

V100 VERSATILE MULTIPLEXER

V100 Terminal Mode Interface

For Multiple Configuration Menu Pages

P1.03	20-5-03				Robert Ruth
P1.02	15-3-02				Robert Baker
VERSION	DATE	APPRAISAL AUTHORITY		ORIGINATOR	

V100 Versatile Multiplexer

TABLE OF CONTENTS

<i>TABLE OF CONTENTS</i>	2
1 <i>Introduction</i>	4
2 <i>General</i>	5
2.1 Preparation	5
2.2 Entry into Terminal mode	6
2.3 Command syntax.....	7
2.4 Using batch files.....	8
3 <i>System Configuration Page</i>	9
3.1 System Page Test	10
3.2 System Page Parameter Tests	12
3.2.1 Configuration by Remote.....	12
3.2.2 Node ID.....	12
3.2.3 Active Configuration (Allowed Range from 1 to 7).....	12
3.2.4 Edit Configuration (Allowed Range from 1 to 7).....	13
3.2.5 Alarm Delay	13
3.2.6 Alarm Mode	14
3.2.7 Country.....	14
3.2.8 HSC Mode.....	15
3.2.9 HSC Rxc	15
3.2.10 HSC Txc.....	16
3.2.11 Connection Timeout.....	16
3.2.12 Recieve Ready Filter	16
3.2.13 Data Channel Activation.....	17
3.2.14 Data Channel Flag.....	17
3.2.15 Async Buffer Size (Allowed Range from 8 to 32)	18
3.3 Data Channel Configuration	19
3.3.1 Data Channel Page Test	19
3.4 Data Page Parameter Tests.....	21
3.4.1 Iface.....	21
3.4.2 Mode	21
3.4.3 Type	22
3.4.4 Format	22
3.4.5 RX clock Rate (Asynchronous)	23
3.4.6 RX clock Rate	23
3.4.7 RX clock Source	24
3.4.8 RX clock Ref.....	24
3.4.9 TX clock Rate	25
3.4.10 TX clock Source.....	25
3.4.11 TX clock Ref.....	26
3.4.12 Destination	26
3.5 Voice Configuration Page	28
3.6 Voice Page Parameter Tests.....	30
3.6.1 ClkRef.....	30
3.6.2 SigType	30
3.6.3 Interface	31

V100 Versatile Multiplexer

3.6.4	Algorithm	31
3.6.5	Input Gain	33
3.6.6	Output Gain.....	34
3.6.7	Destination	35
3.7	ISDN Configuration Page	36
3.8	ISDN Page Parameter Test	39
3.8.1	Dialled Number.....	39
3.8.2	Alternate Number.....	40
3.8.3	Link Mode.....	40
3.8.4	Link Fallback	40
3.8.5	Link Holdoff	41
3.8.6	Grx Clock Reference.....	41
3.8.7	Gtx Clock Reference.....	42
3.8.8	Connection Timeout.....	42
3.8.9	Spids.....	43
3.8.10	ISDN Version.....	43
3.9	ISDN BRI Extender	44
3.10	BRI Parameter Tests	44
3.10.1	Mode	44
3.10.2	Rate	44
3.10.3	Rx Clock Reference	45
3.10.4	Tx Clock Reference	45
3.10.5	Activity.....	46
3.10.6	Destination	46
3.11	DIRECTORY.....	48
3.12	Routing.....	50
3.13	TDM.....	52
3.14	Audio.....	53
4	<i>TTY CNC Mode</i>	54
4.1	System Show command	54
4.2	System Page Parameter Test.....	56
4.3	Data Channel Test.....	62
4.4	Voice Channel Config Test.....	64
5	<i>Supplementary</i>	66
5.1	Stats Commands.....	66

1 INTRODUCTION

This document details the protocol and command format for the V100 Terminal mode interface available using the V100 supervisor port.

The V100 configuration has been enhanced to support a range of new features, the most fundamental of which is the addition of MULTIPLE configurations. This feature allows the entry of up to seven configurations, only one of which is active at any time. This is achieved through the use of one ACTIVE configuration and six EDIT configurations, selected on the System page. The following menu pages are affected:

- VOICE Page
- DATA Page
- ISDN BRI EXTENDER Page
- ISDN Page (NetBricks/Panic Pump)
- ROUTING Page
- AUDIO Page.

The System Page and the Directory page are not multi configurable.

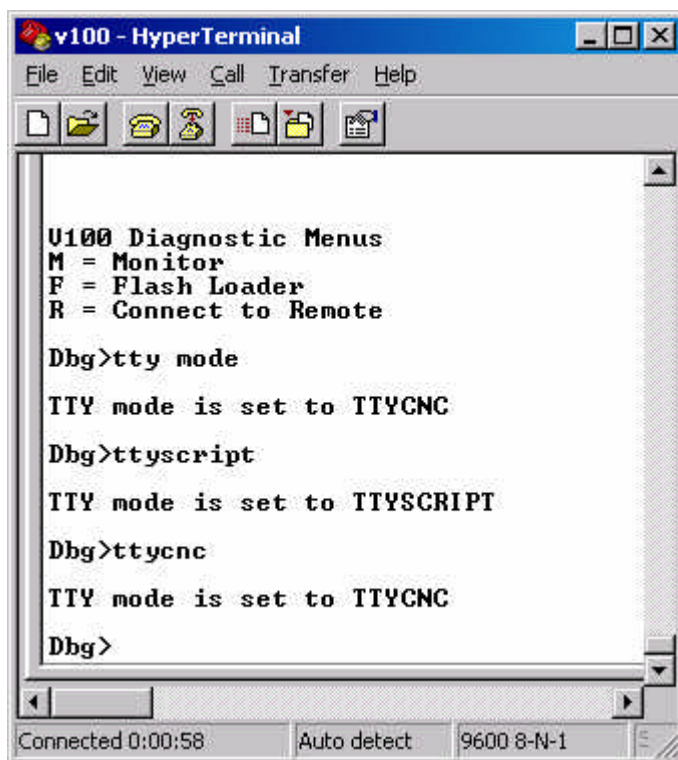
2 GENERAL

2.1 Preparation

The operator can converse with a V100 using a program such as Hyperterminal, directly typing commands and receiving responses. (From hardware Revision D onwards, several V100s may be connected together on a common RS485 bus, permitting the management of a complete network from a single point). Units are distinguished in the command format by preceding the command with the Node Name of the V100 being addressed.

The Terminal mode will operate over a serial interface at 9600 baud, 8 data bits, No parity and 1 stop bit.

The TTY interface outputs data in either TTYSCRIPT mode, in which the output syntax matches the input syntax, which allows the output to be re-used as input data (perhaps to another V100) or TTYCNC mode, which is specific to legacy computer control requirements. The default mode is TTYCNC. The mode can be changed from the **Supervisor** as shown in Figure 1.



```

v100 - HyperTerminal
File Edit View Call Transfer Help
[Icons]
U100 Diagnostic Menu
M = Monitor
F = Flash Loader
R = Connect to Remote
Dbg>tty mode
TTY mode is set to TTYCNC
Dbg>ttyscript
TTY mode is set to TTYSCRIPT
Dbg>ttycnc
TTY mode is set to TTYCNC
Dbg>
Connected 0:00:58 Auto detect 9600 8-N-1
  
```

Figure 1. TTY output mode selection from the Supervisor.

The example scripts shown below will be displayed in TTYSCRIPT mode

2.2 Entry into Terminal mode

After power-up the normal introductory banner is displayed. Typing <CTRL t> <CTRL t> from this point starts the Terminal mode.

When the V100 enters Terminal mode, the following message is output on the serial terminal as shown in Figure 2.

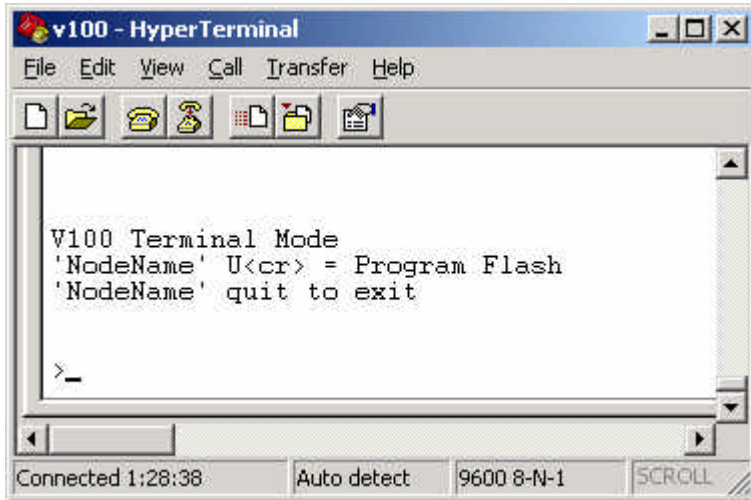


Figure 2. Terminal mode message

2.3 Command syntax

Every exchange of information consists of a query from a master device and a response from the V100. The V100 does not issue any response unless requested.

Terminal mode commands can be typed in TTY mode at the ‘>’ prompt. For example:

```
>node1 system remcfg inhibited
>node1 system remcfg ?
node1 system RemCfg Inhibited
```

The ‘?’ is optional in all requests except the ‘NodeName ?’. This request will display the entire system configuration. If required, a ‘#’ character can be used at the start of any line in a batch file to indicate that the text following is a comment and not a valid V100 command. This can be used to clarify the progress of the batch file on the screen. The parameters of the command are delimited by an ASCII space character.

The **nodename**, in this case node1, **is mandatory**. Commands are not case-sensitive, since all command input is converted to upper case by the V100.

2.4 Using batch files

Commands can be stored in batch files and downloaded into a V100. Figure 3 shows how this can be achieved using Microsoft Hyperterminal.

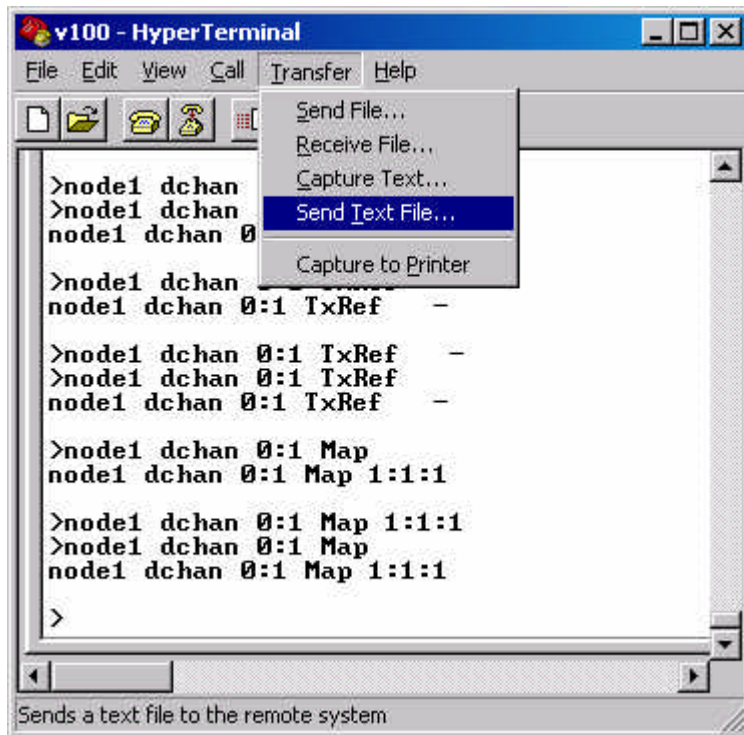


Figure 3. Sending a batch file

The file selected must be a text file with a maximum size of 1536 bytes. Before downloading a text file, **be sure to be in Terminal mode.**

3 SYSTEM CONFIGURATION PAGE

Table 1. Valid System variable values

Menu	Variable	Allowed Values
System		
	RemCfg	(Inhibited, Enabled)
	NodeID	(0 to 239) (10 Chars)
	ActCfg	(1 to 7)
	EditCfg	(1 to 7)
	AlmDly	(None, 5s, 10s, 20s, 1min, 2min, 5min)
	AlmMod	(Auto, On, Off, Toggle)
	Country	(UK, US, FRANCE, GERMANY)
	HscMod	(Slave, Master)
	HscTsRc	(Int, Ext)
	HscTxcSource	(Int, Ext)
	TdmIMode	See TDM Mode below.
	TdmCsrc	See TDM Mode below.
	ConnTmo	(1,255)
	PrdyFilt	(0,255)
	DchMode	(Auto, Flag)
	DchFlag	(Always On, Follows Connect , Follows Remote)
	AsyBufs	(8 to 32)

