



Support Utility

METANO**A**

The logo graphic consists of a yellow vertical bar with a blue circle around it, resembling a stylized 'i' or a chemical structure.



What do you need

- Firmware update (flash EEPROM)
- Change firmware configuration
- Monitor current status
- Production test
- Stability test
- Problem debug

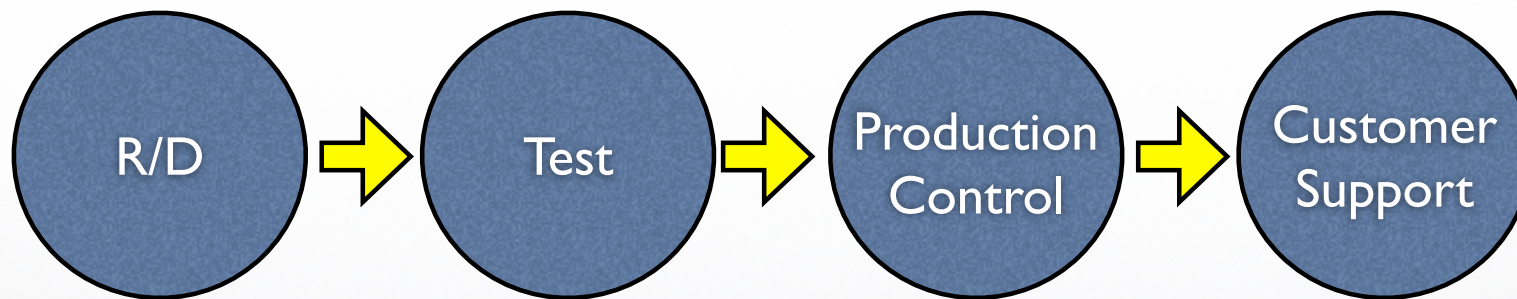


Who need this

- Firmware programmer - debug firmware
- Hardware engineer - test hardware problem
- Production test and quality control
- Supporter (FAE) - identify problem
- Customer engineer - report problem, help to identify problem

