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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'OPENSSL\_VERSION\_MAJOR.3oss!' command**

```
$ man OPENSSL_VERSION_MAJOR.3oss!
```

```
OPENSSL_VERSION(3oss!)      OpenSSL      OPENSSL_VERSION(3oss!)
```

### NAME

OPENSSL\_VERSION\_MAJOR, OPENSSL\_VERSION\_MINOR, OPENSSL\_VERSION\_PATCH,  
OPENSSL\_VERSION\_PRE\_RELEASE, OPENSSL\_VERSION\_BUILD\_METADATA,  
OPENSSL\_VERSION\_TEXT, OPENSSL\_VERSION\_PREREQ, OPENSSL\_version\_major,  
OPENSSL\_version\_minor, OPENSSL\_version\_patch,  
OPENSSL\_version\_pre\_release, OPENSSL\_version\_build\_metadata,  
OpenSSL\_version, OPENSSL\_VERSION\_NUMBER, OpenSSL\_version\_num,  
OPENSSL\_info - get OpenSSL version number and other information

### SYNOPSIS

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

#define OPENSSL_VERSION_MAJOR x
#define OPENSSL_VERSION_MINOR y
#define OPENSSL_VERSION_PATCH z

/* The definitions here are typical release values */
#define OPENSSL_VERSION_PRE_RELEASE ""
#define OPENSSL_VERSION_BUILD_METADATA ""

#define OPENSSL_VERSION_TEXT "OpenSSL x.y.z xx XXX xxxx"
```

```

#define OPENSLL_VERSION_PREREQ(maj,min)

#include <openssl/crypto.h>

unsigned int OPENSLL_version_major(void);
unsigned int OPENSLL_version_minor(void);
unsigned int OPENSLL_version_patch(void);
const char *OPENSLL_version_pre_release(void);
const char *OPENSLL_version_build_metadata(void);

const char *OpenSSL_version(int t);

const char *OPENSLL_info(int t);