3.1 System Page Test

The following is an example of the use of all SYSTEM page TTY commands. Below it is an example of the V100 output as a result of running this as a batch file.

```
node1 system RemCfg
node1 system NodeId
node1 system ActCfg
node1 system EditCfg
node1 system AlmDly
node1 system AlmMod
node1 system Country
node1 system HscMode
node1 system HscRsRc
node1 system HscTsRc
node1 system TdmIMode
node1 system TdmCsrc
node1 system ConnTmo
node1 system PrdyFilt
node1 system DchMode
node1 system DchFlag
node1 system AsyBufs
```

```

V100 Terminal Mode
'NodeName' U<cr> = Program Flash
'NodeName' quit to exit

>node1 system RemCfg
node1 system RemCfg Enabled

>node1 system NodeId
node1 system NodeId 123

>node1 system ActCfg
node1 system ActCfg 7

>node1 system EditCfg
node1 system EditCfg 7

>node1 system AlMDly
node1 system AlMDly 5min

>node1 system AlnMod
node1 system AlnMod Toggle

>node1 system Country
node1 system Country UK

>node1 system HscMode
node1 system HscMode Slave

>node1 system HscRsRc
node1 system HscRsRc Int

>node1 system HscTsRc
node1 system HscTsRc Int

>node1 system TdmIMode
node1 system TdmIMode U,24

>node1 system TdmCSrc
node1 system TdmCSrc Ext

>node1 system ConnTmo
node1 system ConnTmo 33

>node1 system PrdyFilt
node1 system PrdyFilt 44

>node1 system DchMode
node1 system DchMode Auto

>node1 system DchFlag
node1 system DchFlag Follows Connect

>node1 system AsyBufs
node1 system AsyBufs 9

>

```

Connected 0:56:05 Auto detect 9600 8-N

Figure 4. Output from system configuration batch file

3.2 System Page Parameter Tests

The V100 output to the system page parameter are shown below. Invalid entries are highlighted in red.

3.2.1 Configuration by Remote

```
>node1 system remcfg inhibited
>node1 system remcfg
node1 system RemCfg Inhibited
```

```
>node1 system remcfg enabled
>node1 system remcfg ?
node1 system RemCfg Enabled
```

3.2.2 Node ID

#(In TTY mode the range is limited from 0 to 239)

```
>node1 system nodeid 123
>node1 system nodeid
node1 system NodeId 123
```

```
>node1 system nodeid 321
Error: Value out of range or read only. NODEID : 321
```

3.2.3 Active Configuration (Allowed Range from 1 to 7)

```
>node1 system actcfg
node1 system ActCfg 1
```

```
>node1 system actcfg 7
>node1 system actcfg
node1 system ActCfg 7
```

```
>node1 system actcfg 0
Error: Value out of range or read only. ACTCFG : 0
```

```
>node1 system actcfg 8
Error: Value out of range or read only. ACTCFG : 8
```

3.2.4 Edit Configuration (Allowed Range from 1 to 7)

```
>node1 system editcfg
node1 system EditCfg 1
```

```
>node1 system editcfg 1
>node1 system editcfg
node1 system EditCfg 1
```

```
>node1 system editcfg 7
>node1 system editcfg
node1 system EditCfg 7
```

```
>node1 system editcfg 0
Error: Value out of range or read only. EDITCFG : 0
```

```
>node1 system editcfg 8
Error: Value out of range or read only. EDITCFG : 8
```

3.2.5 Alarm Delay

```
>node1 system almdly
node1 system AlmDly None
```

```
>node1 system almdly 5s
>node1 system almdly
node1 system AlmDly 5s
```

```
>node1 system almdly 10s
>node1 system almdly
node1 system AlmDly 10s
```

```
>node1 system almdly 20s
>node1 system almdly
node1 system AlmDly 20s
```

```
>node1 system almdly 1min
>node1 system almdly
node1 system AlmDly 1min
```

```
>node1 system almdly 2min
>node1 system almdly
node1 system AlmDly 2min
```

```
>node1 system almdly 5min
```

```
>node1 system almdly  
node1 system AlmDly 5min
```

```
>node1 system almdly 1hour  
>node1 system almdly  
node1 system AlmDly 5min
```

```
>node1 system almdly xyz  
>node1 system almdly  
node1 system AlmDly 5min
```

```
>node1 system almdly 0s  
>node1 system almdly  
node1 system AlmDly 5min
```

3.2.6 Alarm Mode

```
>node1 system almmod  
node1 system AlmMod Auto
```

```
>node1 system almmod on  
>node1 system almmod  
node1 system AlmMod On
```

```
>node1 system almmod off  
>node1 system almmod  
node1 system AlmMod Off
```

```
>node1 system almmod toggle  
>node1 system almmod  
node1 system AlmMod Toggle
```

```
>node1 system almmod abc  
>node1 system almmod  
node1 system AlmMod Toggle
```

3.2.7 Country

```
>node1 system country  
node1 system Country UK
```

```
>node1 system country us  
>node1 system country  
node1 system Country US
```

```
>node1 system country france
```

```
>node1 system country  
node1 system Country FRANCE
```

```
>node1 system country germany  
>node1 system country  
node1 system Country GERMANY
```

```
>node1 system country uk  
>node1 system country  
node1 system Country UK
```

```
>node1 system country 123  
>node1 system country  
node1 system Country UK
```

3.2.8 HSC Mode

```
>node1 system hscmode  
node1 system HscMode Slave
```

```
>node1 system hscmode master  
>node1 system hscmode  
node1 system HscMode Master
```

```
>node1 system hscmode slave  
>node1 system hscmode  
node1 system HscMode Slave
```

```
>node1 system hscmode 123  
>node1 system hscmode  
node1 system HscMode Slave
```

3.2.9 HSC Rxc

```
>node1 system hscsrc  
node1 system HscRsRc Int
```

```
>node1 system hscsrc ext  
>node1 system hscsrc  
node1 system HscRsRc Ext
```

```
>node1 system hscsrc int  
>node1 system hscsrc  
node1 system HscRsRc Int
```

```
>node1 system hscsrc xyz
```

```
>node1 system hscsrc
node1 system HscRsRc Int
```

3.2.10 HSC Txc

```
>node1 system hsctsrc
node1 system HscTsRc Int
```

```
>node1 system hsctsrc ext
>node1 system hsctsrc
node1 system HscTsRc Ext
```

```
>node1 system hsctsrc int
>node1 system hsctsrc
node1 system HscTsRc Int
```

```
>node1 system hsctsrc 123
>node1 system hsctsrc
node1 system HscTsRc Int
```

3.2.11 Connection Timeout

```
>node1 system conntmo
node1 system ConnTmo 10
```

```
>node1 system conntmo 1
>node1 system conntmo
node1 system ConnTmo 1
```

```
>node1 system conntmo 255
>node1 system conntmo
node1 system ConnTmo 255
```

```
>node1 system conntmo -1
Error: Value out of range or read only. CONNTMO : -1
```

```
>node1 system conntmo 256
Error: Value out of range or read only. CONNTMO : 256
```

```
>node1 system conntmo
node1 system ConnTmo 255
```

3.2.12 Recieve Ready Filter

```
>node1 system prdyfilt
```


node1 system PrdyFilt 1

```
>node1 system prdyfilt 30
>node1 system prdyfilt
node1 system PrdyFilt 30
```

```
>node1 system prdyfilt 0
>node1 system prdyfilt
node1 system PrdyFilt 0
```

```
>node1 system prdyfilt -1
Error: Value out of range or read only. PRDYFILT : -1
```

```
>node1 system prdyfilt 255
>node1 system prdyfilt
node1 system PrdyFilt 255
```

3.2.13 Data Channel Activation

```
>node1 system dchmode
node1 system DchMode Auto
```

```
>node1 system dchmode flag
>node1 system dchmode
node1 system DchMode Flag
```

```
>node1 system dchmode auto
>node1 system dchmode
node1 system DchMode Auto
```

```
>node1 system dchmode 123
>node1 system dchmode
node1 system DchMode Auto
```

```
>node1 system
Error: Incomplete or invalid command
>node1 system dchmode
node1 system DchMode Auto
```

3.2.14 Data Channel Flag

```
>node1 system dchflag
node1 system DchFlag Always On
```

```
>node1 system dchflag follows connect
>node1 system dchflag
```

node1 system DchFlag Follows Connect

```
>node1 system dchflag always on
>node1 system dchflag
node1 system DchFlag Always On
```

```
>node1 system dchflag follows remote
>node1 system dchflag
node1 system DchFlag Follows Remote
```

```
>node1 system dchflag 123
>node1 system dchflag
node1 system DchFlag Follows Remote
```

```
>node1 system dchflag 123 abc
>node1 system dchflag
node1 system DchFlag Follows Remote
```

3.2.15 Async Buffer Size (Allowed Range from 8 to 32)

```
>node1 system asybuffs
node1 system AsyBufs 32
```

```
>node1 system asybuffs 23
>node1 system asybuffs
node1 system AsyBufs 23
```

```
>node1 system asybuffs 8
>node1 system asybuffs
node1 system AsyBufs 8
```

```
>node1 system asybuffs 0
Error: Value out of range or read only. ASYBUFFS : 0
```

```
>node1 system asybuffs 33
Error: Value out of range or read only. ASYBUFFS : 33
```

```
>node1 system asybuffs 7
Error: Value out of range or read only. ASYBUFFS : 7
```

3.3 Data Channel Configuration

Table 2. Data Channel variable values

Data	
IFace	(RS449, V.11, V.24, V.35)
Mode	(Trib, Agg, TDM)
Type	(DCE, DTE)
Format	(Sync, 'nrz', 'nrzi', '8,n,1', '8,n,2', '7,e,1', '7,e,2', '7,o,1', '7,o,2', '7,n,1', '7n1.5', 5,n,1', '5n1.5')
AsyRate	(50 to 115200)
RxRate	(0 to 2048000)
RxSource	(Ext, Txc, PLL, Int, DbA)
RxRef	(-, <GRX, >GRX, <GTX, >GTX)
TxRate	(0 to 2048000) (7 Chars)
TxSource	(Ext, Rxc, PLL, Int, DbA)
TxRef	(-, <GRX, >GRX, <GTX, >GTX)
Map	(0:2:4) (* Note1)

*** Note1 :** Mappings must all obey the syntax “node:device:channel” where:

node	takes values in the range 0 to 239
device	takes the values
	0 – for ports on the chassis
	1 – for ports in option slot 1
	2 – for ports in option slot 2
channel	takes the values 1 to n according to the option card.

3.3.1 Data Channel Page Test

```
node1 dchan 0:2 IFace RS449
node1 dchan 0:2 Mode Agg
node1 dchan 0:2 Type DTE
node1 dchan 0:2 Format NRZ
node1 dchan 0:2 AsyRate 9600
node1 dchan 0:2 RxRate 32000
node1 dchan 0:2 RxSource Ext
node1 dchan 0:2 RxRef >GRX
node1 dchan 0:2 TxRate 32000
node1 dchan 0:2 TxSource Rxc
node1 dchan 0:2 TxRef -
node1 dchan 0:2 Map 1:1:1

node1 dchan 0:2 IFace
```

```

node1 dchan 0:2 Mode
node1 dchan 0:2 Type
node1 dchan 0:2 Format
node1 dchan 0:2 AsyRate
node1 dchan 0:2 RxRate
node1 dchan 0:2 RxSource
node1 dchan 0:2 RxRef
node1 dchan 0:2 TxRate
node1 dchan 0:2 TxSource
node1 dchan 0:2 TxRef
node1 dchan 0:2 Map

```

```

v100 - HyperTerminal
File Edit View Call Transfer Help

U100 Terminal Mode
'NodeName' UKcr> = Program Flash
'NodeName' quit to exit

>node1 dchan 0:2 IFace RS449
>node1 dchan 0:2 Mode Agg
>node1 dchan 0:2 Type DTE
>node1 dchan 0:2 Format NRZ
>node1 dchan 0:2 AsyRate 9600
>node1 dchan 0:2 RxRate 32000
>node1 dchan 0:2 RxSource Ext
>node1 dchan 0:2 RxRef >GRX
>node1 dchan 0:2 TxRate 32000
>node1 dchan 0:2 TxSource Rxc
>node1 dchan 0:2 TxRef -
>node1 dchan 0:2 IFace RS449
>node1 dchan 0:2 Mode Agg
>node1 dchan 0:2 Type DTE
>node1 dchan 0:2 Format NRZ
>node1 dchan 0:2 AsyRate 9600
>node1 dchan 0:2 RxRate 32000
>node1 dchan 0:2 RxSource Ext
>node1 dchan 0:2 RxRef >GRX
>node1 dchan 0:2 TxRate 32000
>node1 dchan 0:2 TxSource Rxc
>node1 dchan 0:2 TxRef -
>node1 dchan 0:2 Map 1:1:1
>
Connected 1:03:18 Auto detect 9600 8-N-1

```

Figure 5. Output from Data Channel configuration batch file

3.4 Data Page Parameter Tests

The V100 output to the Data Channel page parameter tests are shown below. Invalid entries are highlighted in red.