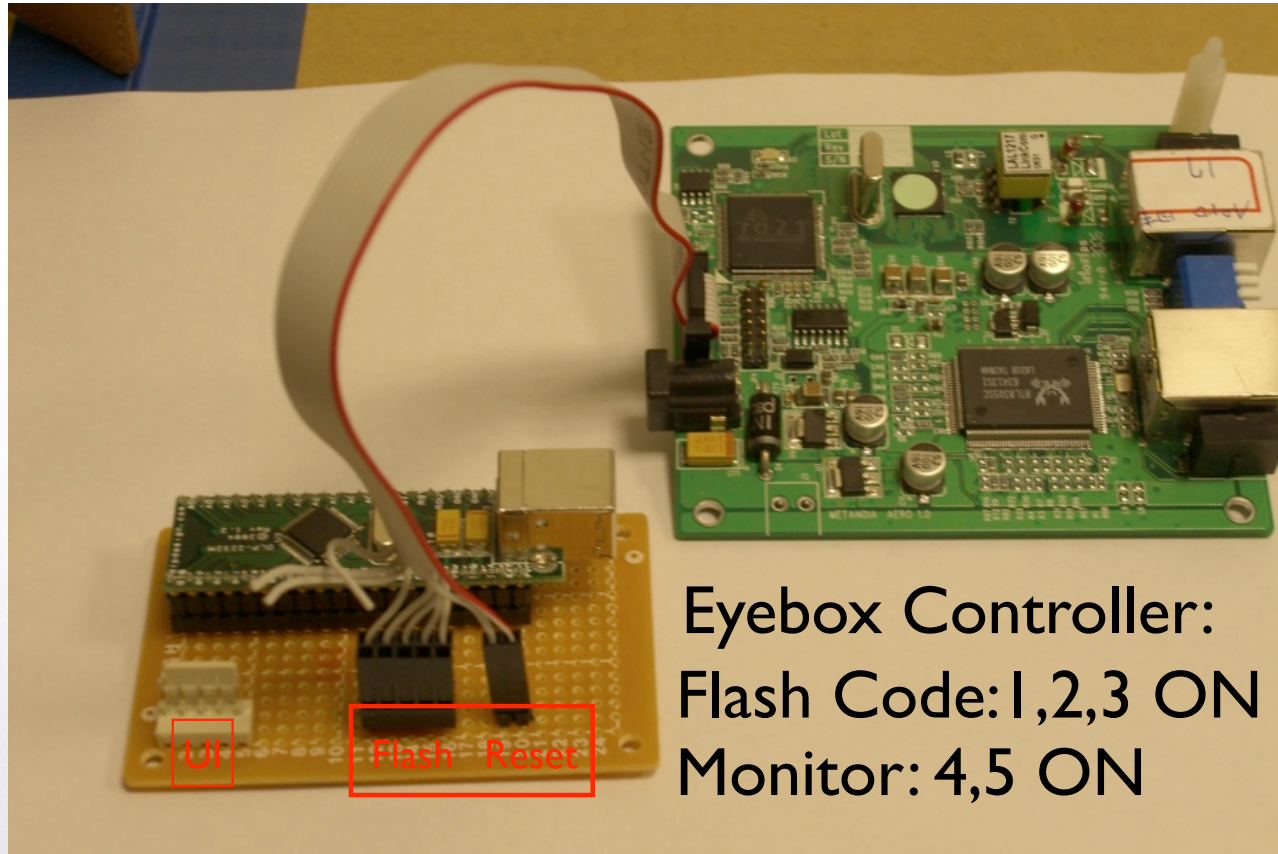


When need this





Hardware Connection



Eyebex Controller:
Flash Code: 1,2,3 ON
Monitor: 4,5 ON



Firmware Manager

- Flash EEPROM
- Setup firmware configuration
 - Rate limit, Target SnrMgn, Interleave depth
 - Change BandPlan
- Check firmware version on file/flash
- Support Aero

Firmware Manager

Metanoia Firmware Manager (Ver: 1.10)

Init Flash Parse

Filename: C:\prg\board\wire2\UI\v3.b

Global Configuration

G1	1	G7	7	G13	13
G2	2	G8	8	G14	14
G3	3	G9	9	G15	15
G4	4	G10	10	G16	16
G5	5	G11	11		
G6	6	G12	12		

Header: Sys Version: 3 FW DIP: 1
FW Group: 1
FW Version: 111111
FW Date: 122222 FW Time: 133333

MIB Configuration

Save MIB Conf: 1
1-AllGroupDef Update Setting Load from Flash

Option	0	CfgUsPb2FirstTone	0	Preserve	0
DownTargetSntMgn	0	CfgUsPb2LastTone	0	Preserve	0
UpTargetSntMgn	0	CfgUsPb3FirstTone	0	Preserve	0
DownMaxInterDelay	0	CfgUsPb3LastTone	0	Preserve	0
UpMaxInterDelay	0	CfgUsPb4FirstTone	0	Preserve	0
BandPlan	0	CfgUsPb4LastTone	0	Preserve	0
DownTargetSlowBurst	0	CfgDsPb0FirstTone	0	Preserve	0
UpTargetSlowBurst	0	CfgDsPb0LastTone	0	Preserve	0
DownSlowMaxDataRate	0	CfgDsPb1FirstTone	0	Preserve	0
UpSlowMaxDataRate	0	CfgDsPb1LastTone	0	Preserve	0
CfgUsPbs	0	CfgDsPb2FirstTone	0	Preserve	0
CfgDsPbs	0	CfgDsPb2LastTone	0	Preserve	0
CfgUsPb0FirstTone	0	CfgDsPb3FirstTone	0	Preserve	0
CfgUsPb0LastTone	0	CfgDsPb3LastTone	0	Preserve	0
CfgUsPb1FirstTone	0	CfgDsPb4FirstTone	0	Preserve	0
CfgUsPb1LastTone	0	CfgDsPb4LastTone	0	Preserve	0

