# Produmex Manufacturing Installation Guide

Produmex Manufacturing is a legacy product and Boyum IT Solutions no longer sells new installations for it.

This document describes how to install Produmex Manufacturing, and how to troubleshoot installation problems. Produmex Manufacturing consists of the following components:

- Produmex Manufacturing add-on
- Produmex Service Broker
- Produmex Service Manager
- PDC Processor
- Produmex PDC Client
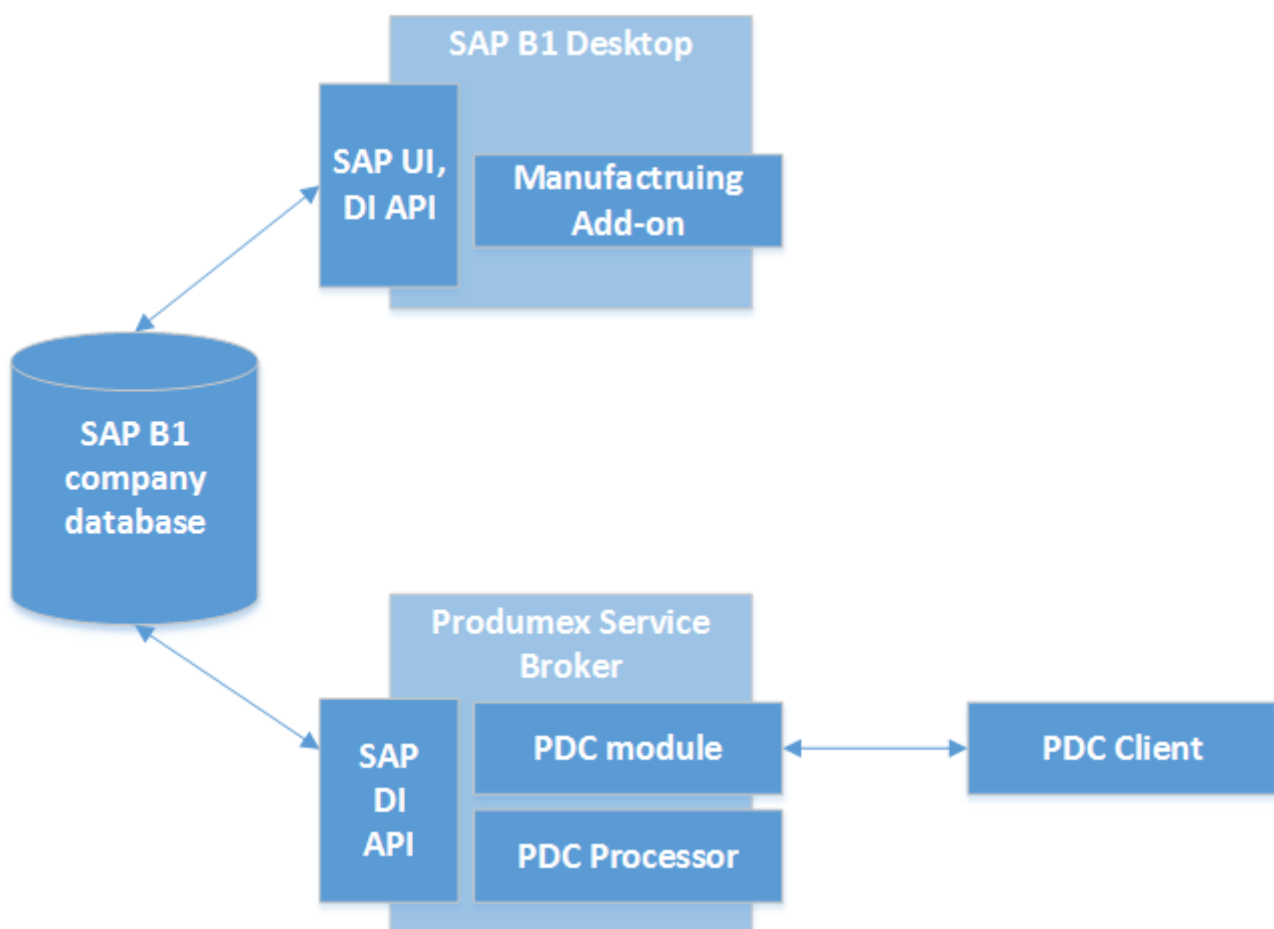
1. Prerequisites

The following database management systems are supported:

- MSSQL Server 2012, 2014, 2016
- SAP HANA SPS11 or higher

Requirements for the machine where the Produmex Service Broker runs:

- Windows 2008 R2/Windows 7 or higher
- Administrator rights
- Installation of .NET 4.0 framework or higher*
- Installation of SAP DI API
- HANA Client (On HANA environment only)
- Installation of SAP Business One. Make sure that Crystal Reports engine is installed as part of the SBO installation.

Requirements for the machine where the Produmex add-on runs:

- Windows 2008 R2/Windows 7 or higher
- Administrator rights
- Installation of .NET 4.0 framework or higher*
- HANA Client (On HANA environment only)
- Installation of SAP Business One. Make sure that Crystal Reports engine is installed as part of the SBO installation.
- A valid Produmex license
- Adobe Flash Player

For more information about hardware requirements and server sizing please see: Produmex Manufacturing - Server sizing

*For the integrated use of Produmex Manufacturing and Produmex WMS, .NET 4.6.2. framework is required.

2. Installing Produmex Manufacturing Add-on

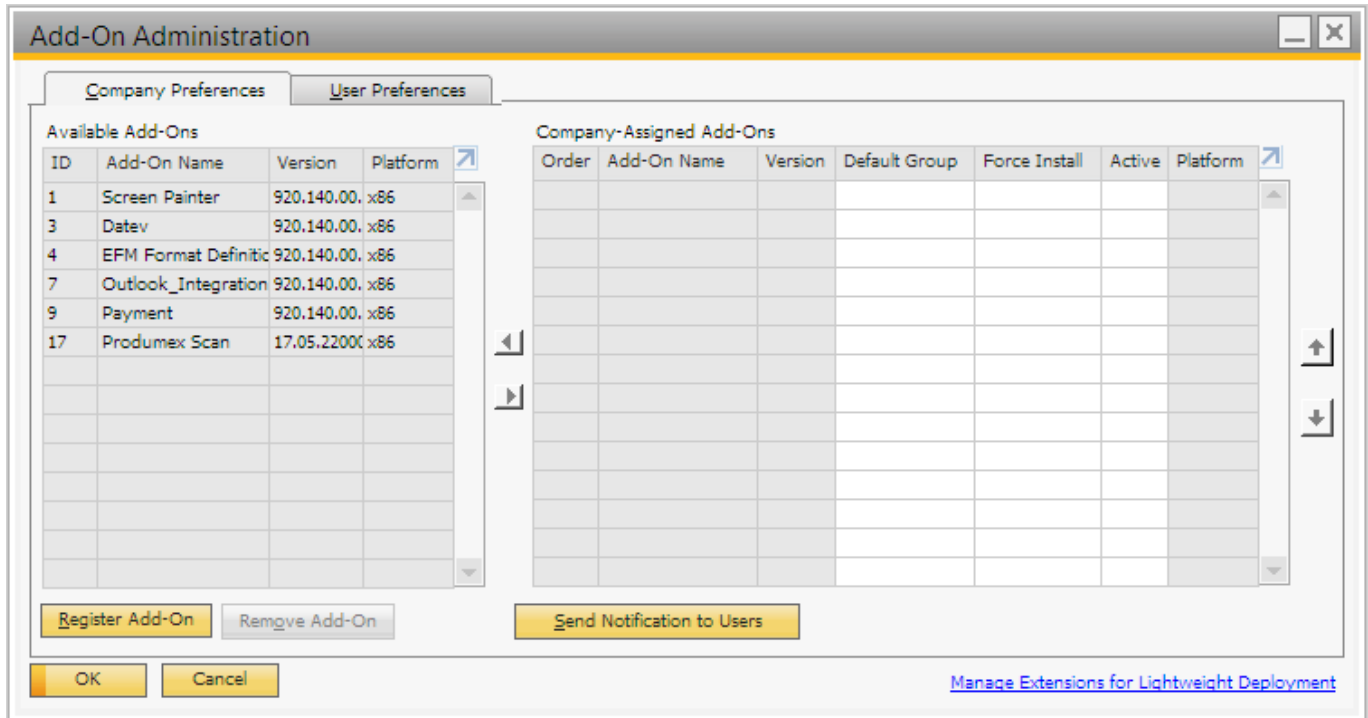## 2.1. Install add-on

2.1.1. On Premise

2.1.1.1. Registering the Add-On

Extract the content of the .zip file on your local machine.
The .zip file contains two files:

- BXManufacturingAddOnSetup.ard
- BXManufacturingAddOnSetup.exe

In SAP Business One, open the Add-On Administration window (Main menu > Administration > Add-Ons > Add-On Administration).
Click on 'Register Add-On' button.

