

Avenue 8500/8400 Video Processor and Frame Sync.

Command Set Protocol

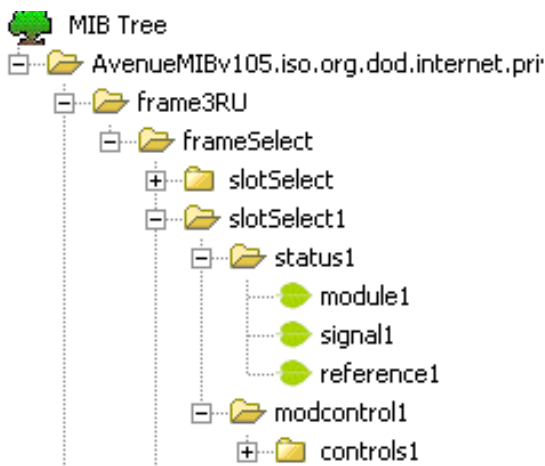
Document revision: April 14, 2009

Module software ver: 2.2.11

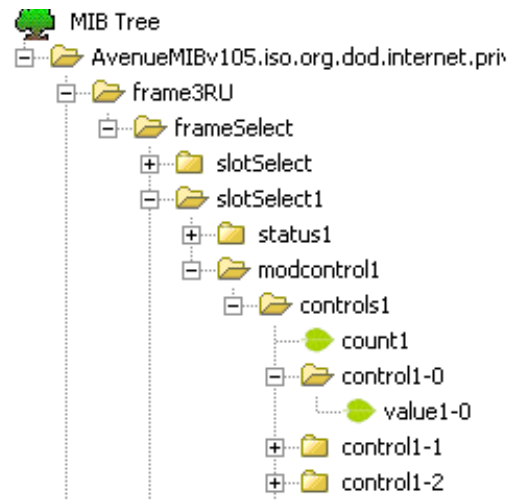
This document details the control and indicator index numbers that can be accessed through the command set to monitor and control an Ensemble Designs Avenue System 8500 and 8400 Video Processor and frame synchronizer. The information provided herein can be used in tcp/ip interfaces that follow the Avenue Serial Control Protocol, and in systems using SNMP interfaces to the Avenue System.

For each module there are two types of Controls, Status and Modcontrols. The Status is generic to each module and give the status of the modules CPU, Input Signal and Reference Status, these are read-back controls only. Modcontrols are specific controls that relate directly to individual cards or modules and can be read only or read/write.

Status Read-backs



Modcontrols



Status Read-Backs

StatusX - X relates to the slot number of the module. There are 3 status read-backs available for each module.

Name: ModuleX - Indicates status of module. X = slot the module is in.
Type: Read Only
Min/Max: 1/3
Reports: 1 - normal
 2 - kernal
 3- not installed

Name: SignalX - Signal input or output Status. X = slot the module is in.
Type: Read Only
Min/Max: 1/3
Reports: 1 - normal
 2 - faulted
 3 - unknown

Name: ReferenceX - Status of module reference. X = slot the module is in.
Type: Read Only
Min/Max 1/3
Reports: 1 - normal
 2 - faulted
 3 - unknown

ModControls

CountX: Total number of controls used on Module.
Reports: 99

Control 0

Name: Input
Menu: Vid In
Type: Text Box - Read Only
Min/Max: 0/2
Reports: 0 - No Input
 1 - 525 Lock
 2 - 625 Lock
Change: N/A

Control 1

Name: EDH Error
Menu: Vid In
Type: Text Box - Read Only
Min/Max: 0/8
Reports: 0 - EDH OK
1 - EDH
2 - EDA
3 - EDH EDA
4 - IDA
5 - EDH IDA
6 - EDA IDA
7 - EDH EDA IDA
8 - No EDH
Control: Read Only

Control 2 * Not available on 8400, always serial in.

Name: Input Select
Menu: Vid In
Type: Scroll List Read/Write
Min/Max: 0/7
Reports: 0 - Composite
1 - Compst NoSetup
2 - Y_C
3 - Y_C NoSetup
4 - Beta
5 - Beta NoSetup
6 - SMPTE
7 - Serial
Control: Write the corresponding value to set the proper input format.

