NAME

dmesg − print or control the kernel ring buffer

SYNOPSIS

dmesg [**options**]

dmesg −−clear
dmesg −−read-clear [options]
dmesg −−console-level level
dmesg −−console-on
dmesg −−console-off

DESCRIPTION

dmesg is used to examine or control the kernel ring buffer.

The default action is to read all messages from the kernel ring buffer.

OPTIONS

The −−clear, −−read-clear, −−console-on, −−console-off and −−console-level options are mutually exclusive.

−C, **−−clear**
Clear the ring buffer.

−c, **−−read-clear**
Clear the ring buffer after first printing its contents.

−D, **−−console-off**
Disable printing messages to the console.

−d, **−−show-delta**
Display the timestamp and the time delta spent between messages. If used together with **−−notime** then only the time delta without the timestamp is printed.

−e, **−−reltime**
Display the local time and the delta in human-readable format.

−E, **−−console-on**
Enable printing messages to the console.

−F, **−−file** *file*
Read the messages from the given *file*.

−f, **−−facility** *list*
Restrict output to the given (comma-separated) *list* of facilities. For example:

dmesg −−facility=daemon

will print messages from system daemons only. For all supported facilities see **dmesg −−help** output.

−H, **−−human**
Enable human-readable output. See also **−−color**, **−−reltime** and **−−nopager**.

−h, **−−help**
Display help text and exit.

−k, **−−kernel**
Print kernel messages.

−L, **−−color**[=*when*]
Colorize important messages. The optional argument *when* can be **auto**, **never** or **always**. If the *when* argument is omitted, then it defaults to **auto**.

−l, **−−level** *list*
Restrict output to the given (comma-separated) *list* of levels. For example:

dmesg −−level=err,warn

will print error and warning messages only. For all supported levels see **dmesg −−help** output.

−n, **−−console-level** *level*
Set the *level* at which printing of messages is done to the console. The *level* is a level number or abbreviation of the level name. For all supported levels see **dmesg −−help** output.

For example, **−n 1** or **−n alert** prevents all messages, except emergency (panic) messages, from appearing on the console. All levels of messages are still written to */proc/kmsg*, so **syslogd**(8) can still be used to control exactly where kernel messages appear. When the **−n** option is used, **dmesg** will *not* print or clear the kernel ring buffer.

−P, **−−nopager**
Do not pipe output into a pager. A pager is enabled by default for **−−human** output.

−r, **−−raw**
Print the raw message buffer, i.e. do not strip the log-level prefixes.

Note that the real raw format depends on the method how **dmesg**(1) reads kernel messages. The /dev/kmsg device uses a different format than **syslog**(2)**.** For backward compatibility, **dmesg**(1) returns data always in the **syslog**(2) format. It is possible to read the real raw data from /dev/kmsg by, for example, the command 'dd if=/dev/kmsg iflag=nonblock'.

−S, **−−syslog**
Force **dmesg** to use the **syslog**(2) kernel interface to read kernel messages. The default is to use /dev/kmsg rather than **syslog**(2) since kernel 3.5.0.

−s, **−−buffer-size** *size*
Use a buffer of *size* to query the kernel ring buffer. This is 16392 by default. (The default kernel syslog buffer size was 4096 at first, 8192 since 1.3.54, 16384 since 2.1.113.) If you have set the kernel buffer to be larger than the default, then this option can be used to view the entire buffer.

−T, **−−ctime**
Print human-readable timestamps.

Be aware that the timestamp could be inaccurate! The **time** source used for the logs is **not updated after** system **SUSPEND**/**RESUME**.

−t, **−−notime**
Do not print kernel's timestamps.

−u, **−−userspace**
Print userspace messages.

−V, **−−version**
Display version information and exit.

−w, **−−follow**
Wait for new messages. This feature is supported only on systems with a readable /dev/kmsg (since kernel 3.5.0).

−x, **−−decode**
Decode facility and level (priority) numbers to human-readable prefixes.

−−time−format *format*
Print timestamps using the given *format*, which can be **ctime**, **reltime**, **delta** or **iso**. The first three formats are aliases of the time-format-specific options. The **iso** format is a **dmesg** implementation of the ISO-8601 timestamp format. The purpose of this format is to make the comparing of time-stamps between two systems, and any other parsing, easy. The definition of the **iso** timestamp is:

YYYY-MM-DD<T>HH:MM:SS,<microseconds><-+><timezone offset from UTC>.

The **iso** format has the same issue as **ctime**: the time may be inaccurate when a system is suspended and resumed.

SEE ALSO

syslogd(8)

AUTHORS

Karel Zak ⟨kzak@redhat.com⟩
Theodore Ts'o ⟨tytso@athena.mit.edu⟩

AVAILABILITY

The dmesg command is part of the util-linux package and is available from Linux Kernel Archive ⟨ftp://ftp.kernel.org/pub/linux/utils/util-linux/⟩.