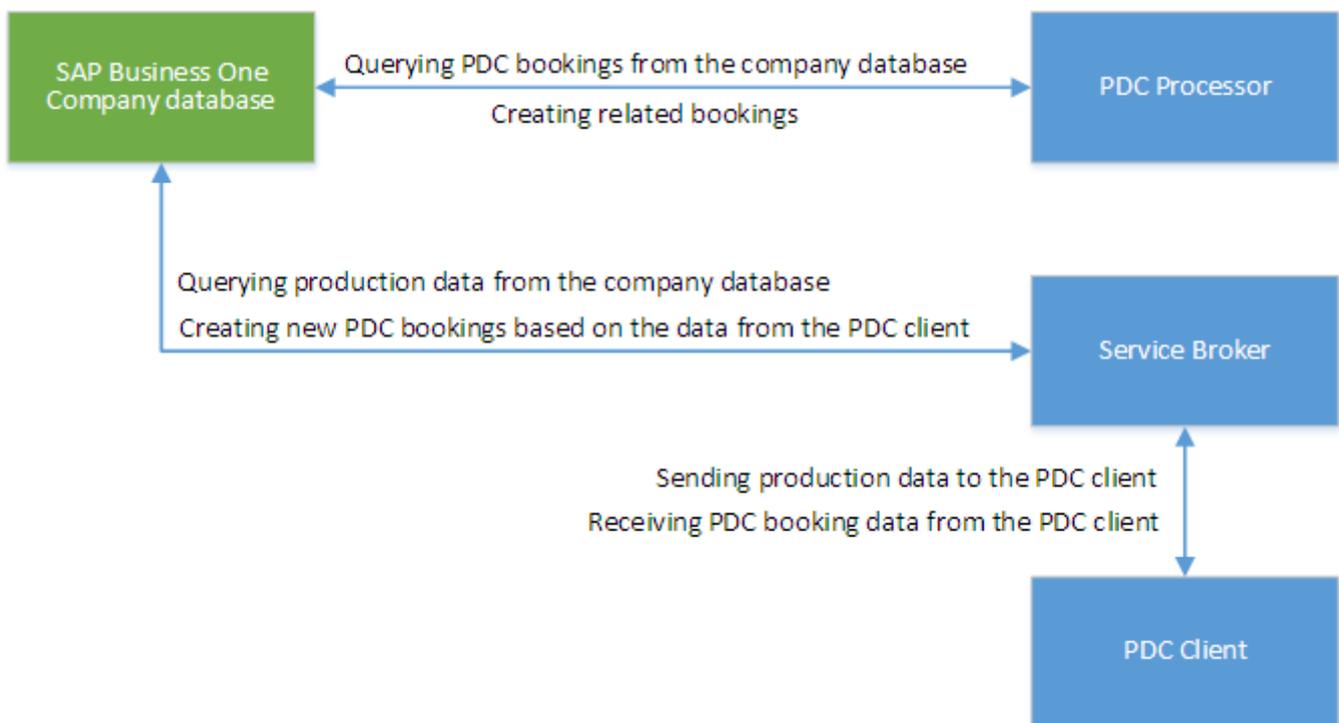


Produmex PDC Installation Guide

1. Technical Background

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

1. Produmex Service Broker
2. PDC Processor
3. Produmex Service Manager
4. Produmex Manufacturing Add-on installed in SAP Business One on the server
5. Produmex PDC Client



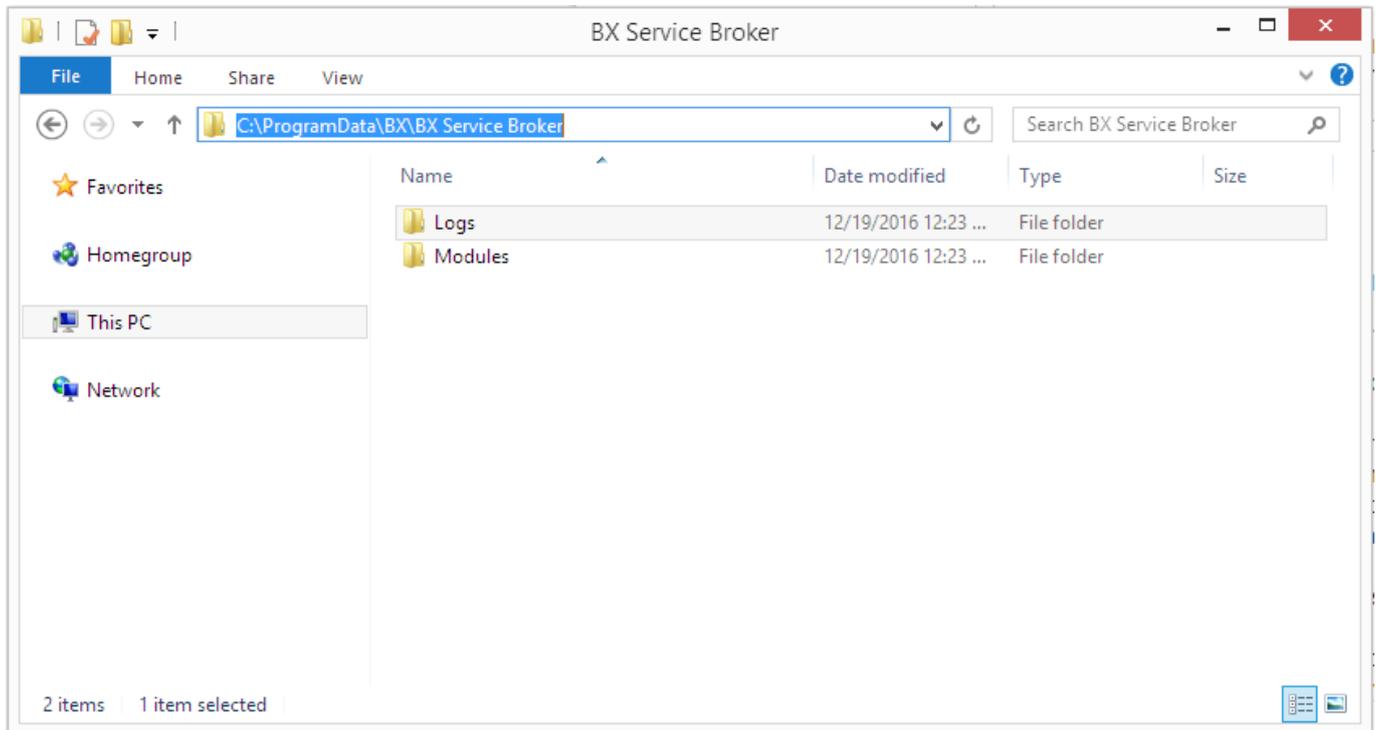
2. The Produmex Service Broker

The Service Broker establishes the connection between the SAP company database and the application on the mobile device. It queries the data from the SAP database and sends it to the mobile application. It creates the SAP documents based on the requests from the mobile devices. The SAP documents are created with SAP DI API 32bit version, so it must be installed on the server where the Service Broker runs.

The Service Broker can run from a command window or as a service. 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.

