

Docstring:

```
array(object, dtype=None, *, copy=True, order='K', subok=False, ndmin=0,
      like=None)
```

Create an array.

Parameters

object : array_like

An array, any object exposing the array interface, an object whose `__array__` method returns an array, or any (nested) sequence.

dtype : data-type, optional

The desired data-type for the array. If not given, then the type will be determined as the minimum type required to hold the objects in the sequence.

copy : bool, optional

If true (default), then the object is copied. Otherwise, a copy will only be made if `__array__` returns a copy, if `obj` is a nested sequence, or if a copy is needed to satisfy any of the other requirements (``dtype``, ``order``, etc.).

order : {'K', 'A', 'C', 'F'}, optional

Specify the memory layout of the array. If object is not an array, the newly created array will be in C order (row major) unless 'F' is specified, in which case it will be in Fortran order (column major). If object is an array the following holds.

```
=====
order  no copy                      copy=True
=====
'K'    unchanged F & C order preserved, otherwise most similar order
'A'    unchanged F order if input is F and not C, otherwise C order
'C'    C order    C order
'F'    F order    F order
=====
```

When ```copy=False``` and a copy is made for other reasons, the result is the same as if ```copy=True```, with some exceptions for 'A', see the Notes section. The default order is 'K'.

subok : bool, optional

If True, then sub-classes will be passed-through, otherwise the returned array will be forced to be a base-class array (default).

ndmin : int, optional

Specifies the minimum number of dimensions that the resulting array should have. Ones will be pre-pended to the shape as needed to meet this requirement.

like : array_like

Reference object to allow the creation of arrays which are not NumPy arrays. If an array-like passed in as ```like``` supports the ```__array_function__``` protocol, the result will be defined by it. In this case, it ensures the creation of an array object compatible with that passed in via this argument.

```
.. versionadded:: 1.20.0
```

Returns

out : ndarray

An array object satisfying the specified requirements.

See Also

empty_like : Return an empty array with shape and type of input.

ones_like : Return an array of ones with shape and type of input.

zeros_like : Return an array of zeros with shape and type of input.

full_like : Return a new array with shape of input filled with value.

empty : Return a new uninitialized array.

ones : Return a new array setting values to one.

zeros : Return a new array setting values to zero.

full : Return a new array of given shape filled with value.

Notes

When order is 'A' and `object` is an array in neither 'C' nor 'F' order, and a copy is forced by a change in dtype, then the order of the result is not necessarily 'C' as expected. This is likely a bug.

Examples

```
>>> np.array([1, 2, 3])
array([1, 2, 3])
```

Upcasting:

```
>>> np.array([1, 2, 3.0])
array([ 1.,  2.,  3.])
```

More than one dimension:

```
>>> np.array([[1, 2], [3, 4]])
array([[1, 2],
       [3, 4]])
```

Minimum dimensions 2:

```
>>> np.array([1, 2, 3], ndmin=2)
array([[1, 2, 3]])
```

Type provided:

```
>>> np.array([1, 2, 3], dtype=complex)
array([ 1.+0.j,  2.+0.j,  3.+0.j])
```

Data-type consisting of more than one element:

```
>>> x = np.array([(1,2),(3,4)],dtype=[('a','<i4'),('b','<i4')])
>>> x['a']
array([1, 3])
```

Creating an array from sub-classes:

```
>>> np.array(np.mat('1 2; 3 4'))
array([[1, 2],
       [3, 4]])
```

```
>>> np.array(np.mat('1 2; 3 4'), subok=True)
matrix([[1, 2],
        [3, 4]])
```

Type: builtin_function_or_method