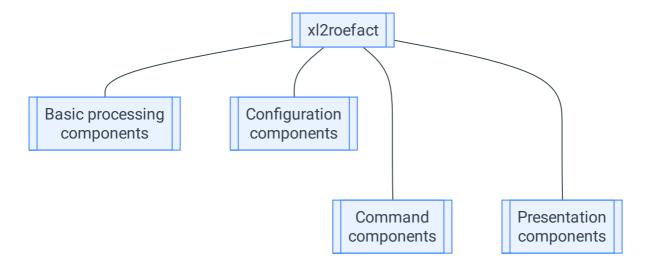
Software development reference using xl2roefact python library

version 0.7rc2

- Software development reference using xl2roefact python library
 - · Library components
 - · Basic processing components
 - · Command components
 - · Configuration components
 - Presentation components
 - Install library
 - · Install from PyPi
 - · Install from distribution packages
 - Aspecte tehnice referitoare la formatul fisierului JSON aferent facturii
 - · Sysyem database and parameters
 - API Refrence
 - · Download xl2roefact library

Library components



Basic processing components

These components assure the basic elementary-raw processing of information. Their interface is pure technical and require basic development knowledge to be used "as is".

- rdinv read an Excel file and extract invoice data to a JSON file format
- wrxml write, convert the JSON invoice file to a XML file format, respecting schemes required by RO EFact standard
- chkxml check generated XML file
- 1dxm1 load an invoice (ie, its XML associated file) to ANAF SPV system
- chkisld check if an invoice is already loaded in ANAF SPV system

Command components

These components are 2nd level layer components desined to implement user level functionalities.

- settings manage system settings
- x12 json process Excel file and store extracted invoice data in JSON format. More detais here
- json2xml process JSON file and convert it to XML (ROeFact standard compliant)
- json2pdf process JSON file and produce invoice as PDF format
- xml2roefact upload XML format invoice to "SPV RO eFactura"

Configuration components

These are the components that assure and make possible system configurablitity at user level.

- config_settings USER level configuration define application settings & parameters mainly used in invoice info / data detection and extract from invoice Excel format file
- sys_settings SYSTEM level configuration system database and parameters, not changeable at user level in current application usage (changing these parameters needs code updating to make them effective) details in section Sysyem database and parameters

Presentation components

These are 2nd level layer components that make sysyem usable in various forms such as command line console application, daemon / server that runs in background and can be called from local or remote clients, library interfaces (for extensions and custom development) that hide low level technical execution details.

- app_cli contains the code for x12roefact application command line (CLI) format
- __main__ assures right package "addressing" as Python modele (ie, running as python -m x12roefact ...)
- __version__ keeps current system version and helper functions to assure standard and canonical representation of version string
- __init__ assure friendly exposing of system public objects (and of course classic pytgon role of "package maker")

Install library

Library can be installed using 2 methods:

- · install from PyPi
- install from site archive of distribution packages

Install from PyPi

The library installation can be done using standard Python instruments:

```
pip install xl2roefact
```

This command will install by default the last stable version. For other versions, standard PyPi procedure to install a specific version must be used.

Install from distribution packages

To install from distribution packages first download the package version intended to install (see download section), choose the package type (if you have no special option, then choose WHEEL format) and install it using

pip as any other Python library installation (detailed in Python official documentation).

Aspecte tehnice referitoare la formatul fisierului JSON aferent facturii

Acest fisier este cel generat de catre aplicatie in urma executiei acesteia cu comanda x12 j son . Structura de baza a acestui fisier este:

```
{
    "Invoice": {...},
    "meta_info": {...},
    "excel_original_data": {...}
}
```

Cheile de la primul nivel contin:

- Invoice datele efective ale facturii
- meta_info
 - informatii referitoare la procesarea facturii si mapa de conversie a cheii Invoice din formatul JSON in formatul XML cerut de sistemul RO E-Fact
 - harta de ajutor in conversia formatului JSON in formatul XML acceptat de sistemul RO E-Fact (cheie meta_info.map_JSONkeys_XMLtags) si definititiile XML aferente (cheie meta_info.invoice_XML_schemes)
 - alte informatii despre fisierul Excel prelucrat (numele, worksheet cu factura, data si ora procesarii, CRC pentru verificare, etc)
- excel_original_data informatiile originale din fisierul Excel, asa cum au fost ele identificate si gasite precum si locatia (adresele celulelor). Aceste informatii sunt utile in cazul in care exista neclaritati in urma procesuluicde conversie pentru "a intelege" de unde si cum arata informatiile originale din fisierul Excel

An example of JSON generated file is available here

Sysyem database and parameters

System database is an object that interface library components with physical stores of parameters and data requred by system and its applications.

Sometimes it can contain both physical and logical interfaces one example being InvoiceTypes which consists of:

- InvoiceTypes: dict the physical store of invoice types name and codes
- InvoiceTypesEnum: Enum the logical object with invoice types implemented as standard Python enumeration (enum)

This let open the possibility that in future versions to "externalize" physical data-objects to other systems or distinct files, but letting small / tinny physical data-objects to stay in sys_settings.py module.

API Refrence

Download xl2roefact library

• Pachete instalare biblioteca Python formate WHEEL si DIST

Last update: April 30, 2024