

18. Produmex Standard EDI Module

EDI is a communication protocol for electronic data interchange between business partners.

With the Produmex EDI module it is possible to:

- export files with the Notification Listener or the Interfacing tool,
- import files with the Interfacing tool and
- monitor the process on the Interface Monitor screen.

The standard file formats used for EDI messages are *.xml* and *.csv*.

18.1. Configuration

18.1.1. Define the path

Define the input and the output path for the EDI module on the *Config* tab of the Organization Structure.

1. In the *Interface Monitor Input Archive Path* field define the path where the system moves the file after processing it.
2. In the *Interface Monitor Input Error Path* field define the path where the file is moved if there is an error during the processing.
3. In the *Interface Monitor Input Path* field define the path to a folder from where the system imports the file.
4. In the *Interface Monitor Output Archive Path* field define the path where the third party software puts the file after processing it.
Note: This path is not used by the Produmex Interfacing tool.
5. In the *Interface Monitor Output Error Path* field define the path where the third party software puts the file if there is an error while processing it.
Note: This path is not used by the Produmex Interfacing tool.
6. In the *Interface Monitor Output Path* field define the path to the folder where the system exports the file. Set this folder as an input for the third party software.



18.1.2. Set up the interfacing controller

Produmex offers standard controllers for the following documents:

Document	Property	Extension
PMX advance shipping notice	Interface for PMX Advance Shipping Notice (Im-Exporter)	IPmx Advance Shipping Notice Interface
PMX move order	Interface for PMX Move Order Im-/Export	IPmx Move Order Interface
PMX move	Interface for PMX Move Im-/Export	IPmx Move Interface

