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***Rocky Enterprise Linux 9.2 Manual Pages on command 'openssl-format-options.1ssl'***

**\$ man openssl-format-options.1ssl**

OPENSSL-FORMAT-OPTIONS(1SSL)            OpenSSL            OPENSSL-FORMAT-OPTIONS(1SSL)

**NAME**

openssl-format-options - OpenSSL command input and output format options

**SYNOPSIS**

openssl command [ options ... ] [ parameters ... ]

**DESCRIPTION**

Several OpenSSL commands can take input or generate output in a variety of formats.

Since OpenSSL 3.0 keys, single certificates, and CRLs can be read from files in any of the DER, PEM or P12 formats. Specifying their input format is no more needed and the openssl commands will automatically try all the possible formats. However if the DER or PEM input format is specified it will be enforced.

In order to access a key via an engine the input format ENGINE may be used; alternatively the key identifier in the <uri> argument of the respective key option may be preceded by "org.openssl.engine:". See "Engine Options" in openssl(1) for an example usage of the latter.

**OPTIONS**

**Format Options**

The options to specify the format are as follows. Refer to the individual man page to see which options are accepted.

-inform format, -outform format

The format of the input or output streams.

-keyform format

Format of a private key input source.

-CRLform format

Format of a CRL input source.

## Format Option Arguments

The possible format arguments are described below. Both uppercase and lowercase are accepted.

The list of acceptable format arguments, and the default, is described in each command documentation.

DER A binary format, encoded or parsed according to Distinguished Encoding Rules (DER) of the ASN.1 data language.

## ENGINE

Used to specify that the cryptographic material is in an OpenSSL engine. An engine must be configured or specified using the `-engine` option. A password or PIN may be supplied to the engine using the `-passin` option.

P12 A DER-encoded file containing a PKCS#12 object. It might be necessary to provide a decryption password to retrieve the private key.

PEM A text format defined in IETF RFC 1421 and IETF RFC 7468. Briefly, this is a block of base-64 encoding (defined in IETF RFC 4648), with specific lines used to mark the start and end:

Text before the BEGIN line is ignored.

----- BEGIN object-type -----

```
OT43gQKBgQC/2OHZoko6iRINOAQ/tMVFNq7fL81GivoQ9F1U0Qr+DH3ZfaH8elkX
xT0ToMPJUzWAn8pZv0snA0um6SIgvykCuxO84OkANCVbttzXImIsL7pFzfcwV/ERK
UM6j0ZuSMFOCr/IGPAoOQU0fskidGEHi1/kW+suSr28TqsyYZpwBDQ==
```

----- END object-type -----

Text after the END line is also ignored

The object-type must match the type of object that is expected. For example a "BEGIN X509 CERTIFICATE" will not match if the command is trying to read a private key. The types supported include:

ANY PRIVATE KEY

CERTIFICATE

CERTIFICATE REQUEST

CMS

DH PARAMETERS

DSA PARAMETERS  
DSA PUBLIC KEY  
EC PARAMETERS  
EC PRIVATE KEY  
ECDSA PUBLIC KEY  
ENCRYPTED PRIVATE KEY  
PARAMETERS  
PKCS #7 SIGNED DATA  
PKCS7  
PRIVATE KEY  
PUBLIC KEY  
RSA PRIVATE KEY  
SSL SESSION PARAMETERS  
TRUSTED CERTIFICATE  
X509 CRL  
X9.42 DH PARAMETERS

The following legacy object-type's are also supported for compatibility with earlier releases:

DSA PRIVATE KEY  
NEW CERTIFICATE REQUEST  
RSA PUBLIC KEY  
X509 CERTIFICATE

#### SMIME

An S/MIME object as described in IETF RFC 8551. Earlier versions were known as CMS and are compatible. Note that the parsing is simple and might fail to parse some legal data.

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