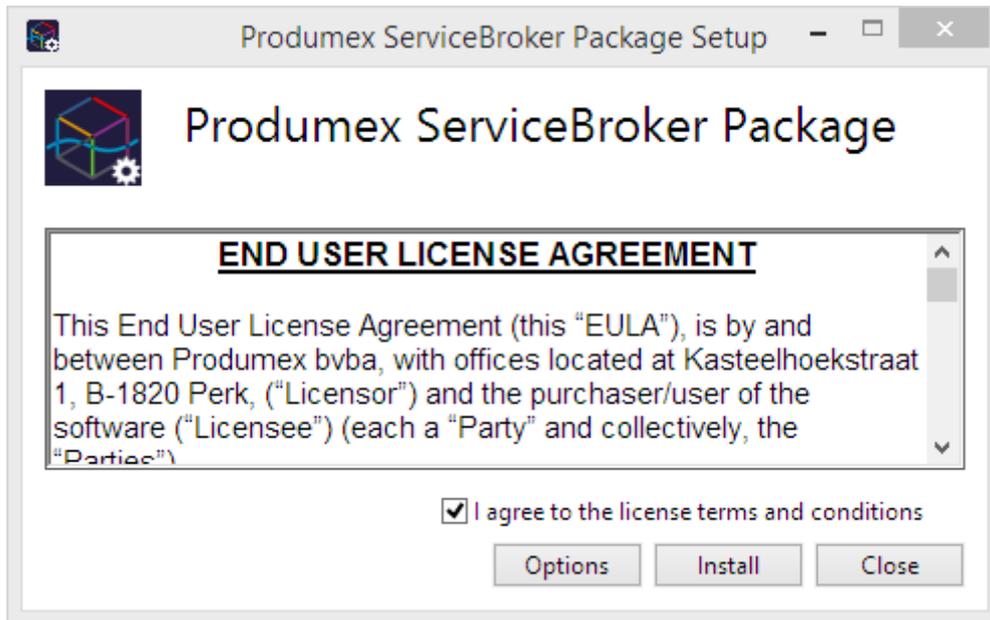
The service broker creates its log files at C:\ProgramData\BX\BX Service Broker\Logs and needs .NET 4.0 to run (it is in the installer). The ProgramData folder is hidden. You have to either enable show

hidden folders and files in windows settings or you have to enter it directly to the address bar in windows explorer:



If the Service Broker doesn't run, the communication between the clients and the SAP company database is not possible.

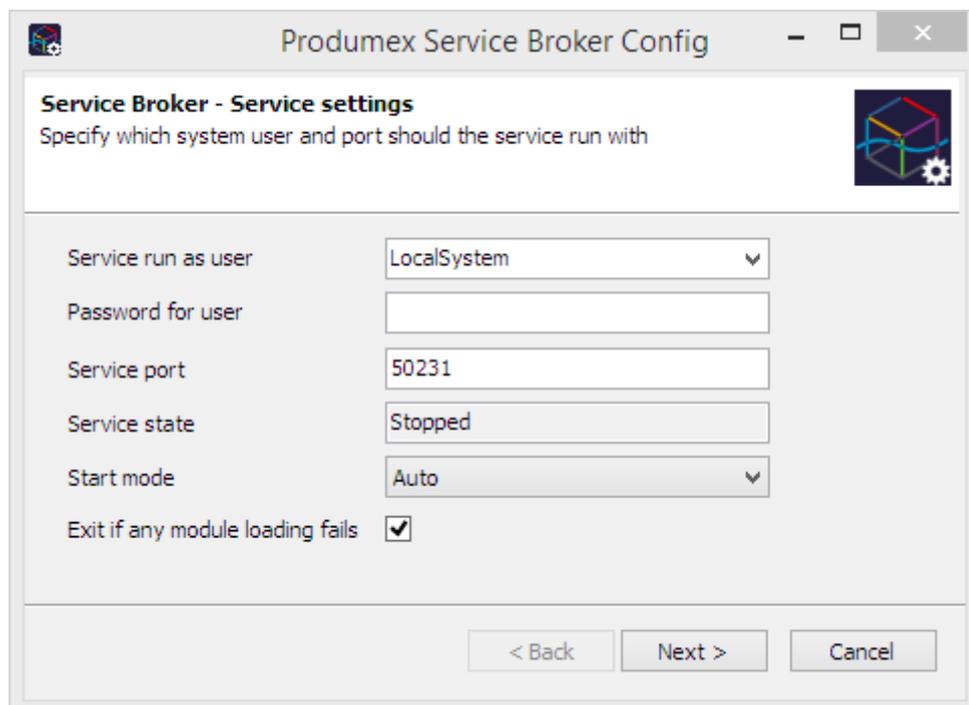
Install the service broker on the server which has access to the company database. The installation file is an exe file with a name like this one: ProdumexServiceBroker.Setup.exe. After launching the .exe file, the End User Licence Agreement will open up. Produmex Service Broker can only be installed if the License Agreement is accepted.



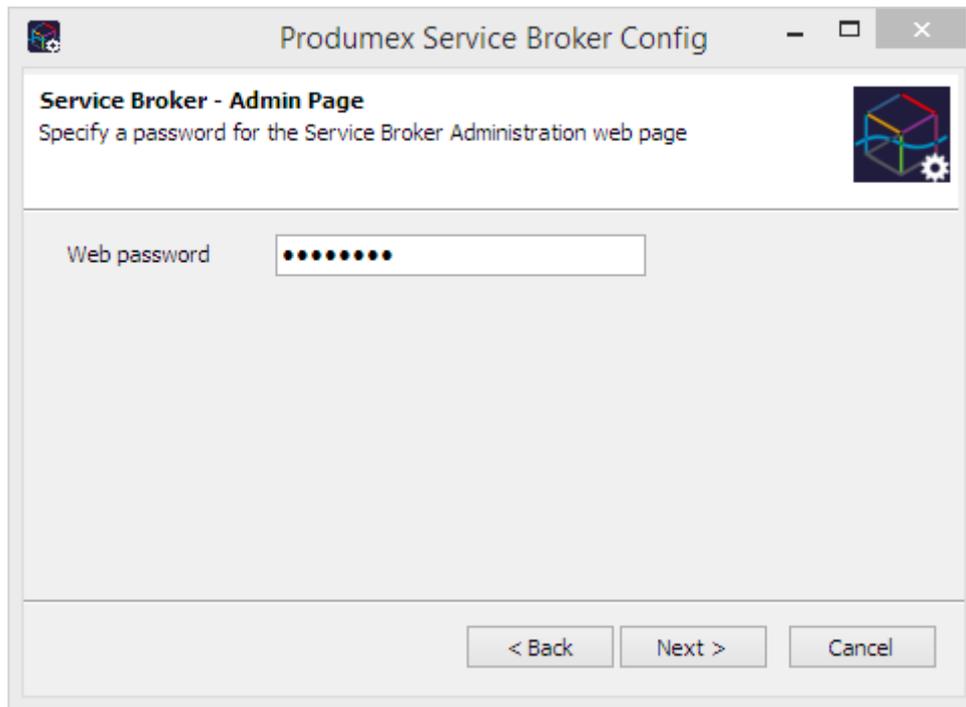
When you start the installation, the Produmex Service Broker installer will request information based on the system and will set up the service based on the information you enter.