Click on the '...' button beside the Registration Data File and browse the %add-on%.setup.ard file, where the %add-on% is the name of the add-on. SAP Business One will fill out the path to the .exe file automatically.
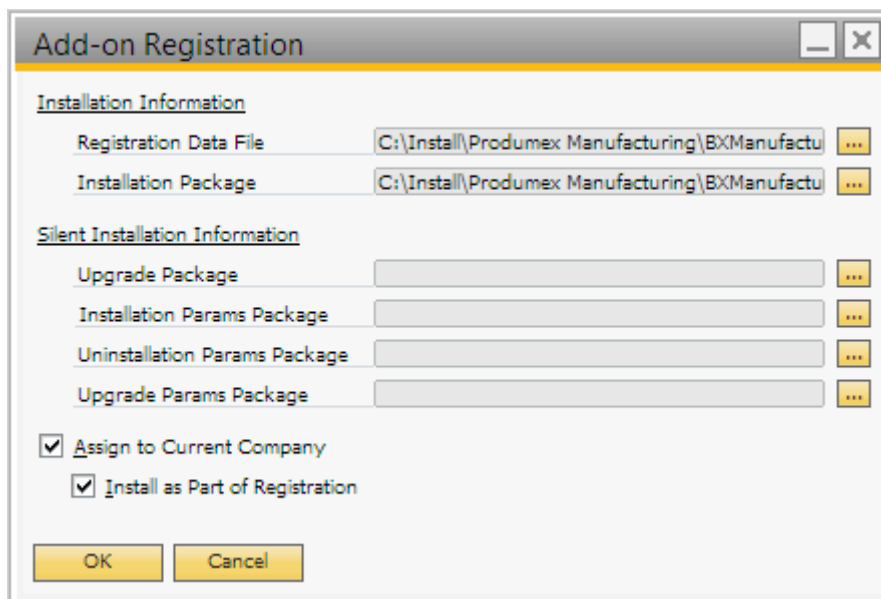

If you check the box 'Install as Part of Registration', the add-on will be installed right away, if the checkbox is unchecked, you have to restart SBO to start the installation. Click on the 'Ok' button.

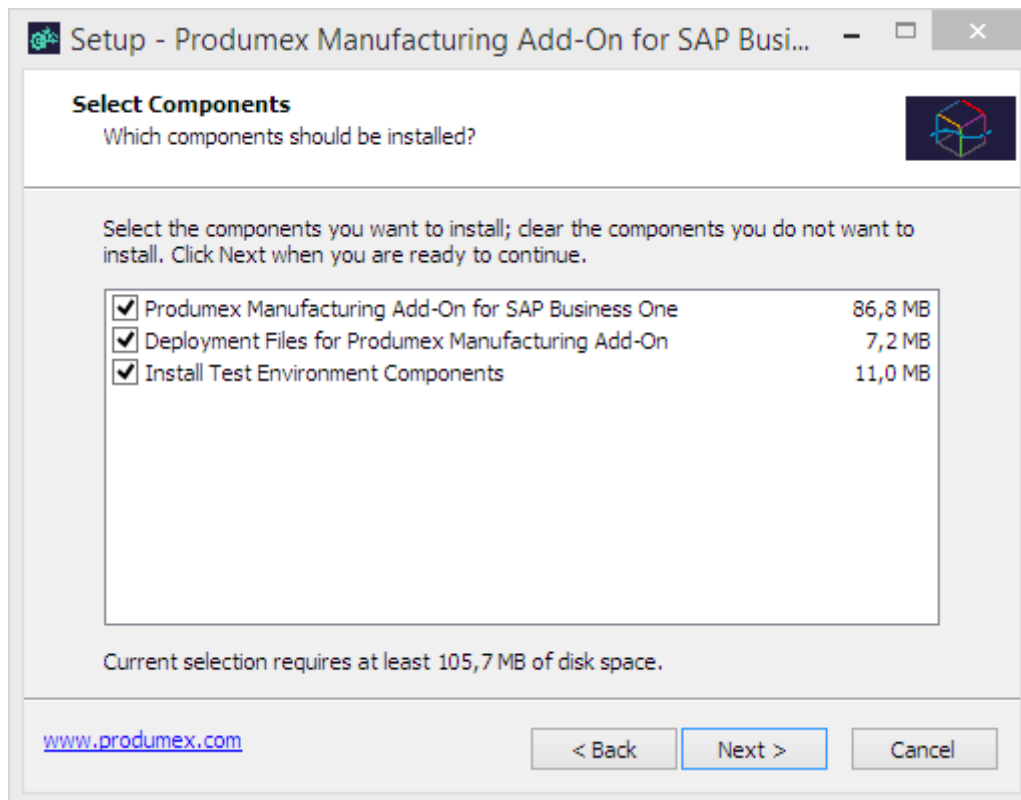### 2.1.1.2. Proceeding with the installation

If the 'Install as Part of Registration' checkbox was turned on, the installation will start right away with starting the install wizard. Click on the 'Next' button to start the installation.
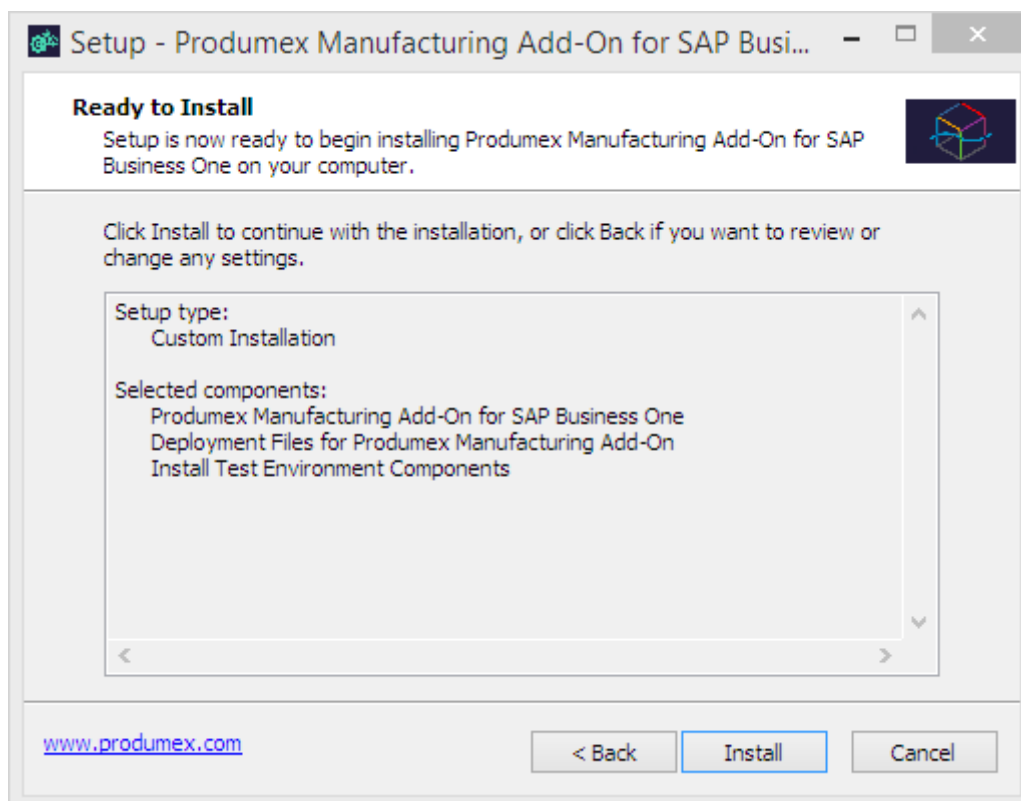
Accept the End-User License Agreement by selecting the '*I accept the agreement*' option, and then click on the 'Next' button.
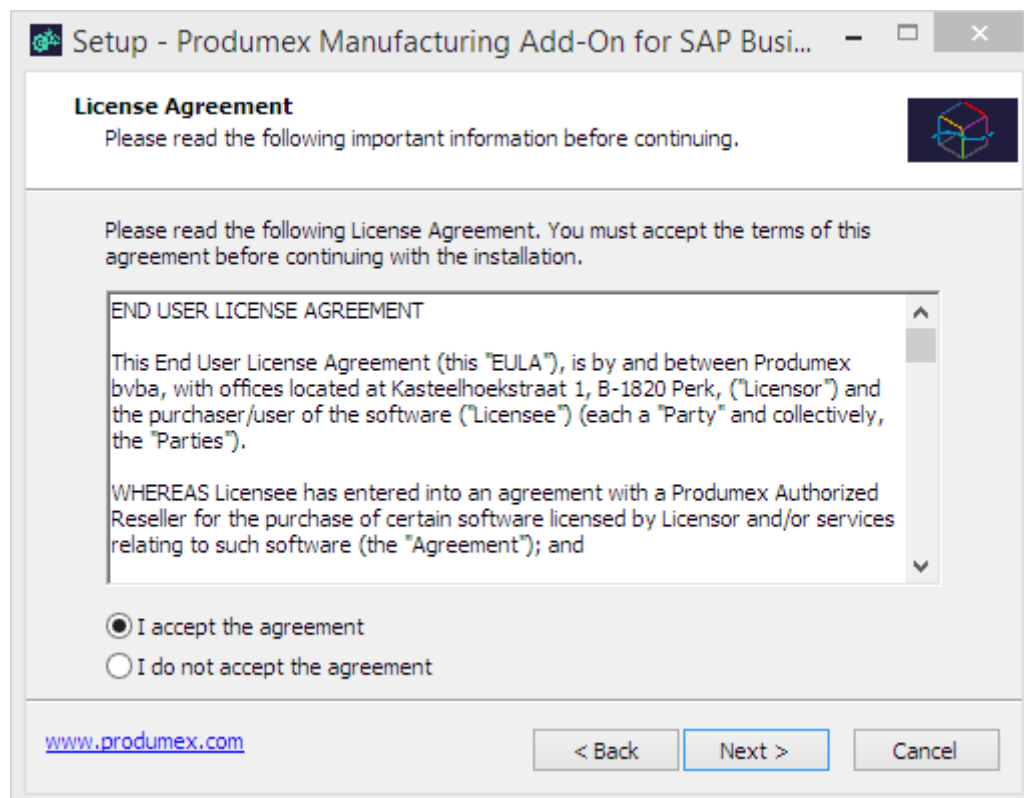
Make sure all components are checked and that there is enough disk space. Click on the 'Next' button.

