Produmex Scan Complete Configuration Guide

It is recommended to avoid the asterisk (*), pipe (|) and apostrophe (') characters in Produmex or SBO master data because these characters have a special role in Produmex products.

1. Configure Produmex Scan

When starting Produmex Scan for the first time on your device, the Configuration screen will open up. To change the configuration after the first use, run the Configure Produmex Scan application.

1.1. General tab

On the 'General' tab determine the connection settings and the language of the application.

- Add the Server URL of the server where the client application will connect. The server URL consist the IP address of the server where the Service Broker runs and the port number. The port number is 50231 by default. Press the '…' button to scan for servers.
- After the Server URL has been added, the active databases assigned to the Service Broker are listed on the box. Select the company database from the list. If the application cannot connect to the server, an error message is shown.
- Select the language of the client application from the Language dropdown menu.
- Press the 'ID' button to see the device ID.
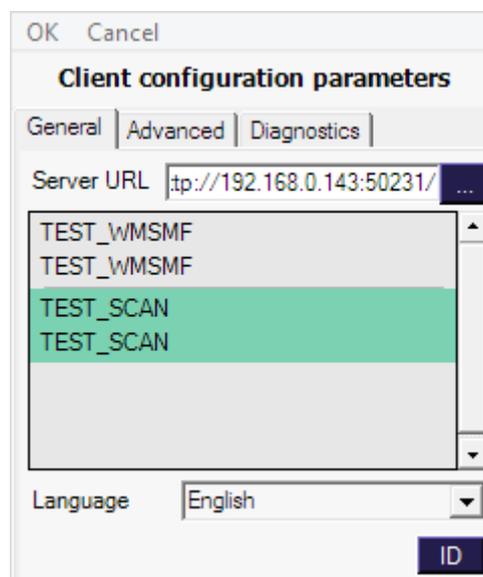
1.2. Advanced tab

Go to the 'Advanced' tab for further configurations.

- If you would not like to use the built-in operating system default control buttons, check the 'Do not use built-in OS buttons' checkbox. It is recommended to disable the built-in buttons on Windows CE, in desktop mode or when using remote desktop connection.
- For customization purposes the Customization Assist Mode can be enabled by ticking the checkbox. For more information about customization please see: Produmex Scan Customization Guide
- Select a Windows layout from the dropdown menu. Possible values:
  - Normal: recommended in desktop mode
  - Maximized Borderless: recommended in Windows CE
  - Desktop Fullscreen: recommended when using remote desktop connection
- Tester Mode: The tester mode is for internal testing purposes only. Do not check this box.

1.3. Diagnostics tab

On the 'Diagnostics' tab network and process performance diagnostic tests can be ran.

Press the 'Ok' button to apply the configurations.

2. Setting Up Master Data in Produmex Scan

To be able to use the mobile application you have to set up the master data in the Produmex Scan add-on.
First set up the employees who can use the mobile application and determine their rights for the specific mobile functions.
In order to print labels from the mobile application, configure the printers and set up the label layouts you would like to use.

2.1. Printing

2.1.1. Defining the Layouts

You can define the layouts at Administration>Setup>Inventory>Produmex Scan>Printing Layout Sets. On the Printing Layout Sets form you can define which layout files should be used for the specific labels at printing.

- The *Description* is the label name displayed on the mobile device.
- On the *Bin Code Layout File* field add the report file of the label version for bin locations.
- On the *Stock Normal Label Layout File* field add the report file of the label version for stock that is not managed by batches or serials.
- On the *Stock Batch Label Layout* field add the report file of the label version for stock that is managed by batches.
- On the *Stock Serial Label Layout File* field add the report file of the label version for stock that is managed by serial numbers.

Define the path to the report files at the *Report Layout Folder* setting on the Reports tab of Produmex Scan settings. It is recommended to use a network folder.
It is also possible to define an output folder for reports at the *Report Output Folder* setting on the Reports tab of Produmex Scan settings.

2.1.2. Layout formats

2.1.2.1. Crystal Reports

Regular Crystal Reports RPT files which can contain one or more of the documented parameters. The report can connect to and read from the database. The database logon parameters (username, password, server, company name) are set by Warehouse before executing the report.

You can download example report files from here: Label examples
Copy the reports to the Report Layout Folder set on Produmex Scan settings. Open the reports and adjust the datasource location.

Bin Code Layout
Crystal report file is run once with the mask as the parameter.

Parameters:
BinCodeMask – Bin code mask with * eg. 01-A-1-1*

Stock Normal Label, Batch Label, Serial Label Layout

Parameters:
ItemCode BatchNumber SerialNumber Quantity

2.1.2.2. Zebra ZPL

Zebra ZPL files (or CPCL files) are text files which can contain one or more Placeholder strings.
The placeholders will be replaced by Produmex Scan before it is sent to the (networked TCP/IP or local printer on the server) Zebra printer.

Here is a sample Stock Label ZPL file (text file). This sample file contains the following placeholders:

- {Quantity}
- {OITM.InvtryUom}
- {OITM.ItemCode}
- {OITM.ItemName}

```
^XA
^PW632
^LL0472

^CWD,E:ARI000.FNT

^CFD,24
^FT434,270^FDItem;^FS

^CF0,24^BY3,3,95^FT135,170^BCN,,Y,N
^FD{Quantity}{OITM.InvtryUom}^FS
^FT492,270^FD{OITM.ItemCode}{OITM.ItemName}^FS
^PQ1,0,1,Y^XZ
```

Bin Code Layout
ZPL file is printed for every bin location found for the given mask.

Placeholders:
{OBIN.BarCode} {OBIN.BinCode} ... (Every field including user fields are available from OBIN table, reference it with the database column names)

Stock Normal Label, Batch Label, Serial Label Layout

Placeholders:
{ {OOIITTMM..IItteemmCNaodmee} } {OITM....} ... {Quantity} {OBTN.BatchNumber} {OBTN.CreationDate} {OBTN....} ... {OSRN.MnfSerial} {OSRN.DistNumber} {OSRN....} .... Every field (including user fields) available from OITM table For batches only: every field (including user fields) available from OBTN table For serials only: every field (including user fields) available from OSRN table

2.1.3. Setting Up the Printers

You can set up the printers at Administration > Setup > Inventory > Produmex Scan > Printers Setup.

1. Both local and network printers can be configured.

- In order to configure a local printer, make sure that the *'Is Network Printer'* checkbox is not checked. Enter the name of the printer to the Local Printer Name field.
- In order to configure a network printer, check the *'Is Network Printer'* checkbox. Add the IP Address as the *IP Address* and the port as the *Port Number*.

In case of network printers Local System users usually do not have the right to print, therefore, make sure that in the *Run As User* setting of the Produmex Service Broker you indicate a user who has printing rights.
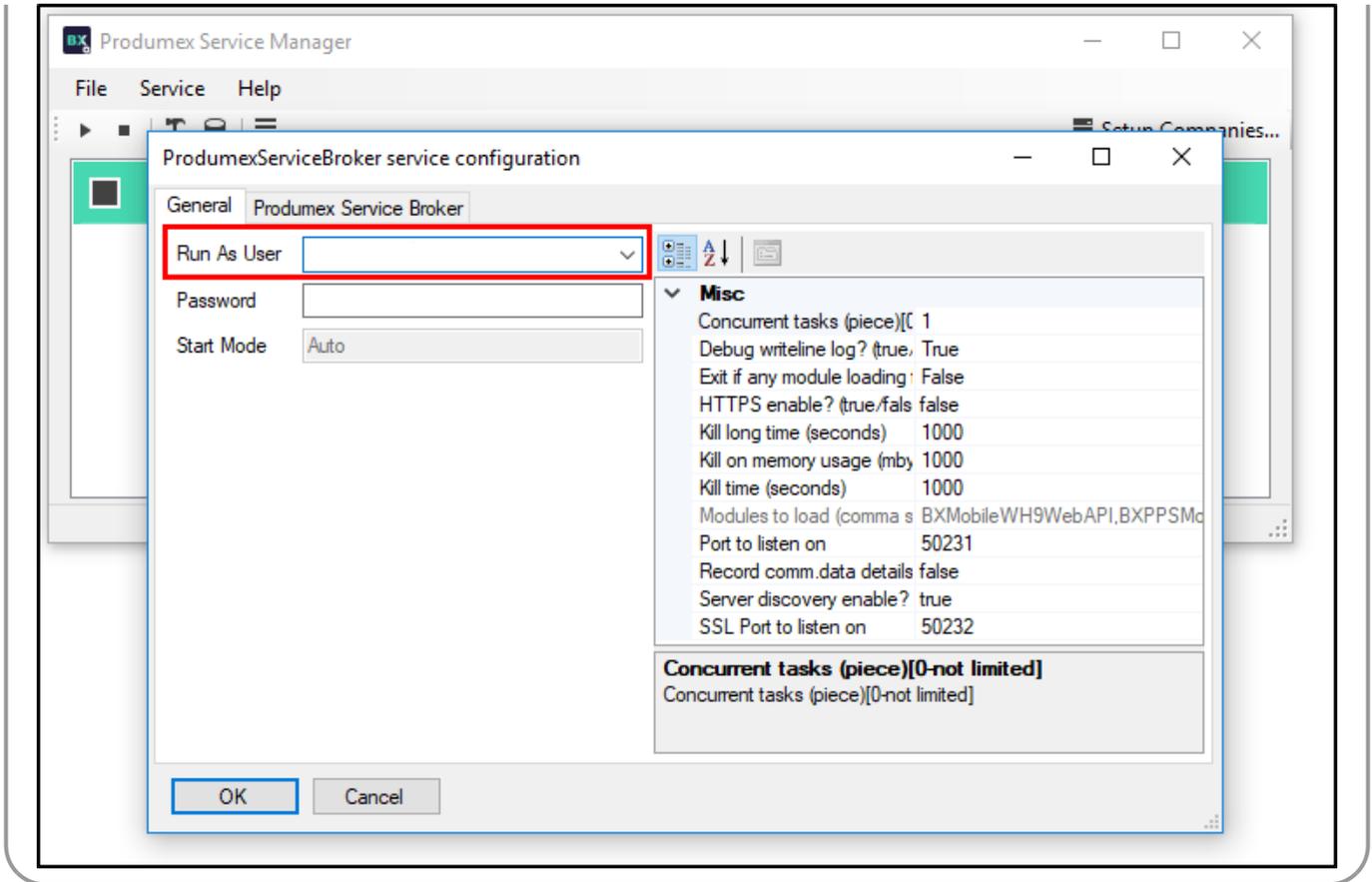
2. Indicate whether the printer is active or not with the 'Is Active' flag. Only active printers can be selected on the mobile application.

