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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`  
`rmmmod 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	<code>PRINTM(MSG,...)</code>
bit 1:	FATAL	<code>PRINTM(FATAL,...)</code>
bit 2:	ERROR	<code>PRINTM(ERROR,...)</code>
bit 3:	DATA	<code>PRINTM(DATA,...)</code>
bit 4:	CMD	<code>PRINTM(CMD,...)</code>

	README..txt
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:

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

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:

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

```
gpio 3 echo "gpio_gap=0x03ff" > /proc/mbt/hcix/config # use
```

```
special host sleep mode echo "hscfgcmd=1" > /proc/mbt/hcix/config # and
```

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:

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

```
echo "pscmd=1" > /proc/mbt/hcix/config
```

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

```
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 permitted.

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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