Click on the 'Install' button to proceed with the installation.

If the installation process takes too long time, then SAP Business One will ask you if the installation finished successfully.

If the installation was successful, click on the 'Yes' button.

Please note: If there was an error during installation, it will be failed regardless of your answer.

2.1.1.3. Activating the Add-on

You can see now the Produmex add-on under *Company-Assigned Add-Ons*, on the right part of the window.

Make sure the 'Active' box is checked.

Change the Default Group from 'Disabled' to 'Manual' or 'Automatic'.

- 'Automatic' means the add-on will launch each time you start SAP Business One.
- 'Manual' means you have to launch the add-on manually after each time you start SAP Business One. It is advised to use this option during the configuration phase.
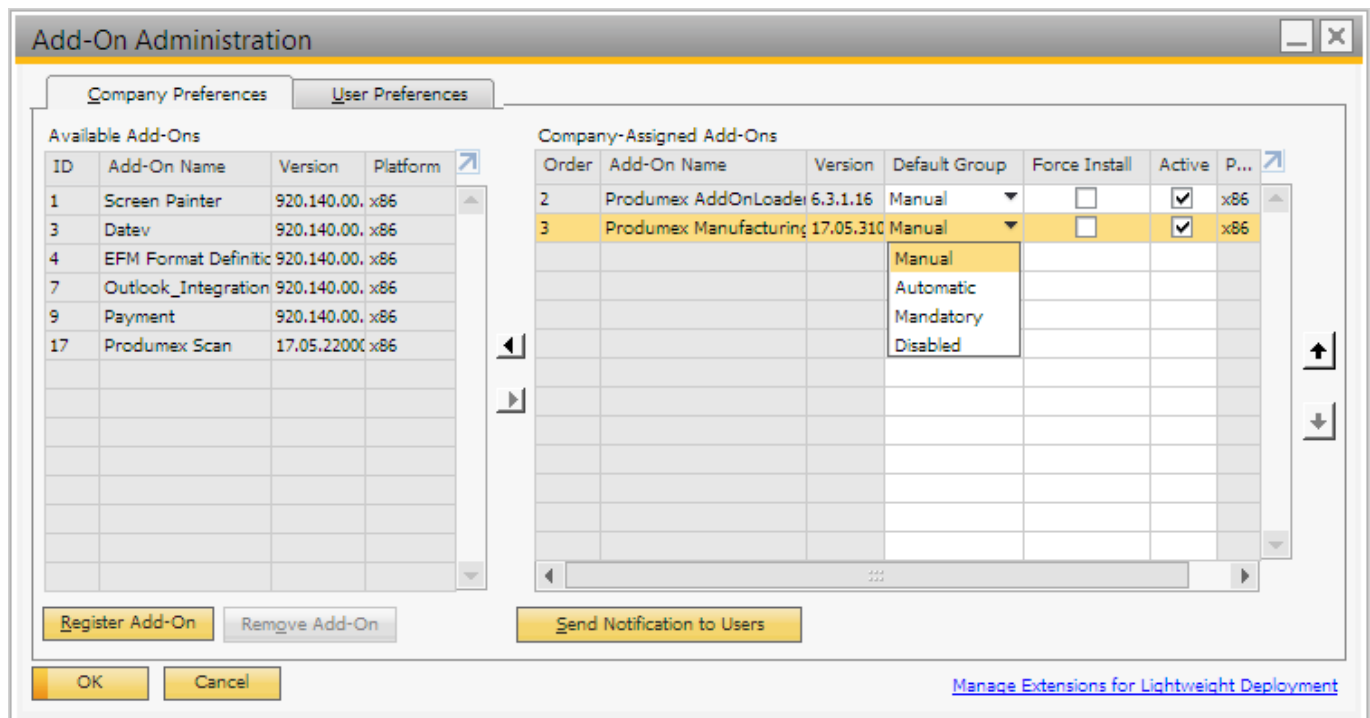
Click on the 'Update' button to save the changes.

2.1.2. In SAP cloud

2.1.2.1. Install the add-on on the Could Control Center

Create a Produmex sub folder within the folder you defined as the Extension Repository Path in Cloud Control Center. Upload the zip folder of the lightweight installer to this Produmex folder. Do not unzip the file.

The zip folder is named: `ProdumexManufacturing_AddOnSetup_<version number>_<SBO version number>_<environment>_lightweight.zip`

On the Could Control Center, navigate to Landscape Management > Extensions.

Check whether the installation file is listed on the *Extensions* grid then press the 'Synchronize All' button to install the Produmex Manufacturing add-on. Confirm that you would like to synchronize all extensions.

If the installation is successful, on the opening Synchronization Report the status on the line of the Produmex Manufacturing add-on is 'Successful'. The installation zip is automatically moved to the Produmex Shared Repository folder.

2.1.2.2. Deploy the add-on to the Service Unit

When upgrading the add-on to a new version, make sure that the add-on is not running on any presentation server. If there is a running add-on, the upgrade will fail.

Next deploy the add-on on every service unit where you would like to use it.

Navigate to Landscape Management > Service Units. On the *Service Units* grid select the target service unit.

On the Service Unit Details grid go to the Extensions tab and click on the Deploy button. Follow the steps of the Extension Deployment Wizard. Select the Produmex Manufacturing add-on at the *Select Extensions* step then finish the deployment.

2.1.2.3. Assign the add-on to the tenant(s)

This step is not required in the case of a version upgrade.

Finally assign the Produmex Manufacturing add-on to the tenant(s) where you would like to use it.

Go to Customer Management > Tenants. Select the tenant on the *Tenants* grid. On the *Tenant Details* grid navigate to the *Extensions* tab, then click on the 'Assign' button. Follow the steps of the Extension Assignment Wizard. In the *Select Extensions* step select the Produmex Manufacturing add-on, then finish the assignment.
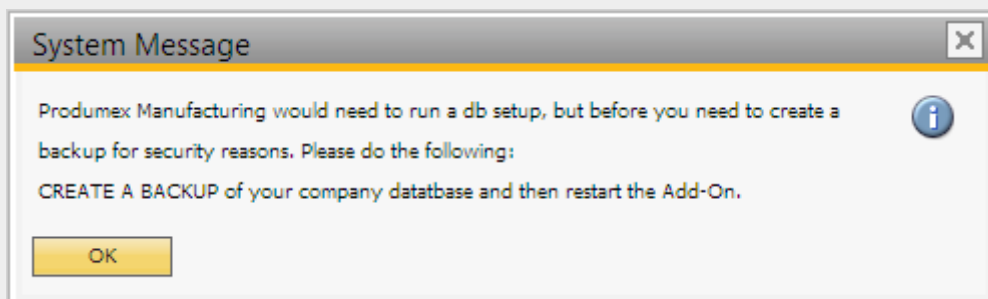
2.2. Database Setup

In SAP Business One navigate to Administration > Add-Ons > Add-On Manager. On the *Installed Add-Ons* tab select the Produmex Manufacturing add-on and click on the 'Start' button.

> If the Default Group of the add-on is set to 'Manual', you have to do this step each time you start SAP Business One.

A System Message will open up to ask the user whether to upgrade the database or not. Click on the 'Yes' button to upgrade the database.
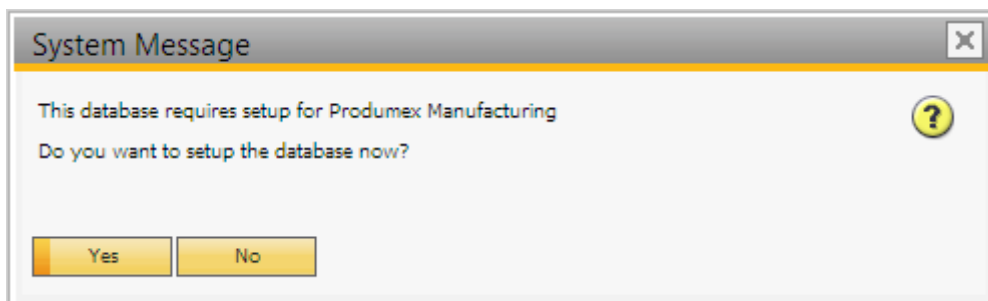
> Please note: On MSSQL, the system will check whether there is a backup created within an hour. If no such backup is detected, a warning will be shown and the add-on exists. Create a backup of the database then restart the add-on.


