NAME

ERR_get_error, ERR_peek_error, ERR_peek_last_error, ERR_get_error_line, ERR_peek_error_line, ERR_peek_last_error_line, ERR_peek_error_func, ERR_peek_last_error_func, ERR_peek_error_data, ERR_peek_last_error_data, ERR_get_error_all, ERR_peek_error_all, ERR_peek_last_error_all, ERR_get_error_line_data, ERR_peek_error_line_data, ERR_peek_last_error_line_data - obtain error code and data

SYNOPSIS

#include <openssl/err.h>

unsigned long ERR_get_error(void);
unsigned long ERR_peek_error(void);
unsigned long ERR_peek_last_error(void);

unsigned long ERR_peek_error_line(const char **file, int *line);
unsigned long ERR_peek_last_error_line(const char **file, int *line);

unsigned long ERR_peek_error_func(const char **func);
unsigned long ERR_peek_last_error_func(const char **func);

unsigned long ERR_peek_error_data(const char **data, int *flags);
unsigned long ERR_peek_last_error_data(const char **data, int *flags);

unsigned long ERR_get_error_all(const char **file, int *line,
                      const char **func,
                      const char **data, int *flags);
unsigned long ERR_peek_error_all(const char **file, int *line,
                       const char **func,
                       const char **data, int *flags);
unsigned long ERR_peek_last_error_all(const char **file, int *line,
                          const char *func,
                          const char **data, int *flags);

The following functions have been deprecated since OpenSSL 3.0, and can be hidden entirely by defining **OPENSSL_API_COMPAT** with a suitable version value, see **openssl_user_macros**(7):

unsigned long ERR_get_error_line(const char **file, int *line);
unsigned long ERR_get_error_line_data(const char **file, int *line,
                          const char **data, int *flags);
unsigned long ERR_peek_error_line_data(const char **file, int *line,

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                      const char **data, int *flags);
   unsigned long ERR_peek_last_error_line_data(const char **file, int *line,
                      const char **data, int *flags);
```

DESCRIPTION

ERR_get_error() returns the earliest error code from the thread's error queue and removes the entry. This function can be called repeatedly until there are no more error codes to return.

ERR_peek_error() returns the earliest error code from the thread's error queue without modifying it.

ERR_peek_last_error() returns the latest error code from the thread's error queue without modifying it.

See **ERR_GET_LIB**(3) for obtaining further specific information such as the reason of the error, and **ERR_error_string**(3) for human-readable error messages.

ERR_get_error_all() is the same as **ERR_get_error()**, but on success it additionally stores the filename, line number and function where the error occurred in **file*, **line* and **func*, and also extra text and flags in **data*, **flags*. If any of those parameters are NULL, it will not be changed. An unset filename is indicated as "", i.e. an empty string. An unset line number is indicated as 0. An unset function name is indicated as "", i.e. an empty string.

A pointer returned this way by these functions and the ones below is valid until the respective entry is overwritten in the error queue.

ERR_peek_error_line() and **ERR_peek_last_error_line()** are the same as **ERR_peek_error()** and **ERR_peek_last_error()**, but on success they additionally store the filename and line number where the error occurred in **file* and **line*, as far as they are not NULL. An unset filename is indicated as "", i.e., an empty string. An unset line number is indicated as 0.

ERR_peek_error_func() and **ERR_peek_last_error_func()** are the same as **ERR_peek_error()** and **ERR_peek_last_error()**, but on success they additionally store the name of the function where the error occurred in **func*, unless it is NULL. An unset function name is indicated as "".

ERR_peek_error_data() and **ERR_peek_last_error_data()** are the same as **ERR_peek_error()** and **ERR_peek_last_error()**, but on success they additionally store additional data and flags associated with the error code in **data* and **flags*, as far as they are not NULL. Unset data is indicated as "". In this case the value given for the flag is irrelevant (and equals 0). **data* contains a string if **flags*&**ERR_TXT_STRING** is true.

ERR_peek_error_all() and **ERR_peek_last_error_all()** are combinations of all of the above.

ERR_get_error_line(), **ERR_get_error_line_data()**, **ERR_peek_error_line_data()** and
ERR_peek_last_error_line_data() are older variants of **ERR_get_error_all()**, **ERR_peek_error_all()** and
ERR_peek_last_error_all(), and may give confusing results. They should no longer be used and are
therefore deprecated.

An application **MUST NOT** free the *data pointer (or any other pointers returned by these functions)
with **OPENSSL_free()** as freeing is handled automatically by the error library.

RETURN VALUES
The error code, or 0 if there is no error in the queue.

SEE ALSO
ERR_error_string(3), **ERR_GET_LIB**(3)

HISTORY
ERR_peek_error_func(), **ERR_peek_last_error_func()**, **ERR_peek_error_data()**,
ERR_peek_last_error_data(), **ERR_peek_error_all()** and **ERR_peek_last_error_all()** were added in
OpenSSL 3.0.

ERR_get_error_line(), **ERR_get_error_line_data()**, **ERR_peek_error_line_data()** and
ERR_peek_last_error_line_data() became deprecated in OpenSSL 3.0.

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