3.4.1 Iface

```
>node1 dchan 0:1 iface
node1 dchan 0:1 IFace RS449
```

```
>node1 dchan 0:1 iface v.11
>node1 dchan 0:1 iface
node1 dchan 0:1 IFace V.11
```

```
>node1 dchan 0:1 iface v.24
>node1 dchan 0:1 iface
node1 dchan 0:1 IFace V.24
```

```
>node1 dchan 0:1 iface v.35
>node1 dchan 0:1 iface
node1 dchan 0:1 IFace V.35
```

```
>node1 dchan 0:1 iface rs449
>node1 dchan 0:1 iface
node1 dchan 0:1 IFace RS449
```

```
>node1 dchan 0:1 iface 123
>node1 dchan 0:1 iface
node1 dchan 0:1 IFace RS449
```

3.4.2 Mode

```
>node1 dchan 0:1 mode
node1 dchan 0:1 Mode Trib
```

```
>node1 dchan 0:1 mode agg
>Node1 dchan 0:1 mode
node1 dchan 0:1 Mode Agg
```

```
>node1 dchan 0:1 mode trib
>node1 dchan 0:1 mode
node1 dchan 0:1 Mode Trib
```

```
>node1 dchan 0:1 mode tdm
>node1 dchan 0:1 mode
node1 dchan 0:1 name
```

3.4.3 Type

```
>node1 dchan 0:1 type
node1 dchan 0:1 Type DCE
```

```
>node1 dchan 0:1 type dce
>node1 dchan 0:1 type
node1 dchan 0:1 Type DCE
```

```
>node1 dchan 0:1 type dte
>node1 dchan 0:1 type
node1 dchan 0:1 Type DTE
```

```
>node1 dchan 0:1 type dce
>node1 dchan 0:1 type
node1 dchan 0:1 Type DCE
```

```
>node1 dchan 0:1 type xyz
>node1 dchan 0:1 type
node1 dchan 0:1 Type DCE
```

3.4.4 Format

```
>node1 dchan 0:1 format
node1 dchan 0:1 Format Sync
```

```
>node1 dchan 0:1 format nrzi
>node1 dchan 0:1 format
node1 dchan 0:1 Format NRZI
```

```
>node1 dchan 0:1 format nrz
>node1 dchan 0:1 format
node1 dchan 0:1 Format NRZ
```

```
>node1 dchan 0:1 format sync
>node1 dchan 0:1 Format
node1 dchan 0:1 Format Sync
```

```
>node1 dchan 0:1 format 8,n,1
>node1 dchan 0:1 format
node1 dchan 0:1 Format 8,N,1
```

```
>node1 dchan 0:1 format 8,n,2
>node1 dchan 0:1 format
node1 dchan 0:1 Format 8,N,2
```

```
>node1 dchan 0:1 format 7,e,1
>node1 dchan 0:1 format
node1 dchan 0:1 Format 7,E,1
```

```
>node1 dchan 0:1 format 7,e,2
>node1 dchan 0:1 format
node1 dchan 0:1 Format 7,E,2
```

```
>node1 dchan 0:1 format 7,0,1
>node1 dchan 0:1 format
node1 dchan 0:1 Format 7,E,2
```

```
>node1 dchan 0:1 format 7,0,2
>node1 dchan 0:1 format
node1 dchan 0:1 Format 7,E,2
```

```
>node1 dchan 0:1 format 7,n,1
>node1 dchan 0:1 format
node1 dchan 0:1 Format 7,N,1
```

```
>node1 dchan 0:1 format 7n1.5
>node1 dchan 0:1 format
node1 dchan 0:1 Format 7N1.5
```

```
>node1 dchan 0:1 format 5,n,1
>node1 dchan 0:1 format
node1 dchan 0:1 Format 5,N,1
```

```
>node1 dchan 0:1 format 5n1.5
>node1 dchan 0:1 format
node1 dchan 0:1 Format 5N1.5
```

3.4.5 RX clock Rate (Asynchronous)

```
>node1 dchan 0:1 asyrate
node1 dchan 0:1 AsyRate 9600
```

```
>node1 dchan 0:1 asyrate 4800
>node1 dchan 0:1 asyrate
node1 dchan 0:1 AsyRate 4800
```

3.4.6 RX clock Rate

```
>node1 dchan 0:1 rxrate ?
node1 dchan 0:1 RxRate 0
```

```
>node1 dchan 0:1 rxrate 512000
>node1 dchan 0:1 rxrate ?
node1 dchan 0:1 RxRate 512000
```

3.4.7 RX clock Source

```
>node1 dchan 0:1 rxsource
node1 dchan 0:1 RxSource Ext
```

```
>node1 dchan 0:1 rxsource txc
>node1 dchan 0:1 rxsource
node1 dchan 0:1 RxSource Txc
```

```
>node1 dchan 0:1 rxsource pll
>node1 dchan 0:1 rxsource
node1 dchan 0:1 RxSource PLL
```

```
>node1 dchan 0:1 rxsource int
>node1 dchan 0:1 rxsource
node1 dchan 0:1 RxSource Int
```

```
>node1 dchan 0:1 rxsource dba
>node1 dchan 0:1 rxsource
node1 dchan 0:1 RxSource Dba
```

```
>node1 dchan 0:1 rxsource ext
>node1 dchan 0:1 rxsource
node1 dchan 0:1 RxSource Ext
```

3.4.8 RX clock Ref

```
>node1 dchan 0:1 rxref
node1 dchan 0:1 RxRef -
```

```
>node1 dchan 0:1 rxref <grx
>node1 dchan 0:1 rxref
node1 dchan 0:1 RxRef <GRX
```

```
>node1 dchan 0:1 rxref >gtx
>node1 dchan 0:1 rxref
node1 dchan 0:1 RxRef >GTX
```

```
>node1 dchan 0:1 rxref <gtx
>node1 dchan 0:1 rxref
node1 dchan 0:1 RxRef <GTX
```



```
>node1 dchan 0:1 rxref >grx
>node1 dchan 0:1 rxref
node1 dchan 0:1 RxRef >GRX
```

```
>node1 dchan 0:1 rxref -
>node1 dchan 0:1 rxref
node1 dchan 0:1 RxRef -
```

3.4.9 TX clock Rate

```
>node1 dchan 0:1 txrate ?
node1 dchan 0:1 TxRate 0
```

```
>node1 dchan 0:1 txrate 512000
>node1 dchan 0:1 txrate ?
node1 dchan 0:1 TxRate 512000
```

3.4.10 TX clock Source

```
>node1 dchan 0:1 txsource
node1 dchan 0:1 TxSource Ext
```

```
>node1 dchan 0:1 txsource rxc
>node1 dchan 0:1 txsource
node1 dchan 0:1 TxSource Rxc
```

```
>node1 dchan 0:1 txsource pll
>node1 dchan 0:1 txsource
node1 dchan 0:1 TxSource PLL
```

```
>node1 dchan 0:1 txsource int
>node1 dchan 0:1 txsource
node1 dchan 0:1 TxSource Int
```

```
>node1 dchan 0:1 txsource dba
>node1 dchan 0:1 txsource
node1 dchan 0:1 TxSource DBA
```

```
>node1 dchan 0:1 txsource ext
>node1 dchan 0:1 txsource
node1 dchan 0:1 TxSource Ext
```

3.4.11 TX clock Ref

```

>node1 dchan 0:1 txref
node1 dchan 0:1 TxRef -

>node1 dchan 0:1 txref <grx
>node1 dchan 0:1 txref
node1 dchan 0:1 TxRef <GRX

>node1 dchan 0:1 txref >gtx
>node1 dchan 0:1 txref
node1 dchan 0:1 TxRef >GTX

>node1 dchan 0:1 txref <gtx
>node1 dchan 0:1 txref
node1 dchan 0:1 TxRef <GTX

>node1 dchan 0:1 txref >grx
>node1 dchan 0:1 txref
node1 dchan 0:1 TxRef >GRX

>node1 dchan 0:1 txref -
>node1 dchan 0:1 txref
node1 dchan 0:1 TxRef -

```

3.4.12 Destination

```

>node1 dchan 0:1 map
node1 dchan 0:1 Map

>node1 dchan 0:1 map 3:2:1
>node1 dchan 0:1 map
node1 dchan 0:1 Map 3:2:1

>node1 dchan 0:1 map auto
>node1 dchan 0:1 map
node1 dchan 0:1 Map AUTO

>node1 dchan 0:1 map scada
>node1 dchan 0:1 map
node1 dchan 0:1 Map SCADA

>node1 dchan 0:1 map loop
>node1 dchan 0:1 map
node1 dchan 0:1 Map LOOP

>node1 dchan 0:1 map echo
>node1 dchan 0:1 map

```

node1 dchan 0:1 Map ECHO

>node1 dchan 0:1 map switched

>node1 dchan 0:1 map

node1 dchan 0:1 Map SWITCHED

>node1 dchan 0:1 map 123

Error: Value out of range or read only. MAP : 123

>node1 dchan 0:1 map

node1 dchan 0:1 Map SWITCHED

>node1 dchan 0:1 map xyz

Error: Value out of range or read only. MAP : XYZ

>node1 dchan 0:1 map

node1 dchan 0:1 Map SWITCHED

>node1 dchan 0:1 map tdm

Error: Value out of range or read only. MAP : TDM

>node1 dchan 0:1 map

node1 dchan 0:1 Map SWITCHED

>node1 dchan 0:1 map 1:1:1

>node1 dchan 0:1 map

node1 dchan 0:1 Map 1:1:1

>node1 dchan 0:1 map 1:1:1:

Error: Value out of range or read only. MAP : 1:1:1:

>node1 dchan 0:1 map 1:1:1:1

Error: Value out of range or read only. MAP : 1:1:1:1

>node1 dchan 0:1 map 123

Error: Value out of range or read only. MAP : 123

>node1 dchan 0:1 map 1:2:

Error: Value out of range or read only. MAP : 1:2:

>node1 dchan 0:1 map xyz

Error: Value out of range or read only. MAP : XYZ

3.5 Voice Configuration Page

Table 3. Valid Voice variable values

Voice

ClkRef	(GRXCLK, GTXCLK)
Algorithm	See Note 2 below
Interface	(Tie-Line, FXS, FXO)
SigType	(DTMF, E&M, Trans, V.22, STU, NOSTU)
GainIn	(Off, -31dB to +31dB)
GainOut	(Off, -31dB to +31dB)
Mapping	See Note 1 below. (0:1:1, SCADA, LOOP, SWITCHED, AUTO)

*** Note 1 :** Mappings must all obey the syntax “node:device:channel” where:

node	takes values in the range 0 to 239
device	takes the values
	0 – for ports on the chassis
	1 – for ports in option slot 1
	2 – for ports in option slot 2
channel	takes the values 1 to n according to the option card.