On the next screen set up the database connection. Enter the database user name and the database password. After the DB Connection is set up, the system will upgrade the database.
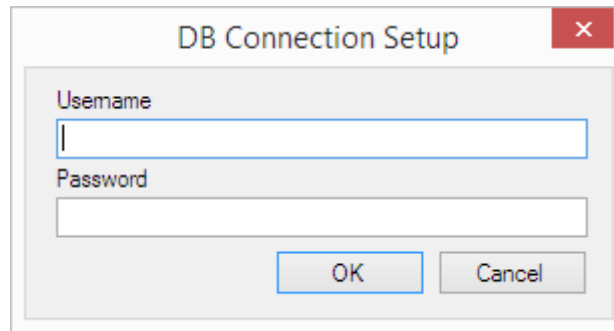
After the database structure has been modified, another System Message is displayed. Click on the 'Yes' button to add the user-defined fields.

A confirmation is displayed that the the database structure have been modified. Acknowledge the message.
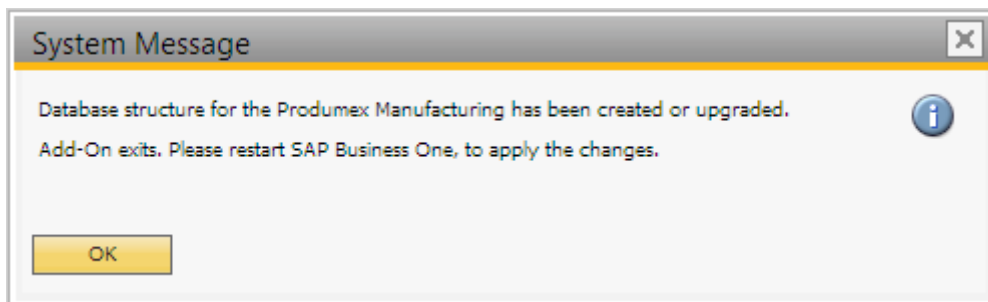
A System Message window warns that the add-on stopped:

The add-on stops and a warning message is shown. Select the *'Continue working without this Add-on'* option, then restart SAP Business One to apply the changes.

2.3. Running the Add-on

Once SAP Business One has restarted, connect to the current company.
Start the add-on in the Add-On Manager as seen above (Main menu > Administration > Add-Ons > Add-On Manager).

The add-on should be running now.

> If you want the add-on to start when you launch SAP Business One, you have to go to Administration window (Main menu > Administration > Add-Ons > Add-On Administration), and select 'Automatic' instead of 'Manual'. Click on the 'Update' button to apply the changes.
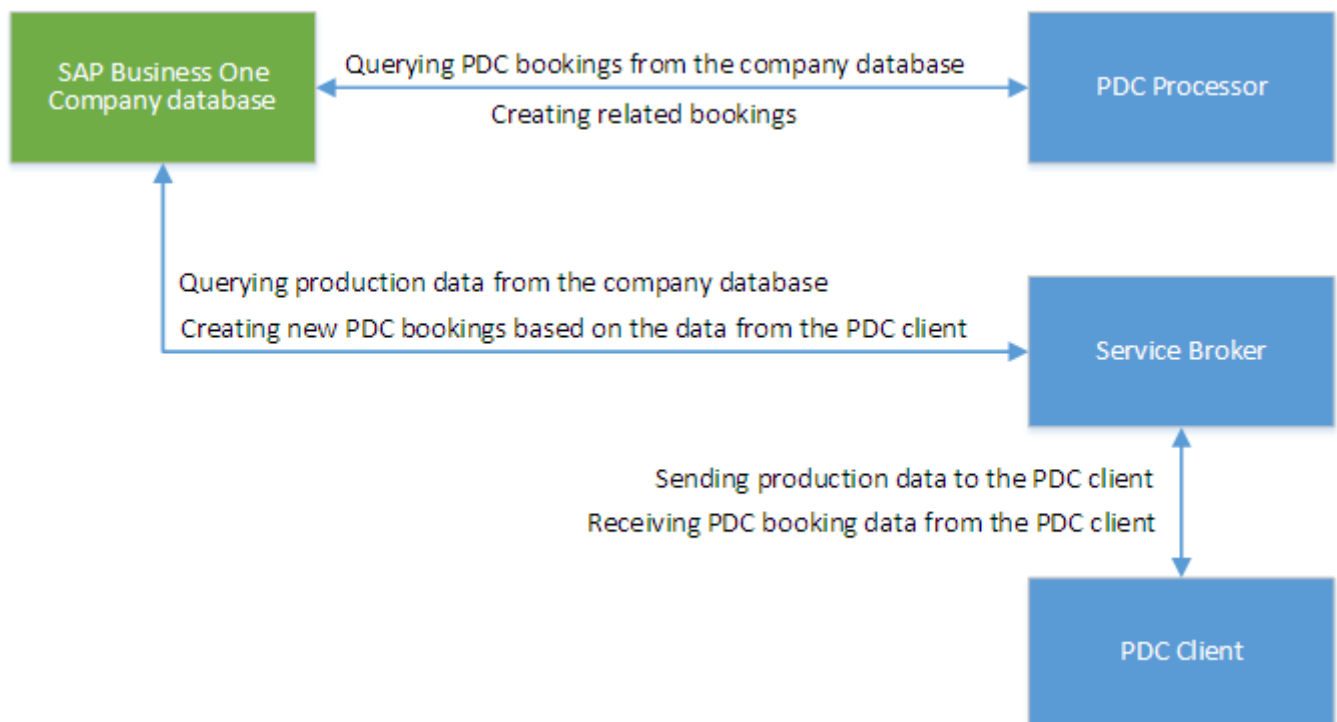
The Produmex Manufacturing add-on creates its log files at %appdata%\BX\Logs of the user that is assigned to the service. If it runs with local system account, then the log files are at: *c:\Windows\SysWOW64\config\systemprofile\AppData\Roaming\BX\Logs* (Please note: This is the Windows default setting, it can change based on Windows configuration).

> Please note: Fonts will not be registered during a lightweight installation. In order to print barcodes for Produmex Manufacturing reports, install the fonts manually. You can download the fonts from here: Download fonts.

3. Installing Produmex PDC

You need the following components to be able to use Produmex PDC for Production:

- Produmex Manufacturing Add-on installed in SAP Business One on the server
- Produmex Service Broker
- PDC Processor
- Produmex Service Manager
- Produmex PDC Client

3.1. Produmex Manufacturing Add-on

The PDC bookings created by the mobile PDC are stored in the SAP database/schema in user tables.

These tables are created by the Produmex Manufacturing add-on which means you cannot use the Produmex PDC until you have installed the add-on and run the database setup. The used production orders also need to have the Produmex Manufacturing Settings in order to be able to user the mobile client.

> Not all versions of the Produmex Manufacturing add-on and the Produmex PDC client are compatible with each other. We recommend always using the latest versions of both.

3.2. Produmex Service Broker

> Make sure you do not run both the 32-bit version and the 64-bit version Service Broker on one environment as they conflict with each other. Only one service broker instance should be installed on a server at any time.

The Service Broker establishes the connection between the company database/schema and the application on the mobile device. It queries the data from the database/schema and sends it to the mobile application, and it creates the SBO documents based on the requests from the mobile devices. The SBO documents are created with SAP DI API 32bit version.

The Service Broker can run as a service or from a command window. It creates threads for the different requests which are independent from each other so if one thread has a problem it can be closed and the others are not influenced by it.

> If the Service Broker does not run, the communication between the clients and the company database/schema is not possible.

The service broker creates its log files at *C:\ProgramData\BX\BX Service Broker\Logs*. The ProgramData folder is hidden, you have to either enable 'Show hidden folders and files' in Windows Settings or you have to enter it directly to the address bar in Windows Explorer:

Install the service broker on the server which has access to the company database/schema. The installation file is an .exe file with a name like this one: *BxServiceBroker.Setup.exe*.

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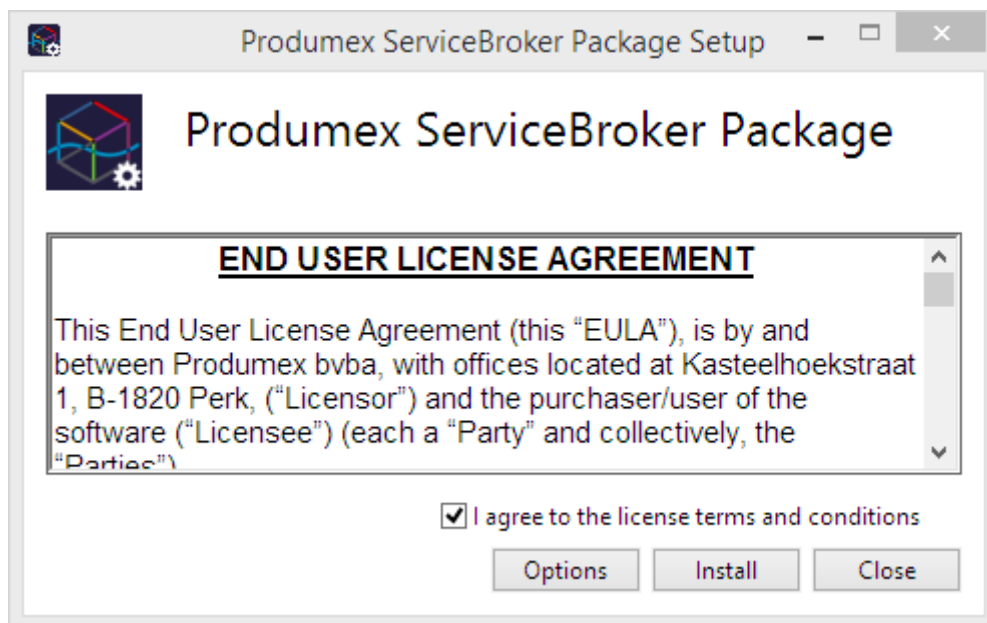
Service settings

When you start the installation, the Produmex Service Broker installer will request information based on the system and will set up the service based on the information you enter.

