
	<p>JPK – Excel4JPK</p> <p>User manual</p>	
User manual		Version: 2017-08-29 (1.0/004)

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1. Excel4JPK – Product overview

Excel4JPK extends basic functionality of JPK files solution (generating SAF-T files). Excel4JPK allows:

- to add external data into SAF-T reports,
 - correct data gathered by basic solution from SAP with data from external file,
 - delete single documents/ line items of documents from the JPK report prepared by basic solution.
- BCC solution has been created in separate namespace: /BCC/JPF.

1.1 Technical requirement

Component	Requirement version
Kernel SAP	6.0 or higher
JPK files	2.8 or higher

1.2 Package content

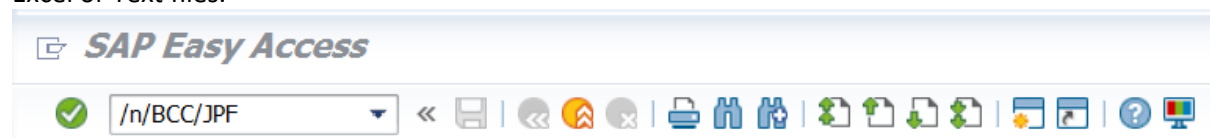
Product ID	Excel4JPK
Product name	Excel4JPK – Uploading Excel or Text files into SAF-T

Excel4JPK transactions:

Transaction ID	Description
/BCC/JPF	JPK – Excel4JPK
/BCC/JPFC	JPK – Excel4JPK - configuration

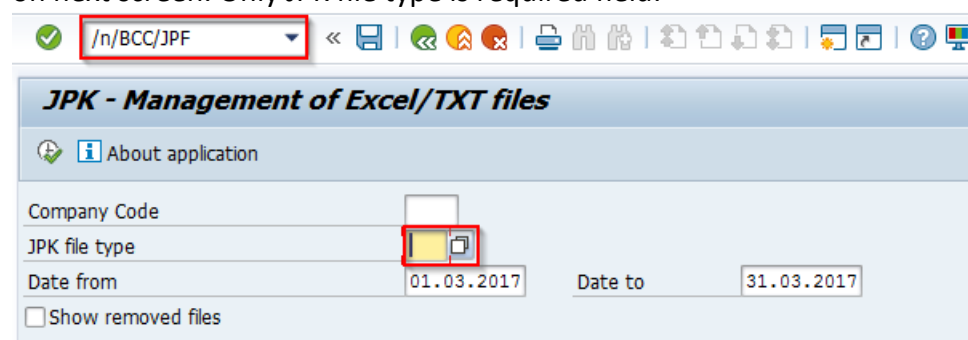
2. Use of Excel4JPK

Main transaction of Excel4JPK product is transaction /n/BCC/JPF. Transaction allows to upload external Excel or Text files.



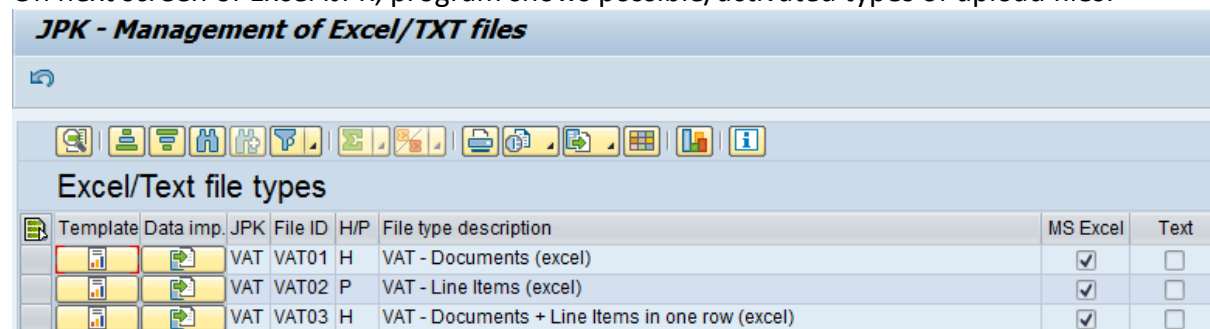
Before first use of the product we recommend to adjust the [basic settings](#) of Excel4JPK. Solution may require adjustment of the files definitions.