3. Select the type of the label file from the Printer Type drop-down menu. The following file types are supported:

• Crystal (RPT)
• Zebra CPCL
• Zebra ZPL

4. It is possible to assign layouts that can be used with the printer. Select the line of the printer and choose the *Select Layouts* option from the right-click menu.

On the opening form select the layout(s) from the dropdown menu on the Layout Set Code field. With the Visual Order it is possible to determine the order of the layouts on the list.
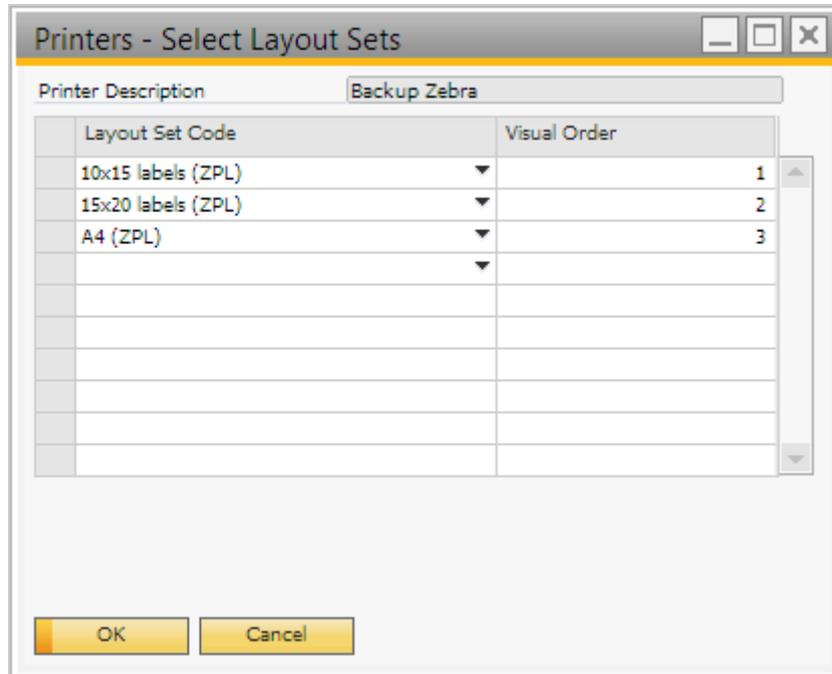
Default printer properties
The printing is processed via the Produmex Service Broker. By default Produmex Service Broker runs in a context of the LocalSystem account therefore it takes its printing settings from the default properties. Meanwhile, Crystal Reports takes its printing settings from the user-specific properties.
In order to change the printing settings for Produmex Scan, change the user specific and the default printing properties as well.
To change the user specific settings, open 'Printing preferences' of the printer. You can change the user specifc setting on the 'Options' tab.
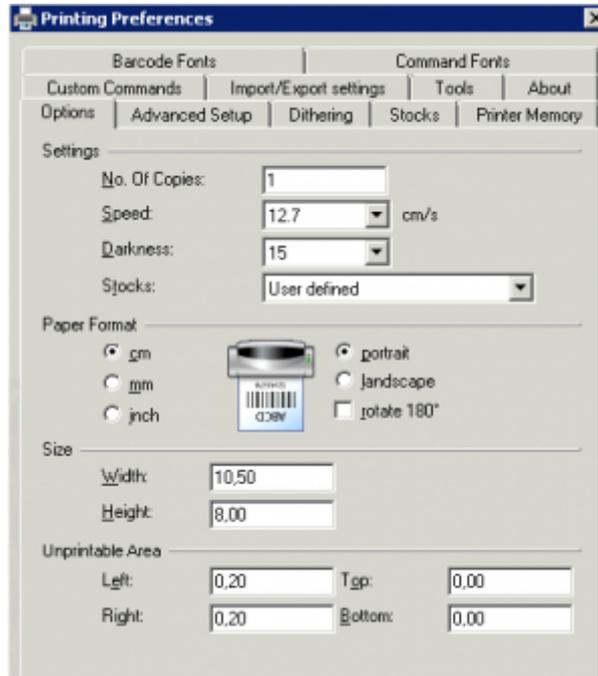
To change the default properties, select the 'Printing Properties' option. On the opening screen go to the 'Advanced' tab and click on the 'Printing Defaults' button to change the default printing preferences.
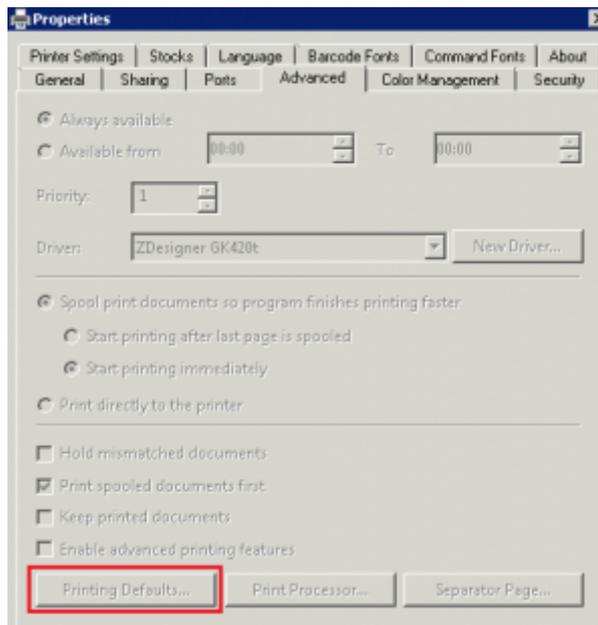
2.2. Setting Up Employees

The user specific settings for Produmex Scan users can be configured on the Employee Master Data. The following settings can be configured:

- User authorization
- User password

- Favorite menus
- Printers

2.2.1. Authorization fields

To authorize a functionality for the employee, set the corresponding UDF to 'Yes'. The employee will only see the authorized functions on the main menu of the client application.

> The 'Query stocks' function is authorized for every employee by default. It does not have an authorization UDF.


2.2.2. Default Printer

On the *Default printer* UDF the printer used in customization can be defined. This printer will only be used in customization, it will not be listed among the printers defined for the user.

2.2.3. User password

Set the user password on the *Mobile Password* UDF.

2.2.4. PIN Code

By default the user can login with the *Employee No.*. If there is a *PIN code* set, it is possible to log in with the *PIN code* as well.
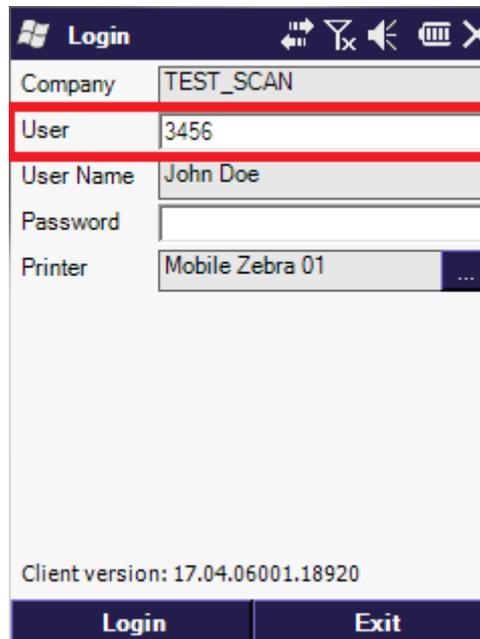
2.2.5. Mobile User Preferences

To configure the favorite menus for a user, select the *'Mobile User Preferences'* option from the right-click menu or click on the *'Mobile User Preferences'* button on the 'Administration' tab.

The 'Mobile User Preferences' form will open up. On the header of the form the *Employee ID* and the *Employee Name* are shown.

Select a menu point from the dropdown list on the 'Mobile Menu ID' column then define the sequence of the menu buttons on the 'Visual Order' column. Menu points with the smallest visual order number will be shown first.

Click on the 'Update' button to apply the changes.

