

CFG_Device

COLLABORATORS

	<i>TITLE :</i> CFG_Device		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
WRITTEN BY		December 31, 2022	

REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

1	CFG_Device	1
1.1	Device	1
1.2	SerialDevice	2
1.3	SerialBaud	3
1.4	ModemDebug	3
1.5	ModemLog	4
1.6	EchoRetries	4
1.7	ReOpenRetries	4
1.8	ReOpenDelay	4
1.9	LockUpScript	5
1.10	MaxCommandWait	5
1.11	DelayBetweenCommands	6
1.12	TildeDelay	6
1.13	TurnOnEcho_XX	6
1.14	TurnOnEchoDelay	7
1.15	ModemInit_XX	7
1.16	StrictConnect	8
1.17	StrictConnectStr_XX	8
1.18	RelaxedConnectStr_XX	8
1.19	UseDTRHangup	9
1.20	CommandModeString_XX	9
1.21	HangUpString	10
1.22	OffHookString	10
1.23	Incoming	10
1.24	ImmediateAnswer	11
1.25	UseCRLF	11
1.26	DumpModem	11

Chapter 1

CFG_Device

1.1 Device

```
>> Quick Access Buttons  EDIT
```

```
HBBS:Nodes/Node<XX>/Device
=====
```

Description:

The HBBS:Nodes/NodeX/Device file defines the device and modem config for the node in which the file is placed.

To make a node a local node set the option UseDevice to FALSE

Notes:

We hope the modem configuration options are complete enough for all sysops. the modem settings are normally a real pain to get right on other bbs systems so we have tried to make this VERY configurable. if you would like to see a new feature added to this then PLEASE CONTACT US IMMEDIATLY and we will do are very best to implement it as soon as we can!

Note: most of the setting in this config file should work with all 100% hayes compatiabile modems, but there is bound to be one make of modem that might not support the defaults in this file, in anycase, please check these settings with the manual for your modem just in case.

We recommend you use USRobotics/Miracom modems with this bbs software as they are extremly good and reliable modems.

Important: Your Modems Local Echo Should Be Turned ON, unlike most bbs software this software checks that the modem is actually receving the commands that you want to send to it! See

```
TurnOnEcho_XX
```

Important: Your Modem MUST be set to use HARDWARE flow control ↔
rather

than XON/XOFF flow control. See

```
ModemInit_XX
```

```
.
```

Options:

```

SerialDevice=<path>
    ?
    SerialBaud=<numeric>
    ?
    ModemDebug=<boolean>
    ?
    ModemLog=<boolean>
    ?
    DumpModem=<boolean>
    ?
    UsrCRLF=<boolean>
    ?
    EchoRetries=<numeric>
    ?
    ReOpenRetries=<numeric>
    ?
    ReOpenDelay=<numeric>
    ?
    LockUpScript=<path>
    ?
    MaxCommandWait=<numeric>
    ?
    DelayBetweenCommands=<numeric>
    ?
    TildeDelay=<numeric>
    ?
    TurnOnEcho_XX=<SystemString>
    ?
    TurnOnEchoDelay=<numeric>
    ?
    ModemInit_XX=<SystemString>
    ?
    StrictConnect=<boolean>
    ?
StrictConnectStr_XX=<SystemString>
    ?

RelaxedConnectStr_XX=<SystemString>
    ?
    UseDTRHangup=<boolean>
    ?
    CommandModeString_XX=<SystemString>
    ?
    HangUpString=<SystemString>
    ?
    OffHookString=<SystemString>
    ?
    Incoming=<SystemString>
    ?
    ImmediateAnswer=<string>
    ?

```

1.2 SerialDevice

SerialDevice=<path>

E.G.

```
SerialDevice=USRSerial.device
SerialDevice=BBS:Devs/serial.device
```

No Default, Must Be Specified!

serial device driver to use for the node, usually just serial.device
note that this command is case sensitive.

we recommended you that you use USRSerial.device for usrobotics modems
and BaudBandit.device for other modems, these serial drivers are more
streamlined, efficient and use less CPU time than the standard C= one.

1.3 SerialBaud

SerialBaud=<numeric>

E.G.

```
SerialBaud=38400
```

No Default, Must Be Specified!

This option defines the rate in which data is sent to the modem in bit's
per second (baud). You may use any rate that your serial device driver
and modem support. Some common values are: 2400, 9600, 19200, 38400, 57600

It's best to use one setting higher than the maximum baud rate of your modem
so if you use a 9600 modem then set your rate to 19200 etc..