In transaction /n/BCC/JPF – Management of Excel/TXT files, on selection screen user specify Company Code, JPK file type, and dates from/to – these will limit the loaded and viewed files on next screen. Only JPK file type is required field:



Icon „About application” allows to check Excel4JPK version.

On next screen of Excel4JPK, program shows possible/activated types of upload files:



First button (Template) allows generating empty template files.

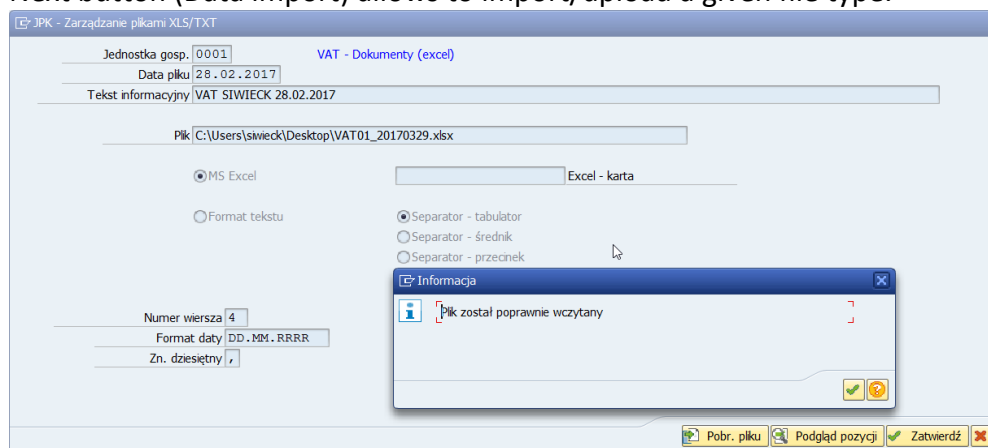
Important! Template Excel/text files contain special column *Record status* (ZJPF_ACTION). This column can normally be left empty if records are to be added (the same meaning as “A” value).

The *Record status* column can be used to manage different actions taken for the record. Below you will find the full list of the possible *Record status* values:

Record status value	Name	Action description
[empty]	Record added from file	Add record from file to JPK Report (remember that document numbers/line item numbers

		should be unique and different from the numbers from SAP (e.g. EXT00000001 / 001)
A	Record added from file	The same as above.
C	Record changed from file	Change header record/ line item record added by the base solution from SAP. The document number or document number/ line item number should be the same as for the record to be changed. Only fields for the fields for which the user provided value will be changed.
D	Record for deletion	Delete header record/ line item record added by the base solution from SAP. The document number or document number/ line item number should be the same as for the record to be deleted. Other field values are unimportant.
T	Technical record - only deletion/ edition of line item	Used to change/ delete only line item without changing header. In such a case, the header record with Record Status T should be given. This record will be ignored later, but is necessary to allow C or D records for line item.

Next button (Data import) allows to import/upload a given file type.



Uploading files into solution can be made in 4 steps:

- filling file data ([1] company code, [2] file date, [3] description, [4] selecting file),
- file import [5],
- display lines [6],
- confirm upload file [7],

On every step user can cease import of the file by pressing [8].

Successfully uploaded files will be presented on the list of imported files (on the bottom of management files screen).

