
practice2standards Documentation

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INTRODUCTION

As part of the SCRATCH project: <https://itea3.org/project/scratch.html> research phase this tool was developed to help navigate DCMS data (requirements/best practices).

<https://iotsecuritymapping.uk/open-data-files-latest-v4/>

There are two components in this project. The backend which reads the database from local file or webresource and stores the data in a structure.

The front end allows for making structures/filters and export.

```
..code-block::bash
```

```
python3 ui.py
```


EXAMPLES

2.1 Simple startup front-end

From the shell type:

```
python3 ui.py
```

Open a browser and type:

<http://localhost:5000>

in the address-bar.

2.2 Backend usage

The following code will return all the properties of the guides belonging to the organization *IEEE*.

```
1 gl = CodeOfPracticeReader()
2 gl.setup()
3
4 guides = gl.getGuides()
5
6 processor = Processor(guides)
7
8 list = processor.getOccurrencesOfOrganisation(["IEEE"])
9
10 for item in list:
11     print (propsOf(item))
```

Multiple organizations can be selected:

```
list = processor.getOccurrencesOfOrganisation(["IEEE", "W3C"])
```

etc, etc.

CLASS OVERVIEW:

Author: M.A. Marosvolgyi 2021 (c)Anywi

class prototype.**CodeOfPracticeGuideline**

Fields: DCMS Code of Practice Guidelines Number Organisation Standard / Recommendation Name Recommendation Number / Section Recommendation Extracted from Linked Source Web Link Notes Added at Version

prototype.**ORGANIZATIONKEY** = 'Organisation'
guide names

class prototype.**Processor** (*guides*)

Processor returns an object which can do manipulations on the set of guides.

Parameters *guides* (*CodeOfPracticeGuide*) – list of guides

example:

```
>>> import prototype as pt
>>> list = processor.getOccurrencesOfOrganisation(["IEEE"])
>>> print (pt.propsOf(list[0]))
GuideLine No: 1
IEEE
IoT Security Principles and Best Practices
5
IoT devices should not use easy-to-guess username/password credentials, such as
↪ admin/admin. Devices should not use default credentials that are invariant
↪ across multiple devices and should not include back doors and debug-mode
↪ settings (secret credentials established by the device's programmer) because,
↪ once guessed, they can be used to hack many devices.
Each device should have a unique default username/password, perhaps printed on
↪ its casing, and preferably resettable by the user. Passwords should be
↪ sophisticated enough to resist educated guessing and so-called brute force
↪ methods.
https://internetinitiative.ieee.org/images/files/resources/white_papers/internet_
↪ of_things_feb2017.pdf
Use strong authentication
1
```

generateSetOfOrganisations ()

Generates a set of all organisations occurring in all guides.

getListOfOrganizations ()

Returns a list of all organizations. This is basically a conversion from the set of organizations to a list.

Returns list of organizations

Return type list

getMatrix()

Return matrix of guides against organisations involved

getOccurrencesOfOrganisation (*organisations*)

Returns an ordered list (by Guide ID) of guides which belong to organisations listed in the argument variable (list) organisations.

Params organisations list of organisations

Type list of CodeOfPractiveGuideline

Returns sorted list of guides

`prototype.dumpMatrix` (*pr*)

Genereate html style table from the organisation versus guide matrix. This is a helper function.

Params pr Processor instance

Returns html table string

Return type string

`prototype.propsOf` (*l*)

Prints all props of a guide item

Params l guide item

Returns print to screen

`prototype.translateGuideId2GuideName` (*id*)

Translate a guide id nr (1,2,3,...,13) to CoP key name. This is a helper function

Params id integer [1,...,13]

Returns CoP <NR>

Return type string

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