Development

Firmware Version: BootCode: C:\prg\board\wire2\UI\bootcode_v3.b 0

Filename: C:\prg\board\wire2\UI\v3.b FW: Z:\8400\logistic\Firmware\073107_182732\Aero_ot

Address: 0 ☐ Ignore first byte

WriteByPar Calculate Address Pack 1-OneFW Update FW Cfg Addr: 10200 Cfg Size: 40 Cfg Dest Addr: 7fc0
FW Start: 20000
Serial Number: MT060904001
Generate Serial Flash Serial



AERO default profile

Profile ID	DIP1	DIP2	DIP3	DIP4	Bandplan
V1	Off: CO On: CPE	Off: Interleave On: Fast	Off: 50M/20M On: no limit	Off: 9dB On: 6dB	998
V2A	Off: CO On: CPE	Off: Interleave On: Fast	Off: 50M/20M On: no limit	Off: 9dB On: 6dB	998ISDN
V2B	Off: CO On: CPE	Off: Interleave On: Fast	Off: Symmetric ISDN On: 998 ISDN	Off: 9dB On: 6dB	
V2C	Off: CO On: CPE	Off: Interleave On: Fast	Off: 998 On: 998 ISDN	Off: 9dB On: 6dB	



DslMonitor

- Monitor current status
 - Data rate, CRCs, Configuration
- Production check
 - by rate limit, clock frequency, showtime
- Stability Test
 - Continue monitor CRCs
 - Connect every minutes
 - SNR chart
 - Auto test Integrated with line simulator, noise generator
- Problem debug
 - Line communication status
 - fw detail status and debug information
 - memory dump
- Support network/Eyebbox connection, multi-port supported



Dslmonitor

Msg = Connected, Metanoia DSL Monitor (Ver: 1.40 HW: V1.1) - [Memory Monitor]

disConnect Preference Memory Debugger MemoryMonitor MemoryAnalysis VDSLStatus Setting AFTest CustomerRequest Test

Group: METANOIA Like: Load Map: CD CPE Daiden_2kfglobals_awrt.lst Choose Auto Version: Globals.lst

Variable Name: vdsFirmwareDate, vdsFirmwareTime, vdsFirmwareVer, vdsLineConfDownMaxInterDelay, vdsLineConfDownSlowMaxDataRate, vdsLineConfDownSlowMinDataRate, vdsLineConfDownTargetSlowBurst, vdsLineConfDownTargetSlowMgn, vdsLineConfUpMaxInterDelay, vdsLineConfUpSlowMaxDataRate, vdsLineConfUpSlowMinDataRate, vdsLineConfUpTargetSlowBurst, vdsLineConfUpTargetSlowMgn, vdsIDIntlvChanBadBlks, vdsIDPhysCurLineRate, vdsIRIntlvChanBadBlks, vdsIRPhysCurLineRate, vdsIRPhysCurSnrMgn

Monitoring Variable Name: vdsFirmwareDate, vdsFirmwareTime, vdsFirmwareVer, vdsLineConfDownMaxInterDelay, vdsLineConfDownSlowMaxDataRate