File val.	Disp. data	Del file	Logs	File st.	Valid	Package	Activation Pack.	CoCd	File date	F.	File ID	H/P	File type description	MS Excel	Text	Man. imp.	Auto imp.	Filr. remov.	File Name
								Y001	31.03.2017	10	VAT01	H	VAT - Documents (excel)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C:\Users\siwiecki\Desktop\...
								Y001	31.03.2017	20	VAT02	P	VAT - Line Items (excel)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C:\Users\siwiecki\Desktop\...
								Y001	31.03.2017	14	VAT03	H	VAT - Documents + Line Items in one row (excel)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C:\Users\siwiecki\Desktop\...
								Y001	31.03.2017	13	VAT03	H	VAT - Documents + Line Items in one row (excel)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C:\Users\siwiecki\Desktop\...
								Y001	31.03.2017	6	VAT03	H	VAT - Documents + Line Items in one row (excel)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C:\Users\siwiecki\Desktop\...
								Y001	31.03.2017	12	VAT02	P	VAT - Line Items (excel)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C:\Test\WAT_POZ_2_ERR...
								Y001	31.03.2017	11	VAT02	P	VAT - Line Items (excel)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C:\Test\WAT_POZ_2.xlsx
								Y001	31.03.2017	5	VAT01	H	VAT - Documents (excel)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C:\Test\WAT_DOK_2_ERR...
								Y001	31.03.2017	4	VAT01	H	VAT - Documents (excel)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C:\Test\WAT_DOK_2.xlsx

For each file, user can perform validation using “Validate file” button [1]. Validation is not obligatory but is recommended as it may reveal errors in the data from external files. Important! Unsuccessful validation (error or warning) does not block file loading to JPK report. There may be cases in which user intentionally loads data that was not assessed as correct by validation.

Uploaded data can be displayed by next button “Display data” [2]. Next buttons allow to delete file [3] or present log changes [4].

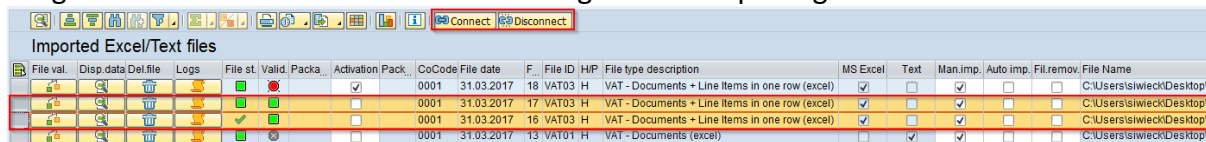
Activation of uploaded files

If file consists only of line item data (possible for JPK_VAT structure), then this file can be directly activated by selecting the “Activation” button. Activated files can be uploaded in

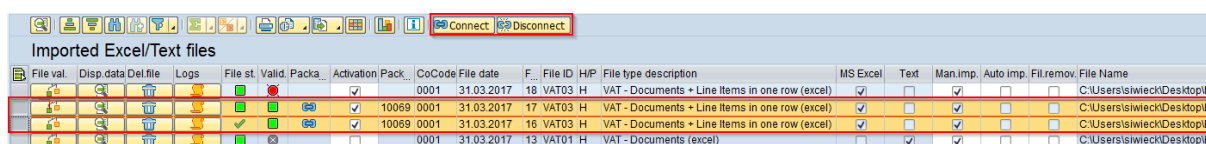
standard JPK transaction (/n/BCC/JPK). Files that consist of separate header and line item data have to be merged into “Package” before activation.

Merging header and line items data into Package

Select the lines that consist of header and line items data and then press button “Connect”. Program will start verification and combining data into “package”.