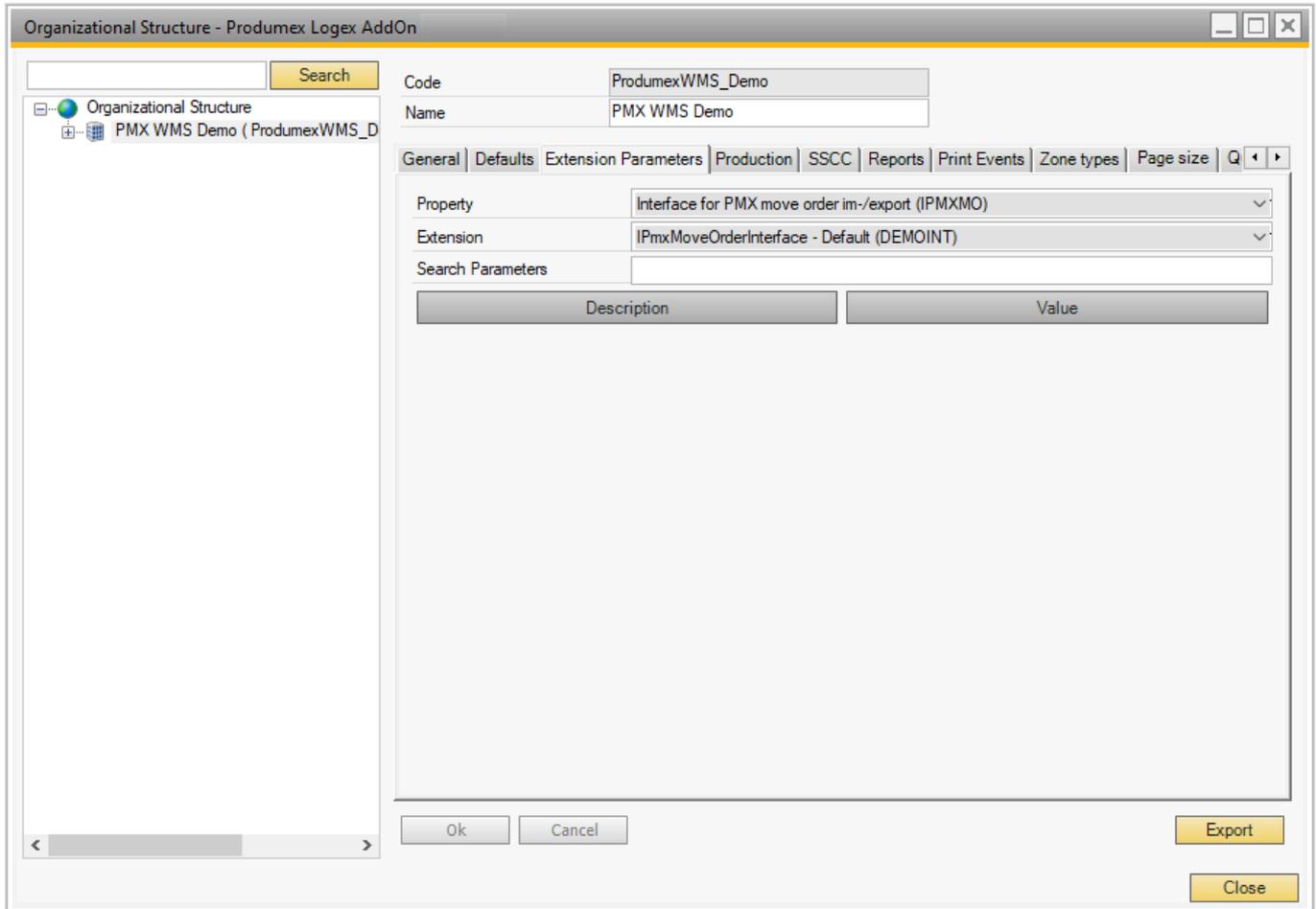
Document	Property	Extension
SBO item master data	Interface for SBO Item Master Data Im-/Export	ISBO Item Master Data Interface
SBO purchase credit note	Interface for SBO Purchase Credit Note Im-/Export	ISBO Purchase Credit Note Interface
SBO purchase delivery	Interface for SBO Purchase Delivery Im-/Export	ISBO Purchase Delivery Interface
SBO purchase invoice	Interface for SBO Purchase Invoice Im-/Export	ISBO Purchase Invoice Interface
SBO purchase order	Interface for SBO Purchase Order Im-/Export	ISBO Purchase Order Interface
SBO purchase return	Interface for SBO Purchase Return Im-/Export	ISBO Purchase Return Interface
SBO sales credit note	Interface for SBO Sales Credit Note Im-/Export	ISBO Sales Credit Note Interface
SBO sales delivery	Interface for SBO Sales Delivery Note Im-/Export	ISBO Sales Delivery Interface
SBO sales invoice	Interface for SBO Sales Invoice Im-/Export	ISBO Sales Invoice Interface
SBO sales return	Interface for SBO Sales Return Im-/Export	ISBO Sales Return Interface
SBO sales order	Interface for SBO Sales Order Im-/Export	ISBO Sales Order Interface

The following documents have an interface, but they require custom controllers:

Document	Property
PMX picklist	Interface for PMX Pick List Im-/Export
PMX serial number	Interface for PMX Serial Number Im-/Export
PMX stock QS change	Interface for PMX Stock QS Change Import
PMX stock	IPmx Stock Interface - Pmx Stock Im-/Exporter
SBO business partner	Interface for SBO Business Partner Im-/Exporter
SBO goods issue	Interface for SBO Goods Issue Im-/Exporter
SBO goods receipt	Interface for SBO Goods Receipt Im-/Export
SBO incoming payment	Interface for SBO Incoming Payment Im-/Export
SBO production issue	Interface for SBO Production Issue Im-/Export
SBO production receipt	Interface for SBO Production Receipt Im-/Export
SBO sales delivery 2	Interface for SBO Sales Delivery 2 Im-/Export
SBO sales return 2	Interface for SBO Sales Return 2 Im-/Export
SBO whs transfer	Interface for SBO Sales Order Im-/Export

Configuration steps:

1. Select the controller for the necessary document type on the [Extension Parameters tab](#) of the Organization Structure.
2. Select the Property and the Extension.
3. Click OK.



18.2. Exporting with the Notification Listener tool

The Notification Listener is a tool that monitors the record in the PMX_NOTQ table and performs custom actions when a certain type of data is adjusted. For information on the installation of the Notification Listener see:

- [3.2. Install components](#)
- [3.3.3. Enable the Notification Listener stored procedure](#)

To export documents proceed as follows:

1. Locate the configuration file of the Notification Listener tool.

The configuration file is called *Produmex.Foundation.SboNotification.ServiceHost.exe.config* and it is located in the installation folder of the tool, for example: C:\Program Files(x86)\Produmex\Produmex SB1 Notification Listener.

