
	<h1>JPK Transfer</h1>	
User's manual	Version: 2017-02-10 (1.2/009)	

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## 1. Product description and requirements

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JPk Transfer in SAP (also called JPK Transfer Monitor) is a BCC product to send SAF-T (Standard Audit Files for Tax) / JPK (Jednolite Pliki Kontrolne) files to the Polish Ministry of Finance gateway.

The solution allows sending XML files created by BCC's JPK/ SAF-T solution and created by other programs as well.

### 1.1. Technical requirements

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SAP application component	Version
Kernel	6.0 or higher

### 1.2. Package content

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The product is prepared in separate namespaces: /BCC/JPT and /BCC/JPW/. It is distributed via SAP transport requests and additional Java server. In this instruction we assume, that the installation is already done.

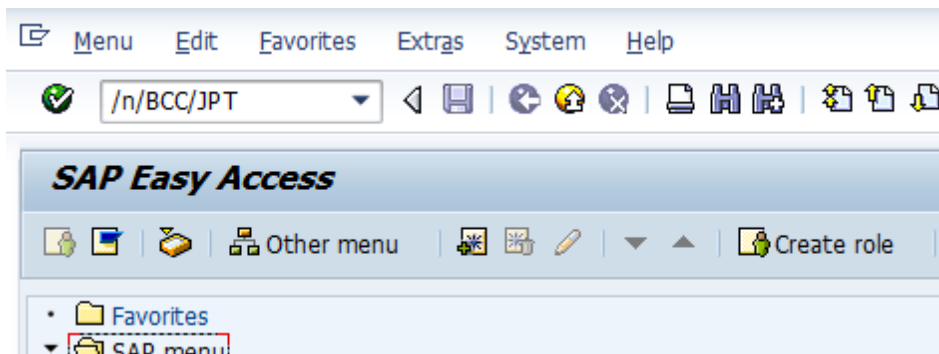
**The tool adds following transactions to the SAP system:**

Transaction ID	Transaction description
<b>/BCC/JPT</b>	<b>JPK Transfer Monitor</b>
/BCC/JPT_CUST	JPK Transfer – Configuration
/BCC/JPT_XSD	JPK Transfer – XSD version settings (checking XML)
/BCC/JPT_LEP	JPK Transfer – Paths to local JPK Transfer Engine (only optionally used)
/BCC/JPT_STP	JPK Transfer – Paths and settings of local signing tool (optionally used)
/BCC/JPT_SHUTDOWN	JPK Transfer – JPK Transfer Engine shutdown (NOT used in this version)

In this user's manual only the first transaction /BCC/JPT/ will be described. For the description of the other transactions see the installation manual.

## 2. Transactions and programs

To use the product one should invoke the /BCC/JPT transaction via string /n/BCC/JPT in command field in the left top corner of the SAP GUI screen.



### 2.1. JPK Transfer Monitor – selection screen

Transaction ID	Transaction description
/BCC/JPT	JPK Transfer Monitor

**JPK Sending monitor**

Company code: Y001

Files' content since: 01.11.2016

Files' content till: 31.12.2016

Files creation date:

JPK type:

File's author:

File version:

to:

to:

☒ Production mode

☐ Test mode

Folder with JPK file: \\office\bcc\ProjektyWewnetrzne\JPK\XML\

Manually entered folder:

☐ SAP folder

☐ SAP folder

ALV display

Layout:

☐ Show sent and removed records

Please choose a language for messages from JAVA Engine

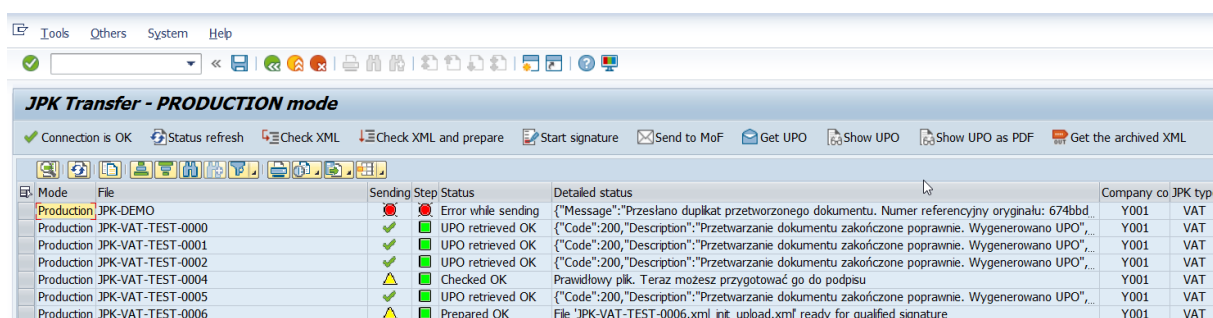
☐ Messages in Polish

☒ Messages in English

Field name	Field description	User action	Comments
Company code	Selection of company code for which we want to process the SAF-T / JPK files	Pick from list / Enter manually	E.g. PL01  May be left empty
Files content since	The first day from which the JPK / SAF-T files will be shown	Pick from list / Enter manually	E.g., 01.01.2016
Files content till	The last day from which the JPK / SAF-T files will be shown	Pick from list / Enter manually	E.g. 31.01.2016
Files creation date	Only files prepared on selected days will be shown	Pick from list / Enter manually	E.g. 31.01.2016 May be left empty
JPK Type	Only files of selected type will be shown.	Pick from list / Enter manually	May be left empty
File author	Only files created by selected SAP user will be shown	Enter manually	May be left empty
File version	Only files in selected version will be shown	Enter manually	May be left empty
Production mode	The file will be processed in production mode – the sending will be executed against the production gateway of the Ministry of Finance. It should be used only for official documents and not for testing		
Test mode	The file will be processed in test mode – the sending will be executed against the test gateway of the Ministry of Finance. To be used for testing.		
Folder with JPK files	Folder in which JPK / SAF-T files are stored	Automatic entry	Relevant configuration parametrer PATH_XML
SAP folder	Files' folder is accessed via appliaction server  Unchecked:  Will cause accessing the network folder from SAP GUI (workstation), using current/domain user credentials, e.g. DOMAIN/billgates  Checked:  Will cause accessing the network folder from SAP server, i.e. user name for which SAP server is started. It is SAPServiceXYZ user, where XYZ is the SID (SAP System Identifier). To make it working you need DOMAIN/SAPServiceXYZ user who will have an access to the network folder. You also need entries in SAP in the AL11 pointing to JPK folders. The entries in the AL11 transaction will work if user SAP user in needed authorizations. Check section 3 – Accessing files in JPK Folder	Automatic default value/ Manual entry	Relevant configuration parametrer PATH_XML_SAP
Manually entered folder	Manually entered folder that overwrites the "Folder with JPK Files" when any value entered.	Manual entry	Relevant configuration parametrer PATH_XML_MANUAL
SAP folder	If set, the manually entered folder will be accessed via appliaction server.  See description for similar fiel above.	Manual entry	

Layout	Allows to choose from prepared and saved ALV layouts	Manual entry	
Show sent and removed records	Allows to show records of already sent with success files, that were deleted from the XML folder. Usefull when archiving is used and the user wants to retrieve archived fie.		
Messages in Polish	Messages in status column arrive from JAVA Engine in Polish		
Messages in English	Messages in status column arrive from JAVA Engine in English		

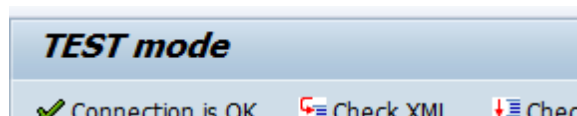
## 2.2 JPK Transfer Monitor – processing screen



Important! When accessing JPK folders with current user credentials (SAP Folder = ""), the SAP GUI may often ask whether to allow accessing JPK folders from SAP GUI. **Please give the permission in order to process the files correctly (and sign "Remember my decision" in order to get rid of the messages).**

### 2.2.1 Test/Production Mode

Depends on a processing mode which has been chosen on the selection screen, the application works either in test or in production mode. Information about the current mode is shown in the header of the screen.



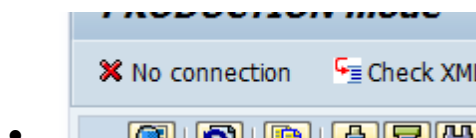
Production mode – it is used to send JPK / SAF-T to the Ministry of Finance

Test mode – it is used to test sending JPK / SAF-T to the Ministry of Finance

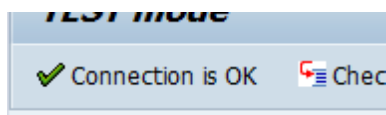
### 2.2.2 Connection status

Before any other action, it is necessary to make a connection with an external application first (JPK Transfer Engine).

Connection status is visible in the main menu of the application:



Status: No connection – click on the „No connection” button to refresh the connection status. If the application cannot make a connection then please contact an administrator who will check if both JPK Transfer Monitor and JPK Transfer Engine applications were correctly installed. The application cannot be used.