1.4 ModemDebug

ModemDebug=<boolean>

E.G.

```
ModemDebug=TRUE
```

Default = FALSE

this option, if enabled, will make the node open a small window
on it's screen into which you will see all commands sent to the
modem and all responses received back from it you can also have these
saved to a log file by enabling the ModemLog option (below)
(note that clicking the "ModemDebug" button and on a node button from the
gui will override this setting for as long as the node is active)

1.5 ModemLog

ModemLog=<boolean>

E.G.

ModemLog=TRUE

Default = FALSE

If enabled all input and output from the modem will be saved in a time and datestamped file (see BBS:Nodes/NodeX/NodeLocal file, option ModemLogFile= setting)

1.6 EchoRetries

EchoRetries=<numeric>

E.G.

EchoRetries=6

Default = 4

number of retries the software will make before resending the TurnEchoOn string

1.7 ReOpenRetries

ReOpenRetries=<numeric>

E.G.

ReOpenRetries=4

Default = 2

number of retries the software will make AFTER the echoretries before the serial device driver is closed and reopened.

1.8 ReOpenDelay

ReOpenDelay=<numeric>

E.G.

ReOpenDelay=60

Default = 120

Time to wait after closing the serial device before reopening it.

Note: 60 per second. so to wait 2 seconds use 120.

To recap the previous 3 options (EchoRetries, ReOpenRetries, ReOpenDelay) using the defaults for each option, The node will send a command to the modem, if the modem fails to respond with OK the bbs will retry the command 4 times, then it will send the TurnEchoOn string to the modem, then it'll try a further 2 times to send the command, if that fails the node will close the serial device and reopen it after the delay specified in ReOpenDelay.

Using the above three settings we can pretty much cope for any strange error that might cause a modem to lockup. Obviously if the modem has totally locked up and does not respond at all someone will still have to powercycle the modem by hand.

See

LockUpScript
for a really cool feature.

1.9 LockUpScript

LockUpScript=<path>

E.G.

LockUpScript=HBBS:Scripts/Lockup.scr

No Default. Need Not Be Specified.

Now comes a really great feature, if the modem does lockup totally (see above) the script specified by this command will be run. So in theory you could have a little IO device on your parallel port connected to the power of your modem (via a relay or something) that could actually turn the modem off and on again!!

Now how's that for failsafe bbs lockup protection!! :-)

1.10 MaxCommandWait

MaxCommandWait=<numeric>

E.G.

MaxCommandWait=2

Default = 10

Note: Value is in SECONDS

Max time to wait before OK or ERROR is received from the modem.

1.11 DelayBetweenCommands

DelayBetweenCommands=<numeric>

E.G.

DelayBetweenCommands=5

Default = 10

Note: 60 per second, so use 120 for 2 seconds

Delay to wait before sending another command after OK is received.
normally set this to about 5-20 or so.

1.12 TildeDelay

TildeDelay=<numeric>

E.G.

TildeDelay=40

Default = 30

Specifies how long the software should wait before sending another character to the modem

1.13 TurnOnEcho_XX

TurnOnEcho=<String>

E.G.

TurnOnEcho_1=ATE1

No Default, Must Be Specified!

This command is sent to the modem as soon as the serial device driver is opened, note that the bbs software WILL NOT verify that this command has been sent as the modem's local echo setting may be off so we cannot check for the characters coming back from the serial port until this command has been completed, also make sure that the modem is setup so that

when a command completed it returns either OK or ERROR rather than a numerical result code (for USR Modems use ATE1Q0V1)

1.14 TurnOnEchoDelay

TurnOnEchoDelay=<numeric>

E.G.

TurnOnEchoDelay=30

Default = 20

Specifies the delay to wait after sending the TurnOnEcho_XX strings to the ← modem

(note: that turnonecho_xx cannot check what's coming from the modem to see if the command was sent ok, so if you get problems with the bbs sending the next command to quickly then increase this value.)

1.15 ModemInit_XX

ModemInit_XX=<String>

E.G.

ModemInit_1=ATZ

ModemInit_2=ATS0=3%Cl&K3HOM1

No Default, Must be Set

Modem INIT's get sent when the node is started, a user logs off and when the node is reset.

Above are the preferred defaults for a USR Courier

This bbs software lets the modem answer the call itself using the modems own auto answer method, so make sure auto answer is set to ON in the init string.

Normal Hayes Compatable modems use the S0 register to set auto answer, it's best to make the modem answer after 2 or 3 rings, to give those people going through some sort of international gateway or operator to put the modem on after they have finished speaking to an operator.

You can also enable things like data compression/error correction and such like in this string.

You also have to do the following in the initstring..

Turn Speaker On [optional] (ATM1) (so you can hear the connects)

Turn Hardware Flow control ON and software flow control OFF (AT&K3)

Make The Modem go on-hook (ATH0) (so calls can be received)

Turn Auto Answer on (ATS0=<RINGCOUNG>)

1.16 StrictConnect

StrictConnect=<boolean>

E.G.