PortID: 1 Monitor Variables: 1000 ms Stop

Setup Group: DEFAULT Page: 0 Clear Log Log Only Change

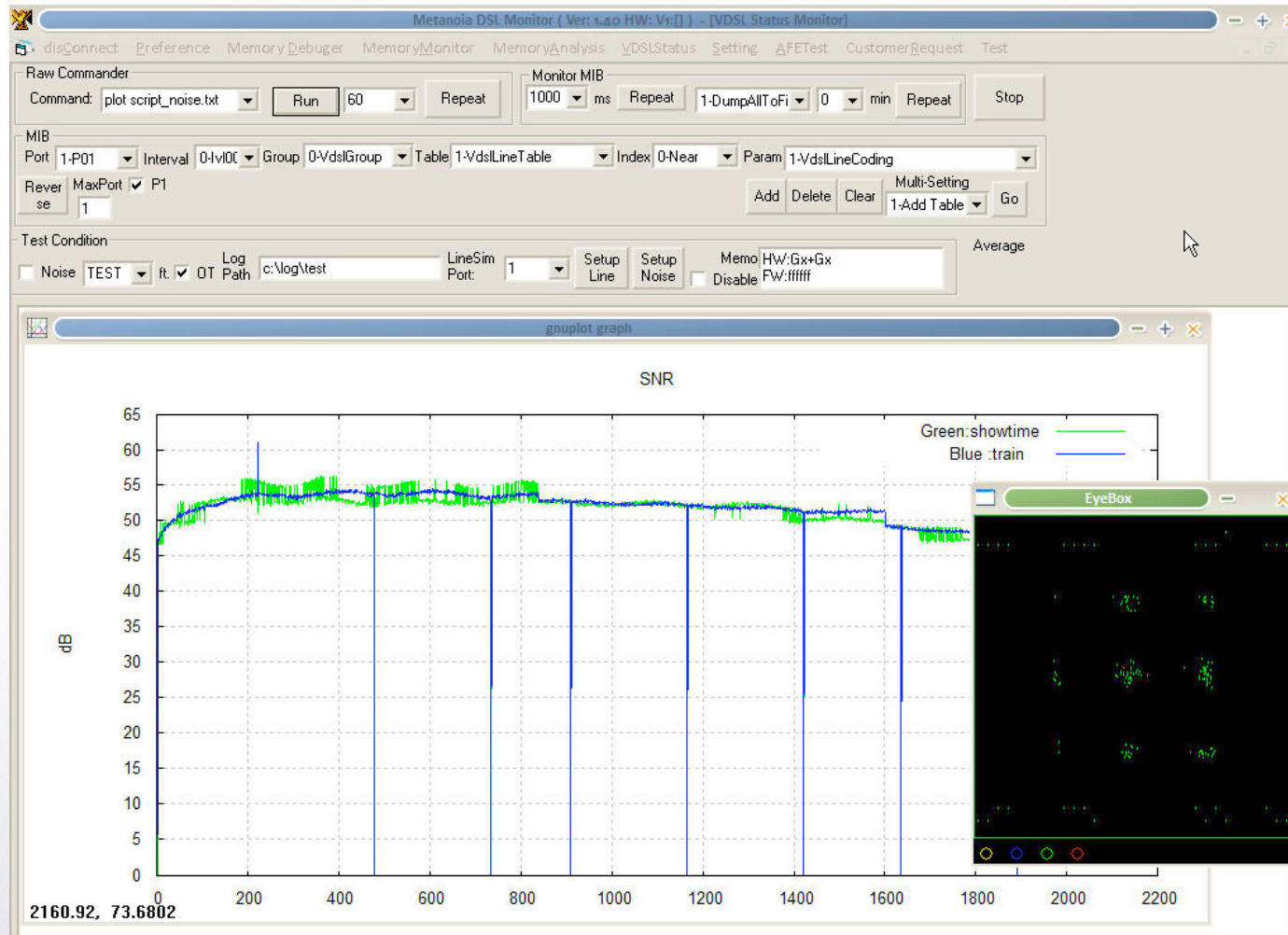
Monitoring	Value
vdsFirmwareDate	131072
vdsFirmwareTime	338183
vdsFirmwareVer	0
vdsLineConfDownMaxInterDelay	50
vdsLineConfDownSlowMaxDataRate	0
vdsLineConfDownSlowMinDataRate	131072
vdsLineConfDownTargetSlowBurst	0
vdsLineConfDownTargetSlowMgn	0
vdsLineConfUpMaxInterDelay	0
vdsLineConfUpSlowMaxDataRate	0
vdsLineConfUpSlowMinDataRate	131072
vdsLineConfUpTargetSlowBurst	0
vdsLineConfUpTargetSlowMgn	0
vdsIDIntlvChanBadBlks	0
vdsIDPhysCurLineRate	64188
vdsIDPhysCurSnrMgn	0
vdsIRIntlvChanBadBlks	0
vdsIRPhysCurLineRate	111468
vdsIRPhysCurSnrMgn	0