The 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.

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 SAP company database, the user must have rights for that as well.

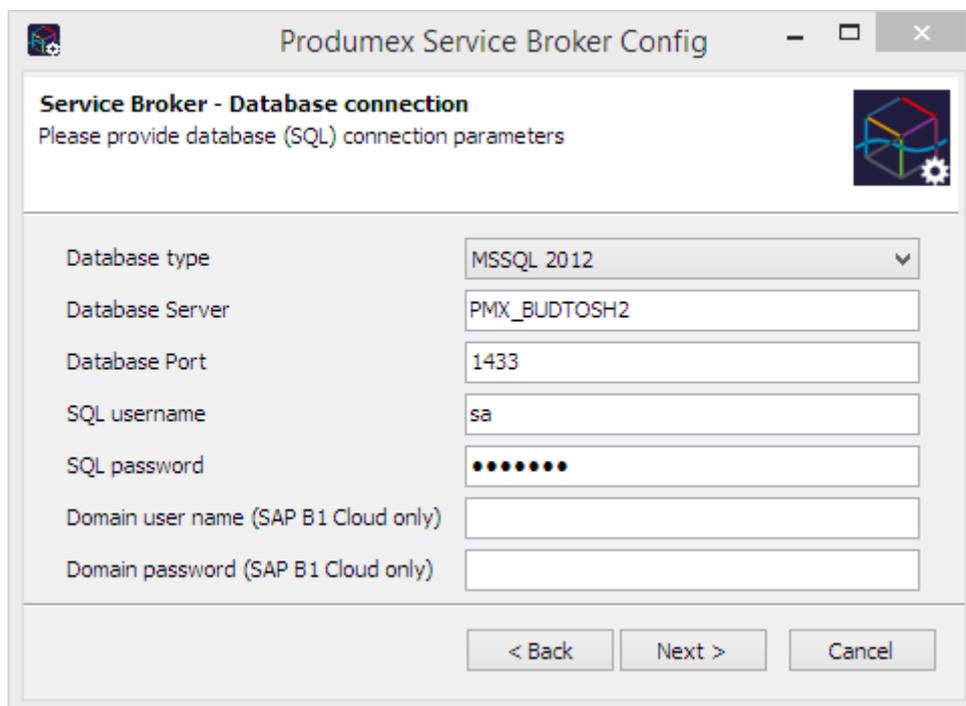


Specify a password for the Service Broker Administration web page.

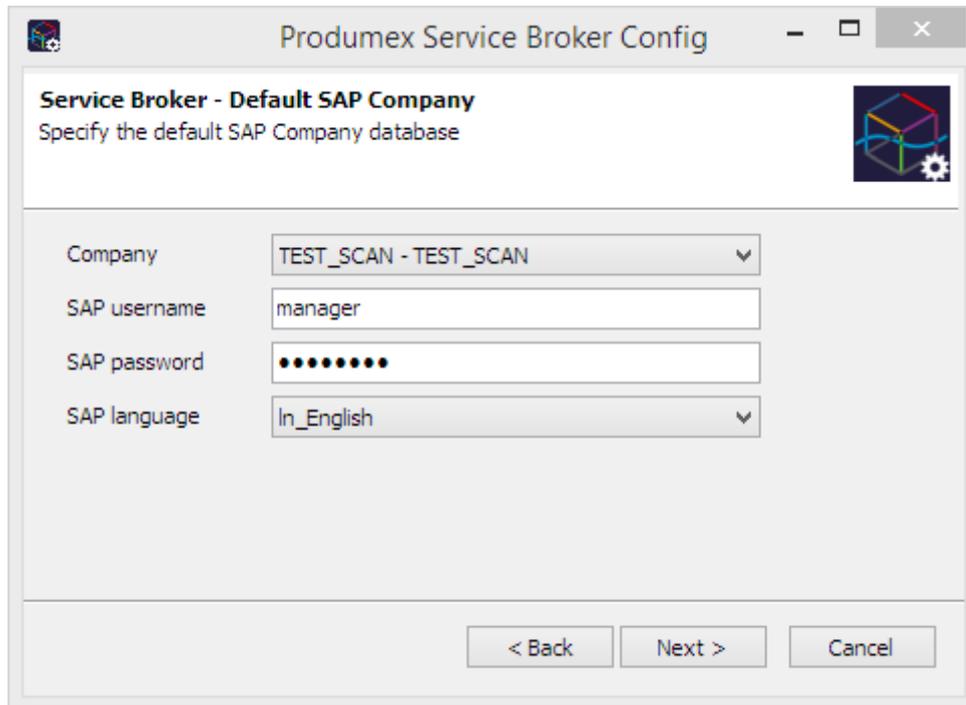


You can also enter the port on which the communication goes; the default is 50231. You can also set up the start mode of the service. The recommended is Auto or Auto (delayed start). You have to set up the SQL server connection in the next window.

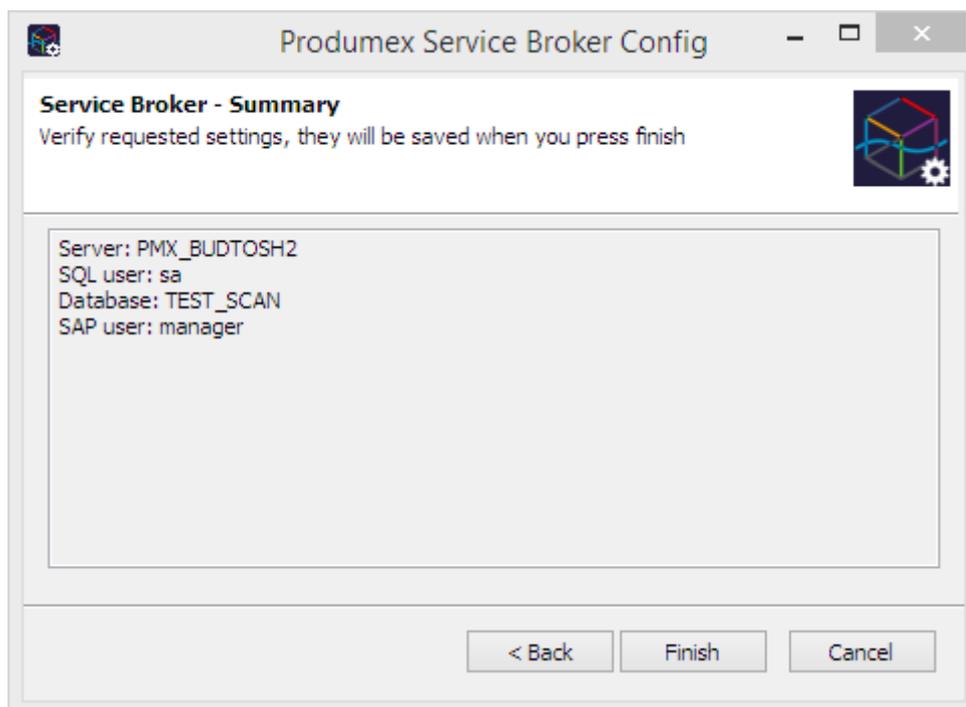
If you have a named instance, you have to enter the name of the server and the named instance as well (for example SERVER\NAMEDINSTANCE).