The installer will first ask the user who will be assigned to the service broker service in windows. This must be a user who has rights to write the event log and the program data directory where the logs are created. The service broker service will also make a connection to the company database/schema, the user must have rights for that as well.

> Local System users usually do not have the right to use printers, therefore, it is recommended to configure a Windows user.
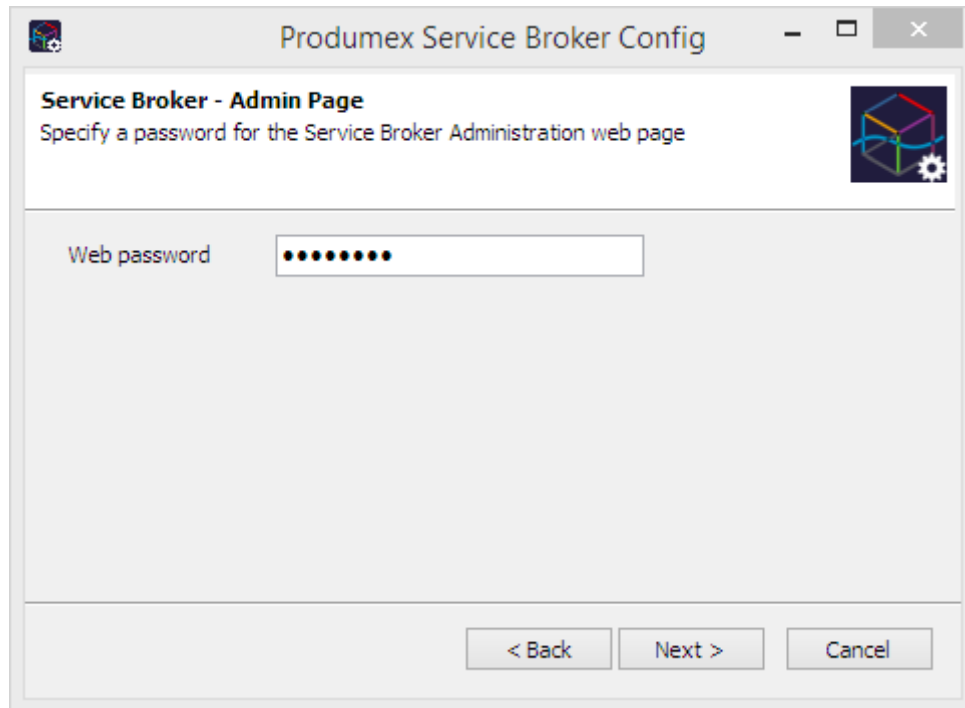
The default port for the communication between the service broker and the clients is 50231. The installer will open the firewall for this port automatically, but if you change the port, you will have to change the firewall settings manually.

You can also set up the start mode of the service. The recommended start mode is *Auto*.

Admin page

On the next screen specify a password for the Service Broker Administration web page.

Database connection
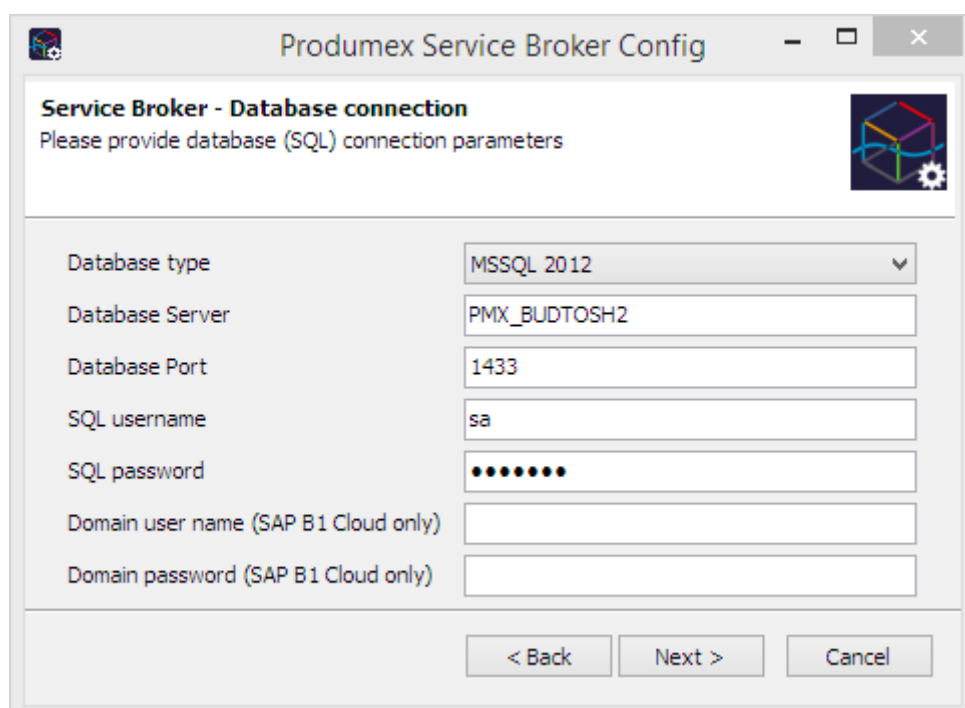Then you have to provide connection data to the database server.

Select the database type from the dropdown menu.

- **MSSQL**
  Add the name or the IP address of the database server. If you have a named instance, you have to enter the name of the server and the named instance as well (for example SERVER\NAMEDINSTANCE).
  Enter the database port on which the application can connect to the server. The default port is 1433.
  Add the name and the password of the database user. The default user is sa.
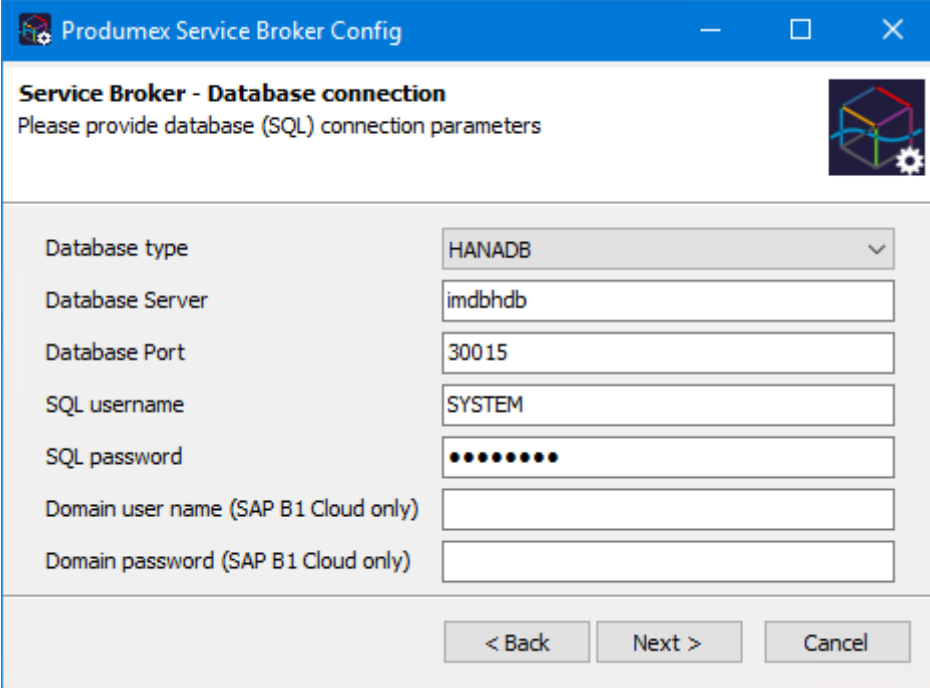
- ***HANA***
  Add the name or the IP address of the database server. The database server name has to be added with the exact same format as it was added during the installation of the SAP Business One client.
  Enter the database port on which the application can connect to the server. The default port is 30015.
  Add the name and the password of the schema user. The default user is SYSTEM. It is recommended to install the Service Broker with the SYSTEM user.

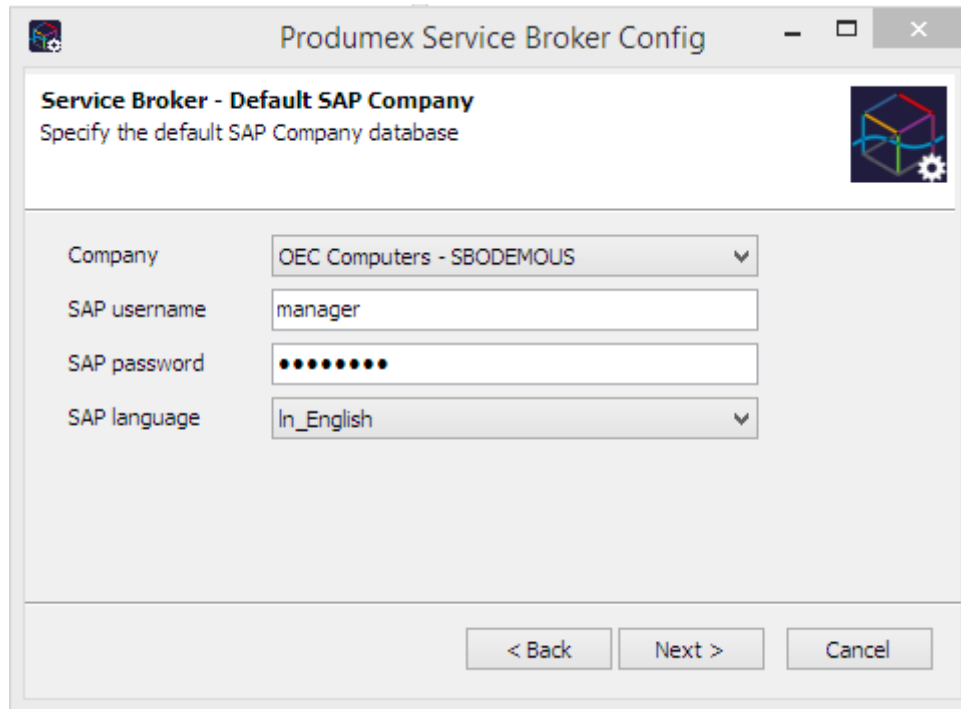When working on SAP B1 Cloud, add the domain user name and password as well.

