

FXSTEST TOOL

Fxstest has a number of simple tests for DAHDI FXS adapters, which can be used to test stats, polarity, dtmf and so on.

Hardware Environment

A800P(2FXS+1FXO)

A400P(2FXS+1FXO)

BBK HCD007(6082)TSDL

Software Environment

Centos 5.5

dahdi-linux-complete-2.3.0.1+2.3.0

Compiling and installation

1. Please input following commands:

```
#cd /usr/src/dahdi-linux-complete-2.3.0.1+2.3.0/tools
```

```
#make menuselect
```

And select "fxstest" like the following instruction:

```
[*] fxotune
[*] fxstest
[*] sethdlc
[*] dahdi_cfg
[ ] dahdi_diag
[*] dahdi_monitor
[*] dahdi_scan
[*] dahdi_speed
[*] dahdi_test
[*] dahdi_tool
```

Then Save&Exit.

2. Beginning to compile dahdi. Input commands like below:

```
#cd /usr/src/dahdi-linux-complete-2.3.0.1+2.3.0
```

```
#make
```

```
#make install
```

```
#make config
```

3. Reloading the drivers. Perform the following command:

```
#service dahdi stop
```

```
#modprobe -r wctdm
# modprobe -r opvxa1200
#modprobe -r dahdi
#modprobe dahdi
#modprobe opvxa1200 opermode=YOUR COUNTRY
#modprobe wctdm opermode= YOUR COUNTRY
#dahdi_genconf
#dahdi_cfg -vvv(If there is no error,then installed OK)
#dahdi_scan(It prints information about DAHDI spans in the system.For analog
spans it provides a list of channels.)
```

=====

```
[root@localhost~]# dahdi_scan
```

```
[1]
```

```
active=yes
alarms=OK
description=OpenVox A1200P/A800P Board 13
name=OPVXA1200/12
manufacturer=OpenVox
devicetype=OpenVox A1200P/A800P
location=PCI Bus 01 Slot 03
basechan=1
totchans=8
irq=225
type=analog
port=1,FXS
port=2,FXS
port=3,FXO
port=4,none
port=5,none
port=6,none
port=7,none
port=8,none
```

```
[2]
```

```
active=yes
alarms=OK
description=Wildcard TDM400P REV E/F Board 5
name=WCTDM/4
manufacturer=Digium
devicetype=Wildcard TDM400P REV E/F
```

location=PCI Bus 01 Slot 05
basechan=9
totchans=4
irq=66
type=analog
port=9,FXO
port=10,none
port=11,FXS
port=12,FXS

=====

Beginning to test

All of those tests operate on a single dahdi channel which has to be an FXS port, and must not be in use by Asterisk or any other program. Analog adapters should be intended to connect phones.

The command has two mandatory parameters. The first parameter is the device file to operate on. It is typically `/dev/dahdi/NN`, a device file under `/dev/dahdi`.

The second parameter is the name of the command to run on that channel:

stats - reports voltages

regdump - dumps ProSLIC registers

tones - plays a series of tones

polarity - tests polarity reversal

ring - rings phone

vmwi - toggles VMWI LED lamp

hvdc - toggles VMWI HV lamp

neon - toggles VMWI NEON lamp

dtmf <sequence> [<duration>]- Send a sequence of dtmf tones ("-" denotes no tone)

dtmfcid - create a dtmf cid spill without polarity reversal

1. Reporting voltages:

```
# fxstest /dev/dahdi/1 stats //A800P volts of channel 1
```

=====

TIP: -5.6400 Volts

RING: -54.1440 Volts

VBAT: -62.7920 Volts

=====

```
#fxstest /dev/dahdi/11 stats //A400P volts of channel 3
```

```
=====
TIP: -5.6400 Volts
RING: -54.8960 Volts
VBAT: -63.9200 Volts
=====
```

2. Dumping ProSLIC registers:

```
# fxstest /dev/dahdi/1 regdump //A800P registers of channel1
```

```
=====
Direct registers:
0. 05    1. 28    2. 18    3. 00    4. 18    5. 00    6. 00    7. 00
8. 00    9. 00   10. 08   11. 33   12. 80   13. 10   14. 00   15. 00
....
```

Indirect registers:

```
0. 55c2    1. 51e6    2. 4b85    3. 4937    4. 3333    5. 0202
6. 0202    7. 0198    8. 0198    9. 0611   10. 0202   11. 00e5
....
=====
```

```
# fxstest /dev/dahdi/11 regdump //A400P registers of channel 3
```

```
=====
Direct registers:
0. 05    1. 28    2. 08    3. 00    4. 08    5. 00    6. 00    7. 00
8. 00    9. 00   10. 08   11. 33   12. 00   13. 20   14. 00   15. 00
...

```

Indirect registers:

```
0. 55c2    1. 51e6    2. 4b85    3. 4937    4. 3333    5. 0202
6. 0202    7. 0198    8. 0198    9. 0611   10. 0202   11. 00e5
...
=====
```

3. Playing a series of tones:

```
# fxstest /dev/dahdi/1 tones
```

Then picking up the phone, you could hear of a series of tones. Press Ctrl+C to stop this command.

4. Creating a dtmf cid spill without polarity reversal:

```
#fxstest /dev/dahdi/1 dtmfcid
```

=====

Going to send a set of DTMF tones >A5551212C<

Phone is ringing

Ringling Done

=====

When the phone is ringing,you can see the pre-set dtmf cid on the phone.

5. Testing polarity reversal(This test must be followd in creating a dtmf cid):

```
# fxstest /dev/dahdi/1 polarity
```

=====

Twiddling polarity...

Polarity is forward...

Polarity is reversed...

Polarity is forward...

=====

6. Sending a sequence of dtmf tones:

```
# fxstest /dev/dahdi/1 dtmf "12324" 70
```

=====

Going to send a set of DTMF tones >12324<

Using a duration of 70 mS per tone

=====

Then you can see the set of DTMF tones"12324" sent on the phone.

Note:The duration should be 70ms or above to display whole sequence on the phone.

7. Toggling VMWI lamp(A800P not supported):

```
# fxstest /dev/dahdi/11 vmwi
```

=====

Twiddling vmwi ...

Set 1 Voice Message...

Set 2 Voice Messages...

Set No Voice messages...

=====

```
# fxstest /dev/dahdi/11 hvdc
```

=====

Twiddling hvdc ...

Set 1 Voice Message...

Set 2 Voice Messages...

Set No Voice messages...

=====

fxstest /dev/dahdi/11 neon

=====

Twiddling neon ...

Set 1 Voice Message...

Set 2 Voice Messages...

Set No Voice messages...

=====