After that you have to set up the company database. You can only set up one company here, if you have more databases, you can add the others in the Produmex Service Manager after installation (see at Produmex Service Manager).



You should enter an SAP user here which has licenses to create inventory bookings for materials. At the end of the installation you will see a summary screen about you settings:



Click 'Finish' to end the installation.

Install Server module

The Produmex Service Broker can work together with different Produmex add-ons. To do it, it uses the dlls of that add-on. You need to install these dlls with the server installer which has a name like this: *ProdumexADD-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 Produmex Service Manager if you select the Service Broker and click on the 'Configure' button. Go to the 'Produmex Service Broker' tab.

3. The PDC Processor

The PDC Processor also runs as a service on the server. 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 material bookings are not created therefore the stock data of materials or products are false. The PDC processor logs in the [@BXPCONFIG] table when it ran the last time. The name of the configuration parameters (Code) are BXPPRCDT (date) and BXPPRCTM (time). 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 %appdata%\BX\Log of the user that is assigned to the service. If the service runs with local system account, then the log files are at:
c:\Windows\SysWOW64\config\systemprofile\AppData\Roaming\BX\Log (note: it is the windows default setting, it can change based on windows configuration).

Please note: Before installing the new version of PDC Processor remove the old version from windows control panel. After the installation of the new version you have to assign the company to the service again.

4. The Produmex Service Manager

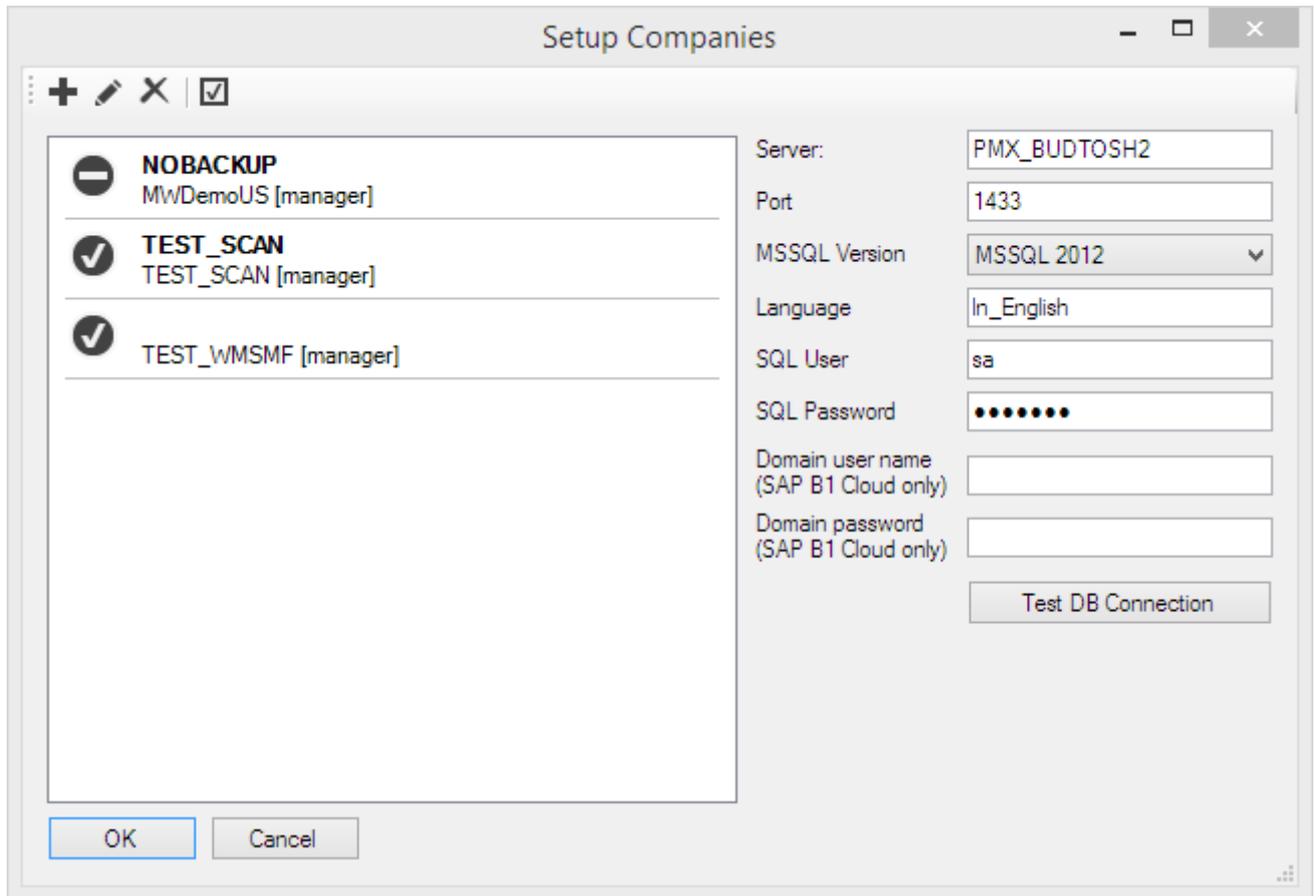
The Produmex Service Manager is a standalone program that can handle the Produmex Service Broker and other Produmex services. Service parameters, connection data to the database, and the connection data to the SAP Company can also be modified on the Service Manager.

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.

