
python-dime

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class `dime.Message` (*records*)

Parameters `records` – iterable of *Record* objects

static `load` (*stream*)

Parameters `stream` – binary file (or file-like) object

Returns *Message* object

Load a message from the stream.

save (*stream*)

Parameters `stream` – binary file (or file-like) object

Save the message to the stream.

as_mime ()

Returns `email.mime.multipart.MIMEMultipart` object


```
class dime.Record(id=<random-uuid>, type=UnknownType(), data="", mb=0, me=0, cf=0, version=1)
```

Parameters

- **id** – unique identifier in the form of URI; the default is to assign a random UUID
- **type** – payload type; the default is *UnknownType*
- **data** – payload
- **mb** – Message Begin flag
- **me** – Message End flag
- **cf** – Chunk Flag
- **version** – DIME version

```
static load (stream)
```

Parameters **stream** – binary file (or file-like) object

Returns *Record* object

Load a records from the stream.

```
static load_all (stream)
```

Parameters **stream** – binary file (or file-like) object

Returns generator of *Record* objects

Load a series of records from the stream.

```
save (stream)
```

Parameters **stream** – binary file (or file-like) object

Save the record to the stream.

```
as_mime ()
```

Returns `email.MIMEBase.MIMEBase` object

exception `Record.FaultyRecord`

exception `Record.UnsupportedVersion`

CHAPTER 3

Payload types

class `dime.Type`

This is an abstract class. Don't instantiate or subclass it. Use one of the existing subclasses described below instead.

as_mime()

Returns `email.MIMEBase.MIMEBase` object

class `dime.UnchangedType`

This payload type must be used in all middle record chunks and terminating record chunks used in chunked payloads. It must not be used in any other record.

class `dime.MediaType(media_type)`

These payload types are identified by a MIME media type.

```
>>> t = dime.MediaType('image/jpeg')
>>> str(t)
'image/jpeg'
```

class `dime.TypeByUri(uri)`

These payload types are identified by an absolute URI.

```
>>> t = dime.TypeByUri('http://schemas.xmlsoap.org/soap/envelope/')
>>> str(t)
'http://schemas.xmlsoap.org/soap/envelope/'
```

class `dime.UnknownType`

This class indicates that the type of the payload is unknown.

class `dime.NoneType`

This class indicates that there is no type or payload associated with this record.

class `dime.UnsupportedType`

These payload types not supported by this software. Don't use this class to construct DIME messages.

CHAPTER 4

Further reading

H. Nielsen, H. Sanders, R. Butek, S. Nash, [Direct Internet Message Encapsulation \(DIME\)](#), 2002

5.1 Tiny DIME producer

```
#!/usr/bin/env python

import argparse
import os

import dime

ap = argparse.ArgumentParser()
ap.add_argument('-o', dest='outpath', metavar='OUTPUT', required=True)
ap.add_argument('paths', metavar='FILE', nargs='+')
options = ap.parse_args()
text_type = dime.MediaType('text/plain')
records = []
for path in options.paths:
    with open(path, 'r') as file:
        data = file.read()
        ident = os.path.basename(path)
        record = dime.Record(ident, text_type, data)
        records += [record]
message = dime.Message(records)
with open(options.outpath, 'w') as file:
    message.save(file)
```

5.2 DIME to MIME converter

```
#!/usr/bin/env python

import sys
```

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```
import dime

msg = dime.Message.load(sys.stdin)
print msg.as_mime()
```

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