*** Note 2: Voice Channel Configuration Algorithm strings.**

Some strings are in two parts separated by a single space. The formats below must be observed:

G.711-A 64K	G.711-u 64K	G.726 16K	G.726 24K
G.726 32K	G.726 40K	G.727 16K	G.727 24/16K
G.727 24K	G.727 32/16K	G.727 32/24K	G.727 32K
G.727 40/16K	G.727 40/24K	G.727 40/32K	G.723.1 5.3K
G.723.1 6.3K	G.729A 8K	Transp. 64K	
NetCode 6.4K	NetCode 7.2K	NetCode 8K	NetCode 8.8K
NetCode 9.6K			
Off			

#Voice Channel Config Test

```
node1 vchan 1:1 ClkRef GTXCLK
node1 vchan 1:1 Alg G.711-A 64K
node1 vchan 1:1 IFace FXO
node1 vchan 1:1 SigType trans
node1 vchan 1:1 GainIn +2dB
node1 vchan 1:1 GainOut +1dB
node1 vchan 1:1 Map 3:2:1
```

```
node1 vchan 1:1 ClkRef
node1 vchan 1:1 Alg
node1 vchan 1:1 IFace
node1 vchan 1:1 SigType
node1 vchan 1:1 GainIn
node1 vchan 1:1 GainOut
node1 vchan 1:1 Map
```

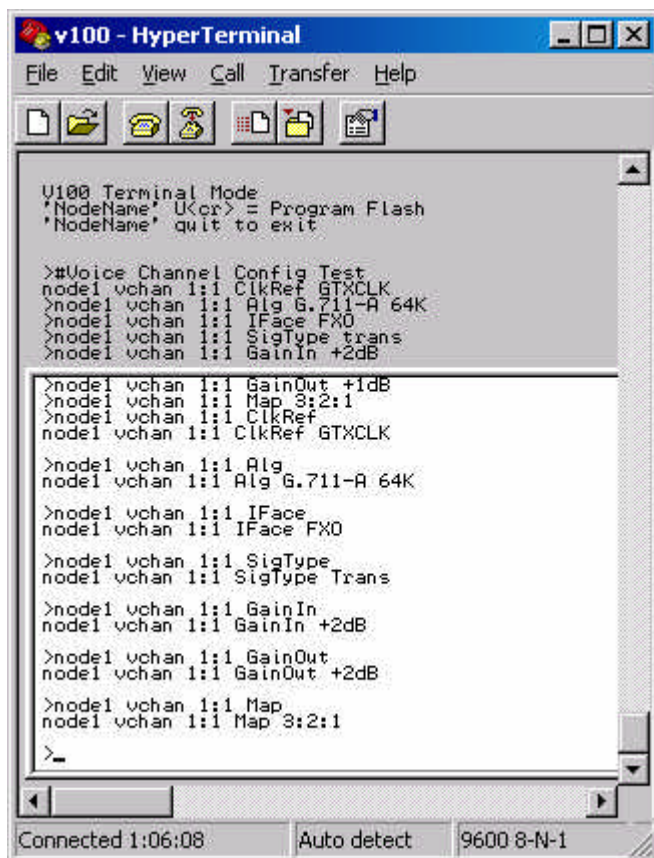


Figure 6. Output from Voice configuration batch file.

3.6 Voice Page Parameter Tests

3.6.1 ClkRef

```
>node1 vchan 1:1 ClkRef
node1 vchan 1:1 ClkRef GRXCLK
```

```
>node1 vchan 1:1 ClkRef gtxclk
>node1 vchan 1:1 ClkRef
node1 vchan 1:1 ClkRef GTXCLK
```

```
>node1 vchan 1:1 ClkRef grxclk
>node1 vchan 1:1 ClkRef
node1 vchan 1:1 ClkRef GRXCLK
```

```
>node1 vchan 1:1 ClkRef gtxclk
>node1 vchan 1:1 ClkRef
node1 vchan 1:1 ClkRef GTXCLK
```

3.6.2 SigType

```
>node1 vchan 1:1 SigType
node1 vchan 1:1 SigType DTMF
```

```
>node1 vchan 1:1 SigType DTMF
>node1 vchan 1:1 SigType
node1 vchan 1:1 SigType DTMF
```

```
>node1 vchan 1:1 SigType E&M
>node1 vchan 1:1 SigType
node1 vchan 1:1 SigType E&M
```

```
>node1 vchan 1:1 SigType trans
>node1 vchan 1:1 SigType
node1 vchan 1:1 SigType Trans
```

```
>node1 vchan 1:1 SigType v.22
>node1 vchan 1:1 SigType
node1 vchan 1:1 SigType V.22
```

```
>node1 vchan 1:1 SigType stu
>node1 vchan 1:1 SigType
node1 vchan 1:1 SigType STU
```

```
>node1 vchan 1:1 SigType nostu
```

```
>node1 vchan 1:1 SigType
node1 vchan 1:1 SigType NOSTU
```

```
>node1 vchan 1:1 SigType dtmf
>node1 vchan 1:1 SigType
node1 vchan 1:1 SigType DTMF
```

3.6.3 Interface

```
>node1 vchan 1:1 iface
node1 vchan 1:1 IFace FXO
```

```
>node1 vchan 1:1 iface fxs
>node1 vchan 1:1 iface
node1 vchan 1:1 IFace FXS
```

```
>node1 vchan 1:1 iface fxo
>node1 vchan 1:1 iface
node1 vchan 1:1 IFace FXO
```

```
>node1 vchan 1:1 iface tie-line
>node1 vchan 1:1 iface
node1 vchan 1:1 IFace Tie-Line
```

3.6.4 Algorithm

```
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg Off
```

```
>node1 vchan 1:1 alg G.711-A 64K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.711-A 64K
```

```
>node1 vchan 1:1 alg G.711-u 64K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.711-u 64K
```

```
>node1 vchan 1:1 alg G.726 16K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.726 16K
```

```
>node1 vchan 1:1 alg G.726 24K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.726 24K
```

```
>node1 vchan 1:1 alg G.726 32K
```

```
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.726 32K
```

```
>node1 vchan 1:1 alg G.726 40K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.726 40K
```

```
>node1 vchan 1:1 alg G.727 16K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.727 16K
```

```
>node1 vchan 1:1 alg G.727 24/16K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.727 24/16K
```

```
>node1 vchan 1:1 alg G.727 24K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.727 24K
```

```
>node1 vchan 1:1 alg G.727 32/16K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.727 32/16K
```

```
>node1 vchan 1:1 alg G.727 32/24K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.727 32/24K
```

```
>node1 vchan 1:1 alg G.727 32K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.727 32K
```

```
>node1 vchan 1:1 alg G.727 40/16K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.727 40/16K
```

```
>node1 vchan 1:1 alg G.727 40/24K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.727 40/24K
```

```
>node1 vchan 1:1 alg G.727 40/32K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.727 40/32K
```

```
>node1 vchan 1:1 alg G.723.1 5.3K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.723.1 5.3K
```

```
>node1 vchan 1:1 alg G.723.1 6.3K
>node1 vchan 1:1 alg
```

V100 Versatile Multiplexer


```
node1 vchan 1:1 Alg G.723.1 6.3K
```

```
>node1 vchan 1:1 alg G.729A 8K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg G.729A 8K
```

```
>node1 vchan 1:1 alg Transp. 64K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg Transp. 64K
```

```
>node1 vchan 1:1 alg NetCode 6.4K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg NetCode 6.4K
```

```
>node1 vchan 1:1 alg NetCode 7.2K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg NetCode 7.2K
```

```
>node1 vchan 1:1 alg NetCode 8K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg NetCode 8K
```

```
>node1 vchan 1:1 alg NetCode 8.8K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg NetCode 8.8K
```

```
>node1 vchan 1:1 alg NetCode 9.6K
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg NetCode 9.6K
```

```
>node1 vchan 1:1 alg Off
>node1 vchan 1:1 alg
node1 vchan 1:1 Alg Off
```

3.6.5 Input Gain

```
>node1 vchan 1:1 gainin
node1 vchan 1:1 GainIn 0dB
```

```
>node1 vchan 1:1 gainin mute
>node1 vchan 1:1 gainin
node1 vchan 1:1 GainIn Mute
```

```
>node1 vchan 1:1 gainin -31db
>node1 vchan 1:1 gainin
node1 vchan 1:1 GainIn -31dB
```

```
>node1 vchan 1:1 gainin +31db
>node1 vchan 1:1 gainin
node1 vchan 1:1 GainIn +31dB
```

```
>node1 vchan 1:1 gainin 0db
>node1 vchan 1:1 gainin
node1 vchan 1:1 GainIn 0dB
```

```
>node1 vchan 1:1 gainin -32db
>node1 vchan 1:1 gainin
node1 vchan 1:1 GainIn 0dB
```

```
>node1 vchan 1:1 gainin +32db
>node1 vchan 1:1 gainin
node1 vchan 1:1 GainIn 0dB
```

3.6.6 Output Gain

```
>node1 vchan 1:1 gainout
node1 vchan 1:1 GainOut 0dB
```

```
>node1 vchan 1:1 gainout mute
>node1 vchan 1:1 gainout
node1 vchan 1:1 GainOut 0dB
```

```
>node1 vchan 1:1 gainout -31db
>node1 vchan 1:1 gainout
node1 vchan 1:1 GainOut 0dB
```

```
>node1 vchan 1:1 gainout +31db
>node1 vchan 1:1 gainout
node1 vchan 1:1 GainOut 0dB
```

```
>node1 vchan 1:1 gainout 0db
>node1 vchan 1:1 gainout
node1 vchan 1:1 GainOut 0dB
```

```
>node1 vchan 1:1 gainout -32db
>node1 vchan 1:1 gainout
node1 vchan 1:1 GainOut 0dB
```

```
>node1 vchan 1:1 gainout +32db
>node1 vchan 1:1 gainin
node1 vchan 1:1 GainIn 0dB
```

3.6.7 Destination

```
>node1 vchan 1:1 map 2:3:1
>node1 vchan 1:1 map
node1 vchan 1:1 Map 2:3:1
```

```
>node1 vchan 1:1 map scada
>node1 vchan 1:1 map
node1 vchan 1:1 Map SCADA
```

```
>node1 vchan 1:1 map loop
>node1 vchan 1:1 map
node1 vchan 1:1 Map LOOP
```

```
>node1 vchan 1:1 map echo
>node1 vchan 1:1 map
node1 vchan 1:1 Map ECHO
```

```
>node1 vchan 1:1 map switched
>node1 vchan 1:1 map
node1 vchan 1:1 Map SWITCHED
```

```
>node1 vchan 1:1 map auto
>node1 vchan 1:1 map
node1 vchan 1:1 Map AUTO
```

```
>node1 vchan 1:1 map 2:3:1
>node1 vchan 1:1 map
node1 vchan 1:1 Map 2:3:1
```

```
>node1 vchan 1:1 map 1:1:1:
Error: Value out of range or read only. MAP : 1:1:1:
```

```
>node1 vchan 1:1 map
node1 vchan 1:1 Map 2:3:1
```

```
>node1 vchan 1:1 map 1:1:1:1
Error: Value out of range or read only. MAP : 1:1:1:1
```

```
>node1 vchan 1:1 map
node1 vchan 1:1 Map 2:3:1
```

```
>node1 vchan 1:1 map 123
Error: Value out of range or read only. MAP : 123
```

```
>node1 vchan 1:1 map
node1 vchan 1:1 Map 2:3:1
```

```
>node1 vchan 1:1 map 1:2:
```

Error: Value out of range or read only. MAP : 1:2:

```
>node1 vchan 1:1 map
node1 vchan 1:1 Map 2:3:1
```

```
>node1 vchan 1:1 map xyz
Error: Value out of range or read only. MAP : XYZ
```

```
>node1 vchan 1:1 map
node1 vchan 1:1 Map 2:3:1
```

```
>node1 vchan 1:1 map 1:2:3
>node1 vchan 1:1 map
node1 vchan 1:1 Map 1:2:3
```

```
>
```