2. Open the file with a text editor (e.g. Notepad).
3. Locate the line of the transaction and uncomment it.

Example: Proof of delivery route export action defined for the Notification Listener

```
Produmex.Foundation.SboNotification.ServiceHost.exe.config [2]
51 <appender-ref ref="RollingLogFileAppender" />
52 </root>
53 </log4net>
54 <sboNotificationSettings>
55 <service nameSuffix="SboConnectionString_62" />
56 <action senderType="SboToPmx" objectType="17" transactionType="L" logic="Produmex.Foundation.SboNotification.Actions.NotificationActionLog, Produmex.Foundation.SboNotification.Actions" />
57 <action senderType="P" objectType="" transactionType="" logic="Produmex.Sbo.Logex.SboNotification.Actions.Interfacing.NotificationQueue, Produmex.Sbo.Logex.SboNotification.Actions" />
58
59
60
61 <action senderType="P" objectType="POD_RTHE" transactionType="D" logic="Produmex.Sbo.Logex.SboNotification.Actions.Interfacing.NotificationQueue, Produmex.Sbo.Logex.SboNotification.Actions"/>
62 </--
63 <action senderType="SboToPmx" objectType="17" transactionType="L" logic="Produmex.Sbo.Logex.SboNotification.Actions.PrintReport, Produmex.Sbo.Logex.SboNotification.Actions">
64 <parameter name="ReportPath" value="DefaultGoodsReceiptLabel.rpt"/>
65 <parameter name="PrinterDevice" value="RPT"/>
66 </action>
```

4. Save the file.

5. Run the Notification Listener tool.

- To run the Notification Listener tool in the background, start it from Windows\Control Panel\Programs and Features\.
- To run the Notification Listener tool with an open console, launch the RunConsole.bat file from the installation folder of the tool, for example: C:\Program Files(x86)\Produmex\Produmex SB1 Notification Listener\.

18.2.1. Example: exported XML file structure of a sales order

```
<?xml version="1.0" encoding="UTF-8"?>
<Document>
<DocumentHeader>
  <ObjectType>17</ObjectType>
  <DocumentNumber>15</DocumentNumber>
  <DocumentDate>20120220</DocumentDate>
  <DocumentDueDate>20120220</DocumentDueDate>
  <NumAtCard>7927</NumAtCard>
  <CardCode>C1000</CardCode>
  <CardName>Card name</CardName>
  <BillTo>
    <Street>Lenteakker3</Street>
    <City>SPIJKENISSE</City>
    <ZipCode>3206TB</ZipCode>
    <CountryCode>NL</CountryCode>
    <GLN>5400150100004</GLN>
    <FederalTaxID/>
  </BillTo>
  <ShipTo>
    <Street>Lenteakker 3</Street>
    <City>SPIJKENISSE</City>
    <ZipCode>3206TB</ZipCode>
    <CountryCode>NL</CountryCode>
    <GLN>5400150100004</GLN>
    <FederalTaxID/>
  </ShipTo>
  <DocumentCurrency>EUR</DocumentCurrency>
  <TotalNetto>0</TotalNetto>
  <TotalDiscount>0</TotalDiscount>
  <TotalVAT>0</TotalVAT>
```

```
<TotalBruto>0</TotalBruto>
<Comments>Comment</Comments>
<GLN/>
<FederalTaxID>US25-987634</FederalTaxID>
</DocumentHeader>
<DocumentLineList>
  <DocumentLine>
    <BaseDocNum>215</BaseDocNum>
    <BaseLine>0</BaseLine>
    <BaseType>22</BaseType>
    <LineNumber>0</LineNumber>
    <ItemCode>CIA00092</ItemCode>
    <ItemDescription>CIMZIA 200MG/ML 2PFS AT/NL</ItemDescription>
    <Uom>Pcs</Uom>
    <Quantity>1</Quantity>
    <UnitPrice>0</UnitPrice>
    <DiscountPercent>0</DiscountPercent>
    <LineTotal>0</LineTotal>
    <VATCode>6</VATCode>
    <VATPercent>6</VATPercent>
    <LineVAT>0</LineVAT>
    <WarehouseCode>01</WarehouseCode>
    <PmxDocumentLineList>
      <PmxDocumentLine>
        <Quantity>1</Quantity>
        <Uom>Pcs</Uom>
        <QualityStatusCode>RELEASED</QualityStatusCode>
        <SSCC>123456789012345678</SSCC>
        <StorageLocationCode>A01</StorageLocationCode>
        <BatchNumber>BATCH1</BatchNumber>
        <BatchNumber2/>
        <ExpiryDate>20160908</ExpiryDate>
      </PmxDocumentLine>
      <PmxDocumentLine>
        <Quantity>1</Quantity>
        <Uom>Pcs</Uom>
        <QualityStatusCode>RELEASED</QualityStatusCode>
        <SSCC>123456789012345680</SSCC>
        <StorageLocationCode>PIC01</StorageLocationCode>
        <BatchNumber>BATCH1</BatchNumber>
        <BatchNumber2/>
        <ExpiryDate>20160908</ExpiryDate>
      </PmxDocumentLine>
    </PmxDocumentLineList>
  </DocumentLine>
</DocumentLineList>
</Document>
```