Control 3

Name: Error Seconds
Menu: Vid In
Type: Text Box - Read/Write
Min/Max: 0/2000
Reports: Displays the number of seconds a EDH error is present in the SDI stream. This is an accumulative count and does not reset once good EDH is detected.
Control: Write a 0 to reset the counter.

Control 4

Name: Ref Source
Menu: Vid In
Type: Scroll List - Read/Write
Min/Max: 0/2
Reports: 0 - Ext Ref
 1 - Master Ref
 2 - Video Ref
Control: Write the corresponding value to select the Reference Source.

Control 5

Name: Reference
Menu: Vid In
Type: Text Box - Read Only
Min/Max: 0/4
Reports: 0 - No Reference
 1 - Ref Mismatch
 2 - Ref Unlock
 3 - Ref 525 Lock
 4 - Ref 626 Lock
Control: Read Only

Control 6

Name: Signal Mute
Menu: Vid Out
Type: Scroll List - Read/Write
Min/Max: 0/2
Reports: 0 - No Muting
 1 - Mutes on Noise
 2 - Freeze on Noise
Control: Write the corresponding value to set Signal Mute condition.

Control 7 - Not Used

Control 8 - Not Used

Control 9 - Not Used

Control 10 - Not Used

Control 11

Name: Gain
Menu: Proc
Type: Slider Read/Write
Min/Max: 500/1500
Reports: 500 - Min Value equal to 50% of normal level.
1000 - Default value equal to 100% of normal level.
1500 - Max value equal to 150% of normal level.
Control: Write value to set gain to appropriate level.
Example write 1253 for a value of 125.3%.

Control 12

Name: Chroma
Menu: Proc
Type: Slider Read/Write
Min/Max: 500/1500
Reports: 500 - Min value equal to 50% of normal level.
1000 - Default value equal to 100% of normal level.
1500 - Max value equal to 150% of normal level.
Control: Write value to set Chroma to appropriate level.
Example write 885 for a value of 88.5%.

Control 13

Name: Pedestal
Menu: Proc
Type: Adjustable Numerical Field Read/Write
Min/Max: -300/300
Reports: -300 - Min value equal to -30 IRE
300 - Max value equal to 30 IRE
Control: Write value to set the Pedestal to desired level.
Example write -275 for -27.5 IRE

Control 14

Name: Hue
Menu: Proc
Type: Slider Read/Write
Min/Max: -1800/1800
Reports: -1800 - Min value equal to -180 degrees.
1800 - Max value equal to 180 degrees.
Control: Write value to set Hue, in degrees, to appropriate value.

Control 15

Name: Legalizer
Menu: Clip
Type: Scroll List - Read/Write
Min/Max: 0/2
Reports: 0 - Off
1 - Legal
2 - Custom * See note below
Control: Write appropriate value to turn on/off legalizer.
* Note - If in custom use with Controls: 16, 17, 18, 19, 20 & 21.

Control 16 Only when Control 15 set to Custom

Name: B/W Clip
Menu: Clip
Type: Scroll List Read/Write
Min/Max: 0/1
Reports: 0 - Off
1 - On * See note below.
Control: Write corresponding value to turn on/off B/W Clip.
* Note - If turned on use with Controls 17 and 18.

Control 17 Only when Control 15 in Custom and 16 On.

Name: Black Clip
Menu: Clip
Type: Adjustable Numerical Field - Read/Write
Min/Max: -80/62
Reports: -80 - Min value equal to -8.0 IRE. Default value
62 - Max value equal to 6.2 IRE.
Control: Write the appropriate value to set Black Clip level.
Example: Write a 55 for 5.5 IRE.

Control 18 Only when Control 15 in Custom and 16 On.

Name: White Clip
Menu: Clip
Type: Adjustable Numerical Field - Read/Write
Min/Max: 950/1100
Reports: 950 - Min value equal to 95 IRE
1100 - Max value equal to 110 IRE. Default Value
Control: Write the appropriate value to set Whit Clip level.
Example: Write a 1000 for 100 IRE.

Control 19 When Control 15 set to Custom

Name: Chr Clip Mode
Menu: Clip
Type: Scroll List - Read/Write
Min/Max: 