:mod:`plistlib` --- Generate and parse Apple `.plist` files

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]plistlib.rst, line 1); *backlink*

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]plistlib.rst, line 4)

Unknown directive type "module".

```
.. module:: plistlib
   :synopsis: Generate and parse Apple plist files.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]plistlib.rst, line 7)

Unknown directive type "moduleauthor".

```
.. moduleauthor:: Jack Jansen
```

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Unknown directive type "sectionauthor".

```
.. sectionauthor:: Georg Brandl <georg@python.org>
```

Source code: :source:`Lib/plistlib.py`

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Unknown interpreted text role "source".

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Unknown directive type "index".

```
.. index::
   pair: plist; file
   single: property list
```

This module provides an interface for reading and writing the "property list" files used by Apple, primarily on macOS and iOS. This module supports both binary and XML plist files.

The property list (`.plist`) file format is a simple serialization supporting basic object types, like dictionaries, lists, numbers and strings. Usually the top level object is a dictionary.

To write out and to parse a plist file, use the :func:`dump` and :func:`load` functions.

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Unknown interpreted text role "func".

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Unknown interpreted text role "func".

To work with plist data in bytes objects, use :func:`dumps` and :func:`loads`.

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Unknown interpreted text role "func".

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Unknown interpreted text role "func".

Values can be strings, integers, floats, booleans, tuples, lists, dictionaries (but only with string keys), :class:`bytes`, :class:`bytearray` or :class:`datetime.datetime` objects.

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Unknown interpreted text role "class".

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Unknown interpreted text role "class".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]plistlib.rst, line 33); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]plistlib.rst, line 37)

Unknown directive type "versionchanged".

```
.. versionchanged:: 3.4
   New API, old API deprecated.  Support for binary format plists added.
```

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Unknown directive type "versionchanged".

```
.. versionchanged:: 3.8
   Support added for reading and writing :class:`UID` tokens in binary plists as used
   by NSKeyedArchiver and NSKeyedUnarchiver.
```

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Unknown directive type "versionchanged".

```
.. versionchanged:: 3.9
   Old API removed.
```

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Unknown directive type "seealso".

```
.. seealso::

   `PList manual page <https://developer.apple.com/library/content/documentation/Cocoa/Conceptual/Property
      Apple's documentation of the file format.
```

This module defines the following functions:

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Unknown directive type "function".

```
.. function:: load(fp, *, fmt=None, dict_type=dict)

   Read a plist file. *fp* should be a readable and binary file object.
   Return the unpacked root object (which usually is a
   dictionary).

   The *fmt* is the format of the file and the following values are valid:

   * :data:`None`: Autodetect the file format

   * :data:`FMT_XML`: XML file format

   * :data:`FMT_BINARY`: Binary plist format

   The *dict_type* is the type used for dictionaries that are read from the
   plist file.

   XML data for the :data:`FMT_XML` format is parsed using the Expat parser
   from :mod:`xml.parsers.expat` -- see its documentation for possible
   exceptions on ill-formed XML.  Unknown elements will simply be ignored
```

```
   by the plist parser.

   The parser for the binary format raises :exc:`InvalidFileException`
   when the file cannot be parsed.

   .. versionadded:: 3.4
```

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Unknown directive type "function".

```
.. function:: loads(data, *, fmt=None, dict_type=dict)

   Load a plist from a bytes object. See :func:`load` for an explanation of
   the keyword arguments.

   .. versionadded:: 3.4
```

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Unknown directive type "function".

```
.. function:: dump(value, fp, *, fmt=FMT_XML, sort_keys=True, skipkeys=False)

   Write *value* to a plist file. *Fp* should be a writable, binary
   file object.

   The *fmt* argument specifies the format of the plist file and can be
   one of the following values:

   * :data:`FMT_XML`: XML formatted plist file

   * :data:`FMT_BINARY`: Binary formatted plist file

   When *sort_keys* is true (the default) the keys for dictionaries will be
   written to the plist in sorted order, otherwise they will be written in
   the iteration order of the dictionary.

   When *skipkeys* is false (the default) the function raises :exc:`TypeError`
   when a key of a dictionary is not a string, otherwise such keys are skipped.

   A :exc:`TypeError` will be raised if the object is of an unsupported type or
   a container that contains objects of unsupported types.

   An :exc:`OverflowError` will be raised for integer values that cannot
   be represented in (binary) plist files.

   .. versionadded:: 3.4
```

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Unknown directive type "function".

```
.. function:: dumps(value, *, fmt=FMT_XML, sort_keys=True, skipkeys=False)

   Return *value* as a plist-formatted bytes object. See
   the documentation for :func:`dump` for an explanation of the keyword
   arguments of this function.

   .. versionadded:: 3.4
```

The following classes are available:

Wraps an :class:`int`. This is used when reading or writing NSKeyedArchiver encoded data, which contains UID (see PList manual).

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Unknown interpreted text role "class".

It has one attribute, :attr:`data`, which can be used to retrieve the int value of the UID. :attr:`data` must be in the range `0 <= data < 2**64`.

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Unknown interpreted text role "attr".

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Unknown interpreted text role "attr".

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Unknown directive type "versionadded".

```
.. versionadded:: 3.8
```

The following constants are available:

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Unknown directive type "data".

```
.. data:: FMT_XML

   The XML format for plist files.

   .. versionadded:: 3.4
```

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Unknown directive type "data".

```
.. data:: FMT_BINARY

   The binary format for plist files

   .. versionadded:: 3.4
```

Examples

Generating a plist:

```
pl = dict(
    aString = "Doodah",
    aList = ["A", "B", 12, 32.1, [1, 2, 3]],
    aFloat = 0.1,
    anInt = 728,
    aDict = dict(
        anotherString = "<hello & hi there!>",
        aThirdString = "M\xe4ssig, Ma\xdf",
        aTrueValue = True,
        aFalseValue = False,
    ),
    someData = b"<binary gunk>",
    someMoreData = b"<lots of binary gunk>" * 10,
    aDate = datetime.datetime.fromtimestamp(time.mktime(time.gmtime())),
)
with open(fileName, 'wb') as fp:
    dump(pl, fp)
```

Parsing a plist:

```
with open(fileName, 'rb') as fp:
    pl = load(fp)
print(pl["aKey"])
```