

:mod:`copyreg` --- Register :mod:`pickle` support functions

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Unknown interpreted text role "mod".

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Unknown directive type "module".

```
.. module:: copyreg
   :synopsis: Register pickle support functions.
```

Source code: :source:`Lib/copyreg.py`

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Unknown directive type "index".

```
.. index::
   module: pickle
   module: copy
```

The :mod:`copyreg` module offers a way to define functions used while pickling specific objects. The :mod:`pickle` and :mod:`copy` modules use those functions when pickling/copying those objects. The module provides configuration information about object constructors which are not classes. Such constructors may be factory functions or class instances.

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Unknown directive type "function".

```
.. function:: constructor(object)
```

Declares **object** to be a valid constructor. If **object** is not callable (and hence not valid as a constructor), raises `:exc:`TypeError``.

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Unknown directive type "function".

```
.. function:: pickle(type, function, constructor=None)
```

Declares that **function** should be used as a "reduction" function for objects of type **type**. **function** should return either a string or a tuple containing two or three elements.

The optional **constructor** parameter, if provided, is a callable object which can be used to reconstruct the object when called with the tuple of arguments returned by **function** at pickling time. A `:exc:`TypeError`` is raised if the **constructor** is not callable.

See the `:mod:`pickle`` module for more details on the interface expected of **function** and **constructor**. Note that the `:attr:`~pickle.Pickler.dispatch table`` attribute of a pickler object or subclass of `:class:`pickle.Pickler`` can also be used for declaring reduction functions.

Example

The example below would like to show how to register a pickle function and how it will be used:

```
>>> import copyreg, copy, pickle
>>> class C:
...     def __init__(self, a):
...         self.a = a
...
>>> def pickle_c(c):
...     print("pickling a C instance...")
...     return C, (c.a,)
...
>>> copyreg.pickle(C, pickle_c)
>>> c = C(1)
>>> d = copy.copy(c) # doctest: +SKIP
pickling a C instance...
>>> p = pickle.dumps(c) # doctest: +SKIP
pickling a C instance...
```