Connection is OK – the application is ready to be used.

**Important!** If the JPK Transfer Engine (Java) is installed on user's computer (and not on the separate server, which is the recommended option), then if the administrator switched on the automatic start option (AUTO\_START\_ENGINE\_LC), the user can provide the path to the file starting the Transfer Engine, and afterwards the engine starts automatically, when the user enters the JPK Transfer transaction. To provide the path to the file starting the Transfer Engine, the user should use menu entry *Others > Set Engine file path*.

Similarly when leaving the transaction, the system could switch the JPK Transfer Engine started locally off (configuration parameter AUTO\_SHUT\_ENGINE\_LC). This option will be available in the next 1.3 version of JPK Transfer.

## 2.2.3 ALV screen

On the screen you can see the list of JPK/SAF-T files from the folder selected on the selection screen

Mode	File	Sending Step Status	Detailed status	Company co JPK type
Production	JPK-DEMO	Red circle with error icon	Error while sending	Y001 VAT
Production	JPK-VAT-TEST-0000	Green circle with checkmark icon	UPO retrieved OK	Y001 VAT
Production	JPK-VAT-TEST-0001	Green circle with checkmark icon	UPO retrieved OK	Y001 VAT
Production	JPK-VAT-TEST-0002	Green circle with checkmark icon	UPO retrieved OK	Y001 VAT
Production	JPK-VAT-TEST-0004	Yellow triangle with exclamation mark icon	Checked OK	Y001 VAT
Production	JPK-VAT-TEST-0005	Green circle with checkmark icon	UPO retrieved OK	Y001 VAT
Production	JPK-VAT-TEST-0006	Yellow triangle with exclamation mark icon	Prepared OK	Y001 VAT

The meaning of the background colours of rows:

- Files created with /BCC/JPK product are in blue
- External files (created with other product) located in folder with the JPK files are in orange.

Most important status fields:

Field	Meaning
Sending status	Icon representing overall status of sending to the ministry of the finance process: Empty – not processed Yellow – in preparation for sending (e.g. validation, preparation, signature, in process of sending or getting upo) Red – problem with file sending or getting upo Green - sent OK Green checked – UPO successfully retrieved
Step	Icon representing the status of the last step executed
Status	Short description of the last step result
Detailed status	Long description of the last step result (prepared in the language selected before processing on the parameters' screen)





## Internal files – created with /BCC/JPK


Files are ready to be used. **Please never rename the files!**

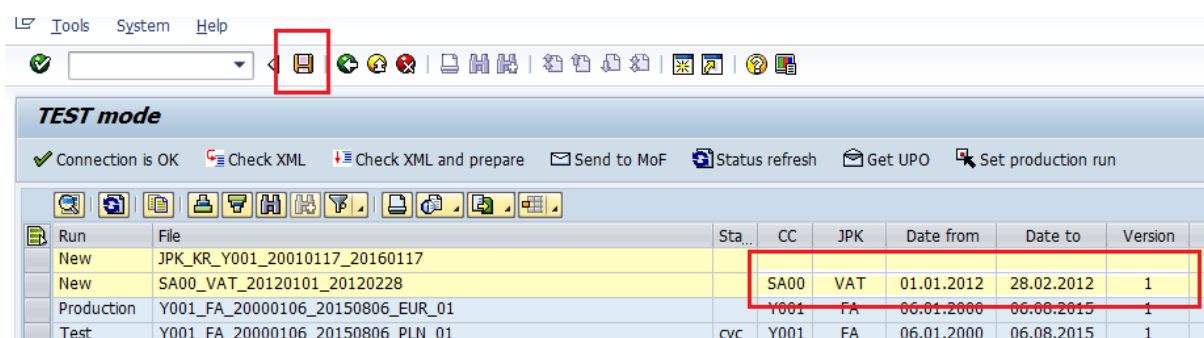
## External files (in orange)

Please fill in the following fields:

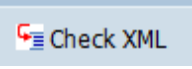
- Company code
- JPK type (e.g. VAT)
- Date from – The start date of data inside the file
- Date to – The end date of data inside the file
- Version

**Important! Make sure, that external files have unique filename that will not repeat in time. It is important as processing logic is based on unique filenames.**