Variable Detail: Setup Group: DEFAULT

Misc: Address: 0 Data(HEX): Write

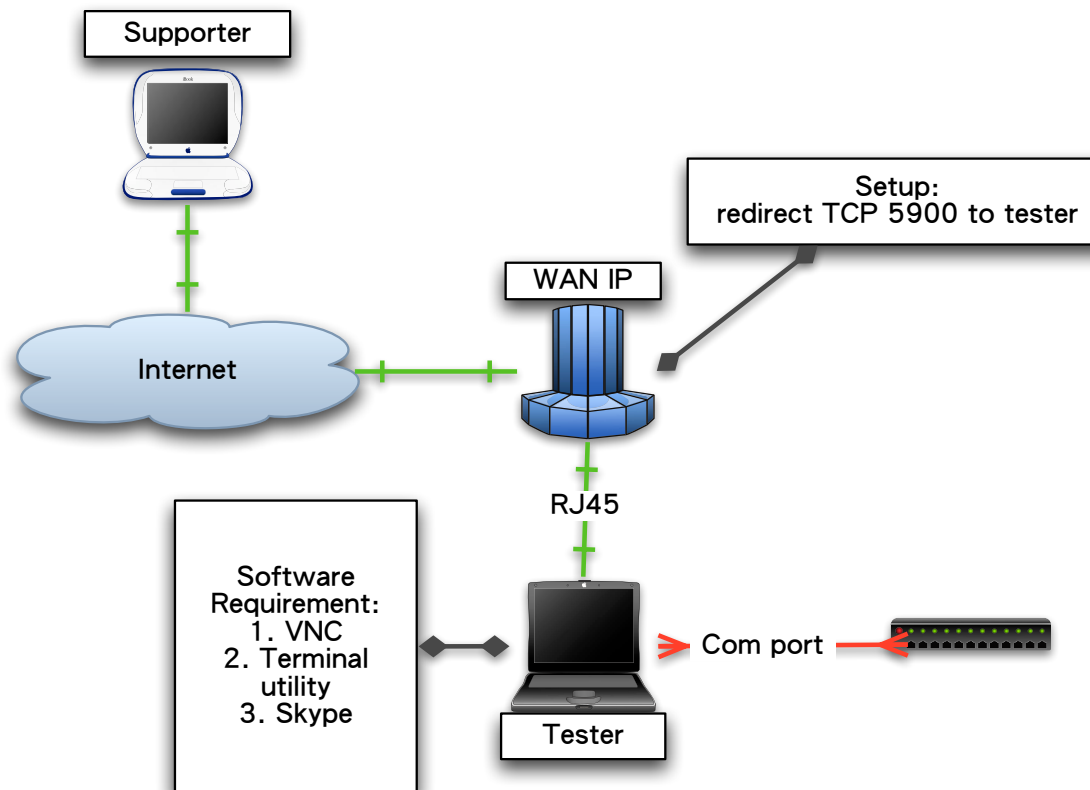
Size: Type: cmbTyp Set Variable Write 0 Count: 100 Dump Memory Add Minus Hex: 1 Cont