18.2.2. Example: exported CSV file structure of proof of delivery (exported route)

```
R,202,This is the route description,20160724
J,D,10,C00001,Customer name 1,Address line 1,Address line 2,,,,,
I,S,10,00000000000000092241
I,S,10,00000000000000092395
I,S,10,00000000000000092289
J,D,20,C00002,Customer name 2,Address line 1,Address line 2,Address line 3,Address line 4,,,
I,S,20,00000000000000093699
I,S,20,00000000000000093651
```

18.3. Importing and exporting with the Interfacing tool

With the Interfacing tool certain documents can be imported to and exported from the system. This application is installed during the Produmex Tools installation (see [3.2. Install components](#)).

18.3.1. Preparing documents for import

The following table shows the prefixes, the extensions and the object types to be used while preparing documents for import. The table lists documents with standard controllers.

Document Type	Prefix	Extension	Object type
Purchase order	OPOR_	xml	22
Purchase delivery	OPDN_	xml	20
Purchase invoice	OPCH_	xml	18
Purchase credit note	ORPC_	xml	19
Purchase return	ORPD_	xml	21
Sales order	ORDR_	xml	17
Sales delivery	ODLN_	xml	15
Sales invoice	OINV_	xml	13
Sales credit note	ORIN_	xml	14
Sales return	ORDN_	xml	16
Proof of delivery	EPOD_	csv	POD_RTHER
Advance shipping notice*	N/A	csv	18 or 22
Move*	PMX_MV_	csv	N/A
Move order*	PMX_MO_	csv	N/A

*See section [18.3.3. Templates for importing](#).

18.3.2. Running the Interfacing tool

The tool is located in the installation folder of the Produmex Tools, for example: C:\Program Files\Produmex \Produmex Tools\ and the file name is Produmex.Sbo.Logex.Tools.InterfacingTool.exe.

Start the interfacing tool with startup parameters. The following command line parameters are supported:

- /cs: Contains the connection string that should be used. Default value: 'SboConnectionString'
- /t: Defines the type of the interface. Possible values:
 - salesorder
 - salesdelivery
 - salesinvoice
 - salescreditnote
 - salesreturn
 - purchaseorder
 - purchasedelivery
 - purchaseinvoice
 - purchasecreditnote
 - purchasereturn
 - productionissue
 - productionreceipt
 - advanceshippingnotice
 - itemmasterdata
 - incomingpayment
 - move
 - moveorder
 - stock
 - stockqschange
 - businesspartnermasterdata
 - warehouseautomation
 - PODDefault value: 'stock'
- /d: Defines the direction of the interface. Possible values:
 - import
 - exportDefault value: 'export'.
- /rf: If added, the system reprocesses failed actions.

