

**NAME**

OpenSSL\_add\_all\_algorithms, OpenSSL\_add\_all\_ciphers, OpenSSL\_add\_all\_digests, EVP\_cleanup - add algorithms to internal table

**SYNOPSIS**

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

Deprecated:

```
# if OPENSSL_API_COMPAT < 0x10100000L
void OpenSSL_add_all_algorithms(void);
void OpenSSL_add_all_ciphers(void);
void OpenSSL_add_all_digests(void);
```

```
void EVP_cleanup(void)
```

```
# endif
```

**DESCRIPTION**

OpenSSL keeps an internal table of digest algorithms and ciphers. It uses this table to lookup ciphers via functions such as *EVP\_get\_cipher\_byname()*. In OpenSSL versions prior to 1.1.0 these functions initialised and de-initialised this table. From OpenSSL 1.1.0 they are deprecated. No explicit initialisation or de-initialisation is required. See [OPENSSL\\_init\\_crypto\(3\)](#) for further information.

*OpenSSL\_add\_all\_digests()* adds all digest algorithms to the table.

*OpenSSL\_add\_all\_algorithms()* adds all algorithms to the table (digests and ciphers).

*OpenSSL\_add\_all\_ciphers()* adds all encryption algorithms to the table including password based encryption algorithms.

In versions prior to 1.1.0 *EVP\_cleanup()* removed all ciphers and digests from the table. It no longer has any effect in OpenSSL 1.1.0.

**RETURN VALUES**

None of the functions return a value.

**NOTES**

A typical application will call *OpenSSL\_add\_all\_algorithms()* initially and *EVP\_cleanup()* before exiting.

An application does not need to add algorithms to use them explicitly, for example by *EVP\_sha1()*. It just needs to add them if it (or any of the functions it calls) needs to lookup algorithms.

The cipher and digest lookup functions are used in many parts of the library. If the table is not initialized several functions will misbehave and complain they cannot find algorithms. This includes the PEM, PKCS#12, SSL and S/MIME libraries. This is a common query in the OpenSSL mailing lists.

Calling *OpenSSL\_add\_all\_algorithms()* links in all algorithms: as a result a statically linked executable can be quite large. If this is important it is possible to just add the required ciphers and digests.

**BUGS**

Although the functions do not return error codes it is possible for them to fail. This will only happen as a result of a memory allocation failure so this is not too much of a problem in practice.

**SEE ALSO**

*evp(3)*, *EVP\_DigestInit(3)*, *EVP\_EncryptInit(3)*

**HISTORY**

The *OpenSSL\_add\_all\_algorithms()*, *OpenSSL\_add\_all\_ciphers()*, *OpenSSL\_add\_all\_digests()*, and *EVP\_cleanup()*, functions were deprecated in OpenSSL 1.1.0 by *OPENSSL\_init\_crypto()*.

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