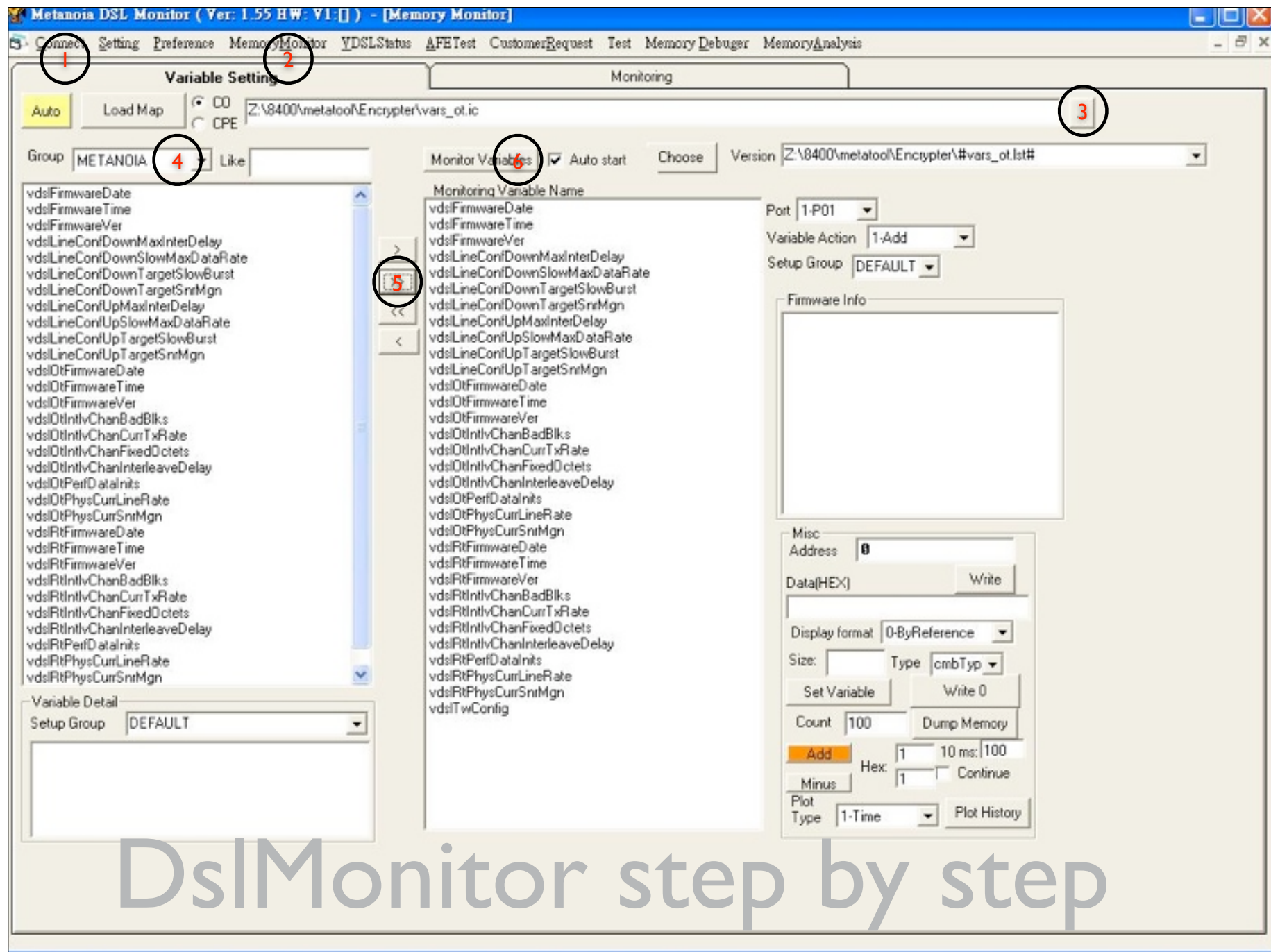
EyeBox





Remote Desktop Setup





Msg - Firmware Ver= 030000,Date= 102307,Time= 131647,Board= 000002,Terminal= 000121,Sign= 474154, Metanoia DSL Monitor (Ver: 1.55 HW: V1:) - [M...]

disConnect Setting Preference MemoryMonitor VDSLStatus AFETest CustomerRequest Test MemoryDebugger MemoryAnalysis

Variable Setting Monitoring

Production Check: PASS Refresh 100 ms Stop ☒ Keep History Monitoring -- update completed: 14:06:58