Example: Produmex.Sbo.Logex.Tools.InterfacingTool.exe /cs:SboConnectionString /t:move /d:import

Note: It is recommended to run the interfacing tool as a scheduled task.

18.3.3. Templates for importing

18.3.3.1. Move and move order template for importing

1. For moves/move orders create a csv. file with the following fields:

- *FromPmxWhsCode*: the code of the source warehouse
- *ToPmxWhsCode*: the code of the destination warehouse
- *ItemCode*: the item code of the product
- *Quantity*: quantity to move or to make a move order from
- *Serialnumber*: If the item is managed by serial numbers, add the serial number here.
- *SrcQualityStatusCode*: the quality status of the stock that should be moved
- *DestQualityStatusCode*: the quality status that the stock should get after the move
- *Batchnumber*: If the item is managed by batches, add the batch number here.
- *InternalBatchnumber*: If the item has a second batch number, add it here.
- *BestBeforeDate*: If the item has a best before date, add it here.
- *SrcStorLocCode*: the code of the source storage location
- *DestStorLocCode*: the code of the destination storage location
- *SrcLogUnitIdentKey*: the source LUID
- *DestLogUnitIdentKey*: the destination LUID

Note: The field names are case sensitive.

2. Save the file as a .csv file.

Naming convention: Use the *PMX_MO_* prefix for move order templates and the *PMX_MV_* prefix for move templates. The system checks the file name to determine whether a move order or a move should be created.

Example:

- Move order: *PMX_MO_07032012.csv*
- Move: *PMX_MV_07032012.csv*

18.3.3.2. ASN template for importing

With the Interfacing Tool goods that are received against purchase orders or purchase invoices can be imported from CSV files to SAP B1. As a result of the import, the system generates open ASN lines, which you can use to create goods receipt PO documents.

To implement the import process, proceed as follows.

1. Prepare the CSV file with the 14 columns listed in the table below and provide the necessary data. Make sure that you list all the 14 columns, keep the column names and the order of the columns as indicated in the table.

- Alternatively, the ASN template can be used, which is available in your installation folder (Templates > Import Templates folder).
- If you receive CSV files from your supplier and you define a CSV Custom Header, the order of the columns in the CSV file depends on the order you define in the *CSV Customer Header* field (see [Interface for PMX advance shipping notice importer and exporter](#)).

Field name (case sensitive)	Description/Activity
ObjType	In case of a purchase order the value of the field should be 22 while in case of a purchase invoice it should be 18 . Note: If no value is added to the field, the system automatically considers the object type a purchase order.
DocNum	Add the document number of the purchase order/purchase invoice.
LineNum and ItemCode	It is not mandatory to provide a value for both fields. You can provide only the line number, which you can check in SAP B1. If you provide only the item code, the system uses this value to find the line number. Note: If the purchase order contains two or more lines with the same item code, the system cannot find the correct line number. In this case you need to provide a value for the line number as well.
Quantity	Add the inventory quantity of the item to be received. If you provide value to the SerialNumber column, the value of the Quantity should be 1.
SSCC	Add the SSCC of the logistic unit if there is any.
MasterSSCC	Add the SSCC number of the master logistic unit if there is any.
Batch	If the item is managed by batches, add the batch number in this column.
Batch2	Add the second batch number of the product if there is any.
BBD	Add the best before date of the product if there is any.
SerialNumber	Add the serial number of the product if there is any.
UF1	User information - optional
UF2	User information - optional
UF3	User information - optional