Default SAP Company
After that you have to set up the company database/schema. You can only set up one company here, if you have more than one database/schema, you can add the others in the Produmex Service Manager after installation.
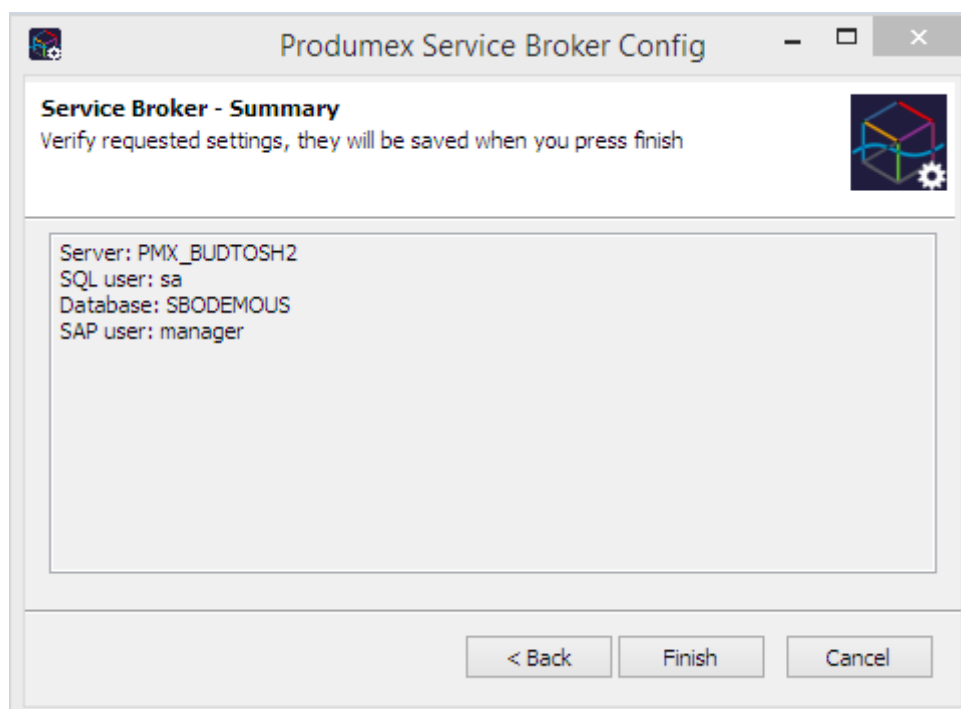
Enter an SAP user here which has at least an indirect access license as of SBO 9.2. PL08.

Summary

At the end of the installation you can see a summary screen about you settings. Click 'Finish' to end the installation.

Configure dependency from the SBO Server Tools service on an MSSQL system
If the server where Produmex Service Broker runs needs to be restarted frequently, we advise to configure dependency from the SBO Server Tools service.

When Produmex Service Broker starts, it tries to connect to the SAP environment. If the connection fails, Produmex Service Broker will not start.

If the Produmex Service Broker is dependent from the SBO Server Tools service, it will

only start after the SBO Server Tools service is started, therefore it will be able to connect to the SAP environment.

To configure the dependency, open the Command Prompt window and enter the following:

```
C:\>sc config BXServiceBroker depend=B1ServerTools
```


On the Dependencies tab of the Produmex Service Broker properties you can see that the dependency is successfully added:

Make sure you do not set the dependency on HANA enviroments. Since the Produmex Service Broker is a Windows service, SAP HANA and Produmex Service Broker are running on separate servers. In order to avoid this issue, make sure that the HANA server is already running when you restart the server of the Service Broker.

3.3. Server Module

The Produmex Service Broker can work together with different Produmex add-ons. In order to do it, it uses the dlls of the given add-on. You need to install these dlls with the server installer which has a name like this: Produmex*ADD-ON NAME*_ServerSetup_*version nbr_ SBO Version_Database server type.32/64 bit installers*.zip.

The add-on and the server dlls must be for the same version. If you use different versions, error messages may appear. You simply have to start the installer and it will automatically copy the dlls and then restart the service broker service. You can check the installed modules in the Service Manager.

3.4. PDC Processor

The PDC Processor also runs as a service on the same server as the Produmex Service Broker. It processes the created PDC bookings and it creates the necessary material bookings based on the milestone settings in the belonging production order. The bookings are usually issue for production or receipt from production bookings.

If the PDC Processor doesn't run, the PDC bookings are not created therefore the stock data of materials or products are false. The last run date and time of the PDC Processor can be seen on the

PDC tab of Produmex Manufacturing settings.

> The last run date and time of the PDC Processor is logged in the [@BXPCONFIG] table on the 'PDCProcessor Last Run Date' [BXPPRCDT] and 'PDCProcessor Last Run Time' [BXPPRCTM] fields. We recommend that you create an SAP alert which checks the last run date, and if it has been more than 5 minutes ago and there are unprocessed PDC entries (U_BXPPrcSt = 0) in the [@BXPPDCBOOKING] table, it triggers an alert to the system administrator to restart the PDC processor service on the server.

The PDC processor creates its log files at C:\ProgramData\BX\BX Service Broker\Logs. The ProgramData folder is hidden, you have to either enable 'Show hidden folders and files' in Windows Settings or you have to enter it directly to the address bar in Windows Explorer.

3.5. Produmex Service Manager

The Produmex Service Manager is a standalone program that can handle the Produmex Service Broker and other Produmex services. Service parameters, connection data to the database server, and the connection data to the company database/schema can also be modified on the Service Manager.

It is automatically installed by the Produmex Service Broker installer. The Service Broker will automatically appear in the Produmex Service Manager, together with all other installed Produmex services that are supported by the Service Manager.

3.5.1. Setup/Modify Connection data to the SAP company

Click on the 'Setup Companies' button. On the opening window you have to enter the connection data to your SAP company database/schema.

- **MSSQL**
  At 'Server' enter the name or IP address of the server. At 'Port' you have to enter the port on which the application can connect to the database server. Usually it is 1433, however, if you have a named instance in the SQL server, then you have to check the actual port.
  Then choose MSSQL version number and enter the SQL Server user name and password.

> **How to check the port number on SQL**
> Open the SQL Server Configuration Manager. Select the SQL Server instance then right click TCP/IP on the right side and click on Properties. In the small window go to the bottom and check the port number.
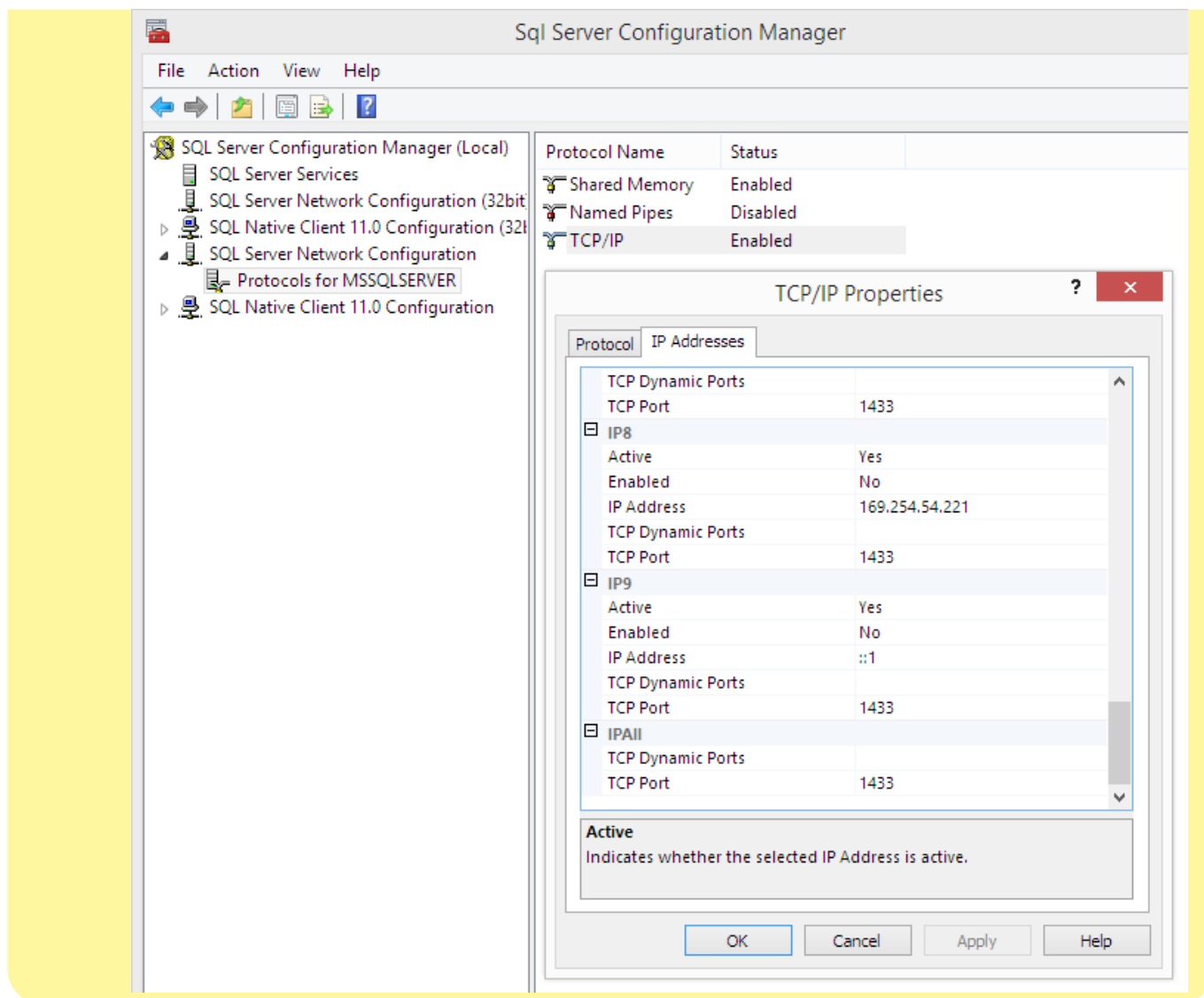
Please note: in this example there are no instances, so the port is the default 1433.

