

**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_reason_error_string(unsigned long e);
```

Deprecated in OpenSSL 3.0:

```
const char *ERR_func_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 256 bytes long. If *buf* is **NULL**, the error string is placed in a static buffer. Note that this function is not thread-safe and does no checks on the size of the buffer; use **ERR\_error\_string\_n()** instead.

**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]:[reason string]
```

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

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

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

**ERR\_func\_error\_string()** returns **NULL**.

**SEE ALSO**

**ERR\_get\_error(3)**, **ERR\_print\_errors(3)**

**HISTORY**

**ERR\_func\_error\_string()** became deprecated in OpenSSL 3.0.

**COPYRIGHT**

Copyright 2000-2017 The OpenSSL Project Authors. All Rights Reserved.

Licensed under the Apache License 2.0 (the "License"). You may not use this file except in compliance with the License. You can obtain a copy in the file LICENSE in the source distribution or at <<https://www.openssl.org/source/license.html>>.