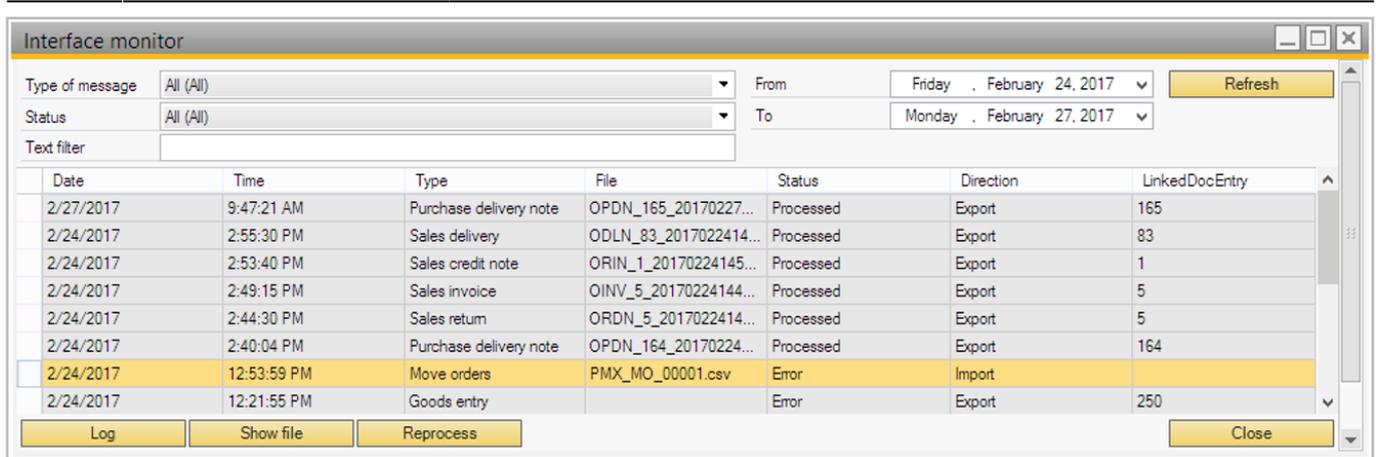
Example of a CSV file:

```
ObjType;DocNum;LineNum;ItemCode;Quantity;SSCC;MasterSSCC;Batch;Batch2;BBD;SerialNumber;UF1;UF2;UF3;
22;123;0;ITEM01;10;123456789012345678;;BATCHA;;20200131;;User info 1;;;
22;123;1;SERIAL01;1;123456789012345678;;BATCHA;;20200131;SER01;User info 1;;;
22;123;1;SERIAL01;1;123456789012345678;;BATCHA;;20200131;SER02;User info 1;;;
```

2. Save your CSV file to the folder defined in the *Interface Monitor Input Path*.
3. Run the Interfacing Tool.
4. You can check the imported data in SAP B1 by navigating to Produmex > Purchasing > ASN. The system displays the *Open ASN Lines* screen (see [6.3.2. Open ASN lines](#)).
5. Now you can create goods receipt PO documents from the open ASN Lines (see [28.6. ASN Reception](#)).

18.4. Monitoring EDI messages

EDI messages can be monitored on the *Interface Monitor* screen. The function is available by navigating to Produmex > Interfacing > Interface Monitor.



Date	Time	Type	File	Status	Direction	LinkedDocEntry
2/27/2017	9:47:21 AM	Purchase delivery note	OPDN_165_20170227...	Processed	Export	165
2/24/2017	2:55:30 PM	Sales delivery	ODLN_83_2017022414...	Processed	Export	83
2/24/2017	2:53:40 PM	Sales credit note	ORIN_1_20170224145...	Processed	Export	1
2/24/2017	2:49:15 PM	Sales invoice	OINV_5_20170224144...	Processed	Export	5
2/24/2017	2:44:30 PM	Sales return	ORDN_5_2017022414...	Processed	Export	5
2/24/2017	2:40:04 PM	Purchase delivery note	OPDN_164_20170224...	Processed	Export	164
2/24/2017	12:53:59 PM	Move orders	PMX_MO_00001.csv	Error	Import	
2/24/2017	12:21:55 PM	Goods entry		Error	Export	250

The list of the interfacing messages can be monitored with the following filters:

- Type of message: the document type
- Status: the status of the entry
 - Possible values are: *All, Error, New, Processed*
- Text filter: Only those lines get listed which contain the text added to the field.
- From - To: The lines get listed based on the defined period.

Click on the Refresh button to apply the filters.

To see more information about a message, select its line.

Click on the Log button to see the log entry. If the status of an entry is *Error*, the error message can be seen here.

The Reprocess button is active if the status is *Error*.

The Show file button is active if the status is *Error* and the direction is *Import*.

To correct a failed import proceed as follows:

1. select the entry line,
2. click on the Show file button,
3. correct the file and save it,
4. click on the Reprocess button to process the file again.

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