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## ***Red Hat Enterprise Linux Release 9.2 Manual Pages on 'syslog.3' command***

***\$ man syslog.3***

SYSLOG(3)           Linux Programmer's Manual           SYSLOG(3)

### NAME

closelog, openlog, syslog, vsyslog - send messages to the system logger

### SYNOPSIS

```
#include <syslog.h>

void openlog(const char *ident, int option, int facility);

void syslog(int priority, const char *format, ...);

void closelog(void);

void vsyslog(int priority, const char *format, va_list ap);
```

Feature Test Macro Requirements for glibc (see feature\_test\_macros(7)):

vsyslog():

Since glibc 2.19:

  \_DEFAULT\_SOURCE

Glibc 2.19 and earlier:

  \_BSD\_SOURCE

### DESCRIPTION

openlog()

openlog() opens a connection to the system logger for a program.

The string pointed to by ident is prepended to every message, and is typically set to the program name. If ident is NULL, the program name is used. (POSIX.1-2008 does not specify the behavior when ident is NULL.)

The option argument specifies flags which control the operation of

openlog() and subsequent calls to syslog(). The facility argument establishes a default to be used if none is specified in subsequent calls to syslog(). The values that may be specified for option and facility are described below.

The use of openlog() is optional; it will automatically be called by syslog() if necessary, in which case ident will default to NULL.

syslog() and vsyslog()

syslog() generates a log message, which will be distributed by syslogd(8).

The priority argument is formed by ORing together a facility value and a level value (described below). If no facility value is ORed into priority, then the default value set by openlog() is used, or, if there was no preceding openlog() call, a default of LOG\_USER is employed.

The remaining arguments are a format, as in printf(3), and any arguments required by the format, except that the two-character sequence %m will be replaced by the error message string strerror(errno). The format string need not include a terminating newline character.

The function vsyslog() performs the same task as syslog() with the difference that it takes a set of arguments which have been obtained using the stdarg(3) variable argument list macros.

closelog()

closelog() closes the file descriptor being used to write to the system logger. The use of closelog() is optional.

Values for option

The option argument to openlog() is a bit mask constructed by ORing together any of the following values:

LOG\_CONS Write directly to the system console if there is an error while sending to the system logger.

LOG\_NDELAY Open the connection immediately (normally, the connection is opened when the first message is logged). This may be useful, for example, if a subsequent chroot(2) would make the pathname used internally by the logging facility unreachable.

LOG\_NOWAIT Don't wait for child processes that may have been created while logging the message. (The GNU C library does not create a child process, so this option has no effect on Linux.)

LOG\_ODELAY The converse of LOG\_NDELAY; opening of the connection is delayed until syslog() is called. (This is the default, and need not be specified.)

LOG\_PERROR (Not in POSIX.1-2001 or POSIX.1-2008.) Also log the message to stderr.

LOG\_PID Include the caller's PID with each message.

#### Values for facility

The facility argument is used to specify what type of program is logging the message. This lets the configuration file specify that messages from different facilities will be handled differently.

LOG\_AUTH security/authorization messages

LOG\_AUTHPRIV security/authorization messages (private)

LOG\_CRON clock daemon (cron and at)

LOG\_DAEMON system daemons without separate facility value

LOG\_FTP ftp daemon

LOG\_KERN kernel messages (these can't be generated from user processes)

LOG\_LOCAL0 through LOG\_LOCAL7

reserved for local use

LOG\_LPR line printer subsystem

LOG\_MAIL mail subsystem

LOG\_NEWS USENET news subsystem

LOG\_SYSLOG messages generated internally by syslogd(8)

LOG\_USER (default)

generic user-level messages

LOG\_UUCP UUCP subsystem

#### Values for level

This determines the importance of the message. The levels are, in order of decreasing importance:

LOG\_EMERG system is unusable  
 LOG\_ALERT action must be taken immediately  
 LOG\_CRIT critical conditions  
 LOG\_ERR error conditions  
 LOG\_WARNING warning conditions  
 LOG\_NOTICE normal, but significant, condition  
 LOG\_INFO informational message  
 LOG\_DEBUG debug-level message

The function setlogmask(3) can be used to restrict logging to specified levels only.

### ATTRIBUTES

For an explanation of the terms used in this section, see attributes(7).

??

?Interface ? Attribute ? Value ?

??

?openlog(), closelog() ? Thread safety ? MT-Safe ?

??

?syslog(), vsyslog() ? Thread safety ? MT-Safe env locale ?

??

### CONFORMING TO

The functions openlog(), closelog(), and syslog() (but not vsyslog()) are specified in SUSv2, POSIX.1-2001, and POSIX.1-2008.

POSIX.1-2001 specifies only the LOG\_USER and LOG\_LOCAL\* values for facility. However, with the exception of LOG\_AUTHPRIV and LOG\_FTP, the other facility values appear on most UNIX systems.

The LOG\_PERROR value for option is not specified by POSIX.1-2001 or POSIX.1-2008, but is available in most versions of UNIX.

### NOTES

The argument ident in the call of openlog() is probably stored as-is. Thus, if the string it points to is changed, syslog() may start prepending the changed string, and if the string it points to ceases to exist, the results are undefined. Most portable is to use a string

constant.

Never pass a string with user-supplied data as a format, use the fol?

lowing instead:

```
syslog(priority, "%s", string);
```

#### SEE ALSO

journalctl(1), logger(1), setlogmask(3), syslog.conf(5), syslogd(8)

#### COLOPHON

This page is part of release 5.10 of the Linux man-pages project. A

description of the project, information about reporting bugs, and the

latest version of this page, can be found at

<https://www.kernel.org/doc/man-pages/>.

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