Checking Msg: PASS

Production Check Pass

log Clear Log ☒ Log ☒ Only Change

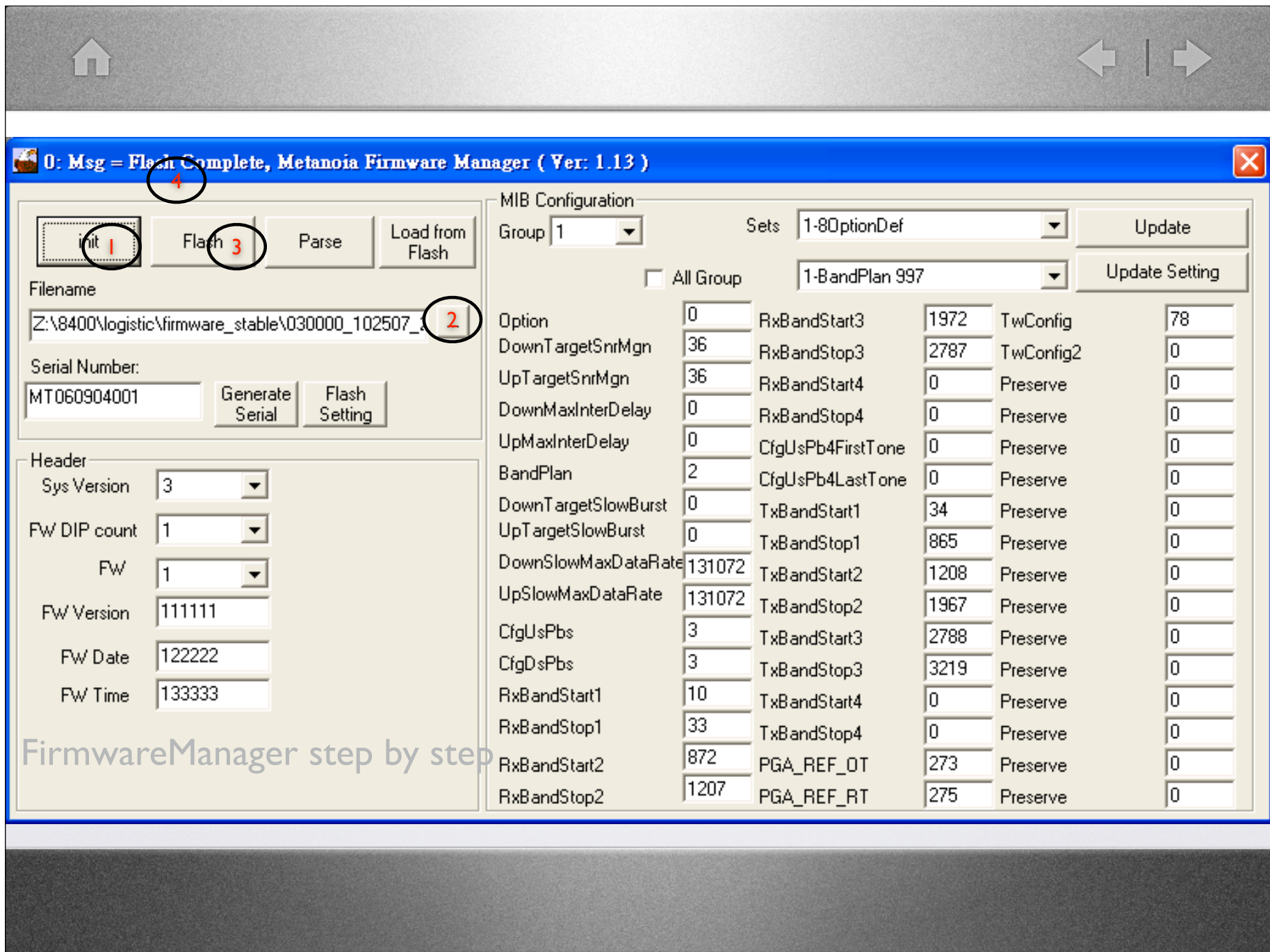
000,893,468:vdsIotFirmwareDate: 102507
000,893,500:vdsIotFirmwareTime: 204012
000,893,578:vdsIotPerfDataInits: 0
000,893,593:vdsIotPhysCurrLineRate: 0
000,893,625:vdsIotPhysCurrSnrMgn: 0
000,893,640:vdsRtFirmwareDate: 102507
000,893,672:vdsRtFirmwareTime: 204012
000,893,718:vdsRtIntlvChanCurTxRate: 0
000,893,765:vdsRtPerfDataInits: 0
000,893,781:vdsRtPhysCurrLineRate: 0
000,893,812:vdsRtPhysCurrSnrMgn: 0
000,893,828:vdsTwConfig: 00004A
000,893,968:vdsFirmwareDate: 102507
000,893,984:vdsFirmwareTime: 204012
000,894,156:vdsIotIntlvChanCurTxRate: 0
000,908,515:vdsLineConfUpTargetSnrMgn: 57
000,913,531:vdsLineConfUpTargetSnrMgn: 24
000,921,562:vdsTwConfig: 00004E
000,928,328:vdsRtPhysCurrLineRate: 112128
000,929,203:vdsRtIntlvChanCurTxRate: 55104
000,929,250:vdsRtPerfDataInits: 1
000,929,562:vdsIotFirmwareDate: 000000
000,929,593:vdsIotFirmwareTime: 000000
000,929,609:vdsIotFirmwareVer: 000000
000,932,484:vdsIotIntlvChanCurTxRate: 1008
000,932,531:vdsIotPhysCurrLineRate: 61344
000,933,015:vdsIotPerfDataInits: 1
000,934,390:vdsIotFirmwareDate: 102507
000,934,422:vdsIotFirmwareTime: 204012
000,934,453:vdsIotFirmwareVer: 030000
000,936,578:vdsRtPhysCurrSnrMgn: 23
000,938,937:vdsIotPhysCurrSnrMgn: 24