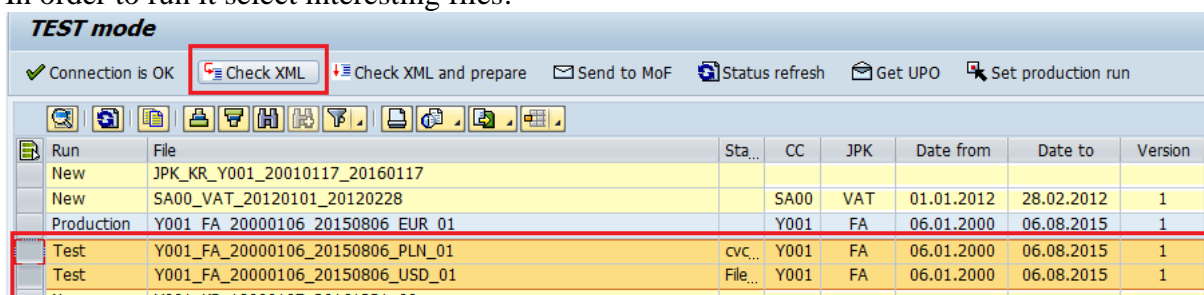
Once filled in please save the fields with the “Save” button  from the main menu.



## 2.2.4 Action: Check XML

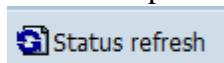
“Check XML” button  validates JPK / SAT-F XML files. It checks if the files are built correctly according to the specification prepared by the Ministry of Finance.

In order to run it select interesting files:



Then click on “Check XML” button.

Validation process will start. After some time please click on “Status refresh”



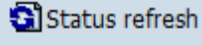
Then the following columns will be updated:

- Val. date START – Validation start date
- Val. time START – Validation start time

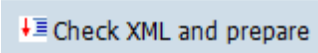
- Val. date END – Validation end date
- Val. time END – Validation end time
- Val. user – User who triggered validation
- Status – Success, or in case of validation error it shows what is wrong

**NOTE!**

For larger files the process might take from couple minutes to hours (even a day in the case of file sizes circa 1 GB). In that case the validation START date and time are updated, and the

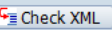
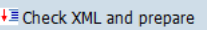
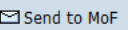
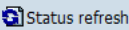
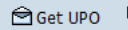
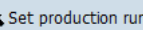
validation END columns remain empty. To refresh the fields use  button. Once the validation is complete, the validation END columns are updated.

**2.2.5 Action: „Check XML and prepare”**

„Check XML and prepare”  both validates JPK/SAF-T XML files and prepares them for qualified signature (if the files are valid).

To run it select file(s):

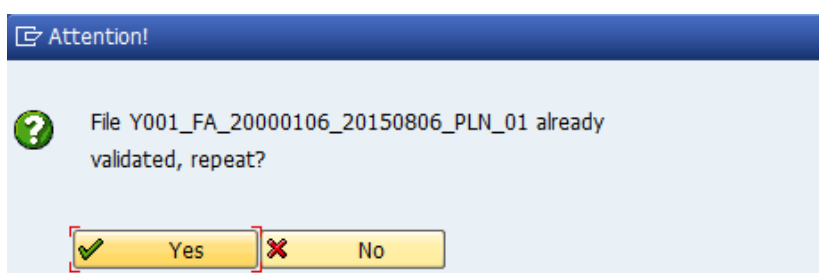
**TEST mode**

✓ Connection is OK      

Run	File	Sta...	CC	JKP	Date from	Date to	Version
New	JPK_KR_Y001_20010117_20160117						
New	SA00_VAT_20120101_20120228		SA00	VAT	01.01.2012	28.02.2012	1
Production	Y001_FA_20000106_20150806_EUR_01		Y001	FA	06.01.2000	06.08.2015	1
Test	Y001_FA_20000106_20150806_PLN_01	cvc...	Y001	FA	06.01.2000	06.08.2015	1
Test	Y001_FA_20000106_20150806_USD_01	File...	Y001	FA	06.01.2000	06.08.2015	1

Then click on “Check XML and prepare”.

If the file was previously checked (validated) you will be asked if the validation should be repeated:



Yes – file will be validated and prepared for qualified signature

No – file will be prepared for qualified signature without validation.

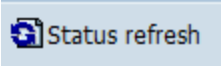
Once the action is started, in order to refresh status please click on “Refresh status”.

Then the following columns will be updated:

- Preparation START date – Data rozpoczęcia przygotowania pliku do wysyłki
- Preparation START time – Godzina rozpoczęcia przygotowania pliku do wysyłki
- Preparation END date – Data zakończenia przygotowania pliku do wysyłki
- Preparation END time – Godzina zakończenia przygotowania pliku do wysyłki
- Prepared by – Użytkownik, który wykonuje procedurę przygotowania pliku do wysyłki
- Status – Success, or in case of validation/preparation error it shows what is wrong.