2019/07/25 08:14
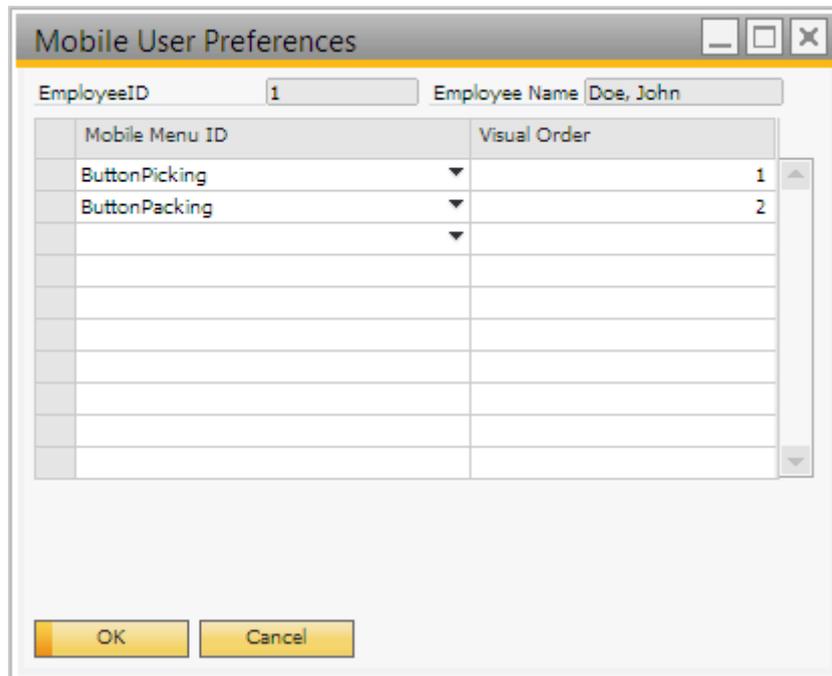
The favorite menu buttons will be displayed on the top of the main menu of Produmex Scan.
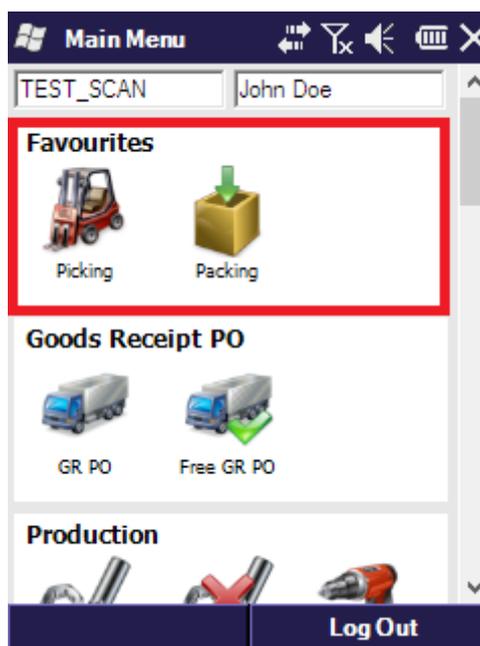
2.2.6. Mobile User Printer

On the Employee Master Data select the *'Mobile User Printers'* option from the right-click menu or click on the 'Mobile User Printers' button on the 'Administration' form.

The 'Mobile User Printers' form will open up. On the header of the form the *Employee ID* and the *Employee Name* are displayed.

Select the printer from the dropdown menu. Every printer defined on the *Printers* table is listed.

Add the sequence of the printer on the visual order column.
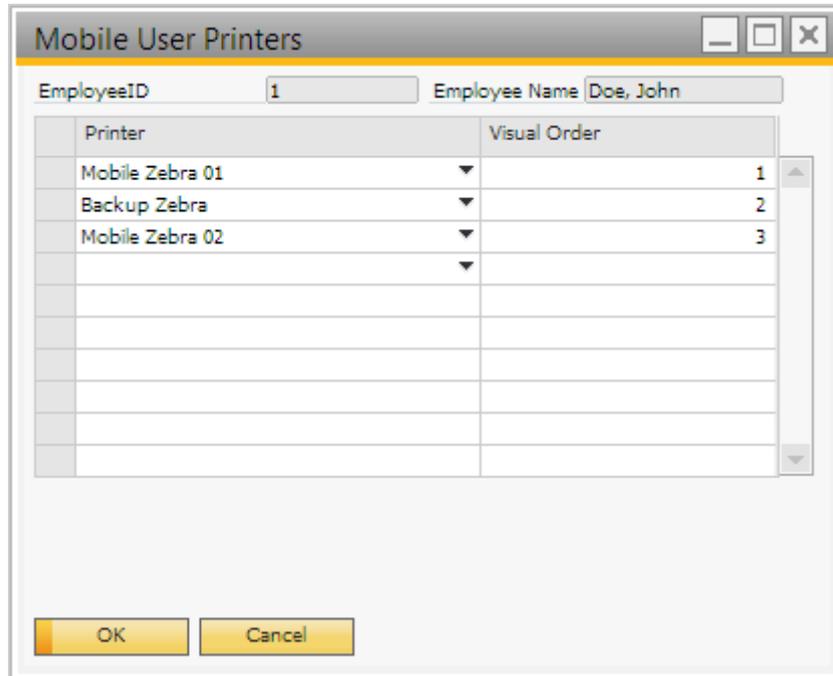
The printer with the lowest 'Visual Order' value will be shown as the default printer on the Login screen or before printing. It is possible to change the default printer. Press the '…' button then select a printer from the list. Every printer defined for the user on the 'Mobile User Printers' form will be listed. The order of the list depends on the 'Visual Order' value.
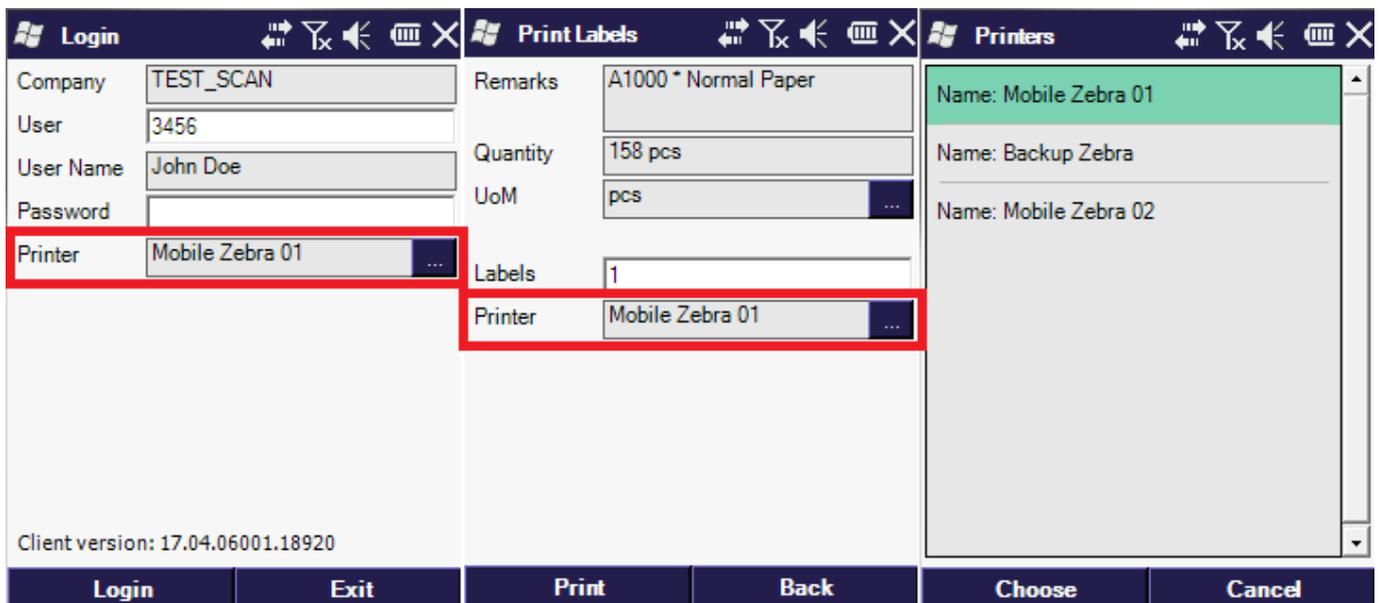
3. Produmex Scan Settings

Settings for the system can be found in the add-on, under Administration>Add-Ons>Produmex Scan>Produmex Scan Settings.

3.1. General tab

The following table describes the fields that appear in the 'General' tab of the Produmex Scan Settings window.

Field	Description/Activity
Don't translate trace	Obsolete setting.
Advanced Progress Bar	If this checkbox is checked, the system will display the Produmex Scan Advanced Progress Bar instead of the Business One Progress Bar. We recommend using the Produmex Scan progress bar, as at long processes SBO progress bar can stop.
DisplayTimeUoM	This setting is not in use in Produmex Scan.
Company Logo	The company's own logo, used in reports. Path to image file requested.
BxBackOffice Server URL	Obsolete setting.
Chart XML Folder	This setting is not in use in Produmex Scan.
Produmex Support Business Partner	If an error occurs, a message box is displayed with the error details. You can send the error message to Support from this message box. You will need to set a Business Partner first, and set the Contact Person's email address. Set this Contact Person's code for the Produmex Support Business Partner field. You have to set up SBO Mailer for this function to work.
Name of last started AddOn	Internal field, not editable.
Date of last started AddOn	Internal field, not editable.
Time of last started AddOn	Internal field, not editable.
Use Message Board	The message board lets add-ons communicate with each other. In some cases, events are forwarded to non-Produmex add-ons. In this case, turn this setting off, but in this case communication between Produmex add-ons will stop.
TxSyncServer URL	This setting is not in use in Produmex Scan.
Seconds of last started AddOn	Internal field, not editable.
Grid Row Count Decrease Number	Decrease height of form grid to allow buttons being correctly seen at the bottom of the window. Positive integer needed. Useful if you have SAP 8.8 or higher with a low resolution monitor and the buttons are in the grids.
Close Stucked AddOns	If enabled, the add-on kills any other instance of BXWH9AddOn.exe on start. It means that only one Produmex Scan add-on can run at a time. On terminal server environments it is recommended to disable this setting as it kills Produmex Scan add-ons run by other users as well.
Enabe Produmex statusbar (SBO 8.8 or above)	Obsolete setting
Do Not Use GetAsXml	When Produmex Scan request table information, we can use GetAsXml SAP function. Sometimes there were SAP DI errors, in this case we can use a Produmex Scan function to request the data.
Password for DI Connection	Modify DI connection mode to work around for SAP 9.0 pl9 hotfix 1 bug by direct DI connection
Copy Bitmaps Manually	If enabled, the icon image files will not be copied from the SBO installation folder when the add-on starts. Enable this setting if the user do not have writing permission for the folder set as the Pictures Folder on the Path tab of General Settings.

3.2. SQL tab

The following table describes the fields that appear in the 'SQL' tab of the Produmex Scan Settings window.

Field	Description/Activity
ADO.NET SQL Username	The User name for the MS SQL database (usually sa). Scripts use this setting (for example for upgrading a database).
SQL Time out in seconds	SQL Timeout setting for SQL queries.
SQL execution duration alert in milliseconds	If the execution of a query exceeds the time defined in this setting, a warning is added to the log file.

3.3. Logs tab

The following table describes the fields that appear in the 'Logs' tab of the Produmex Scan Settings window.

