

NAME

`EVP_set_default_properties`, `EVP_default_properties_enable_fips`,
`EVP_default_properties_is_fips_enabled`, `EVP_get1_default_properties` – manage default properties for
future algorithm fetches

SYNOPSIS

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

```
int EVP_set_default_properties(OSSL_LIB_CTX *libctx, const char *propq);  
char *EVP_get1_default_properties(OSSL_LIB_CTX *libctx);  
int EVP_default_properties_enable_fips(OSSL_LIB_CTX *libctx, int enable);  
int EVP_default_properties_is_fips_enabled(OSSL_LIB_CTX *libctx);
```

DESCRIPTION

EVP_set_default_properties() sets the default properties for all future EVP algorithm fetches, implicit as well as explicit. See "ALGORITHM FETCHING" in **crypto**(7) for information about implicit and explicit fetching.

`EVP_set_default_properties` stores the properties given with the string *propq* among the EVP data that's been stored in the library context given with *libctx* (NULL signifies the default library context).

Any previous default property for the specified library context will be dropped.

EVP_get1_default_properties() gets the default properties set for all future EVP algorithm fetches, implicit as well as explicit, for the specific library context.

EVP_default_properties_enable_fips() sets the 'fips=yes' to be a default property if *enable* is non zero, otherwise it clears 'fips' from the default property query for the given *libctx*. It merges the fips default property query with any existing query strings that have been set via **EVP_set_default_properties()**.

EVP_default_properties_is_fips_enabled() indicates if 'fips=yes' is a default property for the given *libctx*.

NOTES

EVP_set_default_properties() and **EVP_default_properties_enable_fips()** are not thread safe. They are intended to be called only during the initialisation phase of a *libctx*.

EVP_get1_default_properties() is not thread safe. The application must ensure that the context reference is valid and default fetching properties are not being modified by a different thread.

RETURN VALUES

EVP_set_default_properties() and **EVP_default_properties_enable_fips()** return 1 on success, or 0 on failure. An error is placed on the error stack if a failure occurs.

EVP_default_properties_is_fips_enabled() returns 1 if the 'fips=yes' default property is set for the given *libctx*, otherwise it returns 0.

EVP_get1_default_properties() returns allocated memory that must be freed by **OPENSSL_free**(3) on success and NULL on failure.

SEE ALSO

EVP_MD_fetch(3)

HISTORY

The functions **EVP_set_default_properties()**, **EVP_default_properties_enable_fips()**, **EVP_default_properties_is_fips_enabled()** were added in OpenSSL 3.0.

The function **EVP_get1_default_properties()** was added in OpenSSL 3.5.

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