3.7 ISDN Configuration Page

Table 4. Valid Voice variable values

Isdn

IsdnNumber	(String)
AltIsdnNumber	(String)
LinkMode	(Dial On Demand, Answer)
LinkFallback	(0s, 5s, 10s, 20s, 1min, 2min, 5min)
LinkHoldoff	(0s, 5s, 10s, 20s, 1min, 2min, 5min)
GrxRef	(-, <ISDN)
GtxRef	(-, <ISDN)
ConnTimeout	(5 min, 10 mins, 20 mins, 1 hour, 2 hours, 5 hours, 10 hours, 24 hours)
Spid1	(String)
Spid1	(String)
NbSpid1	(String)
NbSpid1	(String)
Version	(NI, ATT, Nortel)

```
#Voice Channel Config Test
node1 isdn 1 IsdnNumber 1234
node1 isdn 1 AltIsdnNumber 5678
node1 isdn 1 LinkMode answer
node1 isdn 1 LinkFallback 5s
node1 isdn 1 LinkHoldoff 10s
node1 isdn 1 GrxRef <isdn
```

node1 isdn 1 GtxRef <isdn
node1 isdn 1 ConnTimeout 10 min
node1 isdn 1 Spid1 1212
node1 isdn 1 Spid2 3232
node1 isdn 1 NbSpid1 4343
node1 isdn 1 NbSpid2 5353
node1 isdn 1 Version att

node1 isdn 1 IsdnNumber ?
node1 isdn 1 AltIsdnNumber ?
node1 isdn 1 LinkMode ?
node1 isdn 1 LinkFallback ?
node1 isdn 1 LinkHoldoff ?
node1 isdn 1 GrxRef ?
node1 isdn 1 GtxRef ?
node1 isdn 1 ConnTimeout ?
node1 isdn 1 Spid1 ?
node1 isdn 1 Spid2 ?
node1 isdn 1 NbSpid1 ?
node1 isdn 1 NbSpid2 ?
node1 isdn 1 Version ?

```

v100 - HyperTerminal
File Edit View Call Transfer Help

>#Voice Channel Config Test
node1 isdn 1 IsdnNumber 1234
>node1 isdn 1 AltIsdnNumber 5678
>node1 isdn 1 LinkMode answer
>node1 isdn 1 LinkFallback 5s
>node1 isdn 1 LinkHoldoff 10s
>node1 isdn 1 GrxRef <isdn
>node1 isdn 1 GtxRef <isdn
>node1 isdn 1 ConnTimeout 10 min
>node1 isdn 1 Spid1 1212
>node1 isdn 1 Spid2 3232
>node1 isdn 1 NbSpid1 4343
>node1 isdn 1 NbSpid2 5353
>node1 isdn 1 Version att
>node1 isdn 1 IsdnNumber ?
node1 isdn 1 IsdnNumber 1234

>node1 isdn 1 AltIsdnNumber ?
node1 isdn 1 AltIsdnNumber 5678

>node1 isdn 1 LinkMode ?
node1 isdn 1 LinkMode Answer

>node1 isdn 1 LinkFallback ?
node1 isdn 1 LinkFallback 5s

>node1 isdn 1 LinkHoldoff ?
node1 isdn 1 LinkHoldoff 10s

>node1 isdn 1 GrxRef ? |
node1 isdn 1 GrxRef <ISDN
  
```

Figure 7a. Output from ISDN configuration batch file.

```

v100 - HyperTerminal
File Edit View Call Transfer Help
[Icons]
>node1 isdn 1 LinkFallback ?
node1 isdn 1 LinkFallback 5s

>node1 isdn 1 LinkHoldoff ?
node1 isdn 1 LinkHoldoff 10s

>node1 isdn 1 GrxRef ? |
node1 isdn 1 GrxRef <ISDN

>node1 isdn 1 GtxRef ?
node1 isdn 1 GtxRef <ISDN

>node1 isdn 1 ConnTimeout ?
node1 isdn 1 ConnTimeout 5 min

>node1 isdn 1 Spid1 ?
node1 isdn 1 Spid1 1212

>node1 isdn 1 Spid2 ?
node1 isdn 1 Spid2 3232

>node1 isdn 1 NbSpid1 ?
node1 isdn 1 NbSpid1 4343

>node1 isdn 1 NbSpid2 ?
node1 isdn 1 NbSpid2 5353

>node1 isdn 1 Version ?
node1 isdn 1 Version ATT

>
Connected 6:33:29 Auto detect 9600 8-N-1 SCROLL

```

Figure 7 b. Output from ISDN configuration batch file Continued.

3.8 ISDN Page Parameter Test

3.8.1 Dialed Number

```

>node1 isdn 1 IsdnNumber 987
>node1 isdn 1 IsdnNumber
node1 isdn 1 IsdnNumber 987

```

3.8.2 Alternate Number

```
>node1 isdn 1 AltIsdnNumber 654
>node1 isdn 1 AltIsdnNumber
node1 isdn 1 AltIsdnNumber 654
```

3.8.3 Link Mode

```
>node1 isdn 1 LinkMode
node1 isdn 1 LinkMode Answer

>node1 isdn 1 LinkMode dial on demand
>node1 isdn 1 LinkMode
node1 isdn 1 LinkMode Dial On Demand

>node1 isdn 1 LinkMode answer
>node1 isdn 1 LinkMode
node1 isdn 1 LinkMode Answer
```

3.8.4 Link Fallback

```
>node1 isdn 1 LinkFallback
node1 isdn 1 LinkFallback 5s

>node1 isdn 1 LinkFallback 5s
>node1 isdn 1 LinkFallback
node1 isdn 1 LinkFallback 5s

>node1 isdn 1 LinkFallback 10s
>node1 isdn 1 LinkFallback
node1 isdn 1 LinkFallback 10s

>node1 isdn 1 LinkFallback 20s
>node1 isdn 1 LinkFallback
node1 isdn 1 LinkFallback 20s

>node1 isdn 1 LinkFallback 1min
>node1 isdn 1 LinkFallback
node1 isdn 1 LinkFallback 1min

>node1 isdn 1 LinkFallback 2min
>node1 isdn 1 LinkFallback
node1 isdn 1 LinkFallback 2min

>node1 isdn 1 LinkFallback 5min
>node1 isdn 1 LinkFallback
node1 isdn 1 LinkFallback 5min
```



```
>node1 isdn 1 LinkFallback 0s  
>node1 isdn 1 LinkFallback  
node1 isdn 1 LinkFallback 0s
```

3.8.5 Link Holdoff

```
>node1 isdn 1 Linkholdoff  
node1 isdn 1 LinkHoldoff 10s
```

```
>node1 isdn 1 Linkholdoff 5s  
>node1 isdn 1 Linkholdoff  
node1 isdn 1 LinkHoldoff 5s
```

```
>node1 isdn 1 Linkholdoff 10s  
>node1 isdn 1 Linkholdoff  
node1 isdn 1 LinkHoldoff 10s
```

```
>node1 isdn 1 Linkholdoff 20s  
>node1 isdn 1 Linkholdoff  
node1 isdn 1 LinkHoldoff 20s
```

```
>node1 isdn 1 Linkholdoff 1min  
>node1 isdn 1 Linkholdoff  
node1 isdn 1 LinkHoldoff 1min
```

```
>node1 isdn 1 Linkholdoff 2min  
>node1 isdn 1 Linkholdoff  
node1 isdn 1 LinkHoldoff 2min
```

```
>node1 isdn 1 Linkholdoff 5min  
>node1 isdn 1 Linkholdoff  
node1 isdn 1 LinkHoldoff 5min
```

```
>node1 isdn 1 Linkholdoff 0s  
>node1 isdn 1 Linkholdoff  
node1 isdn 1 LinkHoldoff 0s
```

3.8.6 Grx Clock Reference

```
>node1 isdn 1 GrxRef  
node1 isdn 1 GrxRef -
```

```
>node1 isdn 1 GrxRef <isdn
>node1 isdn 1 GrxRef
node1 isdn 1 GrxRef <ISDN
```

```
>node1 isdn 1 GrxRef -
>node1 isdn 1 GrxRef
node1 isdn 1 GrxRef -
```

```
>node1 isdn 1 GrxRef <isdn
>node1 isdn 1 GrxRef
node1 isdn 1 GrxRef <ISDN
```

3.8.7 Gtx Clock Reference

```
>node1 isdn 1 GtxRef
node1 isdn 1 GtxRef -
```

```
>node1 isdn 1 GtxRef <isdn
>node1 isdn 1 GtxRef
node1 isdn 1 GtxRef <ISDN
```

```
>node1 isdn 1 GtxRef -
>node1 isdn 1 GtxRef
node1 isdn 1 GtxRef -
```

```
>node1 isdn 1 GtxRef <isdn
>node1 isdn 1 GtxRef
node1 isdn 1 GtxRef <ISDN
```

3.8.8 Connection Timeout

```
> node1 isdn 1 ConnTimeout
node1 isdn 1 ConnTimeout 5 min
```

```
>node1 isdn 1 ConnTimeout 5min
>node1 isdn 1 ConnTimeout
node1 isdn 1 ConnTimeout 5 min
```

```
>node1 isdn 1 ConnTimeout 10min
>node1 isdn 1 ConnTimeout
node1 isdn 1 ConnTimeout 5 min
```

```
>node1 isdn 1 ConnTimeout 20min
>node1 isdn 1 ConnTimeout
```

node1 isdn 1 ConnTimeout 5 min

```
>node1 isdn 1 ConnTimeout 1hour
>node1 isdn 1 ConnTimeout
node1 isdn 1 ConnTimeout 5 min
```

```
>node1 isdn 1 ConnTimeout 2hours
>node1 isdn 1 ConnTimeout
node1 isdn 1 ConnTimeout 5 min
```

```
>node1 isdn 1 ConnTimeout 5hours
>node1 isdn 1 ConnTimeout
node1 isdn 1 ConnTimeout 5 min
```

```
>node1 isdn 1 ConnTimeout 10hours
>node1 isdn 1 ConnTimeout
node1 isdn 1 ConnTimeout 5 min
```

```
>node1 isdn 1 ConnTimeout 24hours
>node1 isdn 1 ConnTimeout
node1 isdn 1 ConnTimeout 5 min
```

3.8.9 Spids

```
>node1 isdn 1 Spid1 1212
>node1 isdn 1 Spid2 3232
>node1 isdn 1 NbSpid1 4343
>node1 isdn 1 NbSpid2 5353
```

3.8.10 ISDN Version

```
>node1 isdn 1 Version
node1 isdn 1 Version ATT
```

```
>node1 isdn 1 Version att
>node1 isdn 1 Version
node1 isdn 1 Version ATT
```

```
>node1 isdn 1 Version ni
>node1 isdn 1 Version
node1 isdn 1 Version NI
```

```
>node1 isdn 1 Version nortel
>node1 isdn 1 Version
node1 isdn 1 Version Nortel
```

3.9 ISDN BRI Extender

Table 5. Valid BRI parameters.

Isdn

BriMode	(TE, NT)
BriRate	(Both,B1,B2)
BriRxClockRef	(<GRX, >GRX, -)
BriTxClockRef	((<GRT, >GRT, -)
BriActivity	(Permanent, On-Demand)
Map	(Same Table 2 Map)

3.10 BRI Parameter Tests

3.10.1 Mode

```
>node1 IsdnBri 1:1 BriMode
node1 IsdnBri 1:1 BriMode TE
```

```
>node1 IsdnBri 1:1 BriMode te
>node1 IsdnBri 1:1 BriMode
node1 IsdnBri 1:1 BriMode TE
```

```
>node1 IsdnBri 1:1 BriMode NT
>node1 IsdnBri 1:1 BriMode
node1 IsdnBri 1:1 BriMode NT
```

3.10.2 Rate

```
>node1 IsdnBri 1:1 BriRate
node1 IsdnBri 1:1 BriRate Both
```

```
>node1 IsdnBri 1:1 BriRate B1
>node1 IsdnBri 1:1 BriRate
node1 IsdnBri 1:1 BriRate B1
```

```
>node1 IsdnBri 1:1 BriRate B2
```

```
>node1 IsdnBri 1:1 BriRate
node1 IsdnBri 1:1 BriRate B2
```

```
>node1 IsdnBri 1:1 BriRate Both
>node1 IsdnBri 1:1 BriRate
node1 IsdnBri 1:1 BriRate Both
```

3.10.3 Rx Clock Reference

```
>node1 IsdnBri 1:1 BriRxClockRef
node1 IsdnBri 1:1 BriRxClockRef >GRX
```

```
>node1 IsdnBri 1:1 BriRxClockRef <GRX
>node1 IsdnBri 1:1 BriRxClockRef
node1 IsdnBri 1:1 BriRxClockRef <GRX
```

```
>node1 IsdnBri 1:1 BriRxClockRef >GRX
>node1 IsdnBri 1:1 BriRxClockRef
node1 IsdnBri 1:1 BriRxClockRef >GRX
```

```
>node1 IsdnBri 1:1 BriRxClockRef -
>node1 IsdnBri 1:1 BriRxClockRef
node1 IsdnBri 1:1 BriRxClockRef -
```

3.10.4 Tx Clock Reference

```
>node1 IsdnBri 1:1 BriTxClockRef
node1 IsdnBri 1:1 BriTxClockRef >GTX
```

```
>node1 IsdnBri 1:1 BriTxClockRef <GTX
>node1 IsdnBri 1:1 BriTxClockRef
node1 IsdnBri 1:1 BriTxClockRef >GTX
```

```
>node1 IsdnBri 1:1 BriTxClockRef >GTX
>node1 IsdnBri 1:1 BriTxClockRef
node1 IsdnBri 1:1 BriTxClockRef >GTX
```

```
>node1 IsdnBri 1:1 BriTxClockRef -
>node1 IsdnBri 1:1 BriTxClockRef
node1 IsdnBri 1:1 BriTxClockRef -
```

