

Study on the configuration of the Linux kernel

Dear Linux user,

we are a team of researchers from the GSD Lab of the University of Waterloo (ON, Canada). We do research on configuration methods and algorithms and are conducting a study on the problems faced by users during the configuration of the Linux kernel. We would greatly appreciate it if you could answer the questions below. The whole questionnaire should not take you more than 15 minutes to complete.

Thank you very much for your contribution.

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* Required

What is your level of expertise in Linux? *

- Expert
- Moderate
- Newbie

For how many years have you been using Linux? *

What Linux distributions do you have experience with? *

Example: Debian, Gentoo and Ubuntu

What types of project have you been configuring the Linux kernel for? *

Example: personal use

How often do you reconfigure the Linux kernel? *

Example: a few times per year

What default configuration do you generally use to start the configuration of the kernel? *

- Default configuration provided by the distribution
- Copy of an existing configuration
- Configuration available online
- Other:

Which configuration frontend do you use most frequently? *

- menuconfig
- xconfig
- Other:

How many changes (e.g. enabling an option or setting an attribute value) to the default configuration do you usually make? Please provide a range. *

Example: between 50 and 100

Some options can sometimes be inactive (hidden or greyed), i.e. they can neither be selected nor deselected. Please estimate the number of inactive options you need to activate per project. Please give a range. *

Example: between 10 and 20

How do you usually proceed to activate an option that is inactive? *

- I know from experience what other options to enable/disable to activate it
- I follow the constraints documented in the help menu
- I ask for a solution on a mailing list/forum
- Other:

On average, how long does it take to find out how to activate an inactive option? *

- A few minutes
- A few dozen minutes
- A few hours
- A few days
- I do not remember

If possible, describe an example from your own experience in which the activation of an option posed problem. Please, explain your sequence of decisions as precisely as possible and report the version of the kernel and the Linux distribution.

Example: My kernel version is 2.6.28. It is the vanilla version provided with Debian. (1) I wanted to enable the MPS table but it was not active. (2) So, I looked into in the help menu and noticed that it depends on X86_LOCAL_APIC. (3) I looked it up with the search tool, but I couldn't find it. (4) I then

found and enabled ACPI, the second option in the dependency constraint. (5) The selection of ACPI eventually activated the MPS table.



How many users are usually involved in the configuration activity? *

If more than one user is involved, are there conflicts between their decisions?

- Yes
 No

If you answered yes to the previous question, how do you handle these conflicts?



What other difficulties do you encounter during configuration?



We would highly appreciate having an opportunity to follow up on some of your answers. If you do not mind being contacted for further questions, please enter your email address below.

Please enter your initials below. This information will only be used to help us identify double submissions. *

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