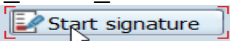
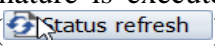
#### NOTE!

For larger files the process might take from couple minutes to hours (even a day in the case of file sizes circa 1 GB). In that case the preparation START date and time are updated, and the

preparation END columns remain empty. To refresh the fields use  button. Once the preparation is complete, the preparation END columns are updated and the Status column says the files are ready for qualified signature.

### 2.2.6 Signing of prepared files (“Start signature”)

Files ready for qualified signature are stored in “TOSIGN” folder. The files have to be signed with external application that implements qualified signature (sample list of such vendors is below). **Put signed files in “SIGN” folder.** Signed files have to either have the same name or a name that starts with that original name. For example if a file in TOSIGN folder is called [JPK\\_VAT\\_20160701\\_init\\_upload.xml](#) then a file in the SIGN folder has to have the same name [\(JPK\\_VAT\\_20160701\\_init\\_upload.xml\)](#) or e.g. [JPK\\_VAT\\_20160701\\_init\\_upload.xml.xades](#) or [JPK\\_VAT\\_20160701\\_init\\_upload.xml.xds](#)

The signing program can be called directly from JPK Transfer Monitor transaction if the parameter AUTO\_START\_SIGN\_TOOL has been configured. Then on the ALV screen additional icon appears  and the user, after configuring the calling parameters (menu *Others* > *Set signing software*) can run the signing just like the other procedure steps. Important! As the signature is executed outside of the SAP system, after signing one should refresh the ALV list ().

For qualified signature you can use any program but it has to be configured according to the specification prepared by the Ministry of Finance:

*Metadata file must be signed with qualified signature according to XAdES Basic Electronic Signature algorithm in XML format according to <http://www.w3.org/2000/09/xmldsig> scheme, in short XAdES-BES in Enveloped version (signature as an additional element element ds:Signature in the original XML) or Enveloping (original document contained as an element in the signed structure). A transformation could be done on the object being signed according to <http://www.w3.org/2000/09/xmldsig#base64> encoding.*

*Use RSA-SHA1 hash function in the signature.*

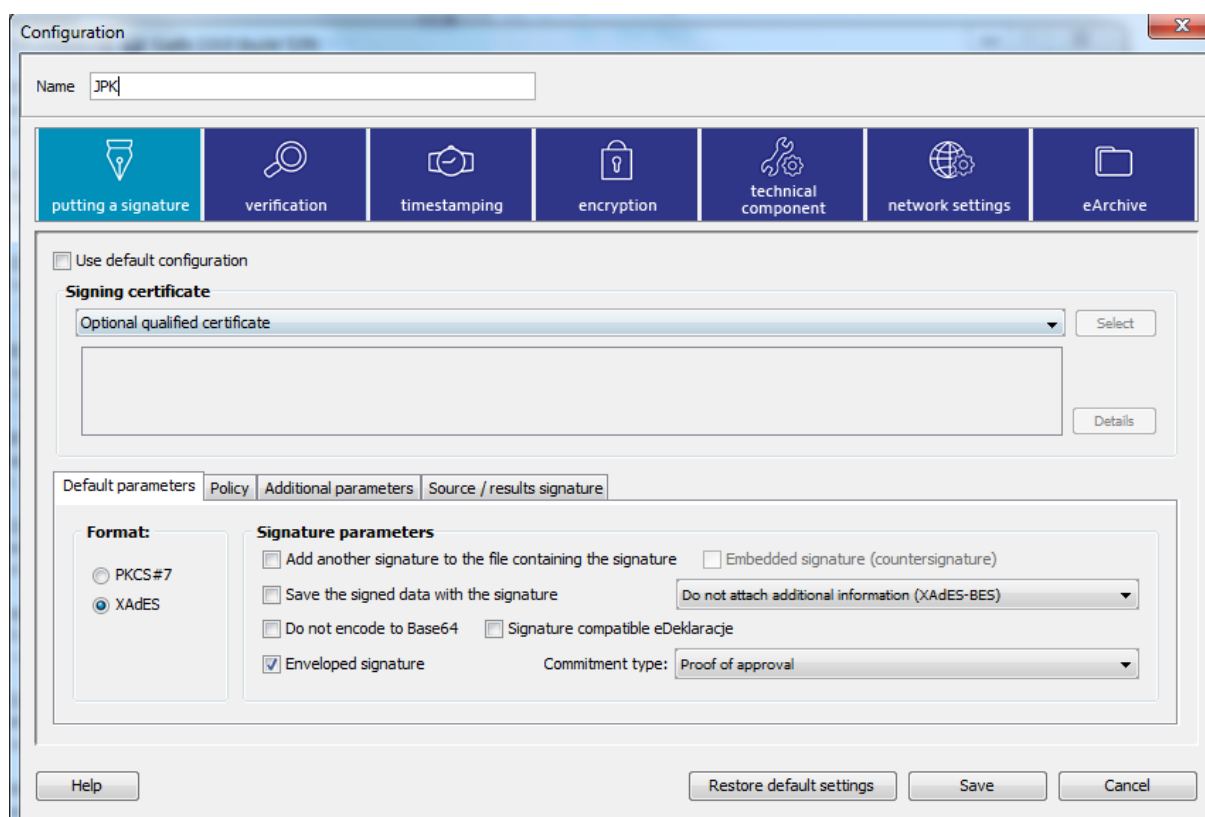
Note! If your signing program cannot automatically copy the signature file from TOSIGN to SIGN folder (usually .xades or .xds), one can make the Transfer Monitor solution copy the signature files automatically. To achieve this set either:

- **AUTOCOPY** parameter when setting the signing software tool (menu *Others > Set signing software*, table **/BCC/JPT\_DB\_TCU4**)  
or
- **AUTO\_COPY\_SIGNED** general configuration parameter (table **/BCC/JPT\_DB\_TCU**)

In values of these parameters just give the mask of the signature files to copy (e.g. \*.xades). If you do not define these parameters (leave them empty), then JPK Transfer Engine will not copy signature files from TOSIGN to SIGN.

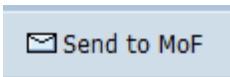
For your convenience we provide sample list of vendors who deliver qualified signature:

1. KIR Szafir:

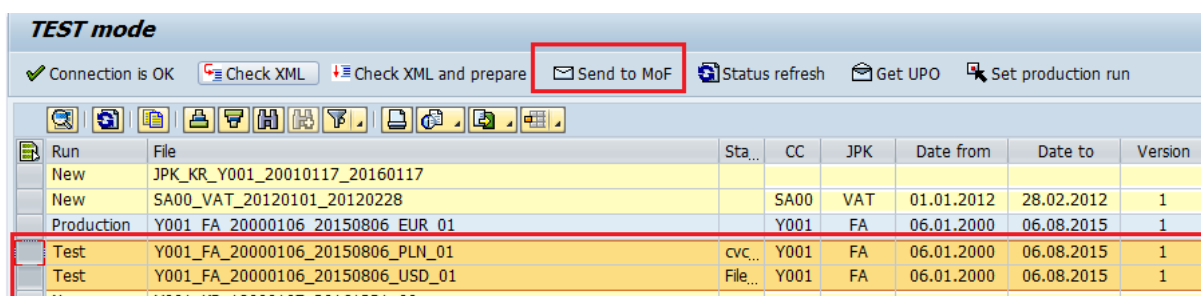


2. Asseco/Certum SmartSign:
  - a. Settings (Ustawienia) menu -> Signature (Podpis)
    - i. Signature format (Format podpisu): *XAdES*
    - ii. Signature type (Typ podpisu): *Internal (Wewnętrzny)*
    - iii. Additional signature options (Dodatkowe opcje podpisu): Signature variant: *Don't assign additional information (BES)* (Wariant podpisu: *Nie dołączaj dodatkowych informacji (BES)*)
    - iv. Advanced XAdES signature options (Zaawansowane opcje podpisu XAdES): select *Create attached signature (Enveloped)* (*Twórz podpis dołączony (Enveloped)*)
    - v. Archivization: Check copy after signature and give the path to the SIGN folder, UNCHECK create subfolders in form...

### 2.2.7 Action „Send to MoF”

“Send to MoF”  sends signed file to the Ministry of Finance. Signed file has to be put in the “SIGN” folder.

In order to send files to the Ministry select file(s) on the list and click on “Send to MoF”:



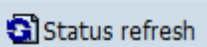
After some time click on “Status refresh” to update information about chosen file(s).

The following columns will be filled in:

- Send START date – Date when sending process started
- Send START time – Time when sending process started
- Send END date – Date when sending process ended
- Send END time – Time when sending process ended
- Send user – Sent by user with given name
- Status – Success, or in case of an error it shows what is wrong. Note an error message might be in Polish because it comes directly from the Ministry of Finance’s system.