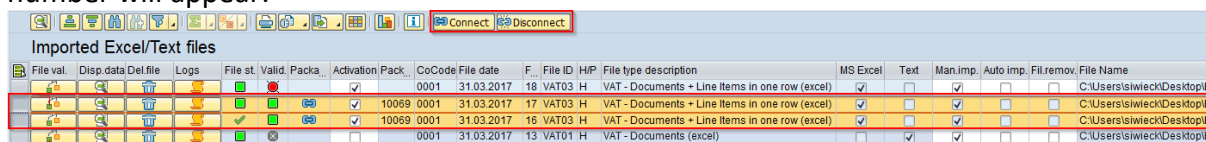


File val.	Disp. data	Del. file	Logs	File st.	Valid. Packa.	Activation Pack.	CoCode	File date	F.	File ID	H/P	File type description	MS Excel	Text	Man. imp.	Auto imp.	File remov.	File Name
							0001	31.03.2017	18	VAT03	H	VAT - Documents + Line Items in one row (excel)						C:\Users\siwieck\Desktop\I
							0001	31.03.2017	17	VAT03	H	VAT - Documents + Line Items in one row (excel)						C:\Users\siwieck\Desktop\I
							0001	31.03.2017	16	VAT03	H	VAT - Documents + Line Items in one row (excel)						C:\Users\siwieck\Desktop\I
							0001	31.03.2017	13	VAT01	H	VAT - Documents (excel)						C:\Users\siwieck\Desktop\I



File val.	Disp. data	Del. file	Logs	File st.	Valid. Packa.	Activation Pack.	CoCode	File date	F.	File ID	H/P	File type description	MS Excel	Text	Man. imp.	Auto imp.	File remov.	File Name
							0001	31.03.2017	18	VAT03	H	VAT - Documents + Line Items in one row (excel)						C:\Users\siwieck\Desktop\I
							10069	0001	31.03.2017	17	VAT03	H	VAT - Documents + Line Items in one row (excel)					C:\Users\siwieck\Desktop\I
							10069	0001	31.03.2017	16	VAT03	H	VAT - Documents + Line Items in one row (excel)					C:\Users\siwieck\Desktop\I
							0001	31.03.2017	13	VAT01	H	VAT - Documents (excel)						C:\Users\siwieck\Desktop\I

Once the data has been correctly merged into package, then the identifier and package number will appear:

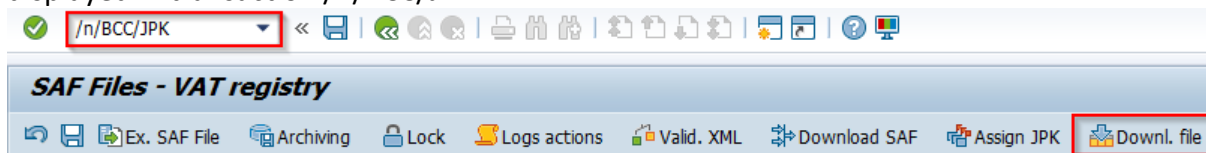


File val.	Disp. data	Del. file	Logs	File st.	Valid. Packa.	Activation Pack.	CoCode	File date	F.	File ID	H/P	File type description	MS Excel	Text	Man. imp.	Auto imp.	File remov.	File Name
							0001	31.03.2017	18	VAT03	H	VAT - Documents + Line Items in one row (excel)						C:\Users\siwieck\Desktop\I
							10069	0001	31.03.2017	17	VAT03	H	VAT - Documents + Line Items in one row (excel)					C:\Users\siwieck\Desktop\I
							10069	0001	31.03.2017	16	VAT03	H	VAT - Documents + Line Items in one row (excel)					C:\Users\siwieck\Desktop\I
							0001	31.03.2017	13	VAT01	H	VAT - Documents (excel)						C:\Users\siwieck\Desktop\I

Merged files should be manually activated. Only activated files are available in standard JPK transaction (/n/BCC/JPK).

Attaching files to JPK structures

If loading of external files is activated in the basic JPK product, then additional button will be displayed in transaction /n/BCC/JPK:



Using button presented above, user can manually attach previously activated database.

Automatic join of external files into JPK structures

If loaded file has checked field “Automatic import to JPK” (see below) then this file will be added automatically and combined with SAP data while generation of SAF-T file in basic JPK solution. User do not have to add them manually and this solution will work also in transaction /n/BCC/JPKZ (background).