Field	Description/Activity
Auto Purge Audit Logs in days	The add-on logs each database transaction in the Audit Log table. This log can be deleted automatically in the interval set here. The default setting is 30 days.
Keep Audit Logs in days	The system deletes the log entries, which are older than the number of days set here.
Log resource strings	If this checkbox is checked, the system logs every Resource String from open forms to a log file. By default log files are located in: %AppData%\Roaming\BX\Logs.
Logging Level	Sets which events are logged. Possible values: *Errors Only* *Errors and Warnings* *Errors, Warnings, Information* *Debug (everything)* By default log files are located in: %AppData%\Roaming\BX\Logs.
Log Table - max number of days to keep	Log entries that exceed the specified number of days will be deleted from the "@BXPLOG" table.
Log Table - max number of rows to keep	Defines the maximum number of rows that are kept in the "@BXPLOG" table.

3.4. Reports tab

The following table describes the fields that appear in the 'Reports' tab of the Produmex Scan Settings window.

Field	Description/Activity
Report Layout Folder	The folder which contains the RPT files for reports.
Report Output Folder	The folder which will contain the generated PDF files for reports.
Paper Size (Reports)	Paper size for reports. Example: A4, A3
Paper Orientation (Reports)	Paper orientation for reports. Example: portrait, landscape

Field	Description/Activity
Printer Name (Reports)	Printer name for reports.
Print Preview (Reports)	If enabled, the *Preview before print* checkbox is checked by default on the Select Report Layout screen.
Preview with Watermark	If enabled, the watermark is printed on print previews as well.

3.5. Produmex Scan General

The following table describes the fields that appear in the 'Produmex Scan General' tab of the Produmex Scan Settings window.

Field	Description/Activity
Maximum number of documents to display per page (more than 20 may cause performance issues)	Defines the maximum number of lines displayed on one screen. If the number of the lines to be listed exceeds this number, page navigator buttons are displayed on the screen. Use these buttons to navigate between pages. *Please note: The Refresh button must be pressed in order to apply the added filters even though the navigation buttons are displayed.*
Maximum number of serials/batches to display (more than 100 may cause performance issues)	If you work with serial/batches numbers, with this setting you can limit the number of the displayed items.
Maximum number of lines for stock queries to display (more than 100 may cause performance issues)	Defines the maximum number of lines displayed in the Query Stocks/Stock Info screens.
Don't close screens with completed quantity	If you picked all quantities on quantity screens, then Produmex Scan falls back to the document line screen by default. In this case you cannot use any customization after a *'ButtonAdd'* event. With this setting you can configure Produmex Scan to stay on the quantity screens, and you have to close it manually.
Don't close screen after picking delivery	After the delivery is created in Picking, Produmex Scan falls back to the select a pick list screen by default. If this checkbox is enabled, Produmex Scan stays on the pick list lines screen after the delivery is created.
Allow issuing more items for production than planned	If this setting is disabled, only the production order lines that have open quantities to issue are listed in the 'Issue for production' function.
Allow reception of more products than planned	If this setting is disabled, only production orders that have open quantities to receive are listed in the 'Receipt form Production' and 'By-Product' functions.

Field	Description/Activity
Enable multi-item Stock Transfers	This function allows to park transactions before you post them, that is, you can add multiple items to a stock transfer before posting. Once you click the Post button, however, it is possible that not only your transactions will be posted. **If there is another user creating a stock transfer to the same warehouse/bin location, the user's transactions will be posted as well**. (If you are supposed to be allowed to post only your own transactions, please consult with the description of function *Transaction Separation for Warehouse Scanners* available in this table.) If function *Enable multi-item Stock Transfers* is disabled, only single-scan-transactions are possible, that is, you are allowed to post transactions only one by one.
Ignore special lines when creating Documents	It is enable, the text lines of a sales order won't be copied to a delivery.
Exclude Sales Orders when checking allocated quantities	If enabled, stock allocated to sales orders cannot be used when issuing stock during outgoing processes.
Sales return document location must be the same	Items can only be returned to the same bin location.
Credit note document location must be the same	Items can only be returned to the same bin location.
Keep base document line order for Delivery (instead of picking order)	If enabled, the Delivery document lines are added in the order of the base document, otherwise they will be added in the order of the picking.
Real-time Stock Counting	If enabled, Produmex Scan automatically updates the Inventory Counting document with the result of the counting after pressing the Finish button in the end of Stock counting or Quick counting. If this setting is disabled, the counting result will be stored in a user table.
Show all Stock Counting data on scanners	If enabled, already counted items are listed on the Stock Counting screen. *Please note: Items with different batch or serial number will be listed in separate lines.* If disabled, only the number of the counting records is displayed.
Display all sheet bin locations for Quick Counting	It is enable all bin location will be displayed for quick counting.
Guided Quick Counting (Y/N)	If enabled, the Guided Count process can be started instead of Quick Counting.
Restricted zone handling in Quick Counting (Y/N)	If enabled, the counter is only allowed to count locations included in the Inventory Counting document during Quick Counting and Guided Counting.
Sticky destination location for Stock Transfer Requests	If enabled, the last To: location will be remembered during processing Stock Transfer Request, this can be convenient if STR items are put in the same destination location (maybe a cart, pallet, etc.)
Keep focus on prepared line (all processes)	If enabled, the last To: location will be remembered during processing Stock Transfer Request, this can be convenient if STR items are put in the same destination location (maybe a cart, pallet, etc.)
Display completed Stock Transfer Request lines at the end of the list	At Stock Transfer Request process the processed lines will be shown in the bottom of the list.

Field	Description/Activity
Goods Receipt PO quick refresh mode	During reception, Goods Receipt PO lines can be set to refresh data only on the current line, not the whole list.
Copy user fields from base line to Serial/Batch Details (Goods Receipt PO only)	Enable this setting to copy the UDF value from the purchase order lines to the matching Serial/Batch detail field when the Goods Receipt PO is created. *Please note: The value will be copied only if the UDF and the Serial/Batch detail has the exact same name.*
Timeout for messages (except for errors, seconds)	Warnings, Information messages, are closed automatically after the time set at this field.
Diagnostic Client Log settings	Special option for collecting error logs from the mobile client. Only use when instructed by Produmex support.
Don't show icons on main menu (use buttons instead)	Display only simply buttons with no icons.
Detailed mobile log	Only for picking and stock transfer. More details are recorded in to table: @BXPLMSMOBLOG
Enable SAP DI API logging	If this setting is enabled, a new log file is created under "C:\ProgramData\BX\BX Service Broker\Logs". The file name is SAP-DIAPI-*yyyy-mm-dd*.log
Alternative Item Name field	To display alternative item names on the scanner, add the OITM table field name where the alternative name of the item is stored to this field. Please note: In order to add user defined fields, insert the 'U_' prefix. Restart the Service Broker to apply the Alternative Item Name.
Transaction Separation for Warehouse Scanners	Using this function is reasonable only if you enable function *Enable multi-item Stock Transfers* (the description of the function is available in this table). If function *Transaction Separation for Warehouse Scanners* is enabled, you can add multiple items to a stock transfer before posting, however, when you click the Post button, **only your transactions will be posted**.

3.6. Produmex Scan Scanning

The following table describes the fields that appear in the 'Produmex Scan Scanning' tab of the Produmex Scan Settings window.

Field	Description/Activity
Item code or item barcode must be scanned for Sales Order	If this option is enabled, then the item code or the item's bar code must be scanned when delivering the sales; otherwise the item is prefilled and doesn't need to be scanned.
Item code or item barcode must be scanned during Picking	If this option is enabled, then the item code or the item's bar code must be scanned during picking; otherwise the item is prefilled and doesn't need to be scanned.

Field	Description/Activity
Prefill quantities for Goods Receipt PO	Prefill quantities (separate options for different processes): **None**: No prefill will be used for this task. **Open**: The system will fill in the quantities of all receives as the full expected or full remaining expected quantity. For example: if the order is 20 and 5 have been received, the system will default the next receive for 15. **Unit**: The system will fill in the quantities with one unit.
Prefill quantities for Stock Transfer Request	
Prefill quantities for Picking	
Prefill quantities for Issue for Production	
Prefill quantities for Receipt from Production	
Prefill quantities for Return Components	
Prefill unique batches (outgoing processes)	If this setting is enabled, an there is only one batch in stock for the item, the batch is automatically filled during outgoing processes.
Prefill unique batches for Stock Counting	If this setting is enabled, an there is only one batch in stock for the item, the batch is automatically filled during stock counting.
Post the corresponding quantity when scanning item bar code in quantity field	When scanning an item's bar code into a quantity field, a quantity of 1 for the corresponding UoM is pre-filled; if this option is enabled, the quantity is automatically posted/added, otherwise the user has to press the Add/Update/Post button.
Auto book unit when scanning normal item for Stock Counting	When doing inventory counting, scanning a barcode automatically counts a unit (eg. 1 piece, 1 carton) for the item
Barcode scanner prefix Barcode scanner suffix	If the barcodes contain prefix/suffix characters that should be removed before processing it, you can specify it here. Eg. if you have a (and) prefix/suffix, the printed item barcode can look like (A1000) which will be processes as A1000.
GS1-128 barcode group separator	Group separator character for GS1-128 type barcodes. Example: $
Code ID type	For GS1-128, there are two international standards, the Symbol standard and the AIM standard. With Symbol CodeID, the scanned input text is prefixed with (K for GS1128. Currently only Symbol is supported.
Allow selecting locations from Find Stocks screen (outgoing processes)	If enabled, the Find Stocks button allows to select an location.
Allow selecting batches from Find Stocks screen (outgoing processes)	If enabled, the Find Stocks button allows to select an existing batch.
Optimized mixed serial/bin handling (Goods Receipt PO, Stock Transfer Request)	If enabled, the bin location and the serial number can be added on the GR/PO lines screen.

3.7. Produmex Scan Picking

The following table describes the fields that appear in the 'Produmex Scan Picking' tab of the Produmex Scan Settings window.

