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# Python Standard Library List Documentation

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This package includes lists of all of the standard libraries for Python 2.6 through 3.13.

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**Note:** If you're on Python 3.10 or newer, you **probably don't need this library**. See [sys.stdlib\\_module\\_names](#) and [sys.builtin\\_module\\_names](#) for similar functionality.

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## 1.1 Installation

Most end users should use `pip` to install this package:

```
python -m pip install stdlib-list
```

If for whatever reason you need to install `stdlib-list` from the source repository instead:

```
git clone https://github.com/pypi/stdlib-list
cd stdlib-list
python -m pip install .
```

## 1.2 Usage

### 1.2.1 Getting The List of Libraries

`stdlib_list.stdlib_list` returns the list of libraries in `stdlib` for any given version (by default, current python version).

In particular:

```
In [1]: from stdlib_list import stdlib_list

In [2]: libs = stdlib_list("3.4")

In [3]: libs[:6]
Out[3]: ['__future__', '__main__', '_dummy_thread', '_thread', 'abc', 'aifc']
```

## 1.2.2 Checking if a Module is part of stdlib

`stdlib_list.in_stdlib` provides an efficient way to check if a module name is part of stdlib. It relies on `@lru_cache` to cache the stdlib list and query results for similar calls. Therefore it is much more efficient than `module_name in stdlib_list()` especially if you wish to perform multiple checks.

In particular:

```
>>> from stdlib_list import in_stdlib
>>> in_stdlib('zipimport') # built in
True
>>> in_stdlib('math')      # C-API stdlib module, but linked as extension (on my_
↳ machine)
True
>>> in_stdlib('numpy')     # C-API extension, not stdlib
False
>>> in_stdlib('sys')       # built-in (and special)
True
>>> in_stdlib('os')        # Python code in stdlib
True
>>> in_stdlib('requests')  # Python code, not stdlib
False
```

`stdlib_list.in_stdlib(module_name: str, version: str | None = None) → bool`

Return a bool indicating if module `module_name` is in the list of stdlib symbols for python version `version`. If `version` is `None` (default), the version of current python interpreter is used.

Note that `True` will be returned for built-in modules too, since this project considers they are part of stdlib. See [:issue:21](#).

It relies on `@lru_cache` to cache the stdlib list and query results for similar calls. Therefore it is much more efficient than `module_name in stdlib_list()` especially if you wish to perform multiple checks.

### Parameters

- **module\_name** (*str*/*None*) – The module name (as a string) to query for.
- **version** (*str*/*None*) – The version (as a string) whose list of libraries you want (formatted as `X.Y`, e.g. `"2.7"` or `"3.10"`).

If not specified, the current version of Python will be used.

### Returns

A bool indicating if the given module name is part of standard libraries for the specified version of Python.

### Return type

list

`stdlib_list.stdlib_list(version: str | None = None) → list[str]`

Given a version, return a list of names of the Python Standard Libraries for that version.

### Parameters

**version** (*str*/*None*) – The version (as a string) whose list of libraries you want (formatted as `X.Y`, e.g. `"2.7"` or `"3.10"`).

If not specified, the current version of Python will be used.

### Returns

A list of standard libraries from the specified version of Python

**Return type**

list

## 1.3 Module inclusion policy

Python is a dynamic language with a complex module system, including modules that are created only at runtime or appear on specific supported platforms.

This page exists to document `stdlib-list`'s approach to module detection and subsequent inclusion. It is not intended to be permanent, and may change over time as Python itself changes (or our approach to module detection improves).

### 1.3.1 Current guiding rules

- Missing top-level modules **are a bug**: if a new version of Python adds a new top-level module, our failure to detect it should be considered a bug.

Concretely: if `examplemodule` is present in Python 3.999, then it should be included in the `stdlib_list("3.999")` listing.

- Missing sub-modules are **best-effort**: if `examplemodule` contains `examplemodule.foo.bar.baz.deeply.nested`, we make a best-effort attempt to detect each inner module but make no guarantee about doing so.

Our rationale for this is that “stdlib-ness” is inherited from the parent module, even when not explicitly listed. In other words: anything that matches `examplemodule.*` is in the standard library by definition so long as `examplemodule` is in the standard library.

- Platform-specific modules are **best-effort**: `stdlib-list` is currently collected from Linux builds of CPython. This means that Windows- and macOS-specific modules (i.e., modules that aren't installed except for on those hosts) are not necessarily included.

This includes top-level modules.

- Missing non-CPython modules are **not supported**: `stdlib-list` is implicitly a list of CPython's standard library modules, which are expected to be mirrored in other implementations of Python.
- Psuedo-modules are **not supported**: Python sometimes makes use of “pesudo-modules”, i.e. namespaces placed into `sys.modules` that don't pass `inspect.ismodule()`. We don't currently support these, since the semantics for doing so are unclear. See [stdlib-list#117](#) for additional details.

If you have a scenario not covered by the rules above, please file an issue!



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