

Exporting and Importing Tariff Data in UFX Format

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Exporting and Importing Tariff Data: Introduction


In WAY4™, the WAY4 Advanced Tariff Management module can be used to import tariff data from the CBS and export them to the CBS in XML format.

Tariff data are imported by the "Product Tariff Data Import" pipe (`com.openwaygroup.pipe.tariff_domains_import.jar`).

Tariff data are exported by the "Product Tariff Data Export" pipe (`com.openwaygroup.pipe.tariff_domains_export.jar`).

Chapter 1. General Information

The "Product Tariff Data Import" and "Product Tariff Data Export" pipes import and export data of general tariffs (tariffs linked to a contract through a Product, Service Package, Accounting Scheme, or financial institution).

 To import and export data of personal tariffs (tariffs specified for a certain contract) the Applications Import R2 Pipe and Applications Export R2 Pipe are used.

Information about messages, including error messages generated by the system when importing and exporting files can be obtained using the "Process Log" grid form, accessed by selecting the menu item "Full → Process Log → Process Log".

"Product Tariff Data Import" Pipe

The user menu item "Tariffs → Tariff Export and Import → Product Tariff Data Import" is used to start the "Product Tariff Data Import" pipe.

Tariff domains, tariff types, and tariffs cannot be imported (created or changed) by the "Product Tariff Data Import" pipe. Before importing tariff data using the "Product Tariff Data Import" pipe, it is necessary to create a structure to which data will be imported in WAY4 – set up tariff domains, tariff types and tariffs (see the document "WAY4™ Advanced Tariff Management"). Data being imported refer to a specific tariff domain and specific tariff in this domain.

Several files can be imported by the "Product Tariff Data Import" pipe – several files for import will be put in the incoming file directory, see the section ""Product Tariff Data Import" Pipe Parameters".

When importing data with the "Product Tariff Data Import" pipe, each file is imported within one transaction:

- If an error occurs during import, records that have already been imported are rolled back and the file is put in a special directory for files processed with an error (see the description of the ERROR_DIR parameter in the section ""Product Tariff Data Import" Pipe Parameters").
- Import of large volume files may affect system performance. To optimize the import process, it is recommended to create files with between 100 to 1000 records. If the number of records in a file exceeds 1000, data being imported should be broken down into several files of the recommended size.

At the end of the import process, a message is displayed showing the number of files and file records processed successfully.

"Product Tariff Data Export" Pipe

The user menu item "Tariffs → Tariff Export and Import → Product Tariff Data Export" is used to start the "Product Tariff Data Export" pipe.

When exporting tariff data, several files may be created. Data being exported are grouped into files based on the LAYOUT_BY parameter, see the section ""Product Tariff Data Export" Pipe Parameters".

Chapter 2. "Product Tariff Data Import" Pipe Parameters

Parameter	Value	Parameter description
IN_DIRECTORY		Incoming file directory (directory in which the user puts incoming files intended for import). The following value is recommended – "@RBS_INTERCHANGE_DIR\in".
ERROR_DIR		Specifies the name of the directory for files processed with an error. The default value is: "@RBS_INTERCHANGE_DIR\err".
ARCH_DIRECTORY		Specifies the name of the directory for successfully processed files. The default value is: "@RBS_INTERCHANGE_DIR\arch".
DATE_CHECK_MODE	FUTURE_DATE ANY_DATE	The FUTURE_DATE value is set by default. Only tariff numeric values are imported whose effective date (Date From) is later than the current banking date. If the ANY_DATE value is used, tariff numeric values are imported without restriction by the Date From date. I.e. including numeric values active from the current date and from a past date.

Chapter 3. "Product Tariff Data Export" Pipe Parameters

Parameter	Value	Parameter description
EXPORT_DATA_DIRECTORY		Outgoing file directory. The following value is recommended – "@RBS_INTERCHANGE_DIR@out".
XML_SCHEMA_URL		Path to the "WAY4TariffDomainFile.xsd" file containing the xsd schema of the outgoing file. This parameter allows redefinition of the default directory (the default directory is "@WORK_DIR@Client\Shared\Pipes\xsd\Offline\WAY4TariffDomainFile.xsd").
CUSTOM_PREFIX		Prefix in the outgoing file name. The parameter value will be specified after the value of the <i>File Name Prefix</i> field of the file name structure (see the section "File Format").
FILTER	Condition fragment	WHERE fragment added to a SELECT operator. The default value is "1=1"
LAYOUT_BY	Field name or constant	Parameter for grouping records being exported into files. An expression (usually the name of a TARIFF_DOMAINS table field), specifying the rule for grouping tariff data in a file. For example, when the "NAME" value is specified for the parameter, in the outgoing file directory subdirectories will be created with the names of tariff domains containing files with the data of these domains' tariffs. A string constant can be specified as the parameter value (i.e. a generated file will be put in the directory with the name of the constant).