Field	Description/Activity
Allow working on already taken Pick Lists	It is advised for an extend pick list. More than one user is allowed to pick the items included in the list.

Field	Description/Activity
Real-time Picking (post instantly after picking an item)	If enabled (default) every picking action instantly updates the SAP Pick List document.
Allow changing bin/batch/serial allocations for Picking	If enabled, the bin/batch/serial numbers are allowed to be different than what is specified in the Pick List.
Speed Picking (Real-time Picking must be disabled)	If it is enabled, the lines from the selected picklist are loaded only once, when the Picking screen is first opened for that pick list. The selection automatically jumps onto the next un-picked line following the line last picked; this is another improvement to simplify the picking process.
Sequential Picking ('Speed Picking' must be enabled)	If it is enabled, the entire control stays basically in the Picking Line Details screen, and the control jumps back to the Pick List screen only after the last line has been picked. The user can always jump back with the Back button, of course.
Streamlined Picking	Enables a special POS-like mode for picking where all items are picked from a single bin location or non-bin warehouse. In this case, scanning an item code or barcode automatically adds a quantity of 1 (can be changed on the screen) to the picked quantity.
Pick List lines quick refresh mode	When picking from a non-bin warehouse the Pick List - lines screen can be set to only refresh the current line data (quantities), not the whole list.
Release active Pick List on timeout	During picking, the Pick List is allocated to the working employee. If there is a timeout and the worker is forced to the main menu, if this option is set the pick list will be reset to be available to others.
Timeout interval for Picking (seconds)	If specified, the worker is forced to the main menu from picking after this many seconds of inactivity.

3.8. Produmex Scan Strategies

The following table describes the fields that appear in the 'Produmex Scan Strategies' tab of the Produmex Scan Settings window.

Field	Description/Activity
Incoming strategies user query name	The user query name used for the incoming strategy.
Incoming strategies frequency (seconds)	Number of seconds to run the incoming strategy periodically. 0 = disabled.
Replenishment strategies user query name	The user query name used for the replenishment strategy.
Replenishment strategies frequency (seconds)	Number of seconds to run the replenishment strategy periodically. 0 = disabled.
Allow changing target Bin Location allocation for Stock Transfer Draft	If the function is enabled, you are allowed to use a target bin location different from the one that is allocated on the Stock Transfer Draft.

4. How to customize Employee Master Data for Produmex

Scan with standard SBO tools

> **Disclaimer: This documentation describes the standard SAP Business One UI Configuration function.**

4.1. Create a configuration template

Open the UI Configuration Template form by following the path: Administration > Utilities > UI Configuration Template.
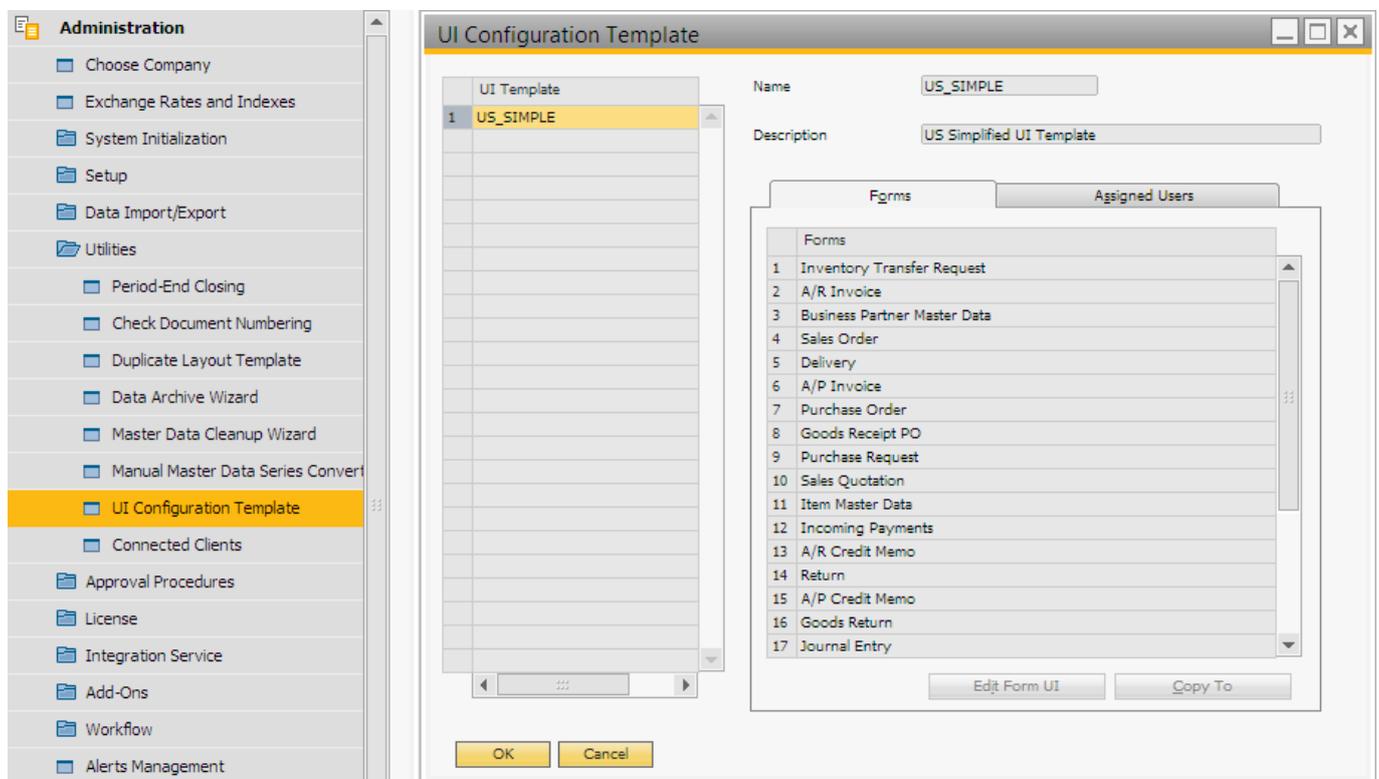
Go to 'Add' mode and create a new template. On the Forms tab add the Employee Master Data. It is possible to assign the template to selected users only on the Assigned Users tab.

> We will name our template 'Produmex Scan'.
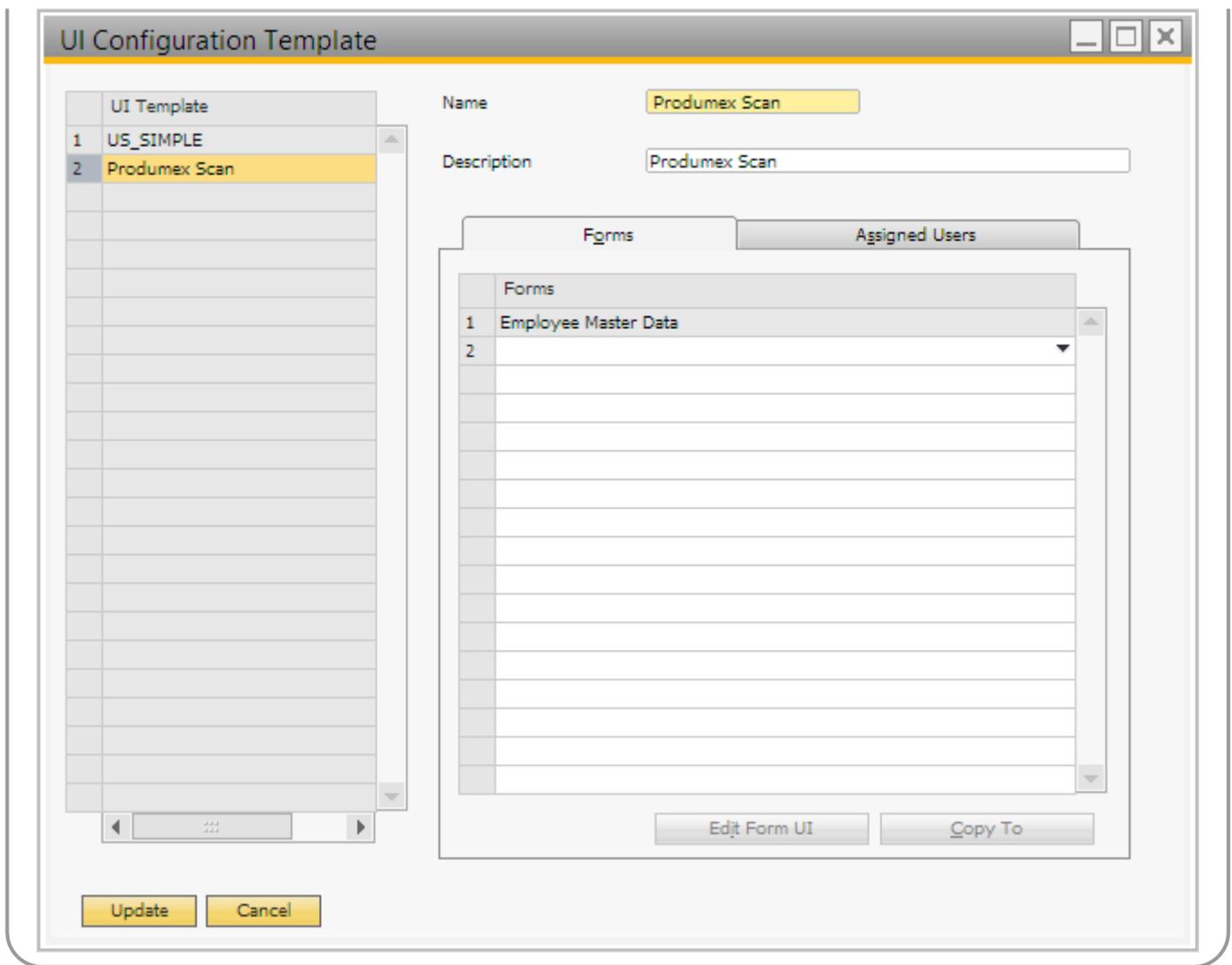
4.2. Edit the Employee Master Data UI

Select the Employee Master Data line and click on the *Edit Form UI* button. The Employee Master Data form will open in UI Edit Mode.