Auto import field (/n/BCC/JPF)

File val.	Disp.data Del file	Logs	File st.	Valid. Pack.	Activation Pack.	CoCode	File date	F.	File ID	H/P	File type description	MS Excel	Text	Man. imp.	Auto imp.	File remov.	File Name
					<input type="checkbox"/>	Y001	31.03.2017	10	VAT01	H	VAT - Documents (excel)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C:\Users\siwiw\Desktop\I
					<input type="checkbox"/>	Y001	31.03.2017	20	VAT02	P	VAT - Line Items (excel)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C:\Users\siwiw\Desktop\I

Auto import of file into SAF-T will be made when condition (match) of Company code and file date will be met. All of the external activated files that met the condition will be added to JPK file.

2.1 Basic settings of Excel4JPK

Configuration related to the extension Excel4JPK can be changed in transaction /n/BCC/JPEC.

✓ /n/BCC/JPEC

Display View "File type definitions": Overview

Dialog Structure

- A File type definitions
- B Validation - data structu
- C • Key fields of structur
- D Validation - groups of fie
- E • Fileds/values assignec
- F Valudation rues
- G Additional validation - ke
- H Additional validation - co

File ID	J...	A	File type desc.
FA001	FA	<input checked="" type="checkbox"/>	FA - Documents (excel)
FA002	FA	<input checked="" type="checkbox"/>	FA - Line Items (excel)
KR001	KR	<input checked="" type="checkbox"/>	KR - ZOIS (excel)
KR002	KR	<input checked="" type="checkbox"/>	KR - Journal entries, ZOIS (excel)
MAG01	MAG	<input checked="" type="checkbox"/>	MAG - Documents (excel)
MAG02	MAG	<input checked="" type="checkbox"/>	MAG - Line Items (excel)
VAT01	VAT	<input type="checkbox"/>	VAT - Documents (excel)
VAT02	VAT	<input type="checkbox"/>	VAT - Line Items (excel)
VAT03	VAT	<input checked="" type="checkbox"/>	VAT - Documents + Line Items in one row (excel)
WB001	WB	<input checked="" type="checkbox"/>	WB - Bank accounts (excel)
WB002	WB	<input checked="" type="checkbox"/>	WB - Bank line items (excel)

double click

View after double click – please refer to advanced settings for more information:

Display View "File type definitions": Details

File ID: VAT03 Ref. file ID: _____

File type definitions

☒ Active

JKP file type: VAT

D.head/pos: H

File type desc.: VAT - Documents + Line It...

Structure: /BCC/JPK_ST_VAT_DW

☒ MS Excel Excel - worksheet

☐ Text format

☒ Separator Tabulator

☐ Separator Semi-Colon

☐ Separator Comma

☐ Other Separator

☐ Separators

Date format: DD.MM.YYYY ☒ Man.imp.into JPK

Dec. separator: , ☐ Automatic import

Row number: 4 ☐ File remoov.aft.imp.

File extension: .xlsx ☐ Lock file sett.

Basic settings in this transaction are predefined by BCC. However, they can be adjusted to end user needs. More complex changes should be made by copies of standard settings and saved in user name space (starting with the first letter Z). Such entries will not be overwritten by updates send by BCC. The simplest changes relates to activation of file structure definition (which structure will be available for uploading in /BCC/JPK transaction) and activation of validation rules.

