



OpenCore

Reference Manual (0.9.~~0~~.1)

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When this option is set, an internal menu entry id is shared between kernel versions from the same install of Linux. Linux boot options are always sorted highest kernel version first, so this means that the latest kernel version of the same install always shows as the default, with this option set.

Note: This option is recommended on all systems.

- 0x00000400 (bit 10) — `LINUX_BOOT_ADD_RO`, This option applies to autodetected Linux only (i.e. not to BLSpec or Fedora-style distributions which have `/loader/entries/*.conf` files). Some distributions run a filesystem check on loading which requires the root filesystem to initially be mounted read-only via the `ro` kernel option, which requires this option to be added to the autodetected options. Set this bit to add this option on autodetected distros; should be harmless but very slightly slow down boot time (due to required remount as read-write) on distros which do not require it. When there are multiple distros and it is required to specify this option for specific distros only, use `autoopts:{PARTUUID}+=ro` to manually add the option where required, instead of using this flag.
- 0x00000800 (bit 11) — `LINUX_BOOT_ADD_RW`, Like `LINUX_BOOT_ADD_RO`, this option applies to autodetected Linux only. It is not required for most distros (which usually require either `ro` or nothing to be added to detected boot options), but is required on some Arch-derived distros, e.g. EndeavourOS. When there are multiple distros and it is required to specify this option for specific distros only, use `autoopts:{PARTUUID}+=rw` to manually add the option where required, instead of using this flag. If this option and `LINUX_BOOT_ADD_RO` are both specified, only this option is applied and `LINUX_BOOT_ADD_RO` is ignored.
- 0x00002000 (bit 13) — `LINUX_BOOT_ALLOW_CONF_AUTO_ROOT`, In some instances of `BootLoaderSpecByDefault` in combination with `ostree`, the `/loader/entries/*.conf` files do not specify a required `root=...` kernel option – it is added by GRUB. If this bit is set and this situation is detected, then automatically add this option. (Required for example by Endless OS.)
- 0x00004000 (bit 14) — `LINUX_BOOT_LOG_VERBOSE`, Add additional debug log info about files encountered and autodetect options added while scanning for Linux boot entries.
- 0x00008000 (bit 15) — `LINUX_BOOT_ADD_DEBUG_INFO`, Adds a human readable file system type, followed by the first eight characters of the partition's unique partition uuid, to each generated entry name. Can help with debugging the origin of entries generated by the driver when there are multiple Linux installs on one system.

Flag values can be specified in hexadecimal beginning with `0x` or in decimal, e.g. `flags=0x80` or `flags=128`. It is also possible to specify flags to add or remove, using syntax such as `flags+=0xC000` to add all debugging options or `flags-=0x400` to remove the `LINUX_BOOT_ADD_RO` option.

- `autoopts:{PARTUUID}[+]="{options}"` - Default: not set.

Allows manually specifying kernel options to use in autodetect mode for a given partition only. Replace the text `{PARTUUID}` with the specific partition UUID on which the kernels are stored (in normal layout, the partition which contains `/boot`), e.g. `autoopts:11223344-5566-7788-99aa-bbccddeeff00+=vt.handoff=7`. If specified with `+=` then these options are used in addition to any autodetected options, if specified with `=` they are used instead. Used for autodetected Linux only – values specified here are never used for entries created from `/loader/entries/*.conf` files.

Note: The `PARTUUID` value to be specified here is typically the same as the `PARTUUID` seen in `root=PARTUUID=...` in the Linux kernel boot options (view using `cat /proc/cmdline`). Alternatively, and for more advanced scenarios, it is possible to examine how the distro's partitions are mounted using the Linux `mount` command, and then find out the `partuuid` of relevant mounted partitions by examining the output of `ls -l /dev/disk/by-partuuid`.

- `autoopts[+]="{options}"` - Default: None specified.

Allows manually specifying kernel options to use in autodetect mode. The alternative format `autoopts:{PARTUUID}` is more suitable where there are multiple distros, but `autoopts` with no `PARTUUID` required may be more convenient for just one distro. If specified with `+=` then these are used in addition to autodetected options, if specified with `=` they are used instead. Used for autodetected Linux only – values specified here are never used for entries created from `/loader/entries/*.conf` files.

As example usage, it is possible to use `+=` format to add a `vt.handoff` options, such as `autooptsautoopts+=vt.handoff=7`" or `autooptsautoopts+=vt.handoff=3`" (check `cat /proc/cmdline` when booted via the distro's default boot-loader) on Ubuntu and related distros, in order to add the `vt.handoff` option to the auto-detected GRUB defaults, and avoid a flash of text showing before the distro splash screen.