To add a new tab, select the *Add tab* option from the right-click menu.

We will add a Scan tab.

Drag the User Defined Fields and drop it on the new tab. After the field is placed on the tab, it can be resized. To arrange the UDFs on the tab, select multiple fields and align them with a right-click menu aligning option.

It is also possible to move standard SBO fields or standard SBO buttons from other tab as well. As the

best practice, grab the button, place it on the header area, then go to the destination tab. Grab again the button and place it on the destination tab.

Please note: The Mobile User Preference and the Mobile User Printer button cannot be moved.
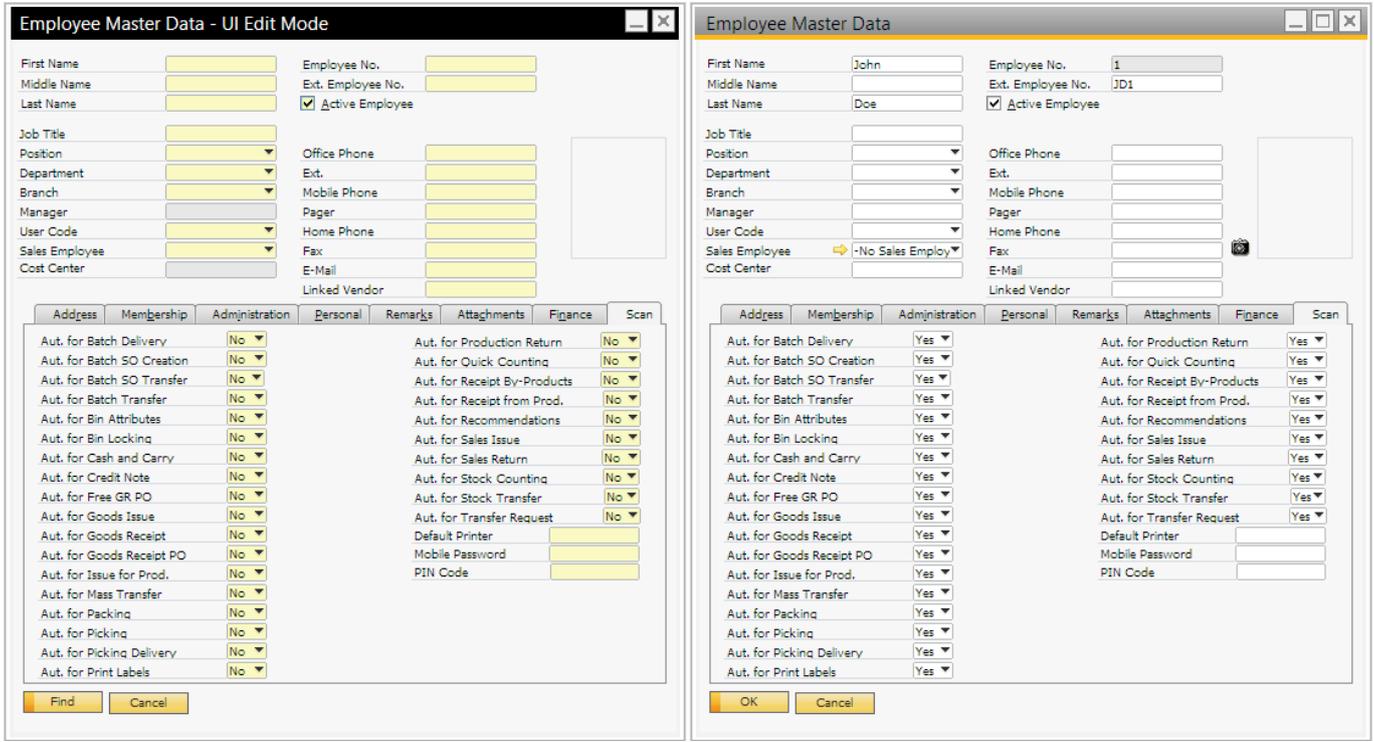
5. Configure HTTPS for Produmex Service Broker with a self-signed certificate

5.1. Produmex Service Broker Settings

Open the Produmex Service Broker configuration window from the Produmex Service Broker.

Enable HTTPS by setting the 'HTTPS enable?' setting to True, then set the port you would like to use as the 'SSL Port to listen on'.
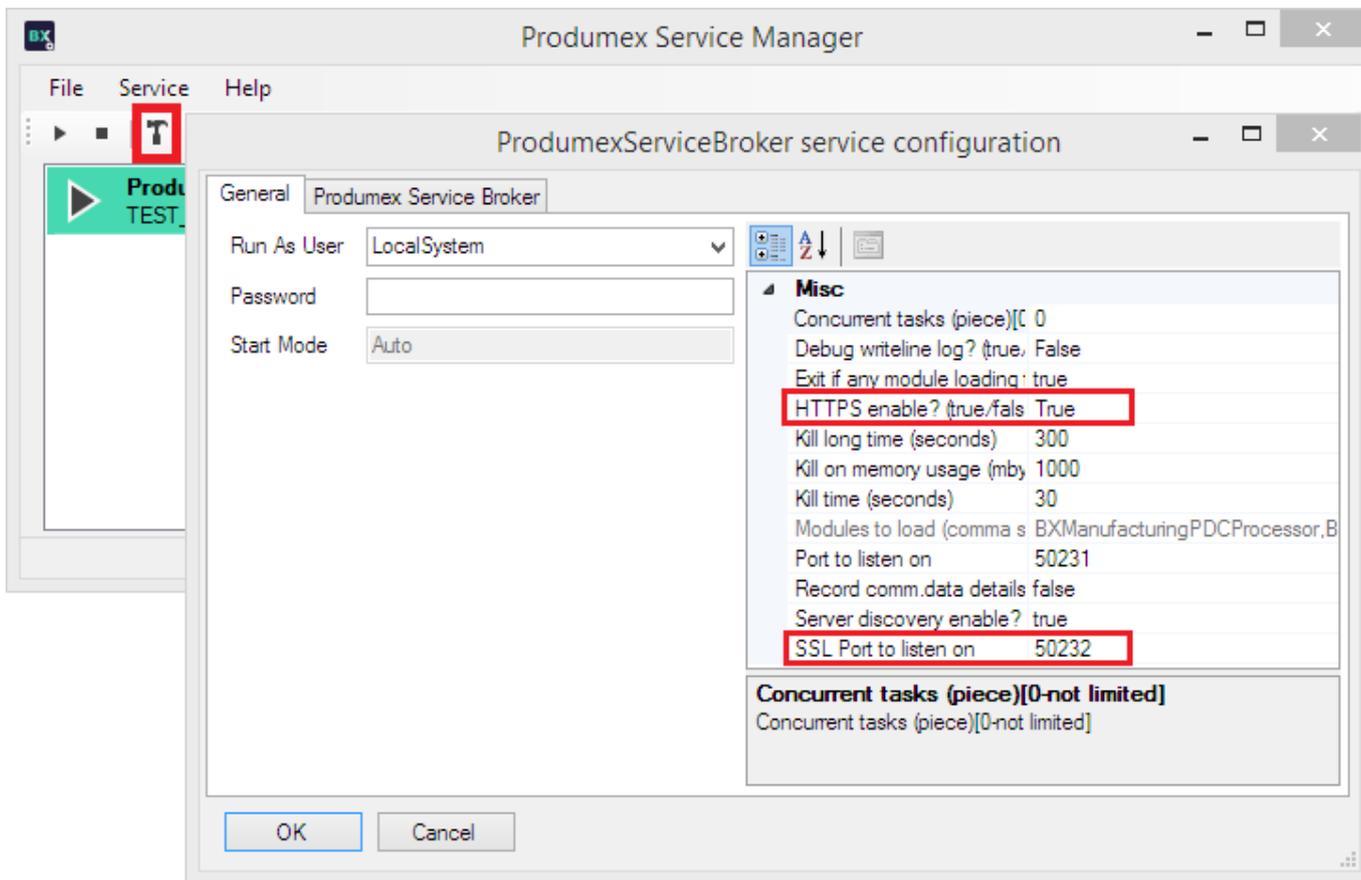
5.1. Create client certificate

Create the self-signed certificate on your server.

In this documentation we used MakeCert.exe which is a part of the Microsoft Windows SDK. You can download the Windows SDK from here:

- Windows 10: https://developer.microsoft.com/en-us/windows/downloads/windows-10-sdk
- Versions previous to Windows 10: https://developer.microsoft.com/en-us/windows/downloads/sdk-archive

Open Command Prompt as an administrator and run the following command:
`<path>makecert.exe -r -pe -n "CN=<name>" -eku 1.3.6.1.5.5.7.3.1 -ss my -sr localMachine -sky exchange -sp "Microsoft RSA SChannel Cryptographic Provider" -sy 12 <filename>.cer`

Replace <path> with the actual access path of the MakeCert.exe. Adapt the <name> and the <filename> as well.