- **HANA**
  At 'Server' enter the name or IP address of the server. Please note: The database server name has to be added with the exact same format as it was added during the installation of the SAP Business One client.
  At 'Port' you have to enter the port on which the application can connect to the database server. The default port is 30015.
  Select HANADB from the dropdown menu and enter the user name and password.

When working on SAP B1 Cloud, add the domain user name and password as well.
At 'Language' it is possible to modify the language of the DI API transactions.

If you click on Test DB Connection, Service Manager will try to connect to the server with the given data. If the connection can be established, you will get a message: *Database connection test – success!*

3.5.2. Add new database

Click on the Setup Companies button.

On the opening 'Setup companies' screen check the connection data. If you would like to add a database from a different database server, modify the connection parameters then click on the 'Test DB Connection' button to test the connection. The modification of the connection parameters does not affect the connection settings of the already added databases.

Click on the '**+**' icon to add a new database/schema.

On the 'Database Setup' window select the database/schema from the dropdown menu.

Enter an SBO User and its password to create the connection to the database/schema. SAP employees are used for log in the mobile device. Transactions initiated by the employees will be posted by the SAP user defined for the Service Broker. The SBO user must have the authorizations to create stock related bookings in SAP Business One (Delivery, Goods Receipt PO, Stock Transfer, etc.) The SBO user also need at least an SAP Indirect Access license type as of SBO 9.2. PL08.

Click on the 'Save' button then close the window. You can close now Setup Companies and go back to the Service Manager main screen.

Now you have to assign your companies to the Produmex Service Broker and other Produmex services.

Click on the 'Companies…' button and select the company database/schema on the opening 'Select Companies' screen.


> It is possible to start the PDC application with a -database parameter. If multiple databases are configured in the Service Broker, you do not have to start the PDC Configuration every time you would like to switch between databases.
>
>

Create shortcuts for the BXPPSMobilePDCClient.WinForm.exe. The file is located in *C:\Program Files (x86)\Produmex\Produmex PDC*

Add the database with the '-database=' parameter to the end of the file path in the Target field.
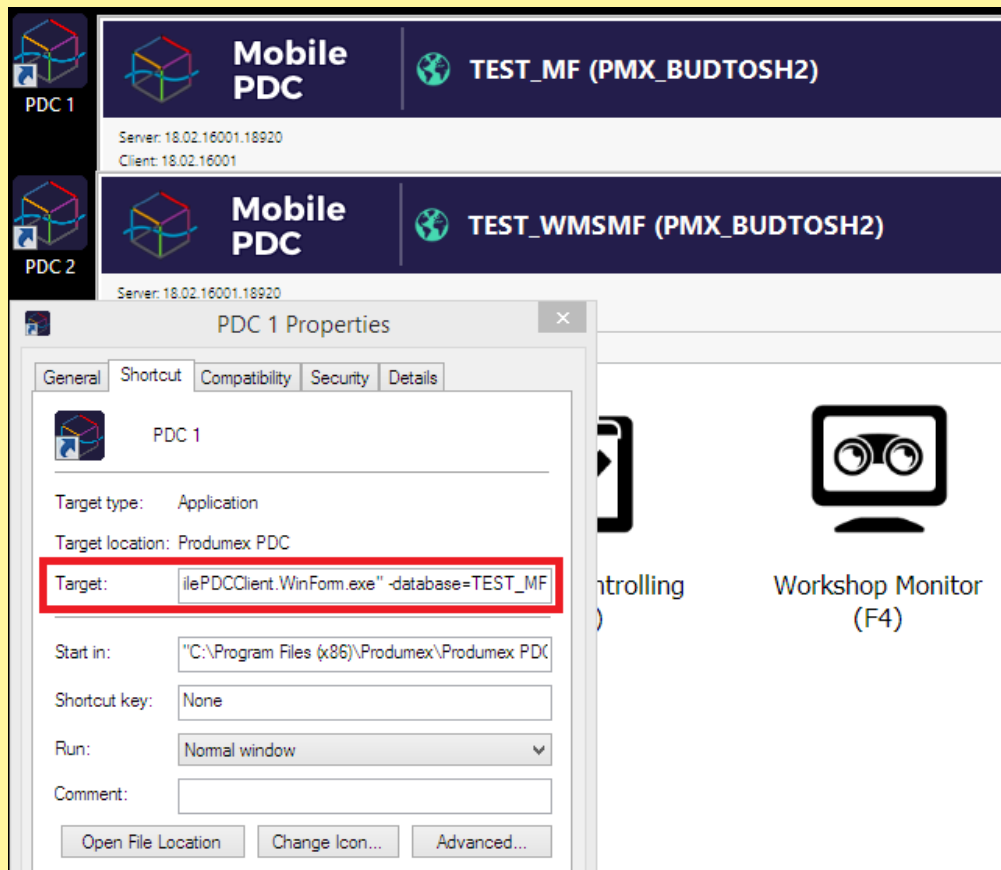
Please note: Make sure that the Produmex Manufacturing add-on is installed on all databases with the same version as the Service Broker.

3.5.3. Configuring Produmex Service Broker

The Produmex Service Broker can work together with different Produmex add-ons, therefore in the Service Manager you have to configure which add-on you want to use. To do that, click on the 'Configure…' button or select it from the line of the Service Broker.

General tab

If you set the '*Debug writeline log*' parameter to true, it will write a log about each command the Service Broker processes. **Only set it to true, if Produmex support asks you to do that.**

'*Kill time*' means that if a thread doesn't respond to a request within this time limit, it will be killed. The setting depends on your server. If you have a quick server, set it to a small number, if you have a slow server, set it higher. Default is 10 seconds.

'*Modules to load*' is the module of the add-on to which the service broker connects. It is automatically done by the module installer for you, so you only have to set this manually in specific cases. To add multiple modules, separate them by comma.

- In order to use Produmex Manufacturing, set it to *BXPPSMobilePDCWebAPI.dll*
- In order to use Produmex Scan, set it to *BXMobileWH9WebAPI.dll*
- In order to use Produmex Operator, set it to *BXMWWebAPI.dll*.

At the '*Port to listen on*' you can set which port is used by the service broker to communicate with the clients. The default is 50231. Make sure that the port you set here is not blocked by any firewalls or antivirus software.

The '*Server Discovery Enable*' turns on the feature that the client can look up the running service broker server automatically. It makes setting up the clients easier.

You have to assign an administrator user to the service in the Windows Service Manager, otherwise the Service Broker cannot connect to SBO and cannot write to its log files. If the Service Broker stops right after starting it, and in the log file you have access denied errors, then the cause is that you haven't assigned the administrator user to the service.

Produmex Service Broker tab
On the Produmex Service Broker tab you can see the loaded modules, and you can remove/install new modules if needed.