3.10.5 Activity

```
>node1 IsdnBri 1:1 BriActivity
node1 IsdnBri 1:1 BriActivity Permanent

>node1 IsdnBri 1:1 BriActivity on-demand
>node1 IsdnBri 1:1 BriActivity
node1 IsdnBri 1:1 BriActivity On-Demand

>node1 IsdnBri 1:1 BriActivity Permanent
>node1 IsdnBri 1:1 BriActivity
node1 IsdnBri 1:1 BriActivity Permanent
```

3.10.6 Destination

```
>node1 IsdnBri 1:1 map 2:3:1
>node1 IsdnBri 1:1 map
node1 IsdnBri 1:1 Map 2:3:1

>node1 IsdnBri 1:1 map scada
Error: Value out of range or read only. MAP : SCADA

>node1 IsdnBri 1:1 map
node1 IsdnBri 1:1 Map 2:3:1

>node1 IsdnBri 1:1 map loop
>node1 IsdnBri 1:1 map
node1 IsdnBri 1:1 Map LOOP

>node1 IsdnBri 1:1 map echo
>node1 IsdnBri 1:1 map
node1 IsdnBri 1:1 Map ECHO

>node1 IsdnBri 1:1 map switched
>node1 IsdnBri 1:1 map
node1 IsdnBri 1:1 Map SWITCHED

>node1 IsdnBri 1:1 map auto
>node1 IsdnBri 1:1 map
node1 IsdnBri 1:1 Map AUTO

>node1 IsdnBri 1:1 map 2:3:1
>node1 IsdnBri 1:1 map
node1 IsdnBri 1:1 Map 2:3:1

>node1 IsdnBri 1:1 map 1:1:1:
```

Error: Value out of range or read only. MAP : 1:1:1:

>node1 IsdnBri 1:1 map
node1 IsdnBri 1:1 Map 2:3:1

>node1 IsdnBri 1:1 map 1:1:1:1
Error: Value out of range or read only. MAP : 1:1:1:1

>node1 IsdnBri 1:1 map
node1 IsdnBri 1:1 Map 2:3:1

>node1 IsdnBri 1:1 map 123
Error: Value out of range or read only. MAP : 123

>node1 IsdnBri 1:1 map
node1 IsdnBri 1:1 Map 2:3:1

>node1 IsdnBri 1:1 map 1:2:
Error: Value out of range or read only. MAP : 1:2:

>node1 IsdnBri 1:1 map
node1 IsdnBri 1:1 Map 2:3:1

>node1 IsdnBri 1:1 map xyz
Error: Value out of range or read only. MAP : XYZ

>node1 IsdnBri 1:1 map
node1 IsdnBri 1:1 Map 2:3:1

>node1 IsdnBri 1:1 map 1:2:3
>node1 IsdnBri 1:1 map
node1 IsdnBri 1:1 Map 1:2:3

3.11 DIRECTORY

Table 6. *Valid Directory Values.*

Channel	(Same as Table 2 map)
Code	(0 to 999, Must be 3 digits)

To create a new entry the command format is :

NodeName dir new Channel Code E.G

>node1 dir new 1:2:3 456

≧

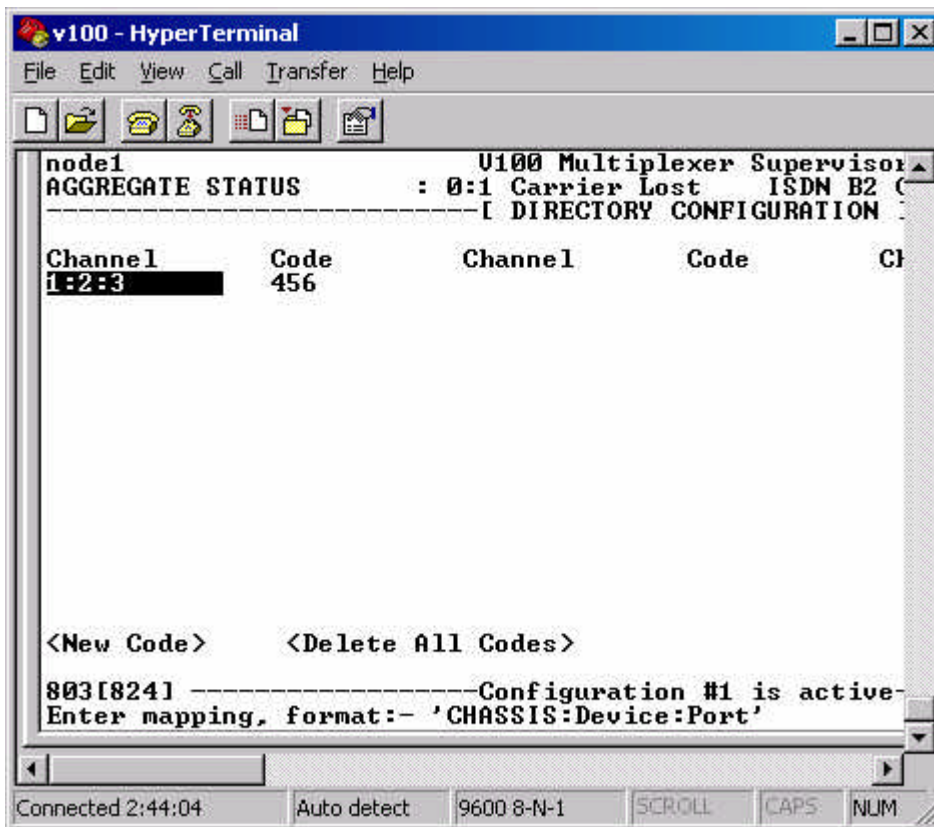


Figure 8. *Directory Entry Creation.*

To change an existing entry the command format is :

NodeName dir EntryNumber Channel Code E.G

```
>node1 dir 1 9:8:7 987
>
```

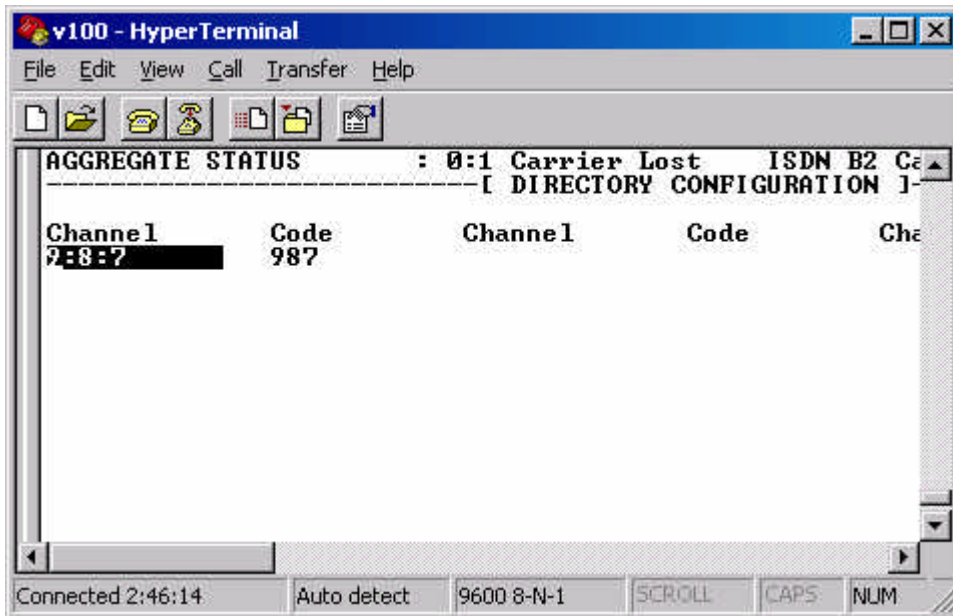


Figure 9. Change an existing entry.

To delete all directory entries from the current configuration

```
>node1 delete dir
```

This command has to be followed by a ‘U’ command to delete directory entries from the stored directory table. I.E

```
>node1 U
```

3.12 Routing

Table 7. *Valid Routing values.*

NetRoute

Dest	<String> (16 Chars)
NodeId	(0 to 239)
Primary	(Dev.Channel, HSC, ISDN1,ISDN2, -)
Secondary	(Dev.Channel, HSC, ISDN1,ISDN2, -)
Number	<String> (16 Chars)

Routing commands are show in figure 10 below. The results of these commands are shown in Figure 11.

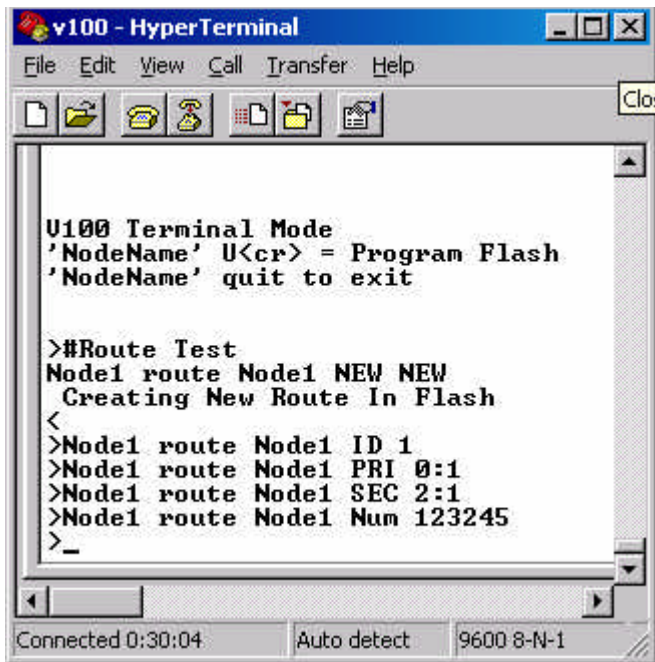


Figure 10. *Routing Commands.*

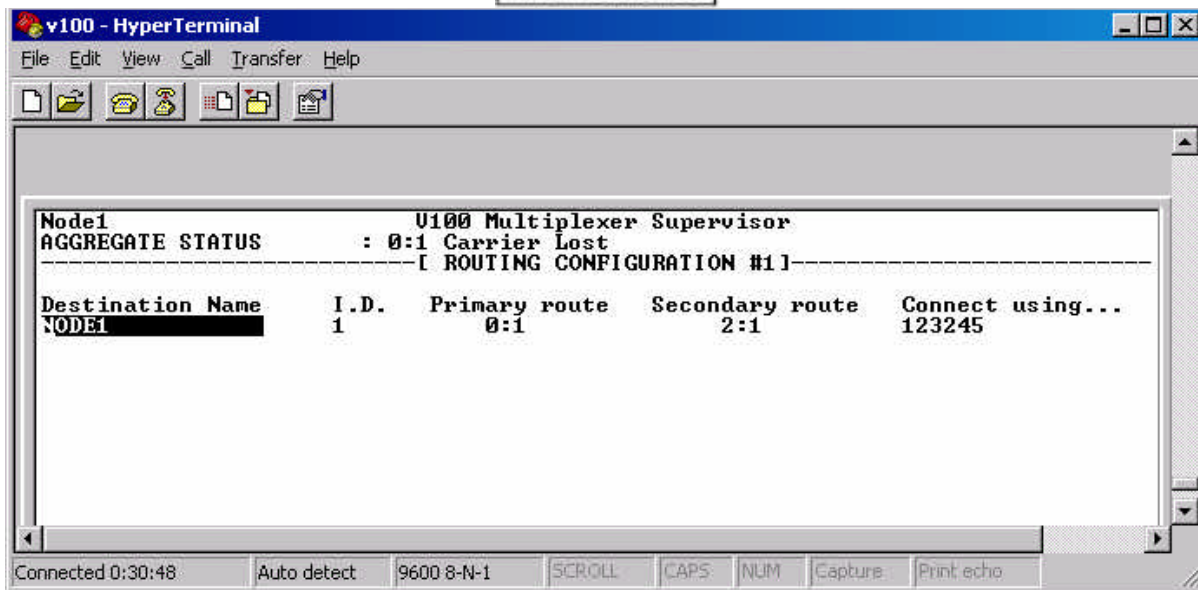


Figure 11. Routing Page.

To delete all routes

```
>node1 delete route
>
```

3.13 TDM

Table 7. *Valid TDM values.*

TDM	
TdmImode	(RS449, V.35, V.24)
TdmCsrc	(Ext, Rxc)

TDM parameters are shown on the System Page when a data channel has been selected for TDM.