In this example we used the following command:
`C:\Program Files\Microsoft SDKs\Windows\v7.1\Bin\makecert.exe -r -pe -n "CN=ServiceBroker" -eku 1.3.6.1.5.5.7.3.1 -ss my -sr localMachine -sky exchange -sp "Microsoft RSA SChannel Cryptographic Provider" -sy 12 ServiceBroker.cer`

> In this documentation we used MakeCert.exe which is a part of the *Microsoft Windows SDK for Windows 7 and .NET Framework 4*. Please keep in mind that other versions of MakeCert or other certification generators might use different parameters.
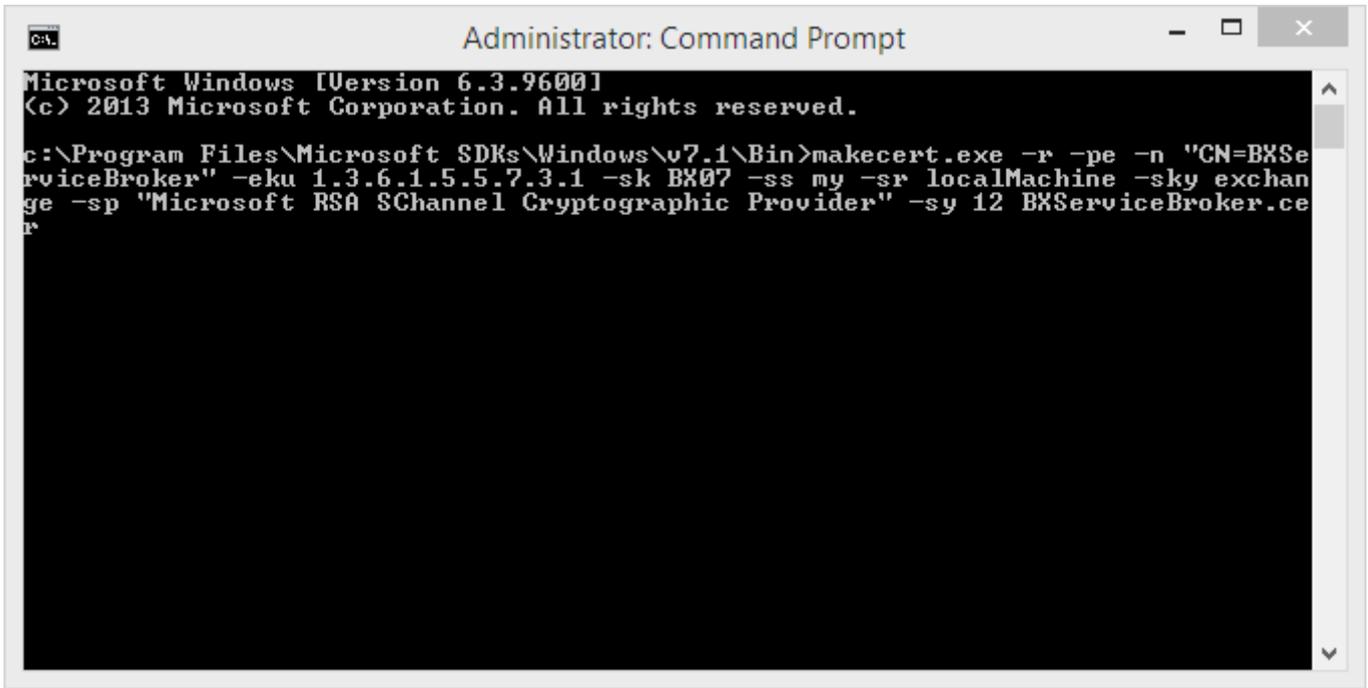

## 5.2. Import the certificate on a Windows server

Run the Microsoft Management Console (mmc.exe). From the File menu select Add/Remove Snap-In.
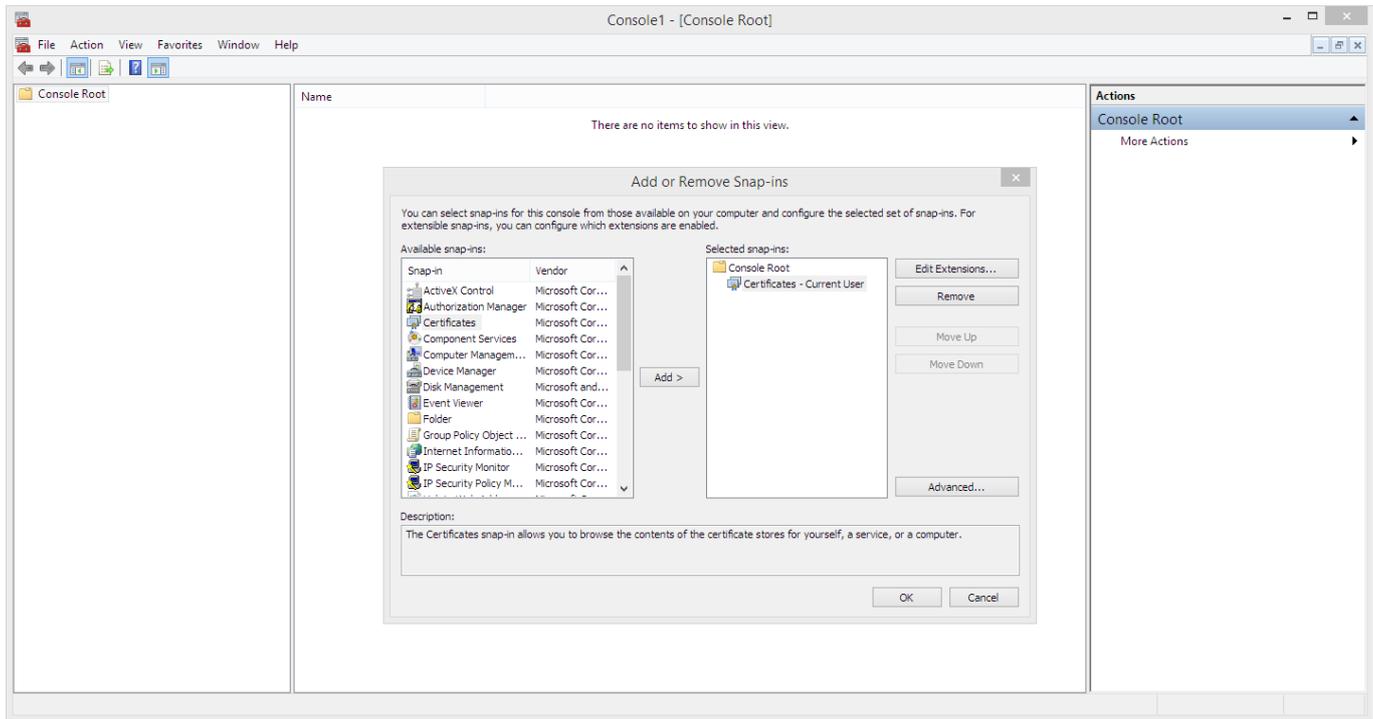
Choose the *Certificates* snap-in and add it to the 'Selected snap-ins'. On the opening Certificates snap-in select 'Computer account'. On the next screen choose *Local computer* (or select the computer account) then click on the Finish button.
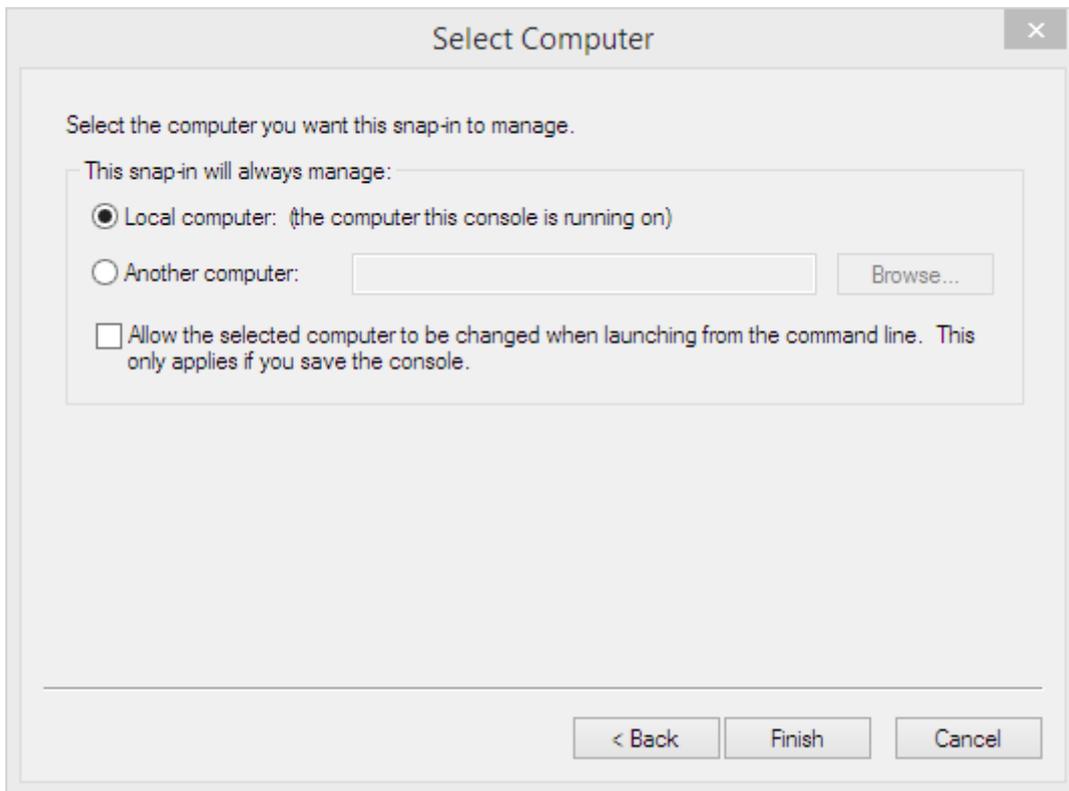
On the Console navigate to Certification via Certificates (Local computer) > Trusted Root Certification Authorities > Certification. Right-click on Certification and select *Import...* from *All Tasks*.
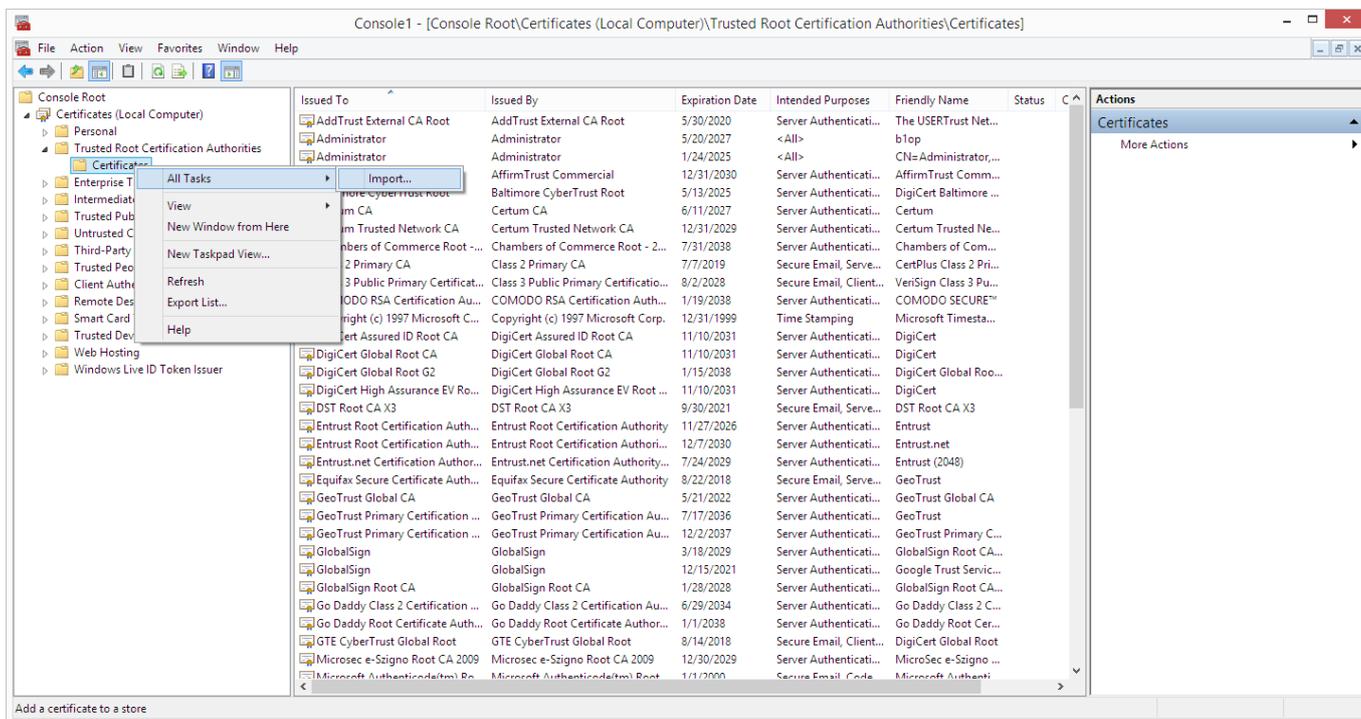
Follow the steps of the Certificate Import Wizard. Browse the ServiceBroker.cer, place the certificate to the Trusted Root Certification Authorities certificate store and finish the import.