Chapter 4. File Format

Files are generated in XML format. All aggregates and simple fields are XML elements. The top element must be named "TariffDomainFile".

Data types:

- **C-xx** – text field containing any printable characters; **xx** is the maximum field length.
- **Integer** – integer.

The file format is described using an xsd schema graphic representation.

An example of this representation is shown in Fig. 1.

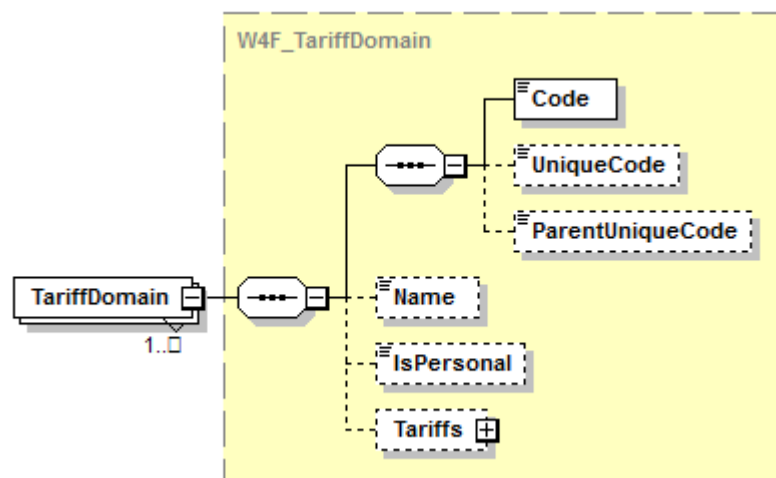


Fig. 1. Graphic representation of file format

The following notation is used in the graphical representation:

- Rectangles with solid borders represent mandatory elements of the structure
- Rectangles with dotted borders represent non-mandatory elements
- Crossed out rectangles represent elements reserved for future use.

The symbol indicates that all elements it connects must be included in the top-ranked element in exactly the same order as shown in the schema.

The symbol indicates that the top-ranked element contains one of the elements connected by this symbol.

Each of the scheme's elements contains a hyperlink to its description.

The "Any" type element contains XML structure whose format is undetermined.

An X...Y character next to an element means that it can contain from X to Y sub-elements, while "□" means that the number of sub-elements is unlimited.

Incoming file name structure:

No.	Field	Format	Comments
1.	File Name Prefix	C-3	"TRF"
2.	Delimiter	C-1	"_" (underline character).
3.	File Creation Date	yyyy-MM-dd	File generation date.
4.	Delimiter	C-1	"_" (underline character).
5.	File Number	Integer (5 digits)	Sequence number of the file for the current day, left-padded with zeros up to five digits.
6.	Delimiter	C-1	"." (period character).
7.	File Extension	C-3	"xml"

Outgoing file name structure:

No.	Field	Format	Comments
1.	File Name Prefix	C-3	"TRF"
2.	Delimiter	C-1	"_" (underline character).
3.	Custom Prefix		Specified by the CUSTOM_PREFIX pipe parameter (see the section ""Product Tariff Data Export").
4.	Delimiter	C-1	"_" (underline character). If the CUSTOM_PREFIX pipe parameter (see the section ""Product Tariff Data Export" Pipe Parameters") is not set, this field is not filled in.
5.	File Creation Date	yyyy-MM-dd	File generation date.
6.	Delimiter	C-1	"_" (underline character).
7.	File Number	Integer (5 digits)	Sequence number of the file for the current day, left-padded with zeros up to five digits.
8.	Delimiter	C-1	"." (period character).
9.	File Extension	C-3	"xml"

File schema see in the xml_tariff_schema.chm file.