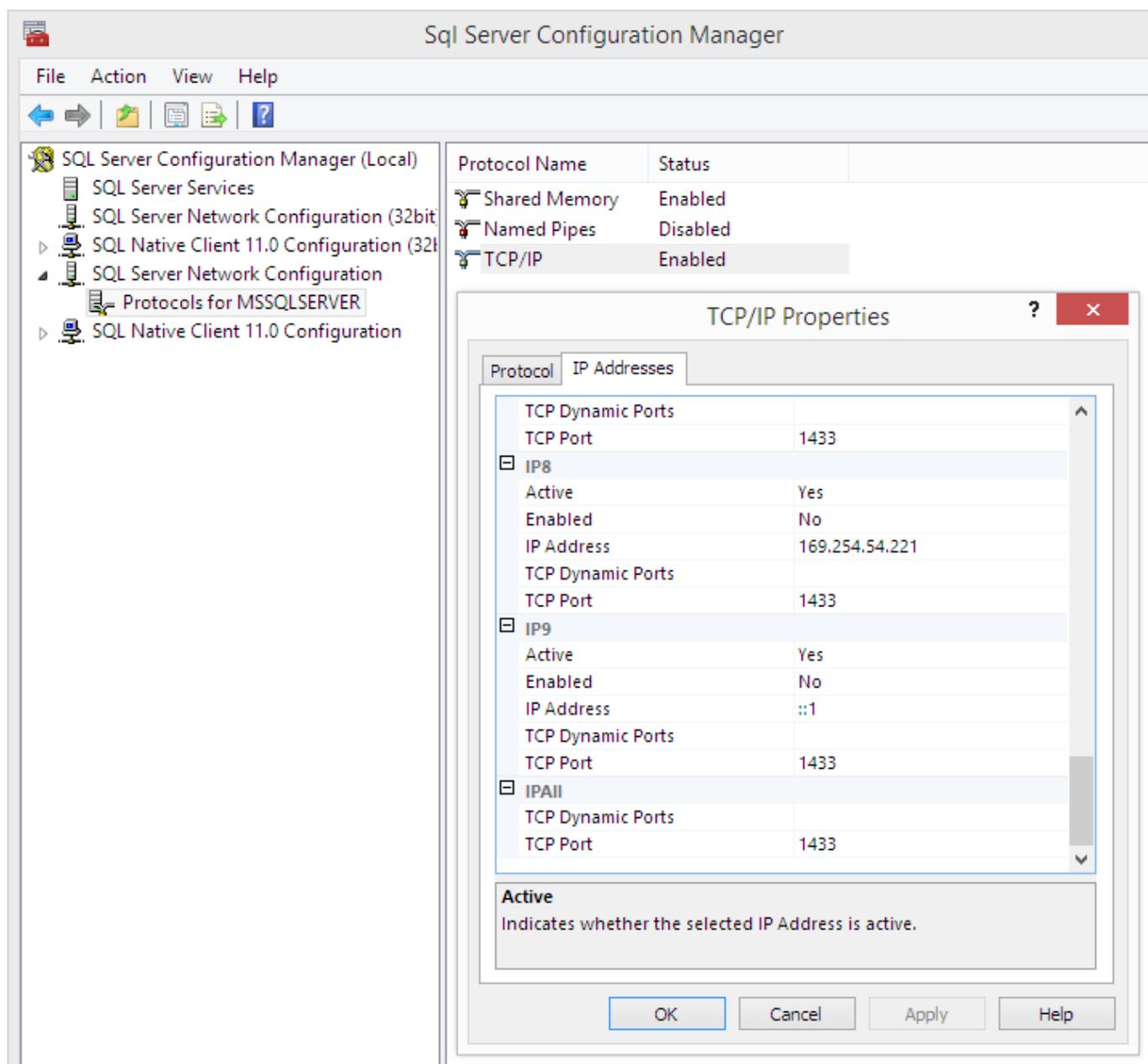
Setup/Modify Connection data to the SAP company

Click on the 'Setup Companies' button.

On the opening window you have to enter the connection data to your SAP company database. At 'Server' enter the name or IP address of the server (if you have connection problems when using the name of the server, try to use the IP address instead).

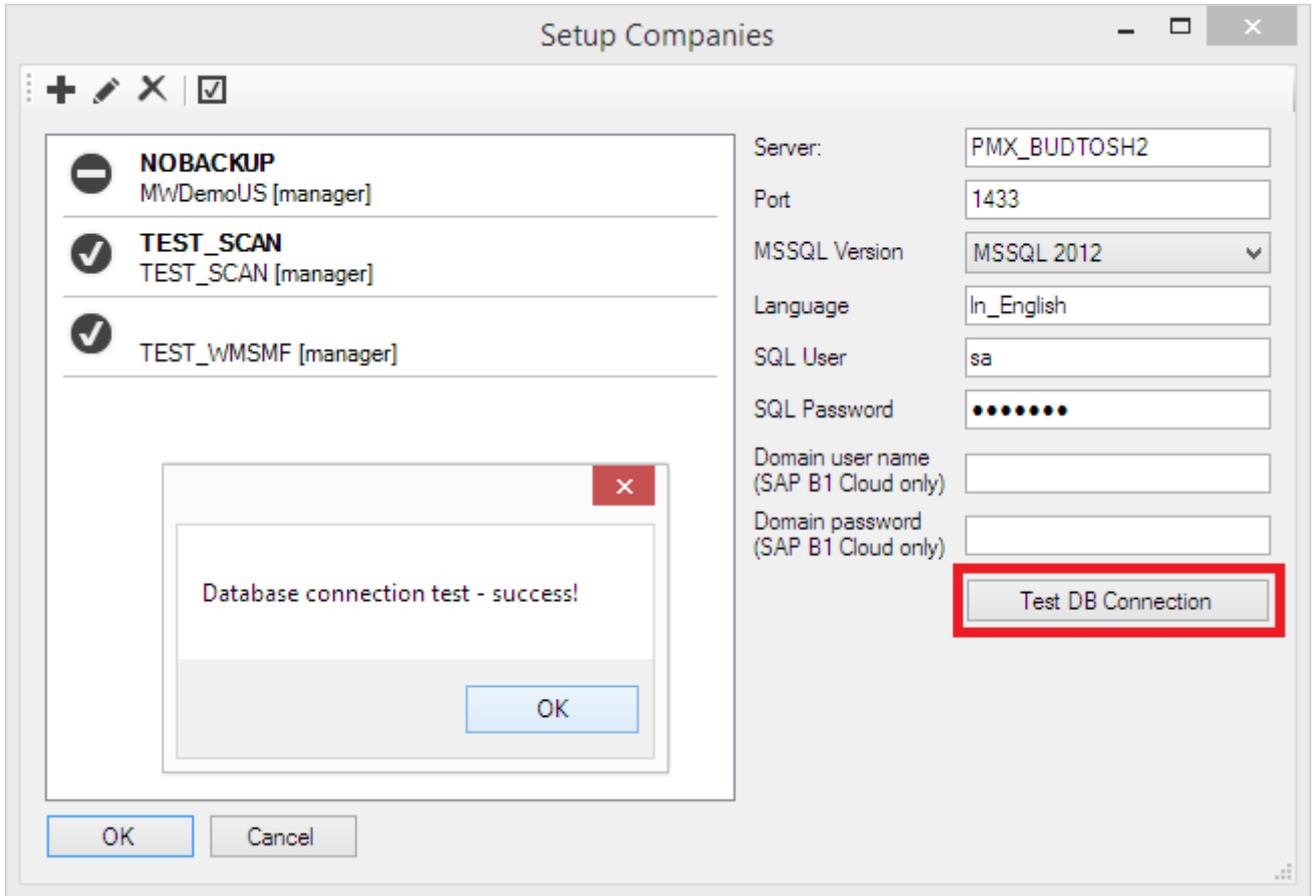


At 'Port' you have to enter the port on which the application can connect to the SQL Server. It is usually 1433, however, if you have a named instance in the SQL server, then you have to check the actual port in the SQL Server Configuration Manager. You have to select your SQL Server instance then right 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.

If you have the port number, you have to choose MS SQL version number and enter the SQL Server user name and password. If you click on Test DB Connection, Service Manager will try to connect to the SQL server with the given data. If everything is ok, you will get a message: Database connection test - success!