#### NOTE!

For larger files the process might take from couple minutes to hours (even a day in the case of file sizes circa 1 GB). In that case the sending START date and time are updated, and the

sending END columns remain empty. To refresh the fields use  Status refresh button. Once the sending is complete, the sending END columns are updated and the “Reference number” column is filled in (it is a number assigned by the Ministry of Finance).

### 2.2.8 Action „Get UPO”

For files sent to the Ministry of Finance (after getting Reference number) in production mode you can get UPO file (it confirms that the whole process succeeded).

Chose a file and click “Get UPO”.

After some time click “Status refresh” to see the following columns updated:

- UPO date START
- UPO time START
- UPO date END
- UPO time END
- UPO user – user who initiated the “Get UPO” action

**The generation process of UPO files takes place in the Ministry of Finance’s (production) system. It can take long time (even a day). So if the first UPO reception is unsuccessful, read the detailed message and try again later.**

**The UPO is not available in test mode because Ministry of Fiance does not provide such functionality for their test system.**

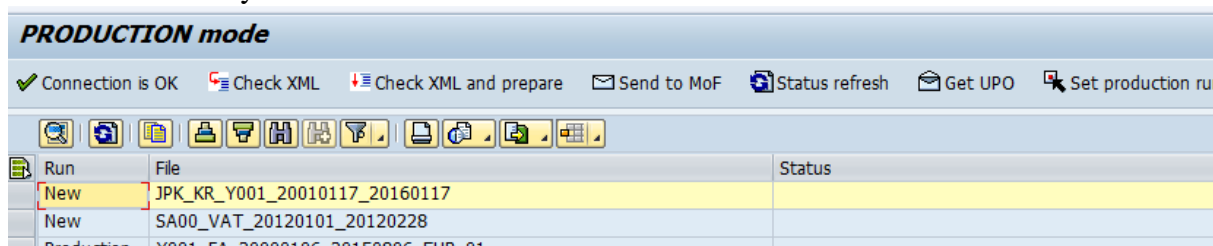
## 2.2.9 Option „Production mode”

File that was prepared in test mode can be sent to the Ministry only in Test mode. To change the mode from “test” to “production” choose “Production mode” radio button. Then for chosen file the “Run” column and information about preparation and sending will be cleared. All the preparation/signing/sending steps have to be repeated.

Note! File will be processed in production mode if on the **selection screen** of the application “Production mode” will be chosen:

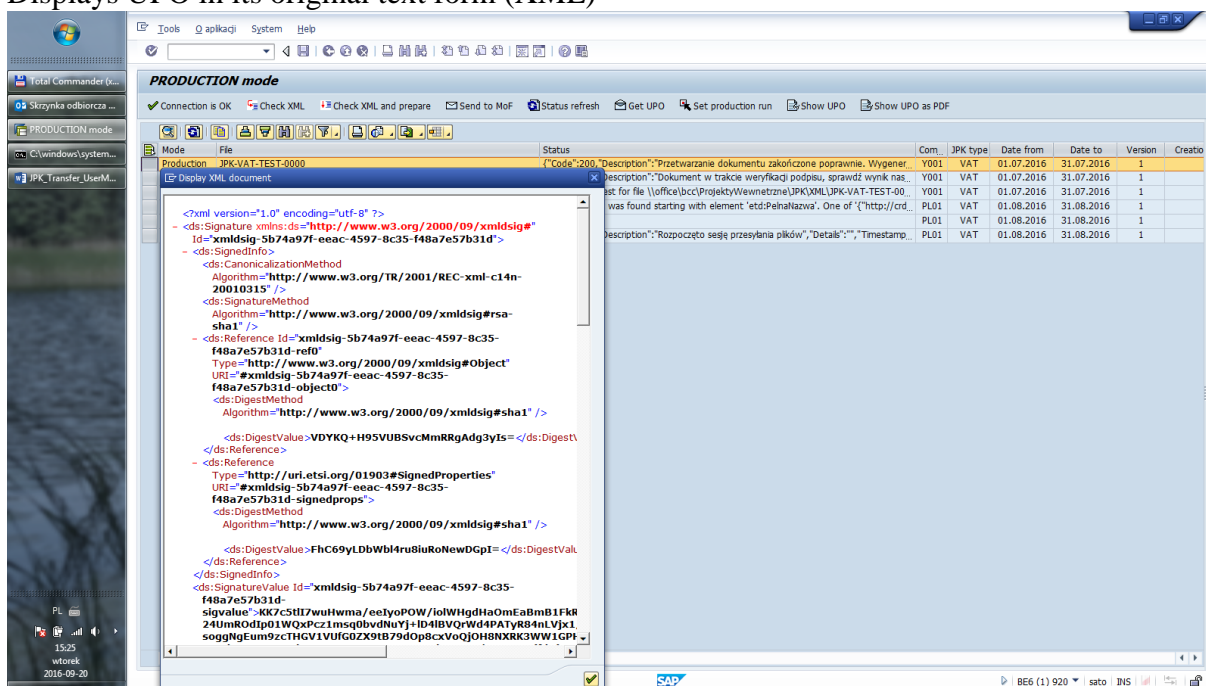
☐ Production mode  
☒ Test mode

In the main menu you will see information about chosen mode:



## 2.2.10 Action „Show UPO”

Displays UPO in its original text form (XML)



### 2.2.11 Action „Show UPO as PDF”

Displays UPO in PDF form

The screenshot shows a PDF document titled "URZĘDOWE POŚWIADCZENIE ODBIORU DOKUMENTU ELEKTRONICZNEGO" (Official Certificate of Receipt of Electronic Document) issued by the Ministry of Finance (Ministerstwo Finansów). The document contains the following information:

A. NAZWA PEŁNA PODMIOTU, KTÓREMU DORECZONO DOKUMENT ELEKTRONICZNY	
Ministerstwo Finansów	
B. INFORMACJA O DOKUMENCIE	
Dokument został zarejestrowany w systemie teleinformatycznym Ministerstwa Finansów	
Identyfikator dokumentu:	Dnia (data, czas):
b395295f02ab2fcd000000b079770f3e	2016-08-22T20:48:32+02:00
Skrót złożonego dokumentu - identyczny z wartością użytą do podpisu dokumentu:	
WZR5aN382SLWAJE5opPya2VXLpQ=[ZZEMD0\$Hu8b3AeRI0U30OcT9+nrxFTWHaX	
Skrót dokumentu w postaci otrzymanej przez system (łącznie z podpisem elektronicznym):	
a06a7feb95c003473d12d9ec36a8adc	
Dokument zweryfikowano pod względem zgodności ze strukturą logiczną:	
Schemat_JPK_VAT(1)_v1-0.xsd	
Identyfikator podatkowy podmiotu występującego jako pierwszy na dokumencie:	Identyfikator podatkowy podmiotu występującego jako drugi na dokumencie:
NIP 1111111111	
Urząd skarbowy, do którego został złożony dokument:	
1435	
Stempel czasu:	
MjAxNi0wOC0yMlQyMDo0ODozMiswMjowMA==	

### 2.2.12 Action „Get the archived XML file”

Displays only when for a given entry, XML file was saved in the SAP database (see the configuration parameter “SAVE\_SENT\_XML”). The button allows to download to the workstation the file archived in an SAP index table. One should use the “Show sent and removed records” selection screen option to be able to retrieve archived files that were removed from the XML folder.



### 3. Accessing files in JPK folder

The network folder of JPK can be accessed in two ways depending on “SAP Folder” checkbox.

**JPK Sending monitor**

Company code

Files' content since

Files' content till

Files creation date  to

JPK type  to

File's author

File version

☒ Production mode  
☐ Test mode

Folder with JPK file  ☒ SAP folder

ALV display layout  
Layout

Please choose a language for messages from JAVA Engine  
☒ Messages in Polish  
☐ Messages in English

#### SAP Folder unchecked:

Will cause accessing the network folder from SAP GUI (user workstation), using current/domain user credentials, e.g. DOMAIN/billgates

#### SAP Folder checked (recommended option):

Will cause accessing the network folder from SAP application server, i.e. user name for which SAP server is started. It is SAPServiceXYZ user, where XYZ is the SID (SAP System Identifier). To make it working you need DOMAIN/SAPServiceXYZ user who will have an access to the network folder. You also need three entries in SAP in the AL11 transaction to point to:

- the network folder XML, with XML files,
- the network folder SIGN, with signed files.
- the network folder TOSIGN, with signed files (needed only when using AUTO\_COPY\_SIGNED configuration option).

Alternatively in AL11 the entry with the parent folder (usually JPK) can be given.

The folder names should be respectively exactly XML and SIGN, TOSIGN and when created on the linux system they should have only capital letters.

The entries in the AL11 transaction will work if user SAP user in needed authorizations.

In the above example, XML folder is \\somenetworkpath\JPK\XML

#### **4. More information**

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More information about JPK Transfer can be found in Installation Manual or on *JPK by BCC* forum:  
<https://jpk.bcc.com.pl>