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U S E R M A N U A L

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1) FOR DRIVER BUILD

Goto source code directory mbt_src/.
make [clean] build
The driver binary can be found in ../bin_xxxx_btchar directory.

2) FOR DRIVER INSTALL

a) Copy sd8790.bin | sd8787.bin | ... to /lib/firmware/mrvl/ directory,
create the directory if it doesn't exist.
b) Install bluetooth driver,
insmod bt8688.ko | bt8790.ko | mbt8787.ko | ...
c) Uninstall bluetooth driver and sdio bus driver,
hciconfig hciX down
rmmod bt8xxx | mbt8xxx

The mbtchar driver should be loaded first.
insmod mbtchar.ko

3) cat /proc/mbt/hcix/status

This command is used to get driver status.

4) cat /proc/mbt/hcix/config

This command is used to get the current driver settings.

5) proc commands to config bluetooth parameters

drvdbg=[n]
This command is used to set the bit masks of driver debug message control.

```
bit 0:  MSG             PRINTM(MSG,...)
bit 1:  FATAL           PRINTM(FATAL,...)
bit 2:  ERROR           PRINTM(ERROR,...)
bit 3:  DATA            PRINTM(DATA,...)
bit 4:  CMD             PRINTM(CMD,...)
bit 5:  EVENT           PRINTM(EVENT,...)
bit 6:  INTR            PRINTM(INTR,...)
...
bit 16: DAT_D           PRINTM(DAT_D,...), DBG_HEXDUMP(DAT_D,...)
bit 17: CMD_D           PRINTM(CMD_D,...), DBG_HEXDUMP(CMD_D,...)
...
bit 28: ENTRY           PRINTM(ENTRY,...), ENTER(), LEAVE()
bit 29: WARN            PRINTM(WARN,...)
bit 30: INFO            PRINTM(INFO,...)
```

Usage:
echo "drvdbg=0x7" > /proc/mbt/hcix/config #enable MSG,FATAL,ERROR messages

gpio_gap=[n]
This command is used to configure the host sleep parameters.

bit 8:0 -- Gap
bit 16:8 -- GPIO
where GPIO is the pin number of GPIO used to wakeup the host. It could be any valid
GPIO pin# (e.g. 0-7) or 0xff (Interface, e.g. SDIO will be used instead).

where Gap is the gap in milli seconds between wakeup signal and wakeup event
or 0xff for special setting.

Usage:

```
echo "gpio_gap=0xff80" > /proc/mbt/hcix/config          # use Interface (e.g. SDIO)
echo "hscfgcmd=1" > /proc/mbt/hcix/config               # gap = 0x80

echo "gpio_gap=0x03ff" > /proc/mbt/hcix/config          # use gpio 3
echo "hscfgcmd=1" > /proc/mbt/hcix/config               # and special host sleep mode
```

psmode=[n]

This command is used to enable/disable auto sleep mode

where the option is:

```
1       -- Enable auto sleep mode
0       -- Disable auto sleep mode
```

Usage:

```
echo "psmode=1" > /proc/mbt/hcix/config                 #enable power save mode
echo "pscmd=1" > /proc/mbt/hcix/config

echo "psmode=0" > /proc/mbt/hcix/config                 #disable power save mode
echo "pscmd=1" > /proc/mbt/hcix/config
```

6) Use hcitool to issue raw hci command, refer to hcitool manual

Usage: Hcitool cmd <ogf> <ocf> [Parameters]

1. Interface Control Command

```
hcitool cmd 0x3f 0x5b 0xf5 0x01 0x00    --Enable All interface
hcitool cmd 0x3f 0x5b 0xf5 0x01 0x01    --Enable Wlan interface
hcitool cmd 0x3f 0x5b 0xf5 0x01 0x02    --Enable BT interface
hcitool cmd 0x3f 0x5b 0xf5 0x00 0x00    --Disable All interface
hcitool cmd 0x3f 0x5b 0xf5 0x00 0x01    --Disable Wlan interface
hcitool cmd 0x3f 0x5b 0xf5 0x00 0x02    --Disable BT interface
```

7) cat /proc/mbt/hcix/debug

This command is used to get driver debug parameters.

8) proc command to config debug parameters

sdcmd52rw=<func> <reg> [data]

This command is used to read/write a controller register in
Secure Digital I/O Interfaces.

func: The function number to use (0-7)
reg: The address of the register
data: The value to write, read if the value is absent

For SDIO MMC driver, only function 0 and BT function (2/3) access is allowed.
And there is a limitation for function 0 write, only vendor specific CCCR
registers (0xf0 -0xff) are permiited.

Usage:

```
echo "sdcmd52rw= 2 3 0xf" > /proc/mbt/hcix/debug        # write 0xf to func 2 address 3
echo "sdcmd52rw= 0 4" > /proc/mbt/hcix/debug            # read func 0 address 4
```

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