StrictConnect=TRUE

Default = FALSE

When enabled the bbs will only allow connections if the connect string received from the modem matches up with the strings defined in

StrictConnectStr_XX

If this is OFF (the default) then the strings will be matched with the ←

strings defines in

RelaxedConnectStr_XX

, the difference between relaxed

and strict connect strings is that relaxed strings may contain wildcards and strict strings cannot.

1.17 StrictConnectStr_XX

StrictConnectStr_XX=<string>

E.G.

StrictConnectStr_1=CONNECT 9600/ASL

StrictConnectStr_2=CONNECT 14400/V32/ASL

StrictConnectStr_3=CONNECT 16800/HST/ASL/V42

StrictConnectStr_4=CONNECT 21600/V34/ASL/LAPM

No Default, Need Not Be Set (But you must use one or the other of Relaxed ConnectStr_XX or StrictConnectStr_XX)

When

StrictConnect

is enabled the bbs software will search incoming lines of text from the modem to see if they match up with one of the strings specified in strictconnectstr_xx, if it does it will allow a login, if it does not match EXACTLY then the bbs will drop carrier on the caller, this is great for security but no good for catering for all types of connect as there could well be quite a few! :-)

1.18 RelaxedConnectStr_XX

RelaxedConnectStr_XX=<string>

E.G.

```
RelaxedConnectStr_1=CONNECT 9600#?
RelaxedConnectStr_2=CONNECT 14400#?
RelaxedConnectStr_3=CONNECT 16800#?
RelaxedConnectStr_4=CONNECT 21600#?
```

No Default, Need Not Be Set (But you must use one or the other of Relaxed ConnectStr_XX or StrictConnectStr_XX)

When

StrictConnect is DISABLED the bbs software will search incoming lines of text from the modem to see if they match up with one of the strings specified in relaxedconnectstr_xx. Relaxed connect string allow wildcards so you can set your bbs to drop carrier on users lower than certain baud rates even before they are shown ANY text! (Great for confusing lamers with slow modems) ←

1.19 UseDTRHangup

UseDTRHangup=<boolean>

E.G.

```
UseDTRHangup=FALSE
```

Default = TRUE

If enabled (default) the bbs software will drop DTR (data terminal ready) to hang the modem up instead of sending the CommandModeString and the HangUpString. This mode is quicker and more reliable but not all modems support it...

1.20 CommandModeString_XX

CommandModeString_XX=<string>

E.G.

```
CommandModeString_1=~~~~+++~~~
```

No Default, Must be set if UseDTRHangup is off!

When the system needs to hang up the modem or needs to enter your modems command mode for some other reason these are the strings it sends to it.

Note: this command will wait for an OK string from the modem before

```
continuing (it will wait for the amount of time specified in
    MaxCommandWait
)
```

this string is NOT used if UseDTRHangup is enabled

1.21 HangUpString

```
HangUpString=<string>
```

E.G.

```
HangUpString=ATH0
```

Default = ATH

This string is used after the CommandModeString_XX has been sent to tell the modem to hang up.

This string is NOT used if UseDTRHangup is enabled

1.22 OffHookString

```
OffHookString=<string>
```

E.G.

```
OffHookString=ATMOH1
```

Default = ATH1

This string is sent to the modem so that another caller gets the Engaged Tone this is so that when the bbs is resetting noone tries to connect..

1.23 Incoming

```
Incoming=<string>
```

E.G.

```
Incoming=RING
```

No Default, Must be set.

When this string is detected the bbs knows that there is an incoming call, it's used by the AwaitConnect door to log all times and dates of calls, so you can build up a list of failed connects!

1.24 ImmediateAnswer

ImmediateAnswer=<string>

E.G.

ImmediateAnswer=ATA

No Default, Must be set.

When the bbs is waiting for a call you can press F3 and this string will be sent to the modem to try and get it to answer an incoming call, this is handy if you've just been talking voice to a user and want to go on-line without having to hang up.

To do this get the other person to type ATD on their modem, but don't press return yet, then press F3, put your handset down. The other user should hear the line go quiet. When it does they should press return and put their handset down. It's simple in practise, honest! :-)

1.25 UseCRLF

UseCRLF=<boolean>

E.G.

UseCRLF=TRUE

Default = FALSE

By default hbbs only add's a \n to commands set to the modem, if you enable this option HBBS will add a \n and a \r to the modem command

The reason for this is that some .device's don't like CRLF's

1.26 DumpModem

DumpModem=<boolean>

E.G.

DumpModem=TRUE

Default = FALSE

If you enable this option all modem output will be output to the screen. This is usefull if you are having problems with your modem, you can see **EXACTLY** what it is returning to HBBS.