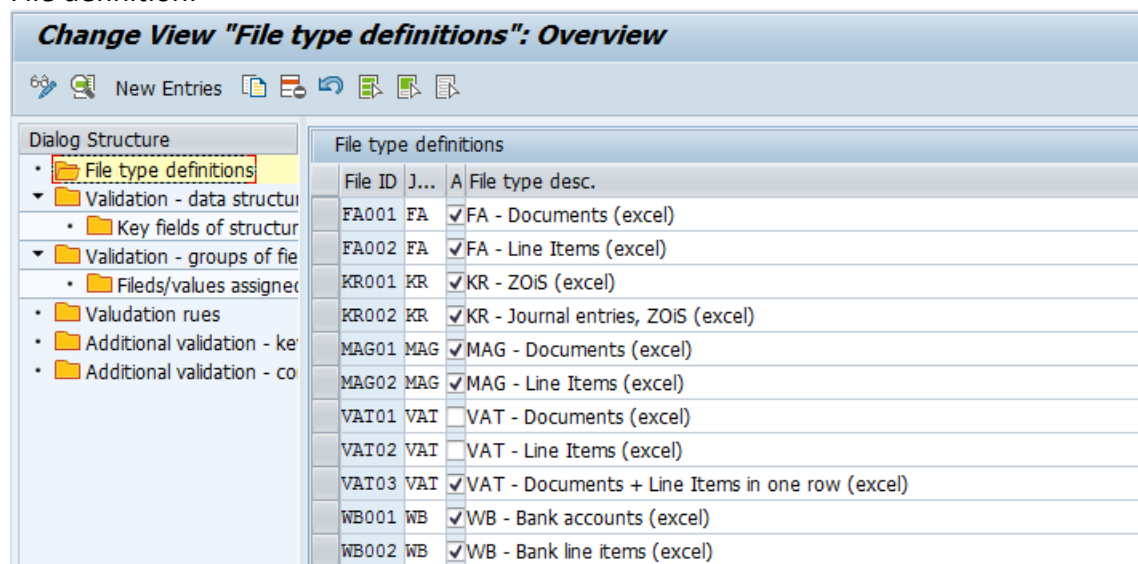
Configuration	Description
File definition – [A]	<p>The installation manual describes the settings changes according to the VAT structure used by basic JPK solution and the implementation class.</p> <p>Basic settings relate to file types definition – user can activate or deactivate each structure. Double click on the structure will move user to detail screen. On this screen user, can modify: decimal format, date format, auto import, manual import etc. For Excel file user can define which tab will consist data to upload (please refer to advanced settings for more).</p> <p>Installation manual describes the settings according to VAT structure which depend on implementing class used in basic JPK solution.</p>
Validation – data structure – [B]	Defines the identifiers of validation structures and assign them to JPK types.
Key fields of structures – [C]	Defines the key fields for the structure (entries should not repeat)

Validation – Groups of fields – [D]	Defines the group of fields and assign them to validation – data structures
Fields/values assigned to group – [E]	Define specific validation proceeding for each fields of structures (eg Error, Warning, Information)
Validation rules – [F]	Define the validation type (by default validation are created for required fields, but ex. possible is to define validation also to set specific value) Installation manual describes the settings according to VAT structure which depend on implementing class used in basic JPK solution.
Additional validation – key fields – [G]	Define an additional validation that verify uniqueness of key fields. For a given data structure (see file definition) the key fields are assigned by ID of validation structure. Validation objects has been created and their names starting with letter K (eg KV1, KV2, KV3). In case of absence of key uniqueness, solution has predefined messages (Error / Warning / Information).
Additional validation – company code – [H]	Defines an additional validation that verify entity compliance in the uploaded file with the company code assigned at selection screen. Configuration indicate the structure fields that containing company code and message types that will be returned in case of any discrepancies (Error / Warning / Information).

2.2 Advanced settings of Excel4JPK (details for file definition and validation)

Detailed description of the common Excel4JPK configuration items:

File definition:



Change View "File type definitions": Details

New Entries

Dialog Structure

- File type definitions
 - Validation - data structure
 - Key fields of structure
 - Validation - groups of fields
 - Files/values assigned
 - Validation rules
 - Additional validation - key
 - Additional validation - control

File ID: FA001 Ref. file ID:

