

Codec registry and support functions

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\c-api\ (cpython-main) (Doc) (c-api) codec.rst, line 6)

Unknown directive type "c:function".

```
.. c:function:: int PyCodec_Register(PyObject *search_function)
```

Register a new codec search function.

As side effect, this tries to load the `:mod:`encodings`` package, if not yet done, to make sure that it is always first in the list of search functions.

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Unknown directive type "c:function".

```
.. c:function:: int PyCodec_Unregister(PyObject *search_function)
```

Unregister a codec search function and clear the registry's cache.
If the search function is not registered, do nothing.
Return 0 on success. Raise an exception and return -1 on error.

```
.. versionadded:: 3.10
```

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Unknown directive type "c:function".

```
.. c:function:: int PyCodec_KnownEncoding(const char *encoding)
```

Return `1` or `0` depending on whether there is a registered codec for the given `*encoding`. This function always succeeds.

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Unknown directive type "c:function".

```
.. c:function:: PyObject* PyCodec_Encode(PyObject *object, const char *encoding, const char *errors)
```

Generic codec based encoding API.

`*object*` is passed through the encoder function found for the given `*encoding*` using the error handling method defined by `*errors*`. `*errors*` may be `NULL` to use the default method defined for the codec. Raises a `:exc:`LookupError`` if no encoder can be found.

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Unknown directive type "c:function".

```
.. c:function:: PyObject* PyCodec_Decode(PyObject *object, const char *encoding, const char *errors)
```

Generic codec based decoding API.

`*object*` is passed through the decoder function found for the given `*encoding*` using the error handling method defined by `*errors*`. `*errors*` may be `NULL` to use the default method defined for the codec. Raises a `:exc:`LookupError`` if no encoder can be found.

Codec lookup API

In the following functions, the *encoding* string is looked up converted to all lower-case characters, which makes encodings looked up through this mechanism effectively case-insensitive. If no codec is found, a `:exc:`KeyError`` is set and `NULL` returned.

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Unknown interpreted text role "exc".

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Unknown directive type "c:function".

```
.. c:function:: PyObject* PyCodec_Encoder(const char *encoding)

    Get an encoder function for the given *encoding*.
```

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Unknown directive type "c:function".

```
.. c:function:: PyObject* PyCodec_Decoder(const char *encoding)

    Get a decoder function for the given *encoding*.
```

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Unknown directive type "c:function".

```
.. c:function:: PyObject* PyCodec_IncrementalEncoder(const char *encoding, const char *errors)

    Get an :class:`~codecs.IncrementalEncoder` object for the given *encoding*.
```

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Unknown directive type "c:function".

```
.. c:function:: PyObject* PyCodec_IncrementalDecoder(const char *encoding, const char *errors)

    Get an :class:`~codecs.IncrementalDecoder` object for the given *encoding*.
```

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Unknown directive type "c:function".

```
.. c:function:: PyObject* PyCodec_StreamReader(const char *encoding, PyObject *stream, const char *errors)

    Get a :class:`~codecs.StreamReader` factory function for the given *encoding*.
```

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Unknown directive type "c:function".

```
.. c:function:: PyObject* PyCodec_StreamWriter(const char *encoding, PyObject *stream, const char *errors)

    Get a :class:`~codecs.StreamWriter` factory function for the given *encoding*.
```

Registry API for Unicode encoding error handlers

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Unknown directive type "c:function".

```
.. c:function:: int PyCodec_RegisterError(const char *name, PyObject *error)

    Register the error handling callback function *error* under the given *name*.
    This callback function will be called by a codec when it encounters
    unencodable characters/undecodable bytes and *name* is specified as the error
    parameter in the call to the encode/decode function.

    The callback gets a single argument, an instance of
    :exc:`UnicodeEncodeError`, :exc:`UnicodeDecodeError` or
    :exc:`UnicodeTranslateError` that holds information about the problematic
```

sequence of characters or bytes and their offset in the original string (see :ref:`unicodexceptions` for functions to extract this information). The callback must either raise the given exception, or return a two-item tuple containing the replacement for the problematic sequence, and an integer giving the offset in the original string at which encoding/decoding should be resumed.

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

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Unknown directive type "c:function".

```
.. c:function:: PyObject* PyCodec_LookupError(const char *name)
```

Lookup the error handling callback function registered under *name*. As a special case ``NULL`` can be passed, in which case the error handling callback for "strict" will be returned.

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Unknown directive type "c:function".

```
.. c:function:: PyObject* PyCodec_StrictErrors(PyObject *exc)
```

Raise *exc* as an exception.

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Unknown directive type "c:function".

```
.. c:function:: PyObject* PyCodec_IgnoreErrors(PyObject *exc)
```

Ignore the unicode error, skipping the faulty input.

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Unknown directive type "c:function".

```
.. c:function:: PyObject* PyCodec_ReplaceErrors(PyObject *exc)
```

Replace the unicode encode error with ``?`` or ``U+FFFD``.

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Unknown directive type "c:function".

```
.. c:function:: PyObject* PyCodec_XMLCharRefReplaceErrors(PyObject *exc)
```

Replace the unicode encode error with XML character references.

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Unknown directive type "c:function".

```
.. c:function:: PyObject* PyCodec_BackslashReplaceErrors(PyObject *exc)
```

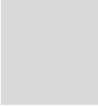
Replace the unicode encode error with backslash escapes (``\x``, ``\u`` and ``\U``).

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Unknown directive type "c:function".

```
.. c:function:: PyObject* PyCodec_NameReplaceErrors(PyObject *exc)
```

Replace the unicode encode error with ``\N{...}`` escapes.



```
.. versionadded:: 3.5
```

