



Standalone application for the SRI calculation /D3.3

WP 3, T 3.3

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Technical references

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* PU = Public
PP = Restricted to other programme participants (including the Commission Services)
RE = Restricted to a group specified by the consortium (including the Commission Services)
CO = Confidential, only for members of the consortium (including the Commission Services)

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1. SRI standalone application

The SRI standalone application is a command line tool, without graphical interface, developed in Python, which calculates the total output and key functionalities of the SRI in any country.

This application loads the SRI-related data included in the .iepb data format (developed in Task 3.1) and calculates the "Total" and Key Functionalities (KF1, KF2 and KF3) results of the SRI.

This tool works as an SRI calculation engine and could be incorporated in any other existing tool.

1.1. About SRI StandAlone application

The SRISandalone APP is a tool developed within the framework of the iEPB project (co-funded by the European Union, project number 101120690) with which the following actions can be executed:

Calculation of the SRI Total Score and the three key functionalities (Kf1, Kf2, Kf3) results and printing them on the screen.

Export the xml files of the SRI assessment, previously downloaded from the SRI2Market application, to the iEPB file.

Generate a new element in the iEPB file including the data of the changes made.

Check the version of the tool.

The SRISandalone is a tool that will complement the SRI2Market application.

1.2. Built with

The software for the operation of the SRISandalone application has been developed with the help of the following tool:



1.3. Get started with the SRISandalone application

1.3.1. Prerequisites

First download the software from the site enabled for distribution. To download just double click on release and save it in the location of your choice.

1.3.2. Installation

After running the setupSRISandalone1.2.exe file, the application will be installed on your computer in the default path *C:\Program Files\SriStandAlone*. A folder called "examples" will also be created in the same path where the 12.iEPB file is included (file of the new iEPB format with an example of the SRI assessment included to be read and calculated by the SRISandalone app).

1.4. Use of the SRIStanAlone application

This section explains how to use the program and its options. In order to initialize the program we will have to go to the location of the executable in the file explorer, when we are already in the site in the url bar we will write cmd (to open a command console in the same location of the executable). Inside the console we will have to type the name of the executable sriStandAlone.exe, and then you can type the following options:

- Option -h or --help: With this option a help will be displayed with the available options of the program and a brief explanation of each option.

sriStandAlone.exe -h

```
C:\Program Files\SriStandAlone>SRIStanAlone.exe -h
usage: SRIStanAlone.exe [-h] [-i IMPORT_FILE] [-o OUTPUT_FILE] [-p [RESULT_FILE]] [-s [RESULT_SRI]]
                        [-kf1 [RESULT_KF1]] [-kf2 [RESULT_KF2]] [-kf3 [RESULT_KF3]] [-x [EXTRACT_FILES]]
                        [-e PACKAGE_FILES PACKAGE_FILES] [-v [SHOW_VERSION]]

SRI Stand Alone Application

options:
  -h, --help            show this help message and exit
  -i IMPORT_FILE, --import_file IMPORT_FILE
                        Input file
  -o OUTPUT_FILE, --output_file OUTPUT_FILE
                        Output file
  -p [RESULT_FILE], --result_file [RESULT_FILE]
                        Print results
  -s [RESULT_SRI], --result_sri [RESULT_SRI]
                        Print main result only
  -kf1 [RESULT_KF1], --result_kf1 [RESULT_KF1]
                        Print kf1 result
  -kf2 [RESULT_KF2], --result_kf2 [RESULT_KF2]
                        Print kf2 result
  -kf3 [RESULT_KF3], --result_kf3 [RESULT_KF3]
                        Print kf3 result
  -x [EXTRACT_FILES], --extract_files [EXTRACT_FILES]
                        Extract xml and gbXML from iEPB file
  -e PACKAGE_FILES PACKAGE_FILES, --package_files PACKAGE_FILES PACKAGE_FILES
                        Package xml and gbXML in iEPB file
  -v [SHOW_VERSION], --show_version [SHOW_VERSION]
                        Show version of software
```

- Option -i or --import_file: This argument is used to import the project data provided. This argument is mandatory with all the options except the -v option.

sriStandAlone.exe -i <inputfile>

```
C:\Program Files\SriStandAlone>sristandalone.exe -i C:\temp\12.iepb
iEPB loaded
```

- Option -o or --output_file: With this option, the SRI calculated of the iEPB file will be recalculated and exported to the path specified by the user.

sriStandAlone.exe -i <inputfile> -o <outputfile>

```
C:\Program Files\SriStandAlone>sristandalone.exe -i C:\temp\NoResults.iepb -o C:\temp\Results.iepb
iEPB loaded
New iEPB file created
```

- Option -p or --result_file: This option prints all the results on the screen, also it is not mandatory to provide any file to it.

sriStandAlone.exe -i <inputfile> -p



```
C:\Program Files\SriStandAlone>sristandalone.exe -i C:\temp\NoResults.iepb -p
iEPB loaded
Total SRI: 33.57
Energy Performance (Kf1): 51.72719212519781
Response To User Needs (Kf2): 37.752416301291966
Energy Flexibility (Kf3): 11.22023160684932
```

- Option -s or --result_SRI: Displays the total result of the project (SRI) on the screen. It is not necessary to provide a file.

[sriStandAlone.exe -i <inputfile> -s](#)

```
C:\Program Files\SriStandAlone>sristandalone.exe -i C:\temp\Test.iepb -s
32.51
```

- Option -kf1 or --result_Kf1: Prints the total 'Energy performance and operation' (Kf1) result on screen. It is not necessary to provide a file.