File type definitions

☒ Active **A**

JPK file type: FA **B**

D.head/pos: H **C**

File type desc.: FA - Documents (excel) **D**

Structure: /BCC/JPK_ST_FA_DOK **E**

☒ MS Excel **F** Excel - worksheet

☐ Text format **F**

☒ Separator Tabulator

☐ Separator Semi-Colon

☐ Separator Comma

☐ Other Separator

☐ Separators

Date format: DD.MM.YYYY **G**

Dec. separator: ,

Row number: 4 **H**

File extension: .xlsx **I**

☒ Man.imp.into JPK **J**

☐ Automatic import **K**

☐ File remoov.aft.imp. **L**

☐ Lock file sett. **M**

Field	Description
Active – A	Enable or disable a given file type
JPK file type – B	Assigns the file type to the JPK structure
Document head/position – C	Indicates whether the data in the defined file is related to the header or position (possible entries are: headers and line items or entire document)
File type description – D	Specify the JPK file type
Structure – E	Structure ID of the structure from basic JPK solution (can be verified in → /n/BCC/JPKC → XML structure groups → Structure)
MS Excel/ Text format – F	Select whether to load data from MS Excel or text. For MS Excel, user can optionally specify the ID of the sheet from which the data will be read. For the text file, specify the appropriate separators.
Date format, decimal separator – G	Define settings of date format and which separators will be used in the loaded file.
Row number – H	Number of first line with data (minimum is 4, that means the first 3 lines are technical lines). For 4 or higher row number can be used to upload proper data. First cell consist of the File ID, which provides detection of incorrect loading attempt.
File extension – I	Optional field that enforce the file extension such as .xls, .xlsx, .txt or .csv. By default it is set to .xlsx – can be change in case of using older version of Excel.
Manual import into JPK – J	The default value that means files are going to be uploaded into standard JPK solution manually.

Automatic import into JPK – [K]	Selecting this button will cause that if the file meets the criteria (date, business unit and file type) then it will be automatically added in the generated JPK file (generated by standard JPK solution). Using this option does not require additional user action within basic JPK solution. It works also in JPKZ transaction (background).
Automatic file removal after import – [L]	If this field is checked then once basic JPK solution read the file, then the file will be removed.
Lock file settings – [M]	If this field is checked then user will not be able to change fields from points [J-L] in transaction /BCC/JPF.

Validation – group of fields:

Display View "Filed/s/values assigned to group of fields": Overview

Grou...	Value	Message type
FIF001	RESKONTR	E Error
FIF001	BBRUTTO	E Error
FIF001	BELNR	E Error
FIF001	BLART	E Error
FIF001	BLDAT	E Error
FIF001	BMWST	E Error
FIF001	BNETTO	E Error
FIF001	BUDAT	E Error
FIF001	BUKRS	E Error
FIF001	GJAHR	E Error
FIF001	NAZWAKONTR	E Error
FIF001	NIPKONTR	E Error
FIF001	NRFAKT	E Error
FIF001	WAERS	E Error

This screen defines fields of the structure that will be validated also define message type (error, warning, information).

Validation rules

Change View "Valudation rues": Overview

JPK	R.v/s	H/P	Active	Description rule	Or.rul	Og
FA Invoices	FIF001	H Data header (c	✓	FA - dokumenty	10	A Field (1)
FA Invoices	FIF002	P Positions of...	✓	FT - pozycje do...	10	A A Field (1) are required
KR G/L Acco...	FIK001	H Data header ...	✓	KR - ZOIS	10	A Field (1)
KR G/L Acco...	FIK002	P Positions of...	✓	KR - pozycje dzi...	10	A Field (1)
MAG Warehou...	FIM001	H Data header ...	✓	MAG - dokumen...	10	A Field (1)
MAG Warehou...	FIM002	P Positions of...	✓	MAG - pozycje d...	10	A Field (1)
VAT Records...	FIV001	H Data header ...	☐	VAT - dokumen...	10	A Field (1)
VAT Records...	FIV002	P Positions of...	☐	VAT - pozycje d...	10	A Field (1)
VAT Records...	FIV003	H Data header ...	✓	VAT - dokumen...	10	A Field (1)
WB Bank sta...	FIW001	H Data header ...	✓	WB - konta ban...	10	A Field (1)
WB Bank sta...	FIW002	P Positions of...	✓	WB - pozycje w...	10	A Field (1)

The most complex of JPK settings relates to Validation rules, which defines how and if the validation group will work.