Then import the certificate to the Personal folder as well, following the above described steps.

5.3. Bind the certificate to the port number

Bind the ServiceBroker.cer to the port number.

In this example we use the following netsh command in order to configure the certification to the port number.

Run the following command with Command Prompt:

netsh http add sslcert ipport=0.0.0.0:*port* **certhash=***thumbprint* **appid={***app-guid***}**

Where:

- **ipport**: is the IP address and the listening port. You can use a special IP address 0.0.0.0 that matches any IP address for the local machine. The listening port must be the same as the 'SSL Port to listed on' that is set on the Produmex Service Broker service configuration screen.
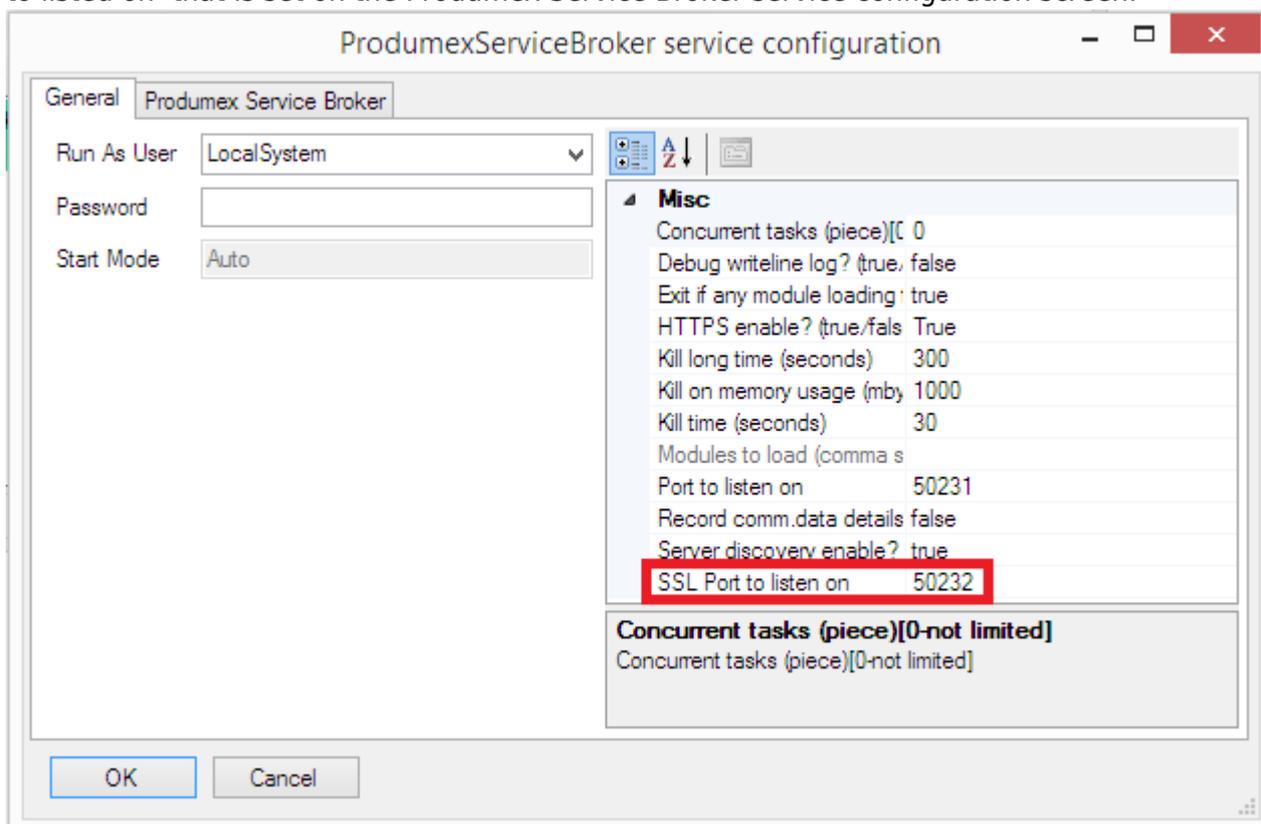
- **certhash**: The thumbprint of the certificate is the certificate's SHA-1 hash, represented in hexadecimal. In order to determine the certhash, open the certificate and go to the Details tab. Copy the thumbprint value to a text editor and remove all spaces between the hexadecimal characters. Make sure that there are no hidden characters in the string. (Eg. select the line and set the encoding to ANSI.)
- **appid**: is the GUID (e.g. {00000000-0000-0000-0000-000000000000}) that identifies the owning application. The GUID of the Produmex Service Broker is **{d4deb269-37e6-49db-a9cd-cd74f52d36c3}**

Example command:
`netsh http add sslcert ipport=0.0.0.0:50232 certhash=a828d05b70e88c9c904fe5149ad170ff89433102 appid={d4deb269-37e6-49db-a9cd-cd74f52d36c3}`

5.4. Import the certificate

Besides the server, the certificate has to be imported on every computer that connects to Produmex Service Broker over HTTPS.

5.4.1. Import the certificate on a mobile device

In this example we installed the certificate on a Honeywell Dolphin 60 device with Windows Embedded Handheld 6.5 Classic operating system. The installation steps may differ based on the operating system and the device.

Copy the certificate file to the device, eg. to the *My Documents* folder.

Open the File Explorer from Start>Programs>File Explorer and open the folder where you copied the certificate. Tap on the certificate file you would like to import.

A 'Certificate Installation' message opens up. Press the 'More' button. To see the details of the certificate file, tap on the 'requester' link. To install the certificate, press the 'Install' button.
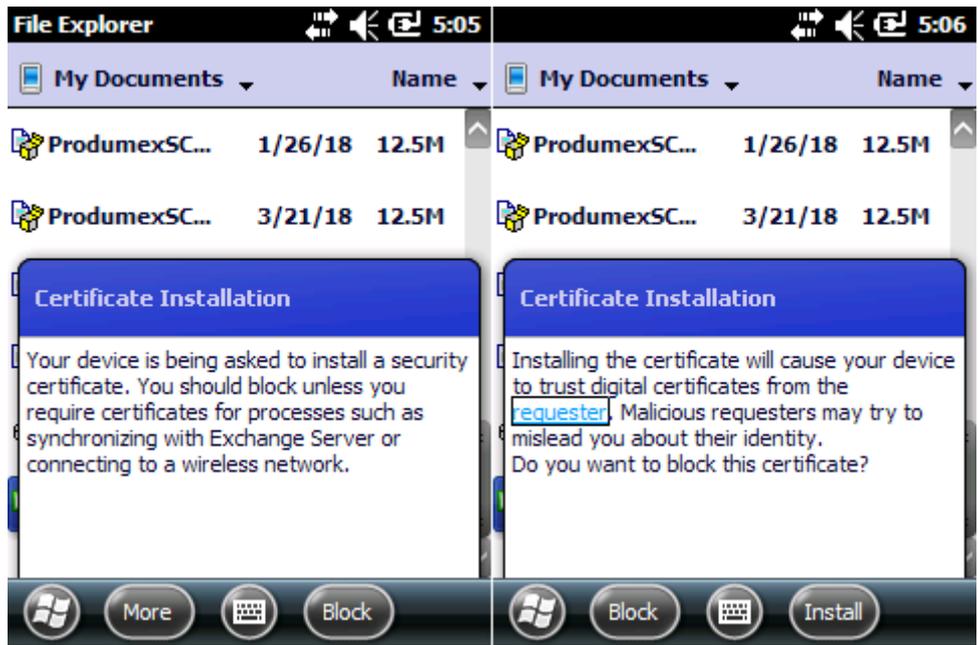
If the installation is successful, a confirmation message is displayed. The certificate is imported to the Root folder of Certificates.

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