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# **DoJSON Documentation**

***Release 1.0.1***

**Invenio collaboration**

January 20, 2016



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DoJSON is a simple Pythonic JSON to JSON converter.



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# Installation

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DoJSON is on PyPI so all you need is:

```
$ pip install dojson
```





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### Example

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A simple example on how to convert MARCXML to JSON:

```
from dojson.contrib.marc21.utils import create_record, split_stream
from dojson.contrib.marc21 import marc21
[marc21.do(create_record(data)) for data in split_stream(open('/tmp/data.xml', 'r'))]
```



DoJSON API.

```
class dojson.Overdo (bases=None, entry_point_group=None)
    Translation index.
```

```
    build()
        Build.
```

```
    do (blob, ignore_missing=True)
        Translate blob values and instantiate new model instance.
        Raises MissingRule when no rule matched and ignore_missing is False.
```

#### Parameters

- **blob** – dict-like object on which the matching rules are going to be applied.
- **ignore\_missing** – Set to False if you prefer to raise an exception MissingRule for the first key that it is not matching any rule.

New in version 1.0.0: `ignore_missing` allows to specify if the function should raise an exception.

```
missing (blob)
    Return keys with missing rules.
```

```
over (name, *source_tags)
    Register creator rule.
```

## 3.1 Command line interface

DoJSON command line interface.

This script is installed using the magic `console_script` section in `entry_points` parameters thanks to `setuptools`. In order to get help from console one can run:

```
$ dojson --help
```

#### Extensions

New extensions with loaders, dumpers, or rules can be provided via entry points.

- `dojson.cli.load` functions expecting a stream and returning Python dict or iterator;
- `dojson.cli.dump` functions expecting a Python object and returning `str`;
- `dojson.cli.rule` instances of `dojson.Overdo` with loaded rules.

`dojson.cli.open_entry_point` (*group\_name*)  
Open entry point.

## 3.2 Contrib

Define model for transforming MARC21.

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## Changes

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### 4.1 Version 1.0.1 (released 2016-01-19):

#### 4.1.1 Bug fixes

- Fixes support for Python 3.5.1.

### 4.2 Version 1.0.0 (released 2016-01-14):

#### 4.2.1 Incompatible changes

- Removes support for single key matching multiple rules. Please make your rules mutually exclusive!
- controlfields 00x are expected to be the element or a list of multiple elements.

#### 4.2.2 New features

- Adds new keyword argument *ignore\_missing* to *Overdo.do* method to specify if method should raise *MissingRule* exception when there is no matching rule for a key.
- Adds new CLI option *-strict* to the *do* command that sets the *ignore\_missing* argument to *False*. (#51)
- MARC XML serialization from *to\_marc21*.

#### 4.2.3 Improved features

- Adds support for Python 3+.
- Uses an *OrderedDict* to let the external tools working on *dict* (like *json*) behave correctly.
- All results from rules using *for\_each\_value* decorator are being automatically extended. This is useful for repeatable MARC21 fields with different indicators. (#53)
- Record are stored in an immutable sorted structure which enables to keep the intended order while offering easy ways to access, index and manipulate.
- Adds two records to be tested.
- Reorders some of the assertion: *expected == actual*.

## 4.3 Version 0.4.0 (released 2015-11-18):

### 4.3.1 New features

- Improves `dojson.contrib.marc2.utils.load()` to read the input by iterating of the open stream, rather than loading it all in memory in one go. (#45) (#46)
- Renames `OverUndo` to `Underdo` following same name convention as for `Overdo`.

### 4.3.2 Bug fixes

- Fixes indicator extraction from value in *Underdo* model.

## 4.4 Version 0.3.0 (released 2015-11-09):

### 4.4.1 New features

- Adds **experimental** rules for converting human readable JSON into a JSON representation of the MARC21 Format.
- Adds *do* and *missing* commands for *dojson* command line interface (see *dojson -help* for more information).

### 4.4.2 Improved features

- Adds missing mapping for the first indicator of field 856.

## 4.5 Version 0.2.0 (released 2015-10-07):

### 4.5.1 New features

- Adds the possibility to use base DoJSON model so the rules are “inherited” from them.
- Adds new decorator *ignore\_value* that remove the key in the resulting json for None value.

### 4.5.2 Improved features

- Uses entry points instead of plain imports to load the creator rules.

### 4.5.3 Bug fixes

- Removes calls to `PluginManager consider_setuptools_entrypoints()` removed in PyTest 2.8.0.

## 4.6 Version 0.1.1 (released 2015-07-27):

- Sorts and removes duplicated enum values.
- Swaps wrongly defined repeatable and non-repeatable subfields. (#23)
- Addresses issue when allowed indicators were defined as a range. (#22)

## 4.7 Version 0.1.0 (released 2015-07-03):

- Initial public release.





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## Contributing

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Bug reports, feature requests, and other contributions are welcome. If you find a demonstrable problem that is caused by the code of this library, please:

1. Search for [already reported problems](#).
2. Check if the issue has been fixed or is still reproducible on the latest *master* branch.
3. Create an issue with **a test case**.

If you create a feature branch, you can run the tests to ensure everything is operating correctly:

```
$ python setup.py test
...
===== 31 passed, 23 skipped in 1.37 seconds =====
```

You can also test your feature branch using Docker:

```
$ docker-compose build
$ docker-compose run web python setup.py test
$ docker-compose run web python setup.py build_sphinx
$ docker-compose run web pep257 --match-dir='dojson'
```



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### Authors

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