If you see a check icon before the module name, it means it could be loaded successfully. If a problem arises, you will see error beside the module name.
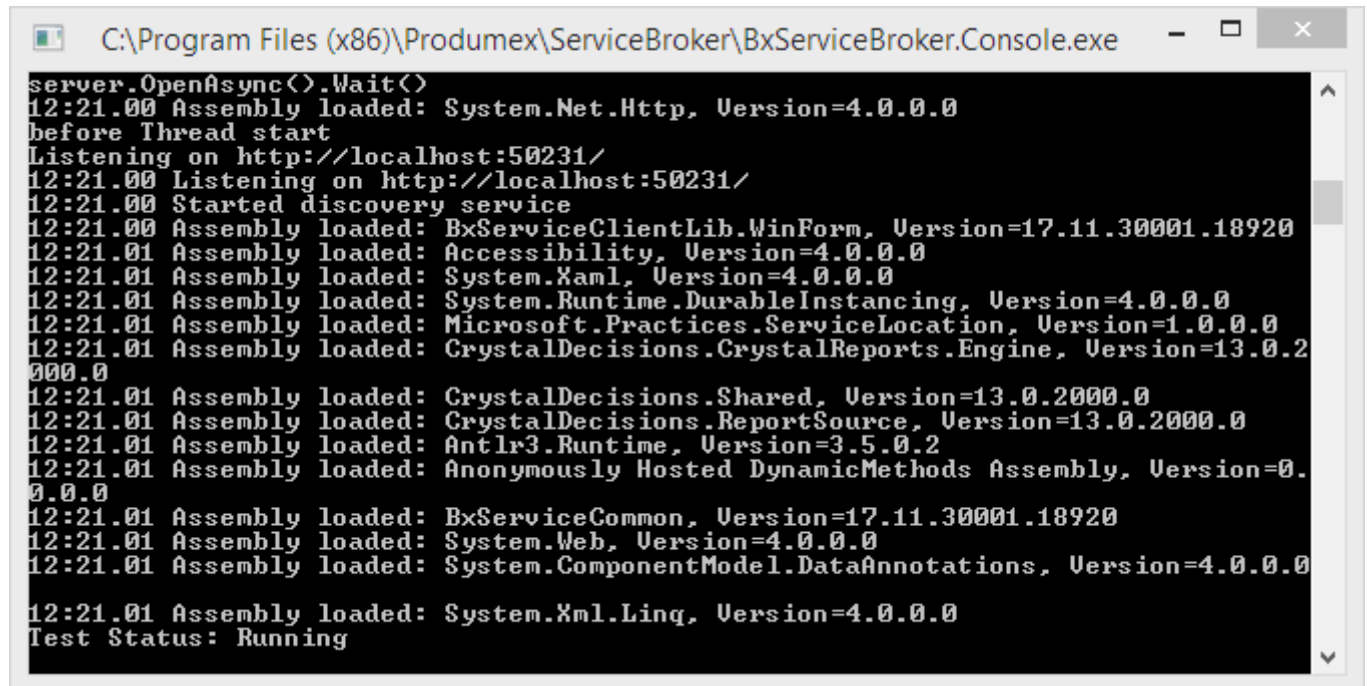

3.5.4. Start Produmex Service Broker

After you have set all settings and installed the server module, you can start the Service Broker service in the Service Manager by selecting first the service then clicking on the *'Start'* button. If you want to stop a service, click on the *'Stop'* button.

You can also stop or start the services from windows service manager, but you cannot change the Produmex settings there. It is recommended that you set the service to *Automatic start* and that you set the recovery options to *Restart at Recovery* in Service Properties for the service.
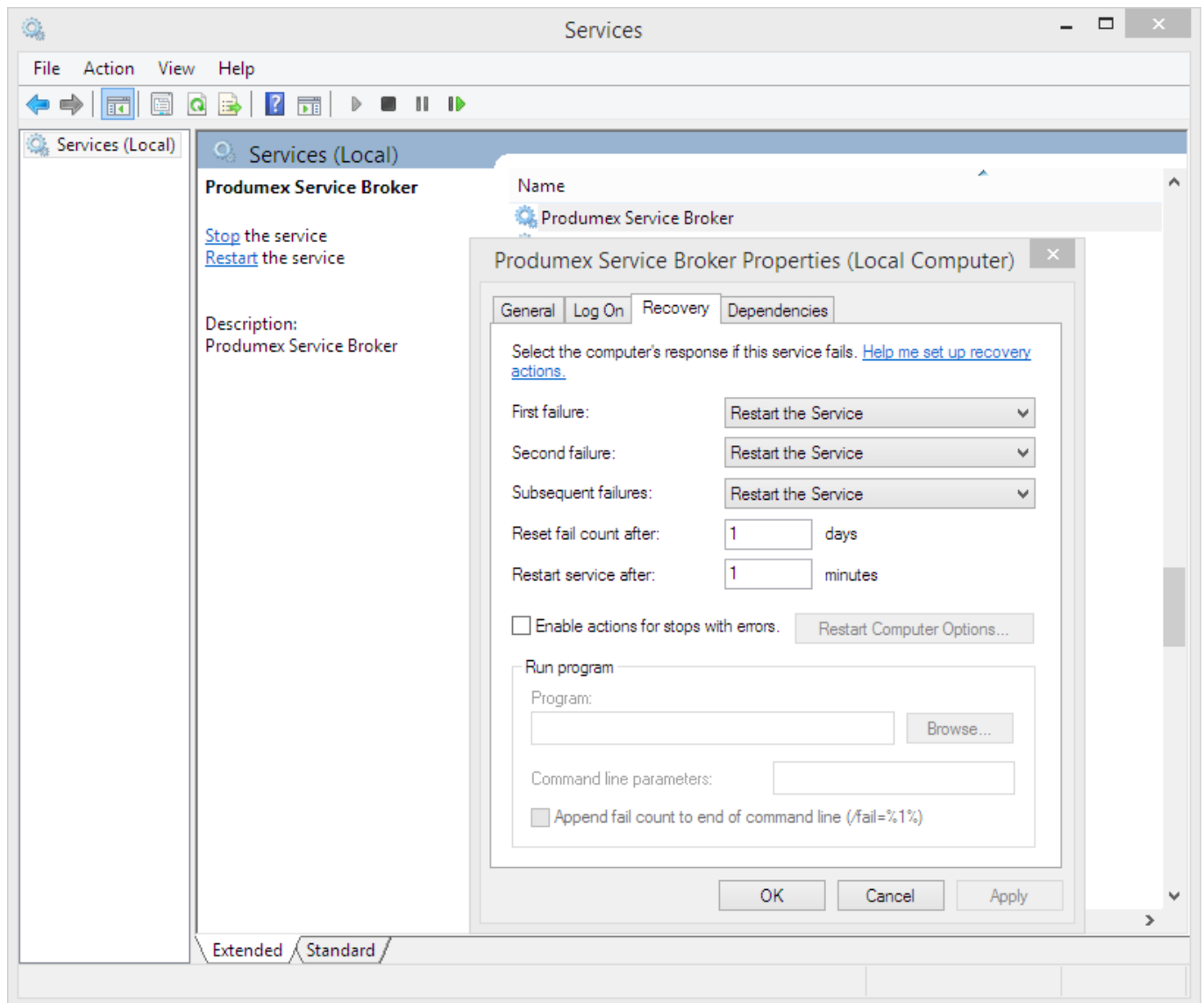
If you want to start the Service Broker from the command window, you can start it with "C:\Program Files (x86)\Produmex\ServiceBroker\BxServiceBroker.Console.exe" (or Service Broker (Console) program in the Windows Start menu) and you will see a window like this:

```
C:\Program Files (x86)\Produmex\ServiceBroker\BxServiceBroker.Console.exe    —  ☐  ✕
server.OpenAsync().Wait()
12:21.00 Assembly loaded: System.Net.Http, Version=4.0.0.0
before Thread start
Listening on http://localhost:50231/
12:21.00 Listening on http://localhost:50231/
12:21.00 Started discovery service
12:21.00 Assembly loaded: BxServiceClientLib.WinForm, Version=17.11.30001.18920
12:21.01 Assembly loaded: Accessibility, Version=4.0.0.0
12:21.01 Assembly loaded: System.Xaml, Version=4.0.0.0
12:21.01 Assembly loaded: System.Runtime.DurableInstancing, Version=4.0.0.0
12:21.01 Assembly loaded: Microsoft.Practices.ServiceLocation, Version=1.0.0.0
12:21.01 Assembly loaded: CrystalDecisions.CrystalReports.Engine, Version=13.0.2
000.0
12:21.01 Assembly loaded: CrystalDecisions.Shared, Version=13.0.2000.0
12:21.01 Assembly loaded: CrystalDecisions.ReportSource, Version=13.0.2000.0
12:21.01 Assembly loaded: Antlr3.Runtime, Version=3.5.0.2
12:21.01 Assembly loaded: Anonymously Hosted DynamicMethods Assembly, Version=0.
0.0.0
12:21.01 Assembly loaded: BxServiceCommon, Version=17.11.30001.18920
12:21.01 Assembly loaded: System.Web, Version=4.0.0.0
12:21.01 Assembly loaded: System.ComponentModel.DataAnnotations, Version=4.0.0.0

12:21.01 Assembly loaded: System.Xml.Linq, Version=4.0.0.0
Test Status: Running
```

> The use of the command window is recommended for debugging purposes. In production environment the use of the service is more efficient.

3.6. Produmex PDC Client

The Produmex PDC Client must be installed on the client computer. The installer is an exe file located in the ProdumexManufacturingMobilePDCClientSetup_*version number_SBO version_Database server type.32/64 bit version*.zip folder. For the time being it is a windows application that uses .NET 4 framework.

Extract the .zip folder, initiate the installation and follow the steps of the Produmex PDC Setup Wizard.

After you have installed it there will be two new programs at All Programs > Produmex:

- Configuration of Produmex PDC
- Produmex PDC

From:
https://wiki.produmex.name/ - **Produmex**

Permanent link:
https://wiki.produmex.name/doku.php?id=implementation:manufacturing:completeinstallguide

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