Monitoring

1:vdsFirmwareDate	102507	1:vdsIotPhysCurrSnrMgn	24
1:vdsFirmwareTime	204012	1:vdsRtFirmwareDate	102507
1:vdsFirmwareVer	030000	1:vdsRtFirmwareTime	204012
1:vdsLineConfDownMaxInterDelay	0	1:vdsRtFirmwareVer	030000
1:vdsLineConfDownSlowMaxDataRate	131072	1:vdsRtIntlvChanBadBlks	0
1:vdsLineConfDownTargetSlowBurst	0	1:vdsRtIntlvChanCurTxRate	55104
1:vdsLineConfDownTargetSnrMgn	24	1:vdsRtIntlvChanFixedOctets	0
1:vdsLineConfUpMaxInterDelay	0	1:vdsRtIntlvChanInterleaveDelay	0
1:vdsLineConfUpSlowMaxDataRate	131072	1:vdsRtPerfDataInits	1
1:vdsLineConfUpTargetSlowBurst	0	1:vdsRtPhysCurrLineRate	112128
1:vdsLineConfUpTargetSnrMgn	24	1:vdsRtPhysCurrSnrMgn	23
1:vdsIotFirmwareDate	102507	1:vdsTwConfig	00004E
1:vdsIotFirmwareTime	204012		
1:vdsIotFirmwareVer	030000		
1:vdsIotIntlvChanBadBlks	0		
1:vdsIotIntlvChanCurTxRate	100800		
1:vdsIotIntlvChanFixedOctets	0		
1:vdsIotIntlvChanInterleaveDelay	0		
1:vdsIotPerfDataInits	1		
1:vdsIotPhysCurrLineRate	61344		

US Data Rate

DS Data Rate





Variable naming rule

- Please reference RFC3728 for detail definition
- Please reference hint on variable or group_def.txt
- OT : center side, RT : remote side
- Conf : configuration variable which define in standard MIB
- Down: downstream, Up : upstream
- Slow : interleave mode, Fast : Fast mode



Variable definition

Please refer [DslMonitorVarDesc.pdf](#) and
[RFC3728.pdf](#)



EyeBox utility

- Download & Install driver

<http://www.ftdichip.com/Drivers/D2XX.htm>

or bin_support directory