Electronic VAT invoice functionality for Belarus
End-user Guide

Contents

1. Solution architecture

This document represents complex solution automating maintenance of [electronic invoices (EINV) in the Republic of Belarus](http://vat.gov.by) ([http://vat.gov.by)](http://vat.gov.by) on the basis of SAP EPR system.

EINV solution consists of two parts: basic solution and expand BADI, taking into account the individual characteristics of the formation and comparison of the Customer's electronic invoices.

Localization solution includes:

1. Customizing tables and directories for EINV.
2. Transaction /CBY/REG - Formation and analysis of EINV.
3. Possibility of enhancement: BADI for the creation of outgoing EINV for operations with legal entities.
4. Possibility of enhancement: BADI for the creation of outgoing EINV for sale operations to individuals.
5. Transaction /CBY/REGINV – Electronic invoice journal.
6. Possibility of enhancement: BADI by comparing incoming EINV with SAP documents.

The main function of the transaction /CBY/REG (Formation and analysis of EINV) is the creation of outgoing EINVs for EINV journal based on the selected system FI documents.

Basic Functions of transaction /CBY/REGINV (Electronic invoice journal):

• Manual creation, editing, displaying of outgoing and incoming EINV.

• Sending (including mass) of the EINV for signing and on the AIS Portal IA.

• Storing the sending statuses.

• Automatic generation of records of incoming EINVs based on the EINV received from the portal in XML format.

• Comparison of FI documents in the system and records of incoming EINVs in the journal.

• Signing of incoming EINV without a separate entrance to the Portal.

• Feature formation in FI documents for the subsequent acceptance of VAT as a deduction.

As part of this solution, integration with the AIS Portal IA is implemented using components (libraries) ActiveX from AVEST.

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Currently these libraries using is only official solution allowing to establish a secure connection with the Portal, as well as to perform all the necessary commands (such as signing EINV, sending outgoing EINV, receiving incoming EINV getting EINV status etc.).