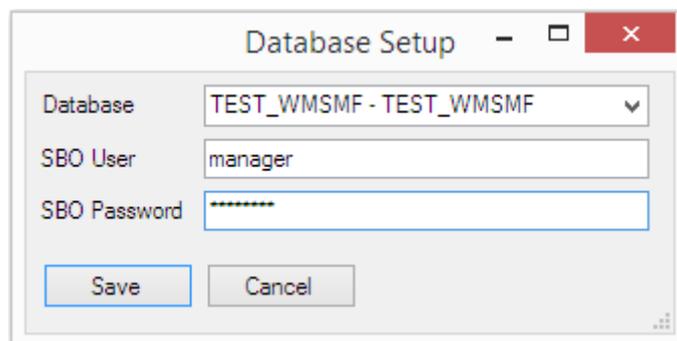


Add new database

Click on the 'Setup Companies' button. On the opening Setup Companies' screen click on the + button to add a new database.

On the 'Database Setup' window select the Database then enter an SBO User and its password to create the connection to the database. 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.

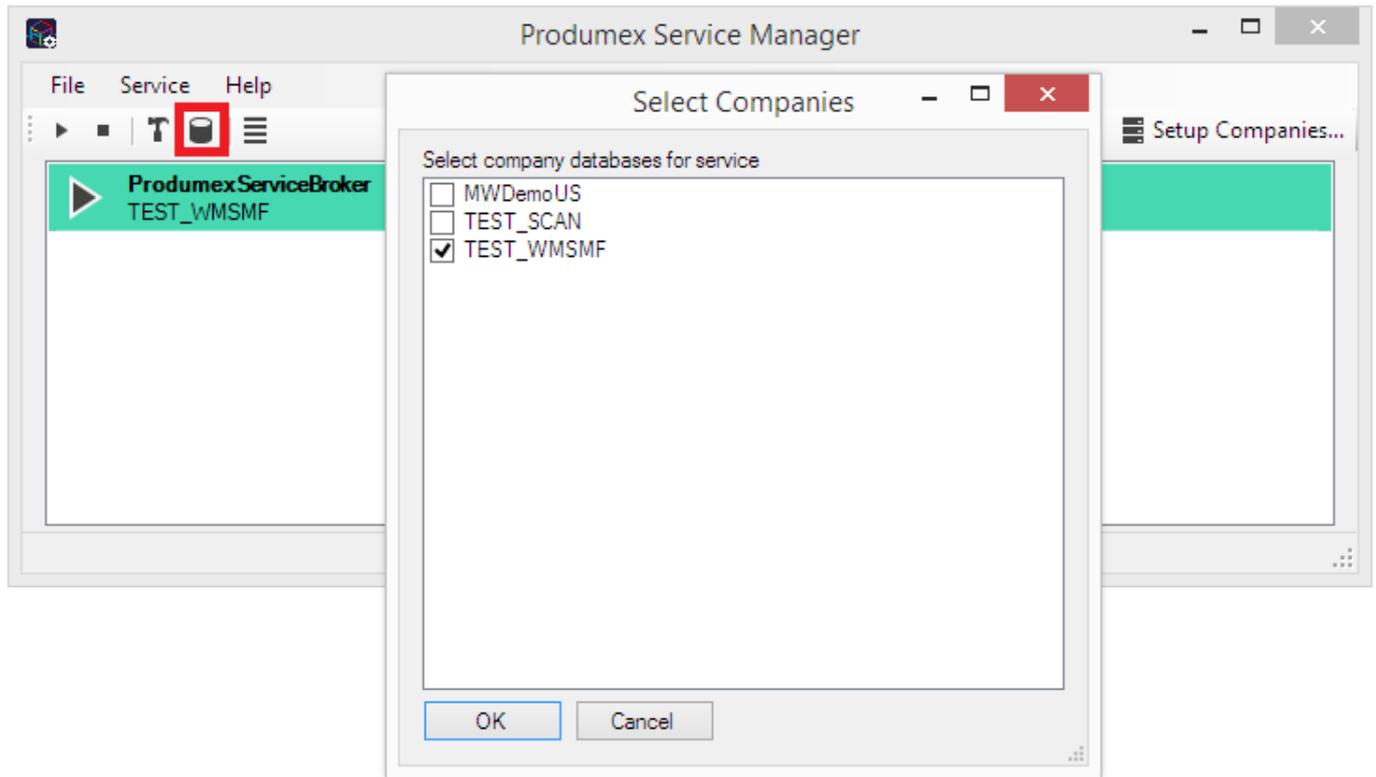
The SBO user must have the authorizations to create stock related bookings in SAP Business One (Delivery, Goods Receipt PO, Stock Transfer, etc.) The SAP user also need at least an SAP Indirect Access license type.



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

You can add several databases but you can make a connection only to one database at the same time.

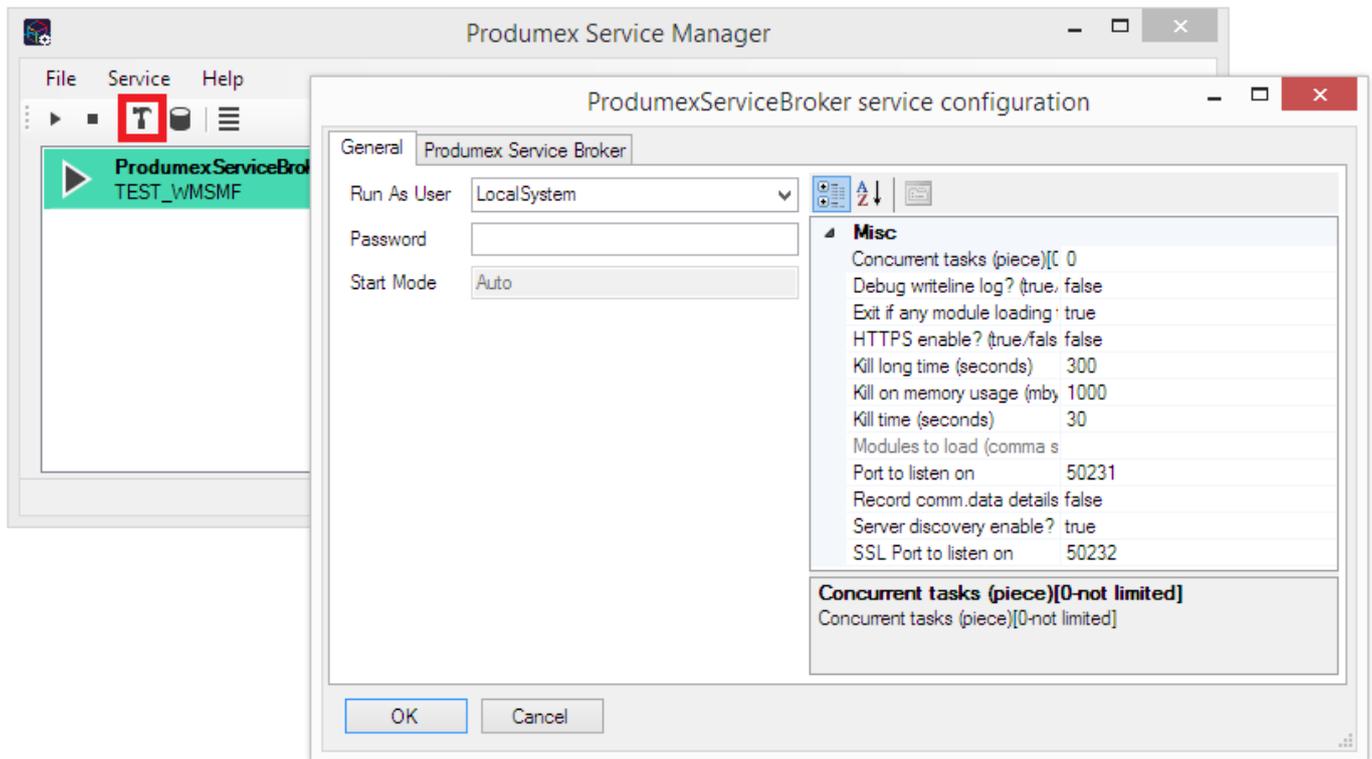
Now you have to assign your companies to the Produmex Service Broker and other Produmex services. To do that click on the Companies button in the line of the service.