Field name	Description
JPK	JPK Type
Validation rule/ substitution	Validation rule ID
H/P	Determine whether the rule applies to the headers or to line documents
Active	Determines whether the rule is active
Rule description	Rule description
Or.rul	Rule order, numerating of rule orders usually takes values 10,20,30 etc.
Og	<p>Possible action that can be made on field group, such as: Operacja na grupach pól – definiuje różne akcje walidacji np.:</p> <p>A Field (1) are required</p> <p>B Field Value (1) must be from the set (2)</p> <p>C The value of the field (1), extension (exit)</p> <p>D If the specified value (1), the min. value (2)</p> <p>E If specified value (1), the max. value (2)</p> <p>Where:</p> <p>A – means that the field defined in the next column (Group of value) must have a non-empty value</p> <p>B – means that the field defined in the next column (Group of value) must have the value given in the last column</p> <p>C – means that it will be validated by extension, and this extension will be defined in column <i>Value</i> *</p> <p>D – means that if the field defined by next column has a value from the Value column, then at least one of the field defined by last column must be filled in</p> <p>G – means that if the field defined by next column has a value from the Value column, then all of the fields defined by last column must be filled in</p>
Values groups (1)	Validation groups used to verify a prerequisite for operations A-G.
Value	Value Identifier: - extension ID for C operation - value checked in prerequisite for operations D and G
Values groups (2)	Validation groups used to verify the precondition in operations B, D and G.

* Operation C requires the implementation of one of two BADI / BCC / JPK_VALID methods (transaction SE18):

- VALID_FIELD (validation of the selected field)
- VALID_FIELD_STRUCT (except the validated field, this BADI passes entire structure to the method)

Implementation example:

BADI definition (transaction SE18): /BCC/JPK_VALID

Implementing class: /BCC/JPK_CL_EXT_VALID

Interface: /BCC/JPK_IF_VALID_EXT

Enhancement implementation: /BCC/JPK_EI_EXT

METHOD /bcc/jpk_if_valid_ext~valid_field.

DATA: lv_str TYPE string,

lv_c(10) VALUE '0123456789'.

CASE iv_exit.

WHEN 'WB_NRKONTA'.

IF iv_field IS INITIAL.

/bcc/jpk_cl_data=>raise_exception_text(iv_id = 'error'
iv_msgnr = '107').

ELSE.

IF iv_field(1) CA lv_c OR iv_field+1(1) CA lv_c OR
strlen(iv_field) LT 14 OR strlen(iv_field) GT 34.

/bcc/jpk_cl_data=>raise_exception_text(iv_id = 'error'
iv_msgnr = '106'
iv_text1 = iv_field).

ENDIF.

ENDIF.

ENDCASE.

ENDMETHOD.

METHOD /bcc/jpk_if_valid_ext~valid_field_struct.

DATA: lv_str TYPE string.

FIELD-SYMBOLS: <fld> TYPE any.

CASE iv_exit.

WHEN 'FA_NR_NIP'.

* Numer NIP

MOVE iv_field TO lv_str.

ASSIGN COMPONENT iv_field OF STRUCTURE is_struct
TO <fld>.

IF sy-subrc NE 0.

EXIT.

ENDIF.

IF <fld> IS INITIAL.

EXIT.

ENDIF.

IF strlen(<fld>) NE 10.

/bcc/jpk_cl_data=>raise_exception_text(iv_id = 'error'
iv_msgnr = '105'
iv_text1 = <fld>).

ENDIF.

ENDCASE.

ENDMETHOD.

3. More information

More information about Excel4JPK can be found in *Excel4JPK user manual* and on *JPK by BCC* forum:

<https://jpk.bcc.com.pl>