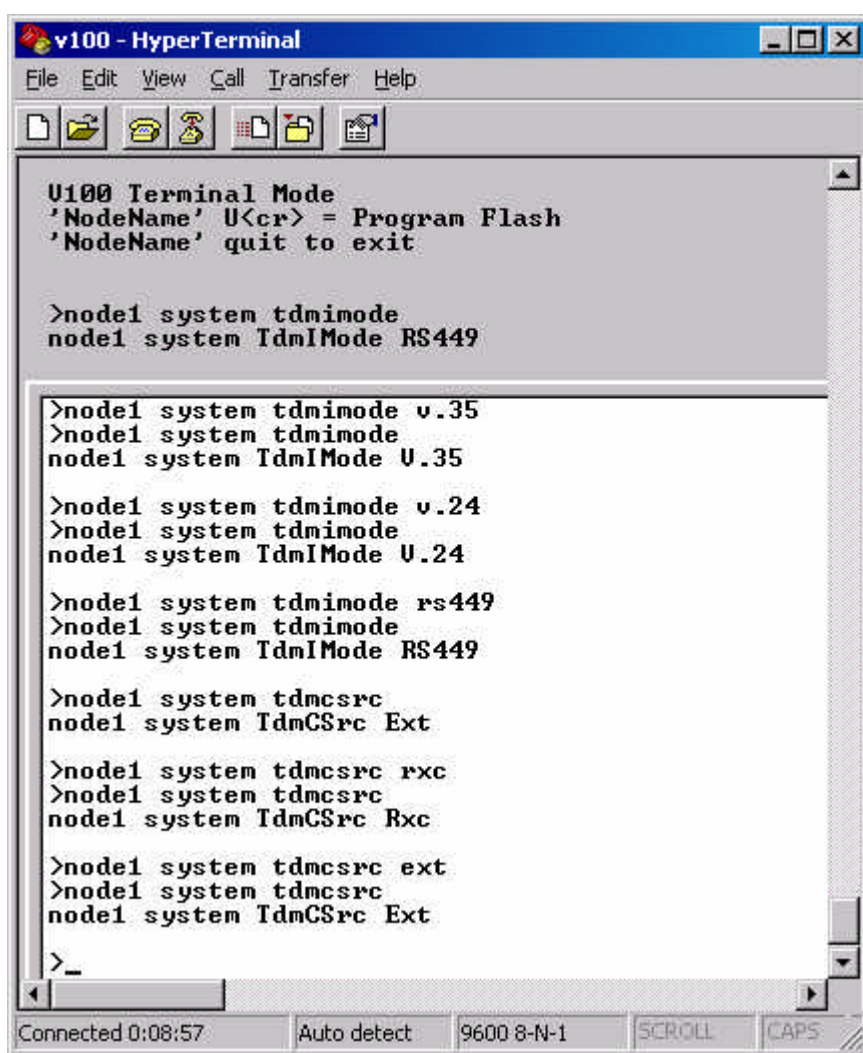


Figure 12. *Valid TDM parameters.*

3.14 Audio

The Audio configuration parameter values are show below.

Parameter	Allowed Values	Restrictions
ACTIVTIME	= (0 to 120)	
ACTIVLEVEL	= (1 to 10)	
MODE	= ("Analogue", "Digital")	
SCLKREF	= ("GRXCLK", "GTXCLK")	
DCLKREF	= ("None", ">GRXCLK", ">GTXCLK")	
SRATE	= ("", /*"32K", /*"48K", NULL)	
ENCFUNC	= ("None", "MPEG", "G.722", "G.711")	
DECFUNC	= ("None", "MPEG", "G.722", "G.711")	
MPEGENCTYPE	= ("MPEG-1", "MPEG-2")	MPEG only
MPEGENCLAYER	= ("I", "II", NULL) // MPEG only	MPEG only
char *MSRateList[]	= ("16K", "22.05K", "24K", "32K", "44.1K", "48K")	MPEG only
MPEGENCMODE	= ("Stereo", "Joint Stereo", "Dual Mono", "Mono")	MPEG only
G711ENCMODE	= ("", "A-Law", "u-Law Z", "u-Law NZ")	G711 encoder only
G711DECMODE	= ("", "A-Law", "u-Law")	G711 decoder only
G722ENCMODE	= ("", "Mode 1 (64K")	G722 only
G722DECMODE	= ("", "Mode 1 (64K")	G722 only
FRMLEN	= ("384", "512", "1152")	Not MPEG

When using TTY mode to configure the Audio card, refer to the V100 Meg Audio card manual. The results of reading the Audio card parameters are shown below.

```
#Audio Card Read Test
node1 ACard 2 ActivTime 0
node1 ACard 2 ActivLevel 5
node1 ACard 2 Mode Analogue
node1 ACard 2 SClkRef GRXCLK
node1 ACard 2 DClkRef None
node1 ACard 2 Srate 48K
node1 ACard 2 FrmLen 1152
node1 ACard 2 EncFunc MPEG
node1 ACard 2 DecFunc MPEG
node1 ACard 2 EncBRate 2
node1 ACard 2 G711ENCMode A-Law
node1 ACard 2 G711DECMode A-Law
node1 ACard 2 G722ENCMode Mode 1 (64K)
node1 ACard 2 G722DECMode Mode 1 (64K)
node1 ACard 2 MpegENCType MPEG-1
node1 ACard 2 MpegENCLayer I
node1 ACard 2 MpegENCMode Mono
node1 ACard 2 Map 1:2:0
```

4 TTY CNC MODE

The data output below shows examples of the format of the data when TTY mode is set to TTYCNC

4.1 System Show command

>node1 ?

```

< _REMCFG_ = ENABLED
< _NODEID_ = 123
< _IFACE_ = AUTO
< _ACTCFG_ = 1
< _EDITCFG_ = 1
< _ALMDLY_ = NONE
< _ALMMOD_ = AUTO
< _COUNTRY_ = UK
< _HSCMODE_ = SLAVE
< _HSCRSRC_ = INT
< _HSCTSRC_ = INT
< _TDMIMODE_ = RS449
< _TDMCSRC_ = RXC
< _CONNTMO_ = 10
< _PRDYFILT_ = 1
< _DCHMODE_ = AUTO
< _DCHFLAG_ = ALWAYS ON
< _DCPREHOLD_ = 3
< _ASYBUFFS_ = 32

< _IFACE_ = RS449
< _MODE_ = TRIB
< _TYPE_ = DCE
< _FORMAT_ = SYNC
< _ASYRATE_ = 9600
< _RXRATE_ = 0
< _RXSOURCE_ = EXT
< _RXREF_ = -
< _TXRATE_ = 0
< _TXSOURCE_ = EXT
< _TXREF_ = -
< _MAP_ =

< _IFACE_ = RS449
< _MODE_ = TRIB
< _TYPE_ = DCE

```

```

< _FORMAT_ = SYNC
< _ASYRATE_ = 9600
< _RXRATE_ = 0
< _RXSOURCE_ = EXT
< _RXREF_ = -
< _TXRATE_ = 0
< _TXSOURCE_ = EXT
< _TXREF_ = -
< _MAP_ =

```

```

< _CLKREF_ = GTXCLK
< _ALG_ = G.711-A 64K
< _IFACE_ = FXO
< _SIGTYPE_ = TRANS
< _GAININ_ = +2DB
< _GAINOUT_ = +2DB
< _MAP_ = 3:2:1

```

```

< _CLKREF_ = GRXCLK
< _ALG_ = OFF
< _IFACE_ = FXO
< _SIGTYPE_ = DTMF
< _GAININ_ = 0DB
< _GAINOUT_ = 0DB
< _MAP_ = AUTO

```

```

< _CLKREF_ = GRXCLK
< _ALG_ = OFF
< _IFACE_ = FXO
< _SIGTYPE_ = DTMF
< _GAININ_ = 0DB
< _GAINOUT_ = 0DB
< _MAP_ = AUTO

```

```

< _CLKREF_ = GRXCLK
< _ALG_ = OFF
< _IFACE_ = FXO
< _SIGTYPE_ = DTMF
< _GAININ_ = 0DB
< _GAINOUT_ = 0DB
< _MAP_ = AUTO

```

```

< _ACTIVETIME_ = 0
< _ACTIVELEVEL_ = 5
< _MODE_ = DIGITAL
< _SCLKREF_ = GRXCLK
< _DCLKREF_ = NONE
< _SRATE_ = 48K
< _FRMLEN_ = 1152

```

V100 Versatile Multiplexer

```

< _ENCFUNC_ = MPEG
< _DECFUNC_ = MPEG
< _ENCBRATE_ = 2
< _G711ENCMODE_ = A-LAW
< _G711DECMODE_ = A-LAW
< _G722ENCMODE_ = MODE 1 (64K)
< _G722DECMODE_ = MODE 1 (64K)
< _MPEGENCTYPE_ = MPEG-1
< _MPEGENCLAYER_ = I
< _MPEGENCMODE_ = MONO
< _MAP_ = 1:2:0

```

4.2 System Page Parameter Test

```
>#CONFIGURATION BY REMOTE
```

```
node1 system remcfg inhibited
```

```
>node1 system remcfg
```

```
< _REMCFG_ = INHIBITED
```

```
>node1 system remcfg enabled
```

```
>node1 system remcfg ?
```

```
< _REMCFG_ = ENABLED
```

```
>#NODE ID
```

```
 #(In TTY mode the range is limited from 0 to 239)
```

```
node1 system nodeid 123
```

```
>node1 system nodeid
```

```
< _NODEID_ = 123
```

```
>node1 system nodeid 321
```

```
Error: Value out of range or read only. NODEID : 321
```

```
>#ACTIVE CONFIGURATION
```

```
 #(Allowed Range from 1 to 7)
```

```
node1 system actcfg
```

```
< _ACTCFG_ = 1
```

```
>node1 system actcfg 7
```

```
>node1 system actcfg
```

```
< _ACTCFG_ = 7
```

```
>node1 system actcfg 0
```

```
Error: Value out of range or read only. ACTCFG : 0
```

```
>node1 system actcfg 8
```


Error: Value out of range or read only. ACTCFG : 8

```
> #EDIT CONFIGURATION
#(Allowed Range from 1 to 7)
```

```
node1 system editcfg
< _EDITCFG_ = 1
```

```
>node1 system editcfg 1
>node1 system editcfg
< _EDITCFG_ = 1
```

```
>node1 system editcfg 7
>node1 system editcfg
< _EDITCFG_ = 7
```

```
>node1 system editcfg 0
Error: Value out of range or read only. EDITCFG : 0
```

```
>node1 system editcfg 8
Error: Value out of range or read only. EDITCFG : 8
```

```
>#ALARM DELAY
node1 system almdly
< _ALMDLY_ = NONE
```

```
>node1 system almdly 5s
>node1 system almdly
< _ALMDLY_ = 5S
```

```
>node1 system almdly 10s
>node1 system almdly
< _ALMDLY_ = 10S
```

```
>node1 system almdly 20s
>node1 system almdly
< _ALMDLY_ = 20S
```

```
>node1 system almdly 1min
>node1 system almdly
< _ALMDLY_ = 1MIN
```

```
>node1 system almdly 2min
>node1 system almdly
< _ALMDLY_ = 2MIN
```

```
>node1 system almdly 5min
>node1 system almdly
< _ALMDLY_ = 5MIN
```

```
>node1 system almdly 1hour
>node1 system almdly
< _ALMDLY_ = 5MIN
```

```
>node1 system almdly xyz
>node1 system almdly
< _ALMDLY_ = 5MIN
```

```
>node1 system almdly 0s
>node1 system almdly
< _ALMDLY_ = 5MIN
```

```
> #ALARM MODE
node1 system almmod
< _ALMMOD_ = AUTO
```

```
>node1 system almmod on
>node1 system almmod
< _ALMMOD_ = ON
```

```
>node1 system almmod off
>node1 system almmod
< _ALMMOD_ = OFF
```

```
>node1 system almmod toggle
>node1 system almmod
< _ALMMOD_ = TOGGLE
```

```
>node1 system almmod abc
>node1 system almmod
< _ALMMOD_ = TOGGLE
```

```
>#COUNTRY
node1 system country
< _COUNTRY_ = UK
```

```
>node1 system country us
>node1 system country
< _COUNTRY_ = US
```

```
>node1 system country france
>node1 system country
< _COUNTRY_ = FRANCE
```

```
>node1 system country germany
>node1 system country
< _COUNTRY_ = GERMANY
```

```
>node1 system country uk
```

```
>node1 system country
< _COUNTRY_ = UK
```

```
>node1 system country 123
>node1 system country
< _COUNTRY_ = UK
```

```
>#HSC MODE
node1 system hscmode
< _HSCMODE_ = SLAVE
```

```
>node1 system hscmode master
>node1 system hscmode
< _HSCMODE_ = MASTER
```

```
>node1 system hscmode slave
>node1 system hscmode
< _HSCMODE_ = SLAVE
```

```
>node1 system hscmode 123
>node1 system hscmode
< _HSCMODE_ = SLAVE
```

```
>#HSC RXC
node1 system hscsrc
< _HSCRSRC_ = INT
```

```
>node1 system hscsrc ext
>node1 system hscsrc
< _HSCRSRC_ = EXT
```

```
>node1 system hscsrc int
>node1 system hscsrc
< _HSCRSRC_ = INT
```

```
>node1 system hscsrc xyz
>node1 system hscsrc
< _HSCRSRC_ = INT
```

```
>#HSC TXC
node1 system hsctsrc
< _HSCTSRC_ = INT
```

```
>node1 system hsctsrc ext
>node1 system hsctsrc ?
< _HSCTSRC_ = EXT
```

```
>node1 system hsctsrc int
>node1 system hsctsrc
```