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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.



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 on memory usage' will close service broker if the amount of memory (in Mbytes) usage is reached (the setting doesn't work yet). Note: if you use this function, you have to enable windows to restart the service if there is a failure (you can set it at Properties of a service in services.msc on tab Recovery).

'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.

- If you are using Produmex Manufacturing, you should set it to BXPPSMobilePDCWebAPI.dll
- If you are using Produmex Scan, you should set it to BXMobile Warehouse WebAPI.dll
- If you are using Produmex Operator, you should set it to BXMWWWebAPI.dll

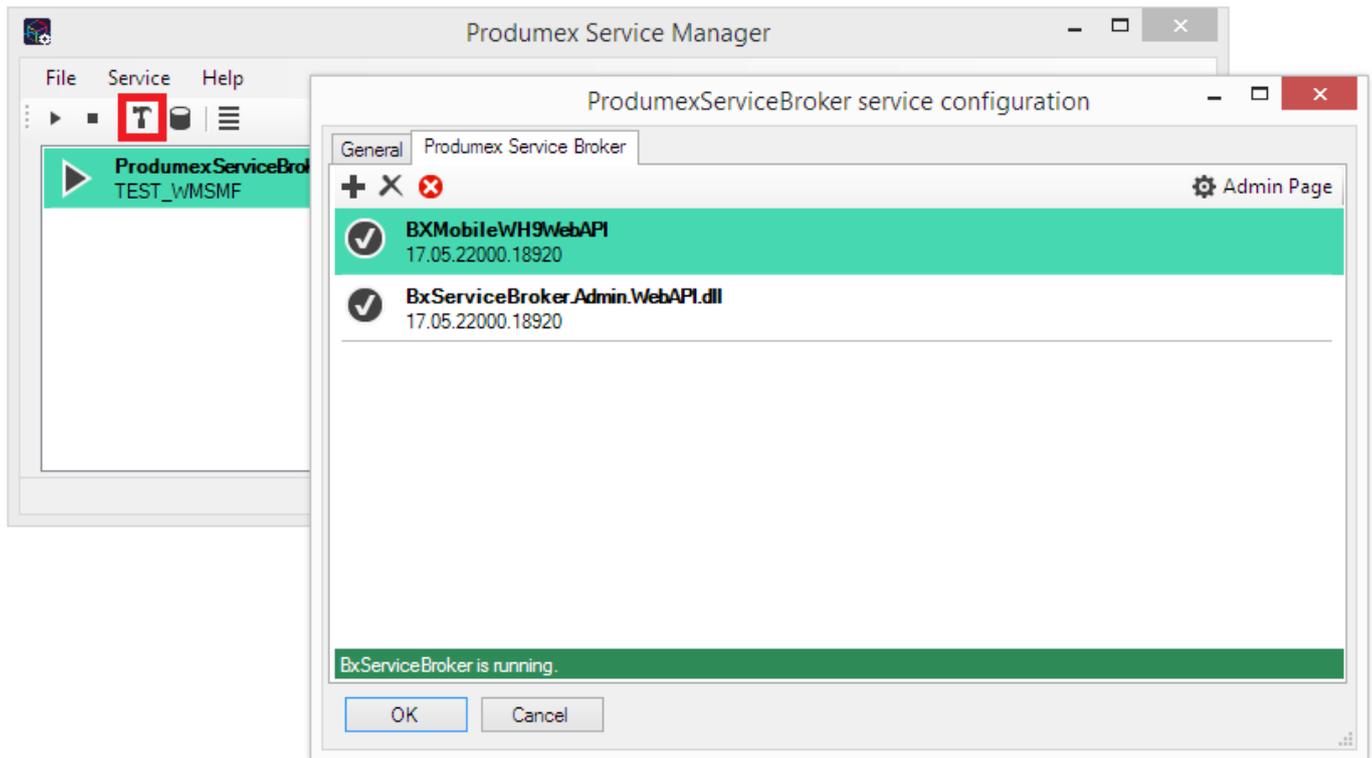
Please note: It is automatically done by the module installer for you, so you only have to set this manually in specific cases.

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 server broker cannot connect to SAP 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.