/* from openssl/opensslv.h */
#define OPENSLL_VERSION_NUMBER 0xnnnnnnnnL

/* from openssl/crypto.h */
unsigned long OpenSSL_version_num();

```

## DESCRIPTION

### Macros

The three macros `OPENSLL_VERSION_MAJOR`, `OPENSLL_VERSION_MINOR` and `OPENSLL_VERSION_PATCH` represent the three parts of a version identifier, `MAJOR.MINOR.PATCH`.

The macro `OPENSLL_VERSION_PRE_RELEASE` is an added bit of text that indicates that this is a pre-release version, such as `"-dev"` for an ongoing development snapshot or `"-alpha3"` for an alpha release. The value must be a string.

The macro `OPENSLL_VERSION_BUILD_METADATA` is extra information, reserved

for other parties, such as "+fips", or "+vendor.1"). The OpenSSL project will not touch this macro (will leave it an empty string). The value must be a string.

OPENSSL\_VERSION\_STR is a convenience macro to get the short version identifier string, "MAJOR.MINOR.PATCH".

OPENSSL\_FULL\_VERSION\_STR is a convenience macro to get the longer version identifier string, which combines OPENSSL\_VERSION\_STR, OPENSSL\_VERSION\_PRE\_RELEASE and OPENSSL\_VERSION\_BUILD\_METADATA.

OPENSSL\_VERSION\_TEXT is a convenience macro to get a full descriptive version text, which includes OPENSSL\_FULL\_VERSION\_STR and the release date.

OPENSSL\_VERSION\_PREREQ is a useful macro for checking whether the OpenSSL version for the headers in use is at least at the given prerequisite major (maj) and minor (min) number or not. It will evaluate to true if the header version number (OPENSSL\_VERSION\_MAJOR.OPENSSL\_VERSION\_MINOR) is greater than or equal to maj.min.

OPENSSL\_VERSION\_NUMBER is a combination of the major, minor and patch version into a single integer 0xMNN00PP0L, where:

M is the number from OPENSSL\_VERSION\_MAJOR, in hexadecimal notation

NN is the number from OPENSSL\_VERSION\_MINOR, in hexadecimal notation

PP is the number from OPENSSL\_VERSION\_PATCH, in hexadecimal notation

## Functions

OPENSSL\_version\_major(), OPENSSL\_version\_minor(),

OPENSSL\_version\_patch(), OPENSSL\_version\_pre\_release(), and OPENSSL\_version\_build\_metadata() return the values of the macros above for the build of the library, respectively.

OpenSSL\_version() returns different strings depending on t:

#### OPENSSL\_VERSION

The value of OPENSSL\_VERSION\_TEXT

#### OPENSSL\_VERSION\_STRING

The value of OPENSSL\_VERSION\_STR

#### OPENSSL\_FULL\_VERSION\_STRING

The value of OPENSSL\_FULL\_VERSION\_STR

#### OPENSSL\_CFLAGS

The compiler flags set for the compilation process in the form "compiler: ..." if available, or "compiler: information not available" otherwise.

#### OPENSSL\_BUILT\_ON

The date of the build process in the form "built on: ..." if available or "built on: date not available" otherwise. The date would not be available in a reproducible build, for example.

#### OPENSSL\_PLATFORM

The "Configure" target of the library build in the form "platform: ..." if available, or "platform: information not available" otherwise.

#### OPENSSL\_DIR

The OPENSSLDIR setting of the library build in the form "OPENSSLDIR: ..." if available, or "OPENSSLDIR: N/A" otherwise.

## OPENSSL\_ENGINES\_DIR

The ENGINESDIR setting of the library build in the form

"ENGINESDIR: "..."" if available, or "ENGINESDIR: N/A" otherwise.

This option is deprecated in OpenSSL 3.0.

## OPENSSL\_MODULES\_DIR

The MODULESDIR setting of the library build in the form

"MODULESDIR: "..."" if available, or "MODULESDIR: N/A" otherwise.

## OPENSSL\_CPU\_INFO

The current OpenSSL cpu settings. This is the current setting of the cpu capability flags. It is usually automatically configured but may be set via an environment variable. The value has the same syntax as the environment variable. For x86 the string looks like "CPUINFO: OPENSSL\_ia32cap=0x123:0x456" or "CPUINFO: N/A" if not available.

For an unknown t, the text "not available" is returned.

OPENSSL\_info() also returns different strings depending on t:

## OPENSSL\_INFO\_CONFIG\_DIR

The configured "OPENSSLDIR", which is the default location for OpenSSL configuration files.

## OPENSSL\_INFO\_ENGINES\_DIR

The configured "ENGINESDIR", which is the default location for OpenSSL engines.

## OPENSSL\_INFO\_MODULES\_DIR

The configured "MODULESDIR", which is the default location for dynamically loadable OpenSSL modules other than engines.

## OPENSSL\_INFO\_DSO\_EXTENSION

The configured dynamically loadable module extension.

## OPENSSL\_INFO\_DIR\_FILENAME\_SEPARATOR

The separator between a directory specification and a filename.

Note that on some operating systems, this is not the same as the separator between directory elements.

## OPENSSL\_INFO\_LIST\_SEPARATOR

The OpenSSL list separator. This is typically used in strings that are lists of items, such as the value of the environment variable \$PATH on Unix (where the separator is ":") or "%PATH%" on Windows (where the separator is ";").

## OPENSSL\_INFO\_CPU\_SETTINGS

The current OpenSSL cpu settings. This is the current setting of the cpu capability flags. It is usually automatically configured but may be set via an environment variable. The value has the same syntax as the environment variable. For x86 the string looks like "OPENSSL\_ia32cap=0x123:0x456".

For an unknown t, NULL is returned.

OpenSSL\_version\_num() returns the value of OPENSSL\_VERSION\_NUMBER.

## RETURN VALUES

OpenSSL\_version\_major(), OpenSSL\_version\_minor() and OpenSSL\_version\_patch() return the version number parts as integers.

OpenSSL\_version\_pre\_release() and OpenSSL\_version\_build\_metadata() return the values of OPENSSL\_VERSION\_PRE\_RELEASE and

OPENSSL\_VERSION\_BUILD\_METADATA respectively as constant strings. For

any of them that is undefined, the empty string is returned.

OpenSSL\_version() returns constant strings.

## SEE ALSO

crypto(7)

## HISTORY

The macros and functions described here were added in OpenSSL 3.0, except for OPENSSL\_VERSION\_NUMBER and OpenSSL\_version\_num().

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