

# MemoryView objects

A `memoryview` object exposes the C level `buffer interface` as a Python object which can then be passed around like any other object.

`PyObject *PyMemoryView_FromObject(PyObject *obj)`

Create a memoryview object from an object that provides the buffer interface. If *obj* supports writable buffer exports, the memoryview object will be read/write, otherwise it may be either read-only or read/write at the discretion of the exporter.

`PyObject *PyMemoryView_FromMemory(char *mem, Py_ssize_t size, int flags)`

Create a memoryview object using *mem* as the underlying buffer. *flags* can be one of `PyBUF_READ` or `PyBUF_WRITE`.

*New in version 3.3.*

`PyObject *PyMemoryView_FromBuffer(Py_buffer *view)`

Create a memoryview object wrapping the given buffer structure *view*. For simple byte buffers, `PyMemoryView_FromMemory()` is the preferred function.

`PyObject *PyMemoryView_GetContiguous(PyObject *obj, int buffertype, char order)`

Create a memoryview object to a `contiguous` chunk of memory (in either 'C' or 'F'ortran *order*) from an object that defines the buffer interface. If memory is contiguous, the memoryview object points to the original memory. Otherwise, a copy is made and the memoryview points to a new bytes object.

`int PyMemoryView_Check(PyObject *obj)`

Return true if the object *obj* is a memoryview object. It is not currently allowed to create subclasses of `memoryview`.

`Py_buffer *PyMemoryView_GET_BUFFER(PyObject *mview)`

Return a pointer to the memoryview's private copy of the exporter's buffer. *mview* **must** be a memoryview instance; this macro doesn't check its type, you must do it yourself or you will risk crashes.

`Py_buffer *PyMemoryView_GET_BASE(PyObject *mview)`

Return either a pointer to the exporting object that the memoryview is based on or `NULL` if the memoryview has been created by one of the functions `PyMemoryView_FromMemory()` or `PyMemoryView_FromBuffer()`. *mview* **must** be a memoryview instance.