NAME

atkbd - the AT keyboard interface

SYNOPSIS

options ATKBD_DFLT_KEYMAP
makeoptions ATKBD_DFLT_KEYMAP=_keymap_name_
options KBD_DISABLE_KEYMAP_LOAD
device atkbd

In */boot/device.hints*:
hint.atkbd.0.at="atkbdc"
hint.atkbd.0.irq="1"

DESCRIPTION

The **atkbd** driver, together with the **atkbdc** driver, provides access to the AT 84 keyboard or the AT enhanced keyboard which is connected to the AT keyboard controller.

This driver is required for the console driver syscons(4) or vt(4).

There can be only one **atkbd** device defined in the kernel configuration file. This device also requires the **atkbdc** keyboard controller to be present. The *irq* number must always be 1; there is no provision of changing the number.

Function Keys

The AT keyboard has a number of function keys. They are numbered as follows and can be associated with strings by the kbdcontrol(1) command. You can use a keyboard map file (see kbdmap(5)) to map them to arbitrary keys, particularly the functions in the range from 65 to 96 which are not used by default.

Function Key number	Function Key
1, 2,...12	F1, F2,... F12
13, 14,...24	Shift+F1, Shift+F2,... Shift+F12
25, 26,...36	Ctl+F1, Ctl+F2,... Ctl+F12
37, 38,...48	Shift+Ctl+F1, Shift+Ctl+F2,... Shift+Ctl+F12
49	Home and Numpad 7 (without NumLock)
50	Up Arrow and Numpad 8 (without NumLock)
51	Page Up and Numpad 9 (without NumLock)
52	Numpad -
53	Left Arrow and Numpad 4 (without NumLock)
54	Numpad 5 (without NumLock)

55	Right Arrow and Numpad 6 (without NumLock)
56	Numpad +
57	End and Numpad 1 (without NumLock)
58	Down Arrow and Numpad 2 (without NumLock)
59	Page Down and Numpad 3 (without NumLock)
60	Ins and Numpad 0 (without NumLock)
61	Del
62	Left GUI Key
63	Right GUI Key
64	Menu
65, 66,...96	free (not used by default)

See the man page for the kbdcontrol(1) command for how to assign a string to the function key.

DRIVER CONFIGURATION
Kernel Configuration Options
The following kernel configuration options control the **atkbd** driver.

ATKBD_DFLT_KEYMAP

> This option sets the default, built-in keymap of the **atkbd** driver to the named keymap. See *EXAMPLES* below.

KBD_DISABLE_KEYMAP_LOAD

> The keymap can be modified by the kbdcontrol(1) command. This option will disable this feature and prevent the user from changing key assignment.

Driver Flags
The **atkbd** driver accepts the following driver flags. They can be set either in */boot/device.hints*, or else from within the boot loader (see loader(8)).

bit 0 (FAIL_IF_NO_KBD)

> By default the **atkbd** driver will install even if a keyboard is not actually connected to the system. This option prevents the driver from being installed in this situation.

bit 1 (NO_RESET)

> When this option is given, the **atkbd** driver will not reset the keyboard when initializing it. It may be useful for laptop computers whose function keys have special functions and these functions are forgotten when the keyboard is reset.

bit 2 (ALT_SCANCODESET)

Certain keyboards, such as those on some ThinkPad models, behave like the old XT keyboard and require this option.

bit 3 (NO_PROBE_TEST)
When this option is given, the **atkbd** driver will not test the keyboard port during the probe routine. Some machines hang during boot when this test is performed.

EXAMPLES
The **atkbd** driver requires the keyboard controller **atkbdc**. Thus, the kernel configuration file should contain the following lines.

    device atkbdc
    device atkbd

The following example shows how to set the default, built-in keymap to *jp.106.kbd*.

    device atkbdc
    options ATKBD_DFLT_KEYMAP
    makeoptions ATKBD_DFLT_KEYMAP=jp.106
    device atkbd

In both cases, you also need to have following lines in */boot/device.hints*.

    hint.atkbdc.0.at="isa"
    hint.atkbdc.0.port="0x060"
    hint.atkbd.0.at="atkbdc"
    hint.atkbd.0.irq="1"

SEE ALSO
kbdcontrol(1), atkbdc(4), psm(4), syscons(4), vt(4), kbdmap(5), loader(8)

HISTORY
The **atkbd** driver first appeared in FreeBSD 3.1.

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