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

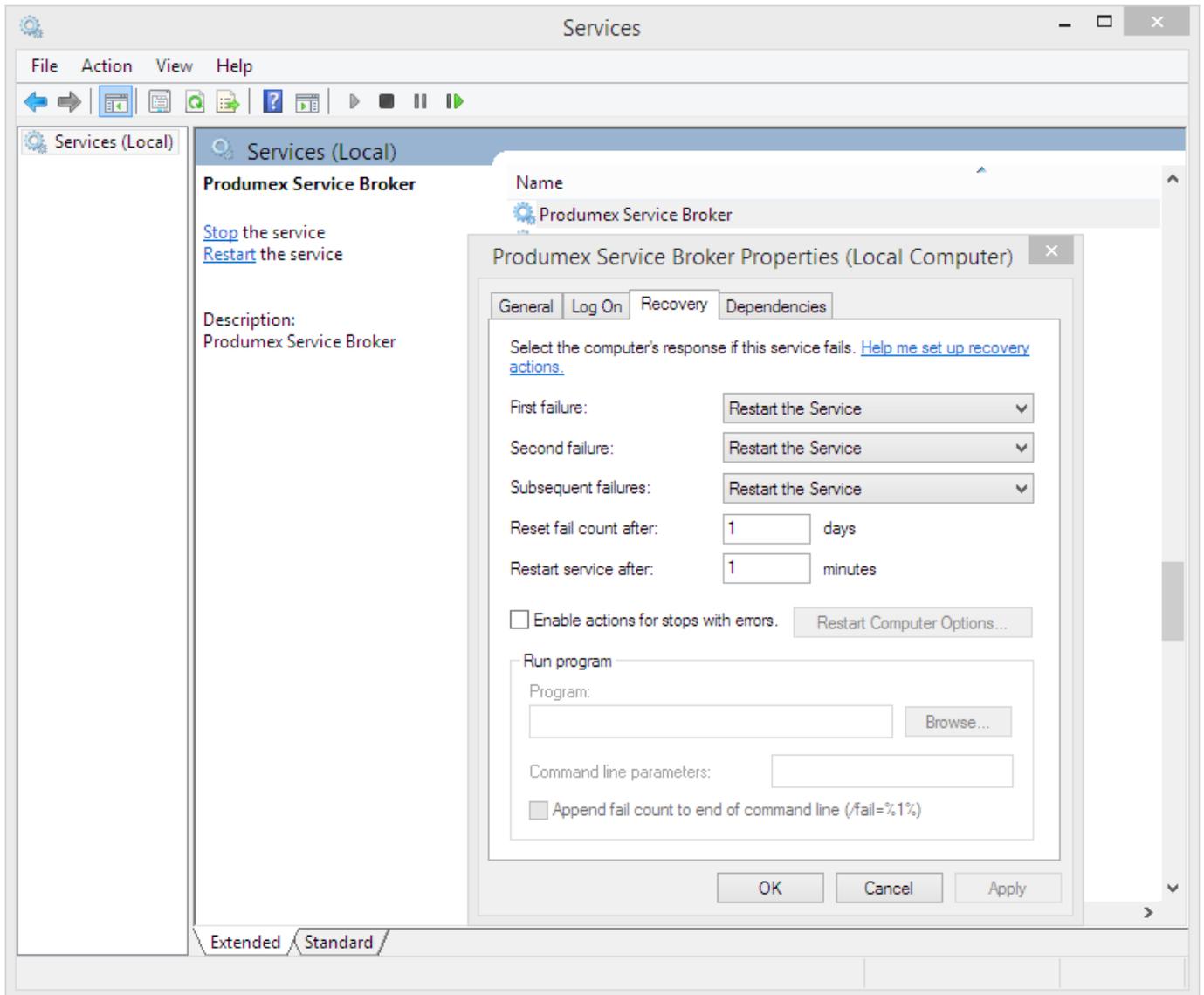


If you see OK beside the module name, it means it could be loaded successfully. If a problem arises, you will see error beside the module name.

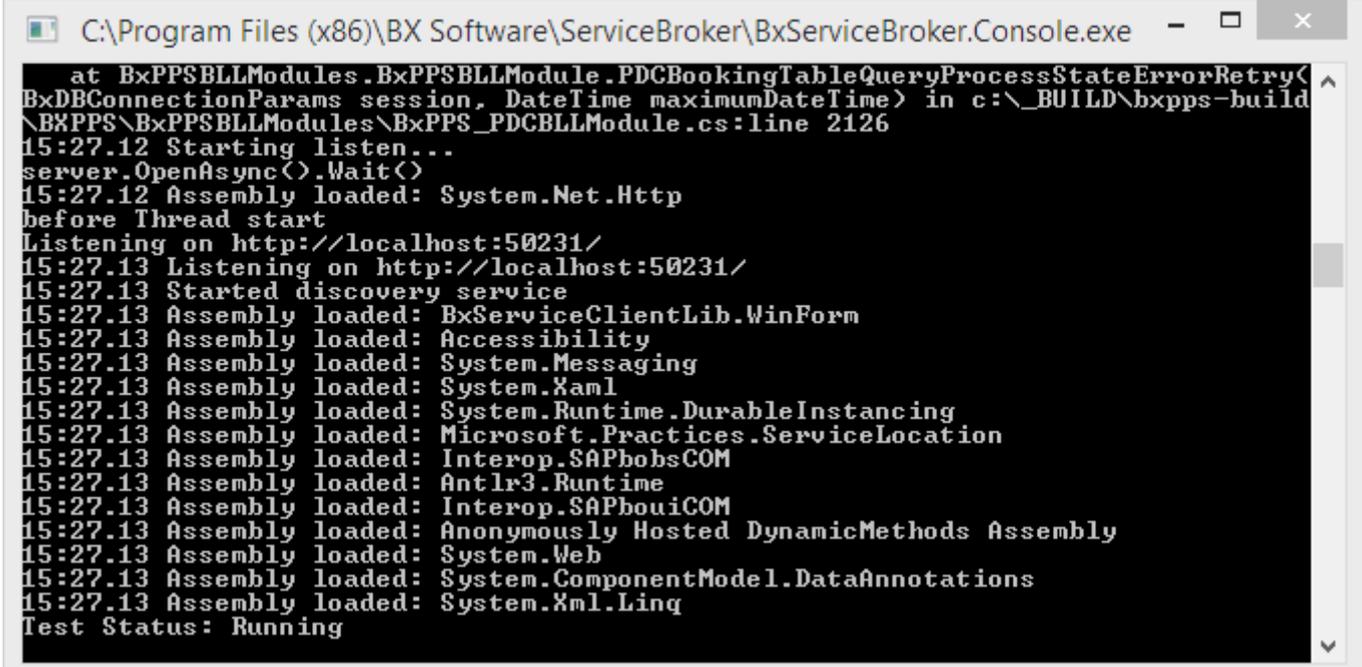
Start Produmex Service Broker

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, just 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)\BX Software\ServiceBroker\ServiceBroker.Console.exe” (or Service Broker (Console) program in the windows start menu) and you will see a window like this:



```
C:\Program Files (x86)\BX Software\ServiceBroker\BxServiceBroker.Console.exe
at BxPPSBLLModules.BxPPSBLLModule.PDCBookingTableQueryProcessStateErrorRetry<
BxDBConnectionParams session, DateTime maximumDateTime> in c:\_BUILD\bxpps-build
\BXPPS\BxPPSBLLModules\BxPPS_PDCBLLModule.cs:line 2126
15:27.12 Starting listen...
server.OpenAsync().Wait()
15:27.12 Assembly loaded: System.Net.Http
before Thread start
Listening on http://localhost:50231/
15:27.13 Listening on http://localhost:50231/
15:27.13 Started discovery service
15:27.13 Assembly loaded: BxServiceClientLib.WinForms
15:27.13 Assembly loaded: Accessibility
15:27.13 Assembly loaded: System.Messaging
15:27.13 Assembly loaded: System.Xaml
15:27.13 Assembly loaded: System.Runtime.DurableInstancing
15:27.13 Assembly loaded: Microsoft.Practices.ServiceLocation
15:27.13 Assembly loaded: Interop.SAPbobsCOM
15:27.13 Assembly loaded: Antlr3.Runtime
15:27.13 Assembly loaded: Interop.SAPbouiCOM
15:27.13 Assembly loaded: Anonymously Hosted DynamicMethods Assembly
15:27.13 Assembly loaded: System.Web
15:27.13 Assembly loaded: System.ComponentModel.DataAnnotations
15:27.13 Assembly loaded: System.Xml.Linq
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.

5. Produmex Manufacturing Add-on

The PDC bookings created by the mobile PDC are stored in the SAP database in user tables. These tables are created by the Produmex Manufacturing add-on which means you cannot use the mobile 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 use the mobile client.

For more information about installing the Produmex Manufacturing Add-on, please see: [Produmex Manufacturing Installation Guide](#)

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

6. Produmex PDC Client

The Produmex PDC Client must be installed on the client computer. The installer is an exe file location 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 (later on there will be other supported operating systems) that uses .NET 4 framework.

After you have installed it there will be two new programs at All Programs > Produmex: Configuration of Produmex PDC and Produmex PDC.

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