

How to add a kernel parameter

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How to add a kernel parameter

by rene » Sat May 22, 2021 6:21 am

Sometimes and/or for specific hardware we need to tell the Linux kernel to treat it specially through the use of a kernel parameter. Posted here as a tutorial in order to be able to quickly refer to it from posts that need the advise given.

rene Level 20

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Posts: 11373 Joined: Sun Mar 27, 2016 6:58 pm

1. Temporarily add a kernel parameter

Kernel parameters tend to be not needed generally, and adding one you often do as little other than testing. In this case it's best to just add it temporarily for one boot directly from the Grub menu, the black OS-picker menu you get when starting the computer. If you dual-boot with e.g. Windows and have not specifically adjusted things you should get said menu on startup automatically; if you single-boot you may not without on a UEFI system tapping the Esc key at the point that the boot transitions from BIOS to disk or on a Legacy system holding down Left-Shift at that time.

Once in the Grub menu you highlight the relevant Linux boot entry, use e to edit it and add the suggested kernel parameter on the "linux" line, instead of or before or after where it normally says "quiet splash". An example when the suggested kernel parameter is i915.enable fbc=0 would be

CODE: SELECT ALL

linux /boot/vmlinuz-5.8.0-53-generic root=UUID=12345678-1234-5678-9abc-123456789abc ro quiet s

Then press F10 to boot. Once booted you can verify from cat /proc/cmdline that indeed the parameter was specified.

2. "Permanently" add a kernel parameter

Permanently in the sense of not needing to provide it manually per boot: it is otherwise of course as easily undone as done. For this you add the parameter to /etc/default/grub with e.g.

CODE: SELECT ALL

sudo nano /etc/default/grub

and add to the GRUB_CMDLINE_LINUX_DEFAULT string, again instead of or before or after where it normally says "quiet splash". The example when the suggested kernel parameter is i915.enable_fbc=0 is

CODE: SELECT ALL

GRUB_CMDLINE_LINUX_DEFAULT="quiet splash i915.enable_fbc=0"

Save the file, run sudo update-grub and reboot. You can again once booted verify from cat /proc/cmdline that the parameter was specified.

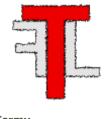
Last edited by **karlchen** on Thu Dec 30, 2021 2:57 pm, edited 1 time in total. **Reason:** Corrected the last occurrence to read: GRUB_CMDLINE_LINUX_DEFAULT="quiet splash i915.enable_fbc=0" (it was i915_enable_fbc=0. Note _ vs .)

Re: How to add a kernel parameter

■ by **Termy** » Tue Jun 22, 2021 8:32 pm

For clarification, I'd change all instances of "kernel parameter" to "kernel boot parameter", to avoid ambiguity, because they are notably different, which led to me viewing this thread thinking it was something else.

I'm also <u>Terminalforlife</u> on GitHub.



Level 10

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Re: How to add a kernel parameter



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