

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

Unknown directive type "highlight".

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

## Slice Objects

**System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\c-api\cpython-main) (Doc) (c-api)slice.rst, line 9)**

Unknown directive type "c:var".

```
.. c:var:: PyTypeObject PySlice_Type
```

The type object for slice objects. This is the same as :class:`slice` in the Python layer.

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

Unknown directive type "c:function".

```
.. c:function:: int PySlice_Check(PyObject *ob)
```

Return true if \*ob\* is a slice object; \*ob\* must not be ``NULL``. This function always succeeds.

**System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\c-api\cpython-main) (Doc) (c-api)slice.rst, line 21)**

Unknown directive type "c:function".

```
.. c:function:: PyObject* PySlice_New(PyObject *start, PyObject *stop, PyObject *step)
```

Return a new slice object with the given values. The \*start\*, \*stop\*, and \*step\* parameters are used as the values of the slice object attributes of the same names. Any of the values may be ``NULL``, in which case the ``None`` will be used for the corresponding attribute. Return ``NULL`` if the new object could not be allocated.

**System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\c-api\cpython-main) (Doc) (c-api)slice.rst, line 30)**

Unknown directive type "c:function".

```
.. c:function:: int PySlice_GetIndices(PyObject *slice, Py_ssize_t length, Py_ssize_t *start, Py_ssize_t *stop, Py_ssize_t *step)
```

Retrieve the start, stop and step indices from the slice object \*slice\*, assuming a sequence of length \*length\*. Treats indices greater than \*length\* as errors.

Returns ``0`` on success and ``-1`` on error with no exception set (unless one of the indices was not :const:`None` and failed to be converted to an integer, in which case ``-1`` is returned with an exception set).

You probably do not want to use this function.

```
.. versionchanged:: 3.2
   The parameter type for the *slice* parameter was ``PySliceObject`` before.
```

**System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\c-api\cpython-main) (Doc) (c-api)slice.rst, line 47)**

Unknown directive type "c:function".

```
.. c:function:: int PySlice_GetIndicesEx(PyObject *slice, Py_ssize_t length, Py_ssize_t *start, Py_ssize_t *stop, Py_ssize_t *step, Py_ssize_t *slicelength)
```

Usable replacement for :c:func:`PySlice\_GetIndices`. Retrieve the start, stop, and step indices from the slice object \*slice\* assuming a sequence of length \*length\*, and store the length of the slice in \*slicelength\*. Out of bounds indices are clipped in a manner consistent with the handling of normal slices.

Returns ``0`` on success and ``-1`` on error with exception set.

```
.. note::
   This function is considered not safe for resizable sequences.
   Its invocation should be replaced by a combination of
   :c:func:`PySlice_Unpack` and :c:func:`PySlice_AdjustIndices` where ::
```

```
    if (PySlice_GetIndicesEx(slice, length, &start, &stop, &step, &slicelength) < 0) {
        // return error
    }
```

is replaced by ::

```
    if (PySlice_Unpack(slice, &start, &stop, &step) < 0) {
        // return error
    }
    slicelength = PySlice_AdjustIndices(length, &start, &stop, step);
```

```
.. versionchanged:: 3.2
   The parameter type for the *slice* parameter was ``PySliceObject`` before.
```

```
.. versionchanged:: 3.6.1
   If ``Py_LIMITED_API`` is not set or set to the value between ``0x03050400`` and ``0x03060000`` (not including) or ``0x03060100`` or higher :c:func:`PySlice_GetIndicesEx` is implemented as a macro using :c:func:`PySlice_Unpack` and :c:func:`PySlice_AdjustIndices`. Arguments *start*, *stop* and *step* are evaluated more than once.
```

```
.. deprecated:: 3.6.1
   If ``Py_LIMITED_API`` is set to the value less than ``0x03050400`` or between ``0x03060000`` and ``0x03060100`` (not including)
```

```
:c:func:`!PySlice_GetIndicesEx` is a deprecated function.
```

**System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\c-api\ (cpython-main) (Doc) (c-api) slice.rst, line 90)**

Unknown directive type "c:function".

```
.. c:function:: int PySlice_Unpack(PyObject *slice, Py_ssize_t *start, Py_ssize_t *stop, Py_ssize_t *step)

Extract the start, stop and step data members from a slice object as
C integers. Silently reduce values larger than ``PY_SSIZE_T_MAX`` to
``PY_SSIZE_T_MAX``, silently boost the start and stop values less than
``PY_SSIZE_T_MIN`` to ``PY_SSIZE_T_MIN``, and silently boost the step
values less than ``-PY_SSIZE_T_MAX`` to ``-PY_SSIZE_T_MAX``.

Return ``-1`` on error, ``0`` on success.

.. versionadded:: 3.6.1
```

**System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\c-api\ (cpython-main) (Doc) (c-api) slice.rst, line 103)**

Unknown directive type "c:function".

```
.. c:function:: Py_ssize_t PySlice_AdjustIndices(Py_ssize_t length, Py_ssize_t *start, Py_ssize_t *stop, Py_ssize_t step)

Adjust start/end slice indices assuming a sequence of the specified length.
Out of bounds indices are clipped in a manner consistent with the handling
of normal slices.

Return the length of the slice. Always successful. Doesn't call Python
code.

.. versionadded:: 3.6.1
```

## Ellipsis Object

**System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\c-api\ (cpython-main) (Doc) (c-api) slice.rst, line 119)**

Unknown directive type "c:var".

```
.. c:var:: PyObject *Py_Ellipsis

The Python ``Ellipsis`` object. This object has no methods. It needs to be
treated just like any other object with respect to reference counts. Like
:c:data:`Py_None` it is a singleton object.
```