

**NAME**

openssl-dsaparam, dsaparam – DSA parameter manipulation and generation

**SYNOPSIS**

```
openssl dsaparam [-help] [-inform DER|PEM] [-outform DER|PEM] [-in filename] [-out filename]
[-noout] [-text] [-C] [-rand file...] [-writerand file] [-genkey] [-engine id] [numbits]
```

**DESCRIPTION**

This command is used to manipulate or generate DSA parameter files.

**OPTIONS****-help**

Print out a usage message.

**-inform DER|PEM**

This specifies the input format. The **DER** option uses an ASN1 DER encoded form compatible with RFC2459 (PKIX) DSS-Parms that is a SEQUENCE consisting of p, q and g respectively. The PEM form is the default format: it consists of the **DER** format base64 encoded with additional header and footer lines.

**-outform DER|PEM**

This specifies the output format, the options have the same meaning and default as the **-inform** option.

**-in filename**

This specifies the input filename to read parameters from or standard input if this option is not specified. If the **numbits** parameter is included then this option will be ignored.

**-out filename**

This specifies the output filename parameters to. Standard output is used if this option is not present. The output filename should **not** be the same as the input filename.

**-noout**

This option inhibits the output of the encoded version of the parameters.

**-text**

This option prints out the DSA parameters in human readable form.

**-C** This option converts the parameters into C code. The parameters can then be loaded by calling the **get\_dsaXXX()** function.

**-genkey**

This option will generate a DSA either using the specified or generated parameters.

**-rand file...**

A file or files containing random data used to seed the random number generator. Multiple files can be specified separated by an OS-dependent character. The separator is **;** for MS-Windows, **,** for OpenVMS, and **:** for all others.

**[-writerand file]**

Writes random data to the specified *file* upon exit. This can be used with a subsequent **-rand** flag.

**numbits**

This option specifies that a parameter set should be generated of size **numbits**. It must be the last option. If this option is included then the input file (if any) is ignored.

**-engine id**

Specifying an engine (by its unique **id** string) will cause **dsaparam** to attempt to obtain a functional reference to the specified engine, thus initialising it if needed. The engine will then be set as the default for all available algorithms.

**NOTES**

PEM format DSA parameters use the header and footer lines:

```
-----BEGIN DSA PARAMETERS-----  
-----END DSA PARAMETERS-----
```

DSA parameter generation is a slow process and as a result the same set of DSA parameters is often used to generate several distinct keys.

**SEE ALSO**

**gendsa**(1), **dsa**(1), **genrsa**(1), **rsa**(1)

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