[sriStandAlone.exe -i <inputfile> -kf1](#)

```
C:\Program Files\SriStandAlone>sristandalone.exe -i C:\temp\Test.iepb -kf1
48.561499722209625
```

- Option -kf2 or --result_Kf2: Prints the total result of the 'Response to user needs' (Kf2). It is not necessary to provide a file.

[sriStandAlone.exe -i <inputfile> -kf2](#)

```
C:\Program Files\SriStandAlone>sristandalone.exe -i C:\temp\Test.iepb -kf2
37.752416301291966
```

- Option -kf3 or --result_Kf3: Prints the total result of the 'Energy flexibility' (Kf3). It is not necessary to provide a file.

[sriStandAlone.exe -i <inputfile> -kf3](#)

```
C:\Program Files\SriStandAlone>sristandalone.exe -i C:\temp\Test.iepb -kf3
11.22023160684932
```

- Option -x or --extract_files: With this argument the xml that are given in the -i argument are extracted, the user can provide a location, if not, they are saved in the same place as in the file of the -i option.

[sriStandAlone.exe -i <inputfile> -x <route_new-file>](#)

```
C:\Program Files\SriStandAlone>sristandalone.exe -i C:\temp\Test.iepb -x C:\temp
XML has been extracted in C:\temp\12.xml
gbXML has been extracted in C:\temp\12_gbXML.xml
```

- Option -e or --package_files: This option creates a new iEPB file that includes the files defined in the -e section (xml and gbMXL). The option -o is used to define the output file name. If the -o option is not used, the output file name will be like the first input file name, but with the extension renamed to .iepb.

[sriStandAlone.exe -o <outputfile> -e <xmlfile> <gbxmlfile>](#)

```
C:\Program Files\SriStandAlone>sristandalone.exe -o C:\Temp\sri\25.iEPB -e C:\Temp\sri\25.xml C:\Temp\sri\25_gbXML.xml
New iEPB file created

C:\Program Files\SriStandAlone>sristandalone.exe -i C:\Temp\sri\25.iEPB -p
iEPB loaded
Total SRI: 32.51
Energy Performance (Kf1): 48.561499722209625
Response To User Needs (Kf2): 37.752416301291966
Energy Flexibility (Kf3): 11.22023160684932
```



- Option -v or --show_version: Prints the program version on the screen. No file has to be provided.

[sriStandAlone.exe -v](#)

```
C:\Program Files\SriStandAlone>SRISStandAlone.exe -v  
1.1
```

1.5. Troubleshooting & FAQ

- Remember that you are running the application on the MS-DOS subsystem and therefore you have to follow its rules, so if any folder in the path you enter consists of two words, e.g. Program Files, the path must be written in quotation marks.
 - ☑ *C:\Program Files\SriStandAlone>sristandalone.exe -i "C:\Example Files" -e "C:\Example Files\12.xml" "C:\Example Files\12_gbXML.xml"*
 - ☒ *C:\Program Files\SriStandAlone>sristandalone.exe -i C:\Example Files -e C:\Example Files\12.xml C:\Example Files\12_gbXML.xml*
- For those tool options that integrate file saving (-o, -x, -e) the new path where the file is to be saved must be free and have write permissions. If you are running the application as administrator, these permissions are not needed as the administrator already has them.



2. Final deliverable D3.3

Deliverable 3.3 is the SRI Standalone application v1.2 and, as a public deliverable, its installer can be downloaded from the iEPB project website. In addition, the public repository on the GitHub platform created for this purpose [iepbproject/SRIStandAlone \(github.com\)](https://github.com/iepbproject/SRIStandAlone) will also be accessible.

2.1. Review of the D3.3

The first final version of the application was v1.0 delivered by EFINOVATIC on 3 May 2024. This first version has been tested by CENER, detecting the following issues before submission to the portal and resolved in the next version as follows:

Table 1: Issues identified in SRIStandAlone v1.0 and solutions applied

	Issue	Solution
1	After the installation of the application the computer needs to be restart and it is not indicated anywhere	At the end of the installation, the executable indicates that it is necessary to restart the computer and if you want to restart it at that moment.
2	When you modify an .iepb file manually and change any number, the file crash and the standalone can't calculate anymore the file. However, if you extract the files included in the iEPB extension, change any number inside the extracted xml, compress the file again and change the extension from .zip to .iePB, it works. But this operation has to be done manually.	A new option has been added in the SRIStandAlone application to create a new iEPB file that includes the xml and gbMXL files: Option -e or --package_files
3	There is no manual for the application and the commands for the different options can be forgotten.	As the Readme.md file includes the different options of the application, include it in the installation file so that during installation a copy is placed in the SriStandAlone folder of the program files.



Table 2: Issues identified in SRISStandAlone v1.1 and solutions applied

	Issue	Solution
1	The new option -e or --packaged_files refers to the output file -i <inputfile> instead of -o <outputfile>	Change the command acronym to -o <outputfile>
2	The new option -e or --packaged_files does not use the output name given for the new .iepb file, but takes the name of the first file that is designated for packaging and appends a -packaged.iepb to it.	The option has been reprogrammed. Now the option -o is used to define the output file name. If the -o option is not used, the output file name will be like the first input file name, but with the extension renamed to .iepb.

Following the reviews, the final release of the application v1.2 includes all these modifications has been generated and is available on the GitHub platform.

Table 3: Review table

SRI StandAlone app Version	Month Year	Reviewed by	Comments
v.1.0	3.05.2024	CENER	Version for internal review
v.1.1	27.05.2024	CENER/IVE	Version for internal review
v.1.2	04.06.2024	CENER/IVE	Final Version after reviews