< _HSCTSRC_ = INT

>node1 system hsctsrc 123

>node1 system hsctsrc

< _HSCTSRC_ = INT

> #CONNECTION TIMEOUT

node1 system conntmo

< _CONNTMO_ = 10

>node1 system conntmo 1

>node1 system conntmo

< _CONNTMO_ = 1

>node1 system conntmo 255

>node1 system conntmo

< _CONNTMO_ = 255

>node1 system conntmo -1

Error: Value out of range or read only. CONNTMO : -1

>node1 system conntmo 256

Error: Value out of range or read only. CONNTMO : 256

>node1 system conntmo

< _CONNTMO_ = 255

>#RECEIVE READY FILTER

node1 system prdyfilt

< _PRDYFILT_ = 1

>node1 system prdyfilt 30

>node1 system prdyfilt

< _PRDYFILT_ = 30

>node1 system prdyfilt 0

>node1 system prdyfilt

< _PRDYFILT_ = 0

>node1 system prdyfilt -1

Error: Value out of range or read only. PRDYFILT : -1

>node1 system prdyfilt 255

>node1 system prdyfilt

< _PRDYFILT_ = 255

>#DATA CHANNEL ACTIVATION

node1 system dchmode

< _DCHMODE_ = AUTO

```

>node1 system dchmode flag
>node1 system dchmode
< _DCHMODE_ = FLAG

>node1 system dchmode auto
>node1 system dchmode
< _DCHMODE_ = AUTO

>node1 system dchmode 123
>node1 system dchmode
< _DCHMODE_ = AUTO

>node1 system
Error: Incomplete or invalid command
>node1 system dchmode
< _DCHMODE_ = AUTO

>#DATA CHANNEL FLAG
node1 system dchflag
< _DCHFLAG_ = ALWAYS ON

>node1 system dchflag follows connect
>node1 system dchflag
< _DCHFLAG_ = FOLLOWS CONNECT

>node1 system dchflag always on
>node1 system dchflag
< _DCHFLAG_ = ALWAYS ON

>node1 system dchflag follows remote
>node1 system dchflag
< _DCHFLAG_ = FOLLOWS REMOTE

>node1 system dchflag 123
>node1 system dchflag
< _DCHFLAG_ = FOLLOWS REMOTE

>node1 system dchflag 123 abc
>node1 system dchflag
< _DCHFLAG_ = FOLLOWS REMOTE

>#ASYNC BUFFER SIZE
node1 system asybuffs
< _ASYBUFFS_ = 32

>node1 system asybuffs 23
>node1 system asybuffs
< _ASYBUFFS_ = 23

```

```

>node1 system asybuffs 8
>node1 system asybuffs
< _ASYBUFFS_ = 8

>node1 system asybuffs 0
Error: Value out of range or read only. ASYBUFFS : 0

>node1 system asybuffs 33
Error: Value out of range or read only. ASYBUFFS : 33

>node1 system asybuffs 7
Error: Value out of range or read only. ASYBUFFS : 7

>

```

4.3 Data Channel Test

```

>#Data Channel Config Test
node1 dchan 0:1 IFace RS449
>node1 dchan 0:1 Mode
< _MODE_ = TRIB

>node1 dchan 0:1 Mode Agg
>node1 dchan 0:1 Mode
< _MODE_ = AGG

>node1 dchan 0:1 Type
< _TYPE_ = DCE

>node1 dchan 0:1 Type DTE
>node1 dchan 0:1 Type
< _TYPE_ = DTE

>node1 dchan 0:1 Format
< _FORMAT_ = SYNC

>node1 dchan 0:1 Format NRZ
>node1 dchan 0:1 Format
< _FORMAT_ = NRZ

>#node1 dchan 0:1 AsyRate
#node1 dchan 0:1 AsyRate 9600
#node1 dchan 0:1 AsyRate
node1 dchan 0:1 RxRate

```

```

< _RXRATE_ = 0

>node1 dchan 0:1 RxRate 32000
>node1 dchan 0:1 RxRate
< _RXRATE_ = 32000

>node1 dchan 0:1 RxSource
< _RXSOURCE_ = EXT

>node1 dchan 0:1 RxSource Ext
>node1 dchan 0:1 RxSource
< _RXSOURCE_ = EXT

>node1 dchan 0:1 RxRef
< _RXREF_ = -

>node1 dchan 0:1 RxRef >GRX
>node1 dchan 0:1 RxRef
< _RXREF_ = >GRX

>node1 dchan 0:1 TxRate
< _TXRATE_ = 0

>node1 dchan 0:1 TxRate 32000
>node1 dchan 0:1 TxRate
< _TXRATE_ = 32000

>node1 dchan 0:1 TxSource ?
< _TXSOURCE_ = EXT

>node1 dchan 0:1 TxSource Rxc
>node1 dchan 0:1 TxSource
< _TXSOURCE_ = RXC

>node1 dchan 0:1 TxRef
< _TXREF_ = -

>node1 dchan 0:1 TxRef -
>node1 dchan 0:1 TxRef
< _TXREF_ = -

>node1 dchan 0:1 Map
< _MAP_ =

>node1 dchan 0:1 Map 1:1:1
>node1 dchan 0:1 Map
< _MAP_ = 1:1:1

>

```

4.4 Voice Channel Config Test

```

node1 vchan 1:1 ClkRef GTXCLK
>node1 vchan 1:1 Alg G.711-A 64K
>node1 vchan 1:1 IFace FXO
>node1 vchan 1:1 SigType trans
>node1 vchan 1:1 GainIn +2dB
>node1 vchan 1:1 GainOut +1dB
>node1 vchan 1:1 Map 3:2:1
>node1 vchan 1:1 ClkRef
< _CLKREF_ = GTXCLK

>node1 vchan 1:1 Alg
< _ALG_ = G.711-A 64K

>node1 vchan 1:1 IFace
< _IFACE_ = FXO

>node1 vchan 1:1 SigType
< _SIGTYPE_ = TRANS

>node1 vchan 1:1 GainIn
< _GAININ_ = +2DB

>node1 vchan 1:1 GainOut
< _GAINOUT_ = +2DB

>node1 vchan 1:1 Map
< _MAP_ = 3:2:1

>

```


5 SUPPLEMENTARY

5.1 Stats Commands

Command

Chassis_Data_Stats

Response

Chassis_Data_Stats x:y p1,p2,p3,...p17

Where x:y = 0:channel number (on the chassis only) The parameters are

- P1 Rx Count
- P2 Rx Errors
- P3 Last Rx Error
- P4 Tx Count
- P5 Tx Errors
- P6 Tx Queue
- P7 Tx Buffers Discarded
- P8 Buffers Sent
- P9 Buffers Received
- P10 Bandwidth Required
- P11 Resync Count
- P12 mIndicate
- P13 PortReady
- P14 Port State
- P15 Current DBA Rate
- P16 Async Queue size
- P17 Async Queue size

E.G

Command

>Chassis_Data_Stats

Response

```
> Chassis_Data_Stats 0:1 14788,0,0, 14230,1401,0,0,14547,14547,true,1,true,false,Active,1600,0,0
Chassis_Data_Stats 0:2 19888,0,0, 15630, 2801,0,0,16447,14597,false,1,true,false,Active,1600,0,0
```

If E.G. a data interface card is not installed the command >Chassis_Data_Stats will produce the response Chassis_Data_Stats Invalid command.

Command

DataCard_Stats n where n is the slot number and can be 1 or 2.

Response

DataCard_Stats x:y p1,p2,p3,...p10

Where x = slot number:channel number. The parameters are

- P1 Rx Buffers Read
- P2 Tx Buffers Written
- P3 Queue Size To QDC
- P4 Buffers Discarded
- P5 mIndicate
- P6 PortReady
- P7 Current DBA Rate
- P8 Async Queue Size
- P9 Dual Port Ram State
- P10 StateName

E.G

Command

>DataCard_Stats 1

Response

```
>DataCard_Stats 1:1 0,0,0,0,true,false,0,0,idle,D0_DataIdle
DataCard_Stats 1:2 0,0,0,0,true,false,0,0,idle,D0_DataIdle
DataCard_Stats 1:3 0,0,0,0,true,false,0,0,idle,D0_DataIdle
DataCard_Stats 1:4 0,0,0,0,true,false,0,0,idle,D0_DataIdle
```

Slots 1 and 2 have 4 data channels.

If E.G. slot 2 does not have a card installed the command >DataCard_Stats 2 will produce the response DataCard_Stats 2 Invalid command.

Command

Miscellaneous_Stats

Response

Miscellaneous_Stats p1,p2,p3,...p6

The parameters are

- P1 GRX Clock Rate
- P2 GTX Clock Rate
- P3 Router Input Queue Length
- P4 Run Time
- P5 Supervisor
- P6 Remote Supervisor DBA

E.G

Command

>Miscellaneous_Stats

Response

>Miscellaneous_Stats 0,0,0,00:08:15,RS485,9600

Command

BRICard_Stats n where n is the slot number and can be 1 or 2.

Response

BRICard_Stats x p1,p2,p3,.....p13

Where x = slot number. The parameters are

The parameters are

- P1 Firmware Version
- P2 D Buffers Read
- P3 D Buffers Written
- P4 Buffers Discarded
- P5 B1 Buffers Read
- P6 B1 Buffers Written
- P7 B1 Buffers Discarded
- P8 B2 Buffers Read
- P9 B2 Buffers Written
- P10 B2 Buffers Discarded
- P11 C Buffers Read
- P12 C Buffers Written
- P13 C Buffers Discarded

E.G

Command

>BRICard_Stats 1

Response

>BRICard_Stats 1 1.10.a5,0,9,0,0,444,7,0,0,0,1100,1,1

If E.G. slot 1 does not have a card installed the command >BRICard_Stats 1 will produce the response BRICard_Stats 1 Invalid command.

Command

VoiceCard_Stats n where n is the slot number and can be 1 or 2.

Response

VoiceCard_Stats x:y p1,p2,p3,.....p14

Where x:y = slot number:channel number. The parameters are

- P1 Bytes Read
- P2 RX Overruns
- P3 Bytes Written
- P4 TX Overruns
- P5 TX Underruns
- P6 Buffers Discarded
- P7 Coder State
- P8 Signal In
- P9 Ring Seize
- P10 Bandwidth Required
- P11 Message Queue Count
- P12 I/P Queue Buffer Count
- P13 O/P Queue Buffer Count
- P14 State Name

E.G

Command

> VoiceCard_Stats 1

Response

> VoiceCard_Stats 1:1 27012,0,0,0,0,0,4,false,true,false,0,0,0, DO_LineIdle

VoiceCard_Stats 1:2 27012,0,0,0,0,0,4,false,true,false,0,0,0, DO_LineIdle

Slots 1 and 2 can have up to 4 voice channels

If E.G. slot 2 does not have a card installed the command > VoiceCard_Stats 2 will produce the response VoiceCard_Stats 2 Invalid command.

Command

MpegCard_Stats n where n is the slot number and can be 1 or 2.

Response

MpegCard_Stats x:y p1,p2,p3,.....p14

Where x:y = slot number:channel number. The parameters are

- P1 Musicore Flash S/W
- P2 Encoder
- P3 Decoder
- P4 Left Input peak meter data
- P5 Right Input peak meter data
- P6 Left Output peak meter data
- P7 Right Output peak meter data
- P8 Signal In
- P9 Ring Seize
- P10 Bandwidth Required
- P11 Message Queue Count
- P12 I/P Queue Buffer Count
- P13 O/P Queue Buffer Count
- P14 State Name

If E.G. slot 2 does not have a card installed the command > MpegCard_Stats 2 will produce the response MpegCard_Stats 2 Invalid command.

END OF DOCUMENT