

NAME

`rtcwake` – enter a system sleep state until specified wakeup time

SYNOPSIS

rtcwake [options] [**-d** *device*] [**-m** *standby_mode*] {**-s** *seconds*|**-t** *time_t*}

DESCRIPTION

This program is used to enter a system sleep state and to automatically wake from it at a specified time.

This uses cross-platform Linux interfaces to enter a system sleep state, and leave it no later than a specified time. It uses any RTC framework driver that supports standard driver model wakeup flags.

This is normally used like the old **apmsleep** utility, to wake from a suspend state like ACPI S1 (standby) or S3 (suspend-to-RAM). Most platforms can implement those without analogues of BIOS, APM, or ACPI.

On some systems, this can also be used like **nvrwakeup**, waking from states like ACPI S4 (suspend to disk). Not all systems have persistent media that are appropriate for such suspend modes.

Note that alarm functionality depends on hardware; not every RTC is able to setup an alarm up to 24 hours in the future.

The suspend setup may be interrupted by active hardware; for example wireless USB input devices that continue to send events for some fraction of a second after the return key is pressed. **rtcwake** tries to avoid this problem and it waits to terminal to settle down before entering a system sleep.

OPTIONS

-A, --adjfile *file*

Specify an alternative path to the adjust file.

-a, --auto

Read the clock mode (whether the hardware clock is set to UTC or local time) from the *adjtime* file, where **hwclock**(8) stores that information. This is the default.

--date *timestamp*

Set the wakeup time to the value of the timestamp. Format of the timestamp can be any of the following:

YYYYMMDDhhmmss

YYYY-MM-DD hh:mm:ss

YYYY-MM-DD hh:mm (seconds will be set to 00)

YYYY-MM-DD (time will be set to 00:00:00)

hh:mm:ss (date will be set to today)

hh:mm (date will be set to today, seconds to 00)

tomorrow (time is set to 00:00:00)

+5min

-d, --device *device*

Use the specified *device* instead of **rtc0** as realtime clock. This option is only relevant if your system has more than one RTC. You may specify **rtc1**, **rtc2**, ... here.

-l, --local

Assume that the hardware clock is set to local time, regardless of the contents of the *adjtime* file.

--list-modes

List available **--mode** option arguments.

-m, --mode *mode*

Go into the given standby state. Valid values for *mode* are:

standby

ACPI state S1. This state offers minimal, though real, power savings, while providing a very low-latency transition back to a working system. This is the default mode.

- freeze** The processes are frozen, all the devices are suspended and all the processors idled. This state is a general state that does not need any platform-specific support, but it saves less power than Suspend-to-RAM, because the system is still in a running state. (Available since Linux 3.9.)
- mem** ACPI state S3 (Suspend-to-RAM). This state offers significant power savings as everything in the system is put into a low-power state, except for memory, which is placed in self-refresh mode to retain its contents.
- disk** ACPI state S4 (Suspend-to-disk). This state offers the greatest power savings, and can be used even in the absence of low-level platform support for power management. This state operates similarly to Suspend-to-RAM, but includes a final step of writing memory contents to disk.
- off** ACPI state S5 (Poweroff). This is done by calling `'/sbin/shutdown'`. Not officially supported by ACPI, but it usually works.
- no** Don't suspend, only set the RTC wakeup time.
- on** Don't suspend, but read the RTC device until an alarm time appears. This mode is useful for debugging.
- disable** Disable a previously set alarm.
- show** Print alarm information in format: "alarm: off|on <time>". The time is in `ctime()` output format, e.g. "alarm: on Tue Nov 16 04:48:45 2010".
- n, --dry-run**
This option does everything apart from actually setting up the alarm, suspending the system, or waiting for the alarm.
- s, --seconds *seconds***
Set the wakeup time to *seconds* in the future from now.
- t, --time *time_t***
Set the wakeup time to the absolute time *time_t*. *time_t* is the time in seconds since 1970-01-01, 00:00 UTC. Use the **date(1)** tool to convert between human-readable time and *time_t*.
- u, --utc**
Assume that the hardware clock is set to UTC (Universal Time Coordinated), regardless of the contents of the *adjtime* file.
- v, --verbose**
Be verbose.
- V, --version**
Display version information and exit.
- h, --help**
Display help text and exit.

NOTES

Some PC systems can't currently exit sleep states such as **mem** using only the kernel code accessed by this driver. They need help from userspace code to make the framebuffer work again.

FILES

/etc/adjtime

HISTORY

The program was posted several times on LKML and other lists before appearing in kernel commit message for Linux 2.6 in the GIT commit 87ac84f42a7a580d0dd72ae31d6a5eb4bfe04c6d.

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SEE ALSO

hwclock(8), **date(1)**

AVAILABILITY

The rtcwake command is part of the util-linux package and is available from the Linux Kernel Archive <<https://www.kernel.org/pub/linux/utils/util-linux/>>.