

# API and ABI Versioning

**System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\c-api\ (cpython-main) (Doc) (c-api) apiabiversion.rst, line 1)**

Unknown directive type "highlight".

```
.. highlight:: c
```

CPython exposes its version number in the following macros. Note that these correspond to the version code is **built** with, not necessarily the version used at **run time**.

See [ref:stable](#) for a discussion of API and ABI stability across versions.

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Unknown interpreted text role "ref".

**System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\c-api\ (cpython-main) (Doc) (c-api) apiabiversion.rst, line 15)**

Unknown directive type "cmacro".

```
.. c:macro:: PY_MAJOR_VERSION

The ``3`` in ``3.4.1a2``.
```

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Unknown directive type "cmacro".

```
.. c:macro:: PY_MINOR_VERSION

The ``4`` in ``3.4.1a2``.
```

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Unknown directive type "cmacro".

```
.. c:macro:: PY_MICRO_VERSION

The ``1`` in ``3.4.1a2``.
```

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Unknown directive type "cmacro".

```
.. c:macro:: PY_RELEASE_LEVEL

The ``a`` in ``3.4.1a2``.
This can be ``0xA`` for alpha, ``0xB`` for beta, ``0xC`` for release
candidate or ``0xF`` for final.
```

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Unknown directive type "cmacro".

```
.. c:macro:: PY_RELEASE_SERIAL

The ``2`` in ``3.4.1a2``. Zero for final releases.
```

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Unknown directive type "cmacro".

```
.. c:macro:: PY_VERSION_HEX
```

The Python version number encoded in a single integer.

The underlying version information can be found by treating it as a 32 bit number in the following manner:

Bytes	Bits (big endian order)	Meaning	Value for ``3.4.1a2``
1	1-8	``PY_MAJOR_VERSION``	``0x03``
2	9-16	``PY_MINOR_VERSION``	``0x04``
3	17-24	``PY_MICRO_VERSION``	``0x01``
4	25-28	``PY_RELEASE_LEVEL``	``0xA``
	29-32	``PY_RELEASE_SERIAL``	``0x2``

Thus ``3.4.1a2`` is hexversion ``0x030401a2`` and ``3.10.0`` is hexversion ``0x030a00f0``.

This version is also available via the symbol :data:`Py\_Version`.

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Unknown directive type "cvar".

```
.. c:var:: const unsigned long Py_Version
```

The Python runtime version number encoded in a single constant integer, with the same format as the :c:macro:`PY\_VERSION\_HEX` macro. This contains the Python version used at run time.

```
.. versionadded:: 3.11
```

All the given macros are defined in :source:`Include/patchlevel.h`.

**System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\c-api\ (cpython-main) (Doc) (c-api) apiabiversion.rst, line 71); [backlink](#)**

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