

**NAME**

ERR\_error\_string, ERR\_error\_string\_n, ERR\_lib\_error\_string, ERR\_func\_error\_string, ERR\_reason\_error\_string - obtain human-readable error message

**SYNOPSIS**

```
#include <openssl/err.h>

char *ERR_error_string(unsigned long e, char *buf);
void ERR_error_string_n(unsigned long e, char *buf, size_t len);

const char *ERR_lib_error_string(unsigned long e);
const char *ERR_func_error_string(unsigned long e);
const char *ERR_reason_error_string(unsigned long e);
```

**DESCRIPTION**

*ERR\_error\_string()* generates a human-readable string representing the error code *e*, and places it at *buf*. *buf* must be at least 120 bytes long. If *buf* is **NULL**, the error string is placed in a static buffer. *ERR\_error\_string\_n()* is a variant of *ERR\_error\_string()* that writes at most *len* characters (including the terminating 0) and truncates the string if necessary. For *ERR\_error\_string\_n()*, *buf* may not be **NULL**.

The string will have the following format:

```
error:[error code]:[library name]:[function name]:[reason string]
```

*error code* is an 8 digit hexadecimal number, *library name*, *function name* and *reason string* are ASCII text.

*ERR\_lib\_error\_string()*, *ERR\_func\_error\_string()* and *ERR\_reason\_error\_string()* return the library name, function name and reason string respectively.

The OpenSSL error strings should be loaded by calling [ERR\\_load\\_crypto\\_strings\(3\)](#) or, for SSL applications, [SSL\\_load\\_error\\_strings\(3\)](#) first. If there is no text string registered for the given error code, the error string will contain the numeric code.

[ERR\\_print\\_errors\(3\)](#) can be used to print all error codes currently in the queue.

**RETURN VALUES**

*ERR\_error\_string()* returns a pointer to a static buffer containing the string if *buf* == **NULL**, *buf* otherwise.

*ERR\_lib\_error\_string()*, *ERR\_func\_error\_string()* and *ERR\_reason\_error\_string()* return the strings, and **NULL** if none is registered for the error code.

**SEE ALSO**

[err\(3\)](#), [ERR\\_get\\_error\(3\)](#), [ERR\\_load\\_crypto\\_strings\(3\)](#), [SSL\\_load\\_error\\_strings\(3\)](#)  
[ERR\\_print\\_errors\(3\)](#)

**HISTORY**

*ERR\_error\_string()* is available in all versions of SSLeay and OpenSSL. *ERR\_error\_string\_n()* was added in OpenSSL 0.9.6.