eth-rlp Documentation

Release 2.1.0

The Ethereum Foundation

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RLP definitions for common Ethereum objects in Python

Install with

```
pip install eth_rlp
```

Import with

```
from eth_rlp import HashableRLP
```

CHAPTER

ONE

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1.1 eth_rlp package

1.1.1 HashableRLP

class eth_rlp.main.**HashableRLP**(**args*, ***kwargs*)

An extension of `rlp.Serializable`. In addition to the below functions, the class is iterable.

Use like:

```
class MyRLP(HashableRLP):
    fields = (
        ('name1', rlp.sedes.big_endian_int),
        ('name2', rlp.sedes.binary),
        etc...
    )

my_obj = MyRLP(name2=b'\xff', name1=1)
list(my_obj) == [1, b'\xff']
# note that the iteration order is always in RLP-defined order
```

as_dict() → Dict[str, Any]

Convert rlp object to a dict

Returns
mapping of RLP field names to field values

Return type
dict

classmethod from_bytes(*serialized_bytes: bytes | bytearray*) → Self

Shorthand invocation for `rlp.decode()` using this class.

Parameters
serialized_bytes (*bytes*) – the byte string to decode

Returns
the decoded object

Return type
HashableRLP

classmethod from_dict(*field_dict: Dict[str, Any]*) → Self

In addition to the standard initialization of.

```
my_obj = MyRLP(name1=1, name2=b'\xff')
```

This method enables initialization with.

```
my_obj = MyRLP.from_dict({'name1': 1, 'name2': b'\xff'})
```

In general, the standard initialization is preferred, but some approaches might favor this API, like when using `toolz.functoolz.pipe()`.

```
return eth_utils.toolz.pipe(
    my_dict,
    normalize,
    validate,
    MyRLP.from_dict,
)
```

Parameters
field_dict (*dict*) – the dictionary of values to initialize with

Returns
the new rlp object

Return type
HashableRLP

hash() → HexBytes

Returns
the hash of the encoded bytestring

Return type
HexBytes

1.2 Release Notes

1.2.1 eth-rlp v2.1.0 (2024-03-19)

Internal Changes - for eth-rlp Contributors

- Bump to `hexbytes>=1.2.0` and add `blocklint` to linting (#22)

1.2.2 eth-rlp v2.0.0 (2024-03-04)

Breaking Changes

- Bump `hexbytes` dependency to `>=1.0.0` (#21)

Features

- Add Python 3.12 support (#18)

Internal Changes - for eth-rlp Contributors

- Add windows-wheel CI job for py312, set both py311 and py312 to use latest patch version (#20)
- Add `py.typed` file, move misplaced newsfragment, correct py version pins for `typing-extensions` (#21)

1.2.3 eth-rlp v1.0.1 (2024-01-25)

Bugfixes

- Add the missing `typing_extensions` module requirement for Python <= 3.11 (#19)

1.2.4 eth-rlp v1.0.0 (2023-12-06)

Breaking Changes

- Drop python 3.7 support (#16)

Features

- Add python 3.11 support (#16)

Internal Changes - for eth-rlp Contributors

- Merge updates from template, including use `pre-commit` for linting, and changing the name of the `master` branch to `main` (#16)

1.2.5 eth-rlp v0.3.0 (2022-01-19)

1.2.6 Eth_Rlp 0.3.0 (2022-01-19)

Features

- Add support for python 3.8-3.10 (#12)
- Require eth-utils>=2.0,<3 (#14)

Deprecations and Removals

- Remove support for Python 3.6 (#13)

1.2.7 eth-rlp v0.2.0 (2020-09-01)

Features

- Add support for pyrlp v2.0.0-alpha.1 (as long as you don't use pypy) (#8)

Deprecations and Removals

- Dropped py3.5 support (#7)

Miscellaneous changes

- Merge updates from the project template (#7)

1.2.8 v0.1.2

Released April 25, 2018

- Add `as_dict()` as a shim for joint v0/v1 compatibility

1.2.9 v0.1.1

Released April 25, 2018

- Add support for rlp version 1 (but still backwards-compatible with v0)

1.2.10 v0.1.0

Released Mar 1, 2018

- Marked stable
- Upgraded eth-utils and hexbytes to stable versions
- Add pypy3 support

1.2.11 v0.1.0-alpha.2

Released Jan 30, 2018

- First working version
- Some docs
- New basic tests, that pass

1.2.12 v0.1.0-alpha.1

- Launched repository, claimed names for pip, RTD, github, etc

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