

KDGKBENT and unicode

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Dear linux-kernel,

I am trying to read keyboard in raw mode (`K_MEDIUMRAW`, to be exact). I hope to avoid reading all the keymaps from the kernel to the application for keycode translation. Therefore I call `KDGKBENT ioctl` for every keycode I get from the tty. Basically this works except, when the translation result is an unicode keysym or should I say the unicode value happens to be greater than `0xFF`, I get `K_HOLE`.

This observation seems to be in harmony with the `drivers/char/vt_ioctl.c` code. There I learned that, if I had the keyboard in the `K_UNICODE` mode, I could get directly the 16 bit unicode values.

So I have two options:

- 1) Read the keymaps in `K_UNICODE` mode and do the translations myself while in `K_MEDIUMRAW` mode
- 2) For each keycode switch to `K_UNICODE` mode, ask the translation from kernel, switch back to `K_MEDIUMRAW` mode and read the next keycode (the continuous switching might have severe side effects).

The question is am I correct so far or am I miserably confused? Aren't there any smarter ways to do the translation?

The next question probably must be how do I handle CAPS with kernel keymaps? As the CAPS sensitivity is encoded in the type field of keysym value, it is lost when the value is 16 bit unicode. I am seeing this phenomenon in ordinary VT when I manage to load some keysyms as 16 bit unicode.

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Timo

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