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.