

NAME

openssl-rand - generate pseudo-random bytes

SYNOPSIS

openssl rand [**-help**] [**-out** *file*] [**-base64**] [**-hex**] [**-engine** *id*] [**-rand** *files*] [**-writerand** *file*] [**-provider** *name*] [**-provider-path** *path*] [**-propquery** *propq*] *num*

DESCRIPTION

This command generates *num* random bytes using a cryptographically secure pseudo random number generator (CSPRNG).

The random bytes are generated using the **RAND_bytes(3)** function, which provides a security level of 256 bits, provided it managed to seed itself successfully from a trusted operating system entropy source. Otherwise, the command will fail with a nonzero error code. For more details, see **RAND_bytes(3)**, **RAND(7)**, and **EVP_RAND(7)**.

OPTIONS**-help**

Print out a usage message.

-out *file*

Write to *file* instead of standard output.

-base64

Perform base64 encoding on the output.

-hex

Show the output as a hex string.

-engine *id*

See "Engine Options" in **openssl(1)**. This option is deprecated.

-rand *files*, **-writerand** *file*

See "Random State Options" in **openssl(1)** for details.

-provider *name***-provider-path** *path***-propquery** *propq*

See "Provider Options" in **openssl(1)**, **provider(7)**, and **property(7)**.

SEE ALSO

openssl(1), **RAND_bytes(3)**, **RAND(7)**, **EVP RAND(7)**

HISTORY

The **-engine** option was deprecated in OpenSSL 3.0.

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