, we will see custom adjustment executed if applicable.

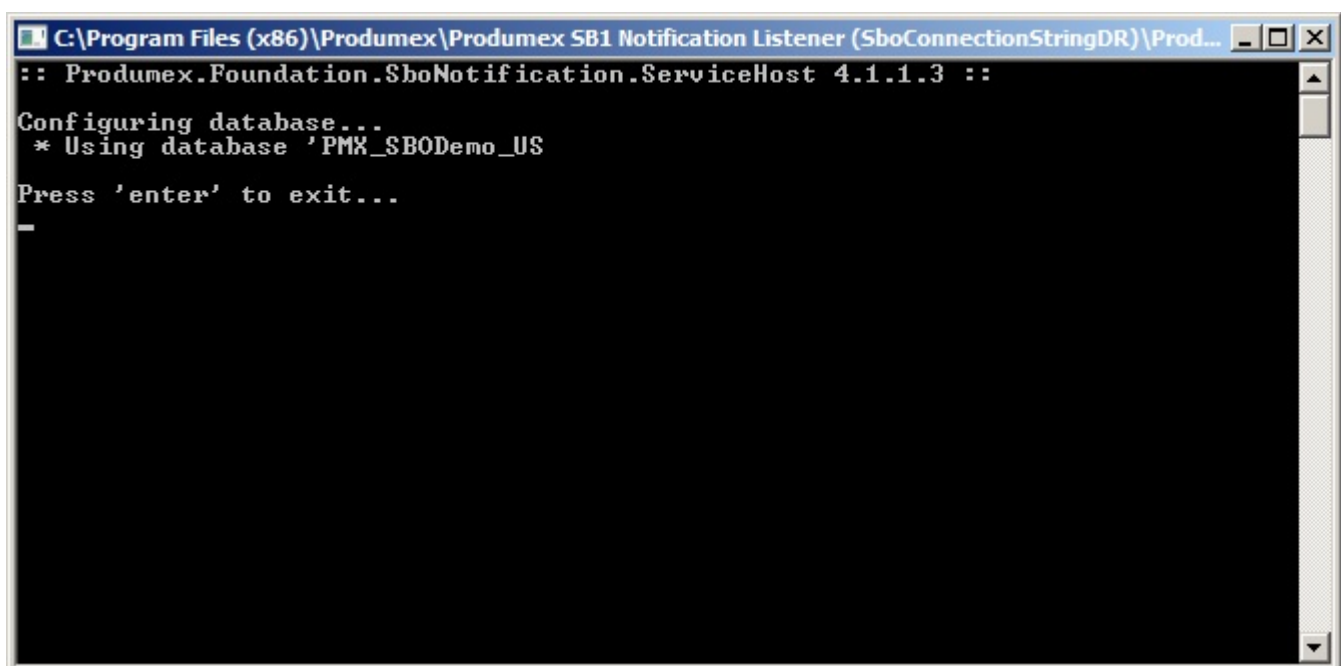
Besides this, you need to update the localizations and upload the addon-files to the database. Do not forget to browse for the custom project build if needed.



Afterwards, click upload.

Next you need configure the notification listener. Return to the system tab of the Produmex Suite installer and click the config button of that component.

Make sure the service broker is enabled by running the “Configure database” option in Console mode. If the service broker is enabled you will see the following message:



Next you need to list the actions in the same manner as performing a new installation., run the “List Actions” option in console mode and when the tool is done, press ENTER.

Next you need to adjust the standard SBO_SP_TransactionNotification with the T-SQL code from the “PMX_SP_TransactionNotification” stored procedure as described in point 3.3. , the same goes for any custom stored procedures if any are included in the custom version.

Afterwards you can start SAP Business One and the addon-files will be automatically loaded. Make sure the company settings on your organizational structure settings are correct (see chapter 7).

4.3. Install the new AddOnLoader

In general for an upgrade of Produmex it is not needed to install a new version of the add-on loader.

But in certain cases this is needed:

- The SAP version has been upgraded
- When upgrading Produmex for a new major release
 - Example: When upgrading from PDMX 5.X to PDMX 6.X, the new add-on loader needs to be installed.

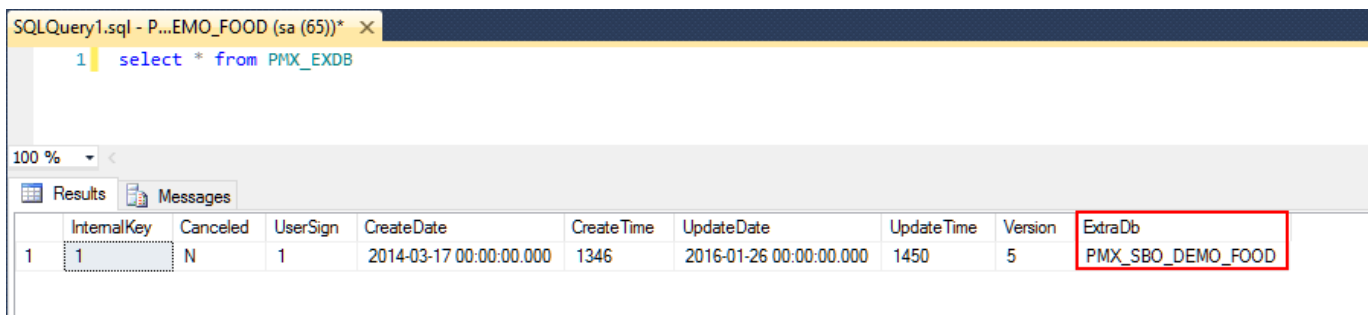
It is possible to have both add-on loader versions installed on one server.

For more information see: [3.4. Registering the Produmex add-on](#)

5. Check the link between the SAP database and the PMX database

After installing PMX, you'll have an organizational structure. When you made this company with a restore of another database, the link between the SAP and the PMX database will be wrong.

You can check this with following query; this query should be executed on the SAP database. you have to have a link to the correct PMX database;



The screenshot shows a SQL query window with the title 'SQLQuery1.sql - P...EMO_FOOD (sa (65))'. The query text is '1 select * from PMX_EXDB'. Below the query, there is a 'Results' tab showing a table with 10 columns: InternalKey, Canceled, UserSign, CreateDate, CreateTime, UpdateDate, UpdateTime, Version, and ExtraDb. The first row of data has values: 1, 1, N, 2014-03-17 00:00:00.000, 1346, 2016-01-26 00:00:00.000, 1450, 5, and PMX_SBO_DEMO_FOOD. The 'ExtraDb' column is highlighted with a red border.

InternalKey	Canceled	UserSign	CreateDate	CreateTime	UpdateDate	UpdateTime	Version	ExtraDb
1	1	N	2014-03-17 00:00:00.000	1346	2016-01-26 00:00:00.000	1450	5	PMX_SBO_DEMO_FOOD

When you did a restore of another existing database, you'll also have to run the following stored procedure on the PMX database. You'll have to give the SAP database as a parameter.

```
1  USE PMX_DATABASE
2  GO
3
4  DECLARE @RC int
5  DECLARE @sourceDb sysname
6
7  -- TODO: Set parameter values here.
8
9  EXECUTE @RC = [dbo].[PMX_SP_RecreateSynonymsOfSourceDb]
10     @SAP_DATABASE
11  GO
12
13
14 |
```

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