Basic solution allows to create outgoing EINV on main fields, on operations for sale operations to legal entities and individuals under contracts for the sale of own goods, works, services and other assets conducted through the sales module (SD) or on the basis of the FI document, of the revenue, customer and VAT items, based on the accounts from customizing table / CBY / _C_EINVACC (Customizing table of accounts for EINV).
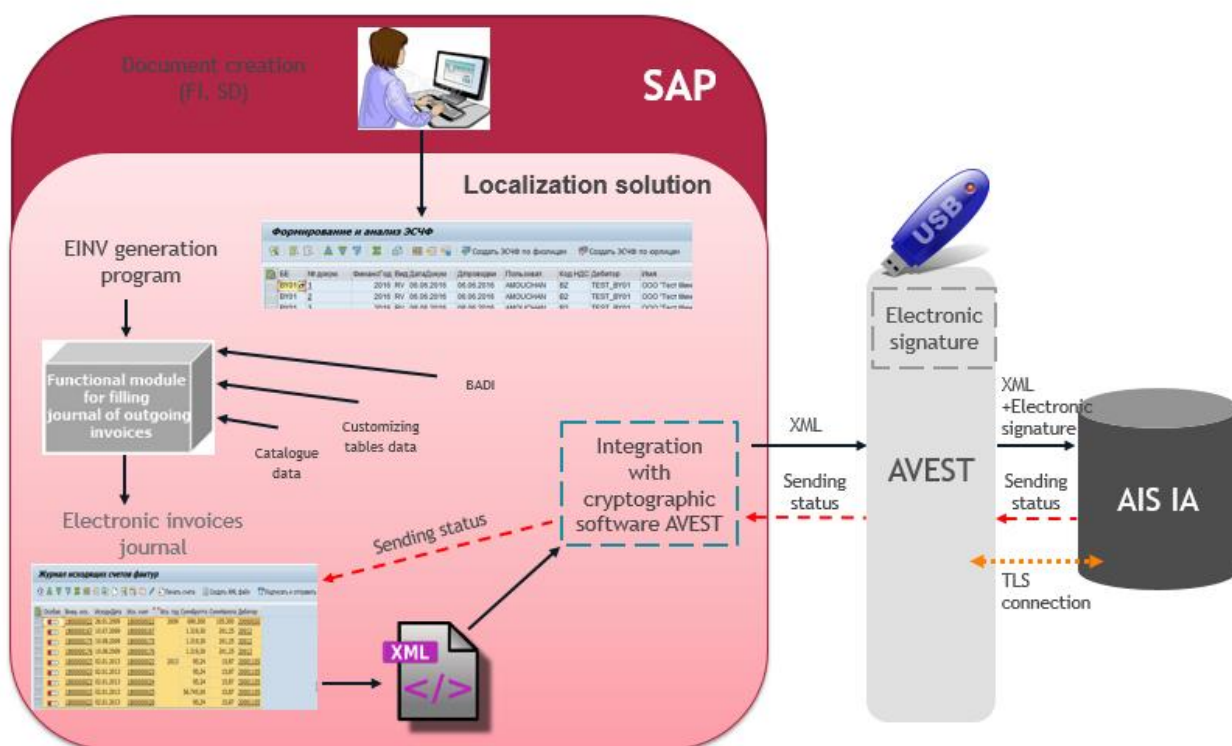
Pic.1 Solution architecture of outgoing invoices
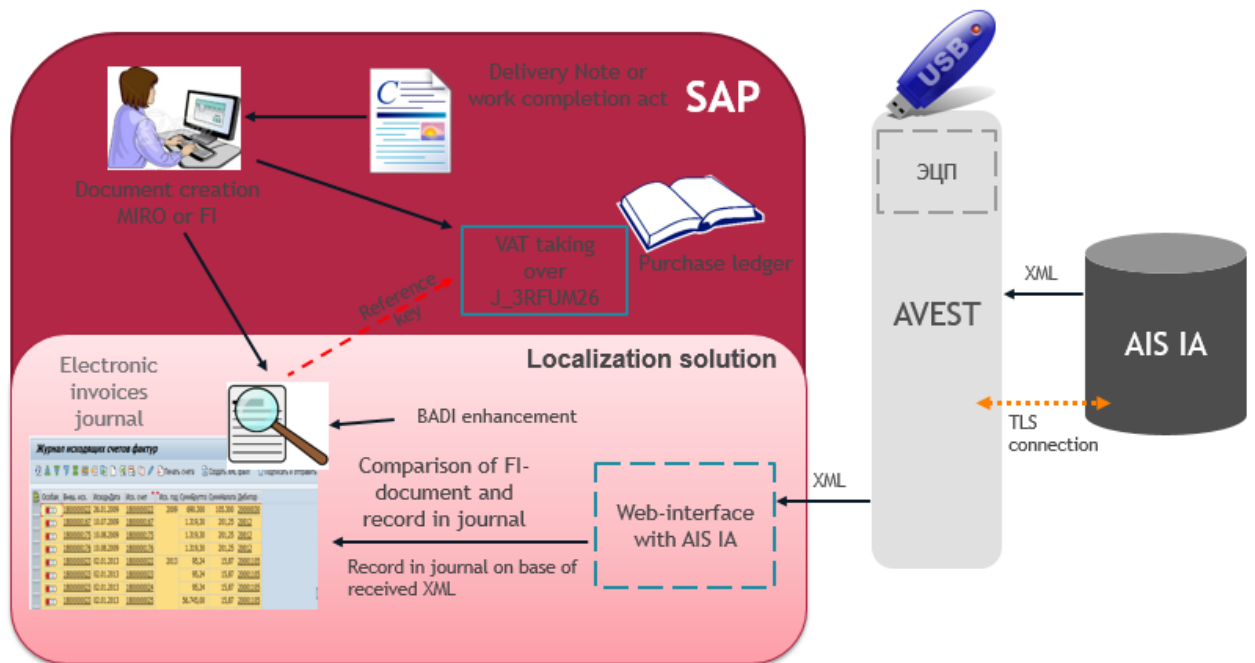
Pic.2 Solution architecture of incoming EINV

2.   Outgoing EINV formation

2.1. Original EINV formation by operation with legal entities

For EINV formation, you need to run transaction:

Transaction code	/CBY/REG – Formation and analysis of EINV

On selection screen for documents selection enter Company code, document number, Fiscal year, document type, posting date etc.

Field name	User action and value	Comments
Company code	*Company code*	Mandatory field
Document number	*Document number*	Optional field
Fiscal year	*Fiscal year*	Optional field
Document type	*Document type*	Optional field
Posting date	*Posting date*	Optional field
Document date	*Document date*	Optional field

Field name	User action and value	Comments
VAT code	*VAT code*	Optional field
Customer account	*Customer account*	Optional field
Vendor account	*Vendor account*	Optional field
User name	*User name*	Optional field
Add. parameters EINV for individuals		
Transaction date	*EINV date*	Optional field
Name	*Position name of EINV*	Optional field

Press "Execute" (F8).

In formatted documents list you should filter and exclude reversal documents and positions with feature reversal and exclude documents with formed EINV ("EINV number" field is filled).

To create EINV you should select necessary records, press "Create EINV legal entities" and in the pop-menu window choose "Create original EINV".

After successful operation, EINV will be created for every selected document. EINV number will be written in the Texts of FI-document.

Example:

Created EINV numbers are written in appropriate field:

Fi-document number will be added to EINV in appropriate field.

2.2. Additional outgoing EINV creation for operations with legal entities

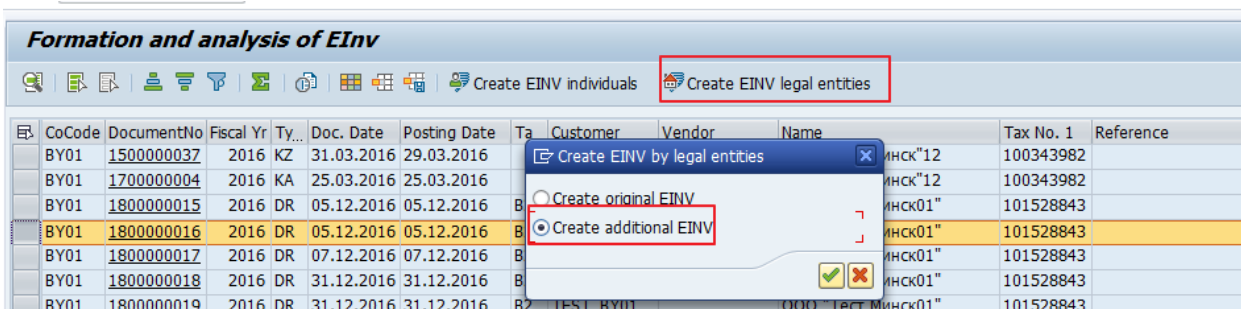### 2.2.1. Additional EINV creation without link

For EINV formation, you need to run transaction:

Transaction Code	/CBY/REG – Formation and analysis of EINV

On selection screen, choose Company code, document number, Fiscal year, document type, posting date etc.

Press "Execute" (F8).

To create additional EINV select necessary records, press "Create EINV legal entities" and in the pop-menu window choose "Create additional EINV".

After successful operation, EINV will be created for every selected document. EINV number with type "Additional EINV without link to original" will be written in Texts by FI-document.

2.2.2. Additional EINV with link to EINV

For EINV formation, you need to run transaction:

Transaction Code	/CBY/REG – Formation and analysis of EINV

On selection screen for documents selection enter Company code, document number, Fiscal year, document type, posting date etc.

Press "Execute" (F8).

To create additional EINV with link to EINV you should follow additional filling rules. Example, it is needed to form additional EINV by FI document 1800000016 for created EINV 1910076582017(appropriate FI document 1800002687). For this you should open FI document 1800000016.

Press the button ✎. Then come to document headline using button 🖥. In the field (specified in the customizing table /CBY/_C_EINVVD-ADD_FIX_FIELDNAME, for example,

XREF1_HD) you should enter value by mask ADD^**XXXXXXXXXX** *YYYY*» where **XXXXXXXXXX** – 10 symbols **of FI-document number in the system,** *YYYY – 4 symbols of year of FI-document in the system. In this case it will be value* ADD^18000026872016. After that you should confirm entered value and save document using button 💾.

Return to the list "Formation and analysis of EINV". Select needed record, press "Create EINV legal entities" and in opened window select "Create additional EINV".

After performing the operation, the number of the EINV will be written in the selected record with the type "Additional with reference to the source original ".

2.3. Original EINV formation for sale operations to individuals

For EINV formation, you need to run transaction:

Transaction Code	/CBY/REG – Formation and analysis of EINV

On selection screen for documents selection enter Company code, document number, Fiscal year, document type, posting date etc.

Field name	User action and values	Comments
Company code	Company code	Mandatory field
Document number	Document number	Optional field
Fiscal year	Fiscal year	Optional field
Document type	Document type	Optional field
Posting date	Posting date	Optional field
Document date	Document date	Optional field
Tax code	VAT code	Optional field
Customer account	Customer account	Optional field
Vendor account	Vendor account	Optional field

Field name	User action and values	Comments
User name	*User name*	Optional field
Add. parameters EINV for individuals		
Transaction date	*EINV date*	Optional field
Name	*Position name of EINV*	Optional field

Press "Execute" (F8).

In formatted documents list you should filter and exclude reversal documents and positions with feature reversal and exclude documents with formed EINV ("EINV number" field is filled).

To create EINV you should select necessary records, press "Create EINV individuals".

After successful operation, only one EINV will be created for all selected documents. EINV number will be written in Texts of FI-document:

Created EINV number is written in appropriate field:

2.4. Work with Electronic invoice Journal

For EINV journal formation run transaction:

Transaction Code	/CBY/REGINV - Electronic invoice journal

On selection screen "Log of electronic invoices" fill necessary fields:

| Field name	User action and value	Comments
Company code	Company code	Mandatory field
Fiscal year	Fiscal year	Mandatory field
Reporting period	Reporting period	Optional field
Issuance date	Issuance date	Optional field
User name	Имя пользователя	Optional field
Date of invoice entry	Date of invoice entry	Optional field
Time of invoice entry	Time of invoice entry	Optional field
Output control	Display outgoing invoices list / Display incoming invoices list	Optional field
Outgoing invoices selection		
Invoice number	Invoice number	Optional field
UNP of recipient	UNP of recipient	Optional field
Customer	Customer	Optional field
Vat code	Vat code	Optional field
Show unsent	Show unsent	Optional field
Show with errors	Show with errors	Optional field
Show sent	Show sent	Optional field
Incoming invoices selection		
Invoice number	Invoice number	Optional field
UNP of sender	UNP of sender	Optional field
Vendor	Vendor	Optional field
Show unsorted	Show unsorted	Optional field
Show not founded	Show not founded	Optional field
Show mapped	Show mapped	Optional field

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Press "Execute" (F8).

ALV GRID of EINV journal contains a number of buttons for manual processing of electronic invoices:

1. Button "Display record" allows you to display detailed data of the EINV (headline and positions).

2. "Edit Record" button enables the modification of detailed EINV data. This function is not available for exposed EINV.

3. "Create Record" button allows you to create a new entry in the EINV Journal.

4. "Delete Entry" button allows you to delete erroneous records.

5. Button "Copy record" allows you to create a duplicate EINV.

Select EINV record and display its detailed data.

Check the amounts and correctness of filling the EINV fields:

2.4.1. Sending of EINV to portal of Ministry of Taxes and Assessments

EINV with correct data can be sent to portal of Ministry of taxes and assessments.

To do this:

1. Select needed records of EINV journal and press the button "Send EINV".

EInv journal: 9 rows

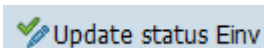| Statu	CoCode	Invoice number	Fiscal Yr	Corre...	In/Out Inv	Issuance date	TransDate	Invoice type	Original invoice number	CancelDa..	StatPro...	DependPers	OffshResid	SDealGoods	BigC
	BY01	10154667320171800000023	2017	✓	O		01.09.2017	ORIGINAL			SELLER				
	BY01	10154667320171800000025	2017	✓	O		12.09.2017	ORIGINAL			SELLER				
	BY01	10154667320171800000026	2017	✓	O		01.09.2017	ADD_NO_REFERENCE			SELLER				
	BY01	10154667320171800000027	2017	✓	O		12.09.2017	ORIGINAL			SELLER				
	BY01	10154667320179910000256	2017	✓	O	03.03.2017	01.03.2017	ORIGINAL			SELLER				
	BY01	10154667320179910000257	2017	✓	O	03.03.2017	01.03.2017	ADDITIONAL	10154667320179910000256		SELLER				
	BY01	10154667320179910000258	2017	✓	O	03.03.2017	01.03.2017	ORIGINAL			SELLER				
	BY01	10154667320179910000259	2017	✗	O	03.03.2017	01.03.2017	ORIGINAL			SELLER				
	BY01	10154667320179910000271	2017	✓	O	10.04.2017	01.03.2017	ORIGINAL			SELLER				

2. Insert a memory card with EDS into the computer and enter the password for connecting to the EINV MTA portal of the RB.
3. If the connection is successful, the ENV will be sent to the portal.

EINV statuses:

- Red – was not sent.

- Yellow – was sent with errors or during portal checking. Detail information is in the field "Status details".

- Green – was sent without errors.

2.4.2. Update EINV status

To update EINV status select necessary records and press the button
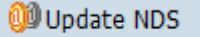**✓ Update status Einv**   and enter the authorization parameters to MTA RB portal.

Status of processed EINV entries of journal will be updated.

2.4.3. Change VAT rate

For export operations a zero VAT rate applies. When documents justifying the application of the 0% VAT rate are absent, after the expiration of the 180-day period VAT must be accrued. For a massive change of the VAT rate in the EINV, a mechanism is provided that allows to specify a new VAT rate (from the directory / CBY / _VATRATES) in the allocated EINVs, followed by automatic recalculation of the amounts by items.

To do this, select necessary EINV journal records. Click the button **Update NDS** . In the window that appears, specify a new VAT rate and the procedure for conversion of amounts. Press the button "Change" to confirm.
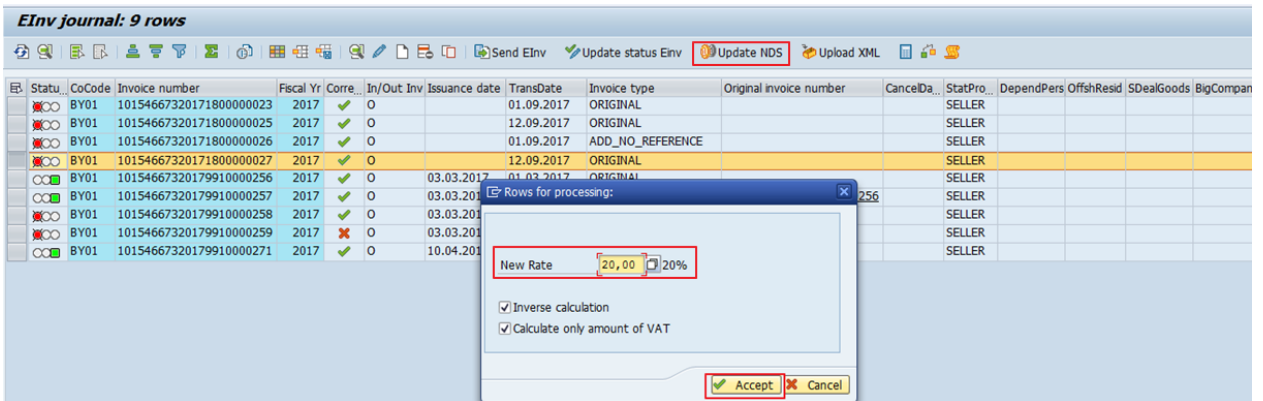
The value of the VAT rate for processed records of the journal EINV will be changed. The amounts in the selected EINV and its positions will also be recalculated taking into account the new rate.

2.4.4. Change the sign of the EINV sums

In cases when there is a need for a massive change in the sign of the sums to the opposite one (used in return and adjustment operations), the button "Change the sign of sums on the opposite" is provided. To do this, select the needed ALV GRID records of the EINV journal. After clicking it, you need to confirm the action:
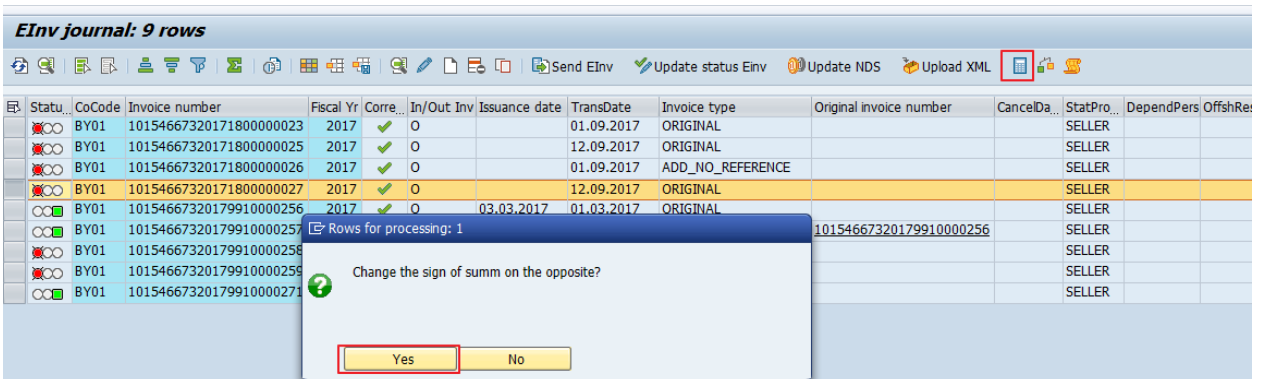
There will be a reversal of the sign.

2.4.5. EINV correctness checking

In EINV journal there are basic checks of filling EINV fields required by portal. Feature of EINV correctness is specified in the corresponding field:

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To display the reasons why EINV did not pass the validation check you need to select EINV and press the button .

2.4.6. Formation of outgoing EINV from external file

The following requirements apply to the imported EINV file:

1. EINV file should be in XML format and completely correspond XSD schema used to check EINV structure.

2. Downloaded file should be in "XML" folder on the level of folders «IN», «OUT», «RECV» of AVEST software.

   Example of path: C:\Avest\eInvVat\simpleapp\vbs\xml.
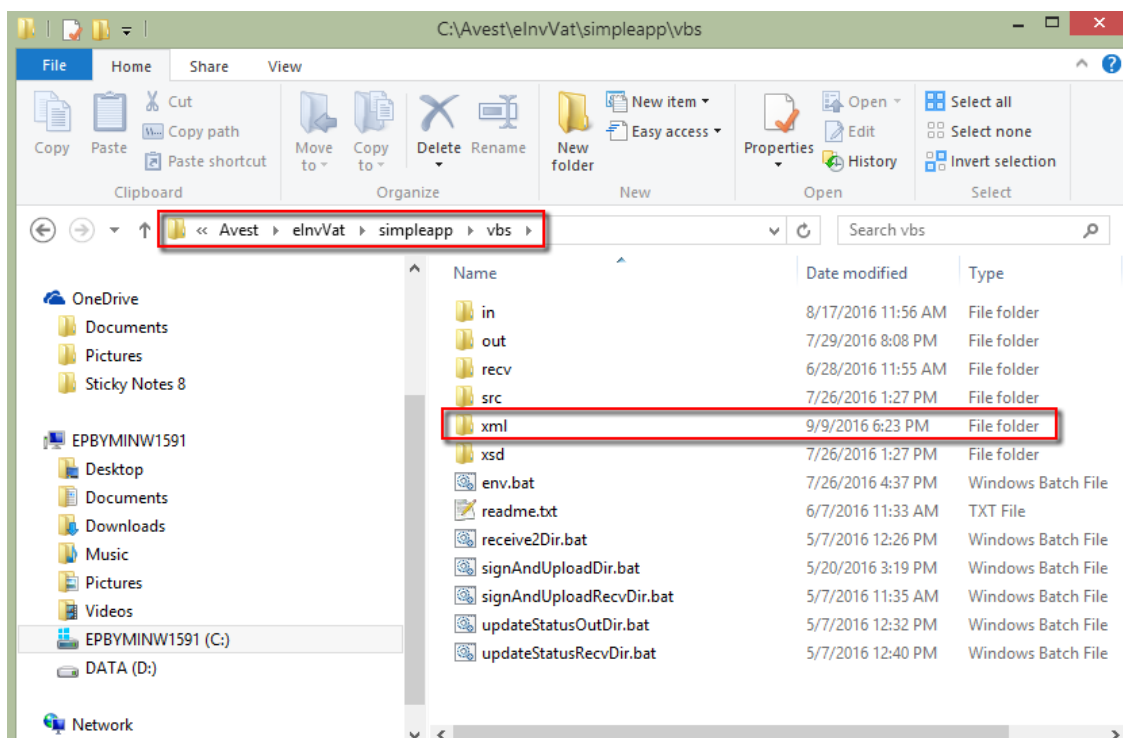
Open EINV journal (CBY/REGINV - Electronic invoices journal). Select "Display outgoing invoices list". Press "Execute" (F8).

Press the button "Upload XML".

There will be an access to the "XML" folder, where the EINV should already be in the form of xml files.

If the download is successful, a new entry will be added to the EINV journal.

3. Processing of incoming EINV

3.1. Downloading of incoming EINV from the MTA RB portal

To download the incoming EINV from the MTA RB portal open the EINV journal (/ CBY / REGINV - ECCF Journal). Select "Display incoming invoices list".

Press "Execute" (F8). Use the button "Upload EINV".

Enter password for portal connection.

If the connection is successful alll unsigned incoming EINV will be downloaded from the portal within the last 30 days.

If you need to change this period, you should put a text file with name last.update.time in the folder "recv" (directory of received EINV), in which you specify the date and time from which you need to download the EINV (example: 30-09-2016T00: 00 : 00).

Example of file:
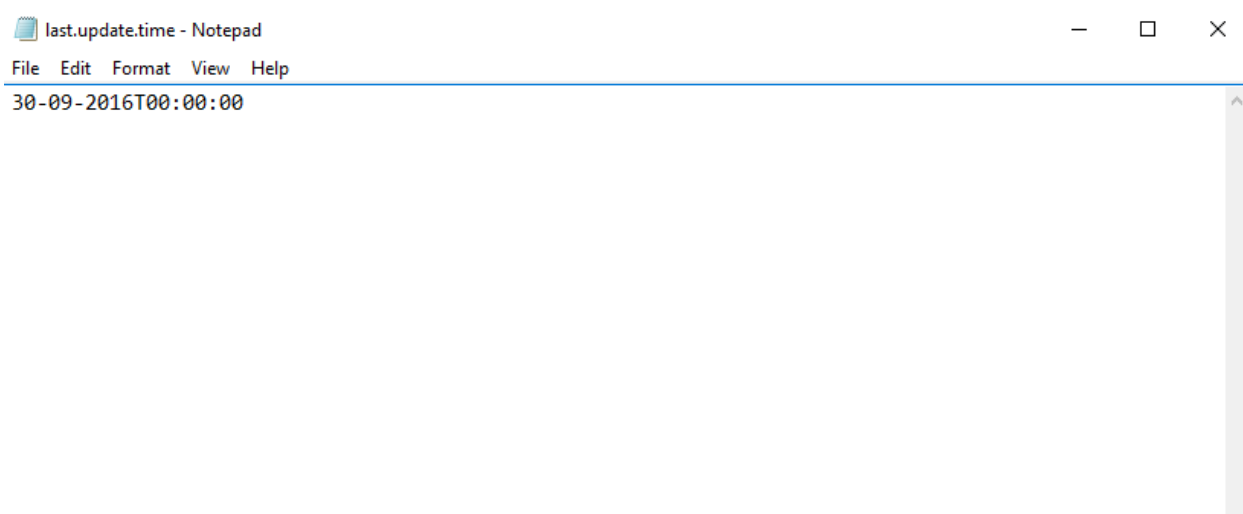
3.2. Comparison of incoming EINV with documents in the system, EINV signing

A comparison of the incoming EINV and documents in the system is carried out using the function of the incoming EINV journal. Before the match, you should update the status of the EINV (see the "Update status EINV" paragraph). This is necessary to ensure that the vendor has not canceled the EINV, and also to fill the field " Issuance date of EINV", which is filled from the status of the EINV. After comparing the EINV with the FI document, this field is written to the position of the FI document creditor in the field Reference key 1 (XREF1), which is used by the program J3RFUM26 for subsequent VAT deduction.

Select one or more EINVs in the journal and press the button "Find FI-doc". Then program finds appropriate FI-documents.

FI-documents searching takes place under the following conditions:

1. FI document has a preliminary VAT account specified in the setup table / CBY / _C_EINVACC (Transaction code / CBY / _C_EINVACC), where ACCOUNT_TYPE = 3 (preliminary VAT account).

2. The supplier's UNP in the FI document is equal to the UNP in the EINV.

3. The VAT amount in the FI document is equal to the amount of VAT in the EINV.

4. The amount with VAT in the FI document is equal to the amount with VAT in the EINV.

In case if needed FI-document is not found for manually searching you should select position or positions and press the button "Check manual".

Check selected outgoing EINV with appropriate FI-documents and confirm the compliance.

After that enter password for portal connection in order to sign EINV.

As a result of a successful comparison of the electronic invoice and the FI document and the signing of the EINV, the following sequence occurs:

1. EINV status becomes green:

2. FI-document number and its year will be added to EINV in appropriate fields:

3. In the position of the FI document creditor, the date of issuing the EINV in the format YYMMDD (where YY is the year, MM is the month, DD is the day) is recorded in the field "Reference key 1 (XREF1)", which is used by the program J3RFUM26 for the subsequent VAT deduction:

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EInv journal: 3 rows

Statu	CoCode	Invoice number	Fiscal Yr	Corre	In/Out Inv	Issuance date	TransDate	InvType	OrigInvNum	CancelDa	StatPro	SystDocNum	Fiscal Yr	Depe
●○○	BY01	10034398220170000000001	2017	✓	I	02.11.2016	02.11.2016	ORIGINAL			SELLER			
○○■	BY01	10034398220179910000567	2017	↓	I	18.01.2017	14.09.2016	ORIGINAL			SELLER	1900000026	2016	
○○■	BY01	10154667320169910000240	2017	✓	I	31.07.2016	31.07.2016	ORIGINAL			SELLER	5100000001	2016	

Display Document: Line Item 001

Additional Data

Vendor	BYTEST	ООО "Тест Минск"12	G/L Acc 60001100
Company Code	BY01	Солнечная 11	
ОАО "Демо-Беларусь"			Doc. no. 5100000001

Line Item 1 / Invoice / 31

Amount	1.200.000	BYR Amount in LC	120,00 BYN
Tax code	P2		

Additional Data

Bus. Area	
Disc. base	1.200.000
Payt Terms	
Bline Date	01.06.2016
Pmnt Block	
Payment cur.	
Pmt Method	Pmt meth.supl.
Payment Ref.	
Collect.inv.	0
Assignment	20160606
Text	

Additional Details for Line Item 001

House Bank		Part. Bank Type	
Instructions	0 0 0 0		
		Transactn Type	
Valuation diff.	0,00		
Diff.realized	0,00		
Hedged ex.rt		Hedged amount	0
Trading Partner		B/e pmnt req.	
Planning Date	01.06.2016	Planning Level	F1
Contract	/	Trans.Type	
Specl G/L assgt	51000000012016		
		Reference Key 1	160731
		Reference Key 2	
		Reference Key 3	

4. EINV number and issuance date will be written in Texts of FI-document.
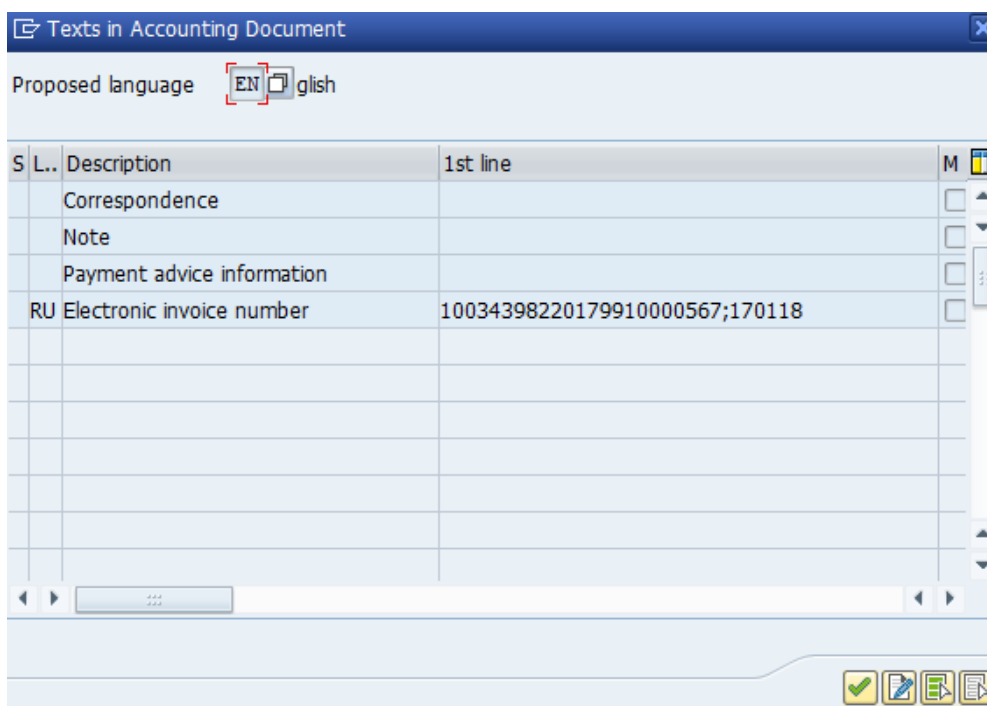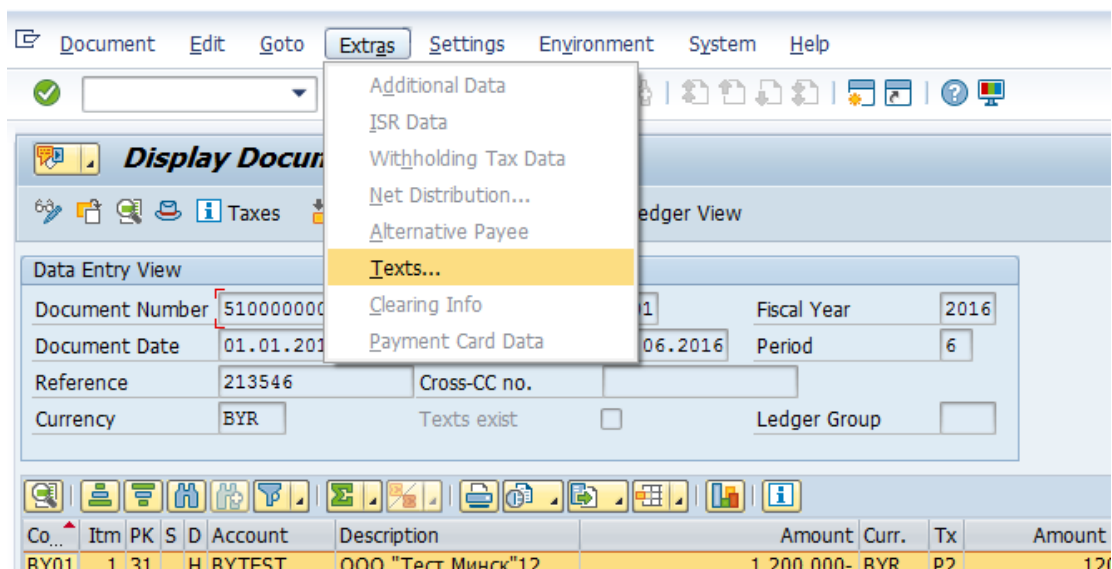
5. Signing of EINV occurs and its sending to MTA portal with the subsequent updating of the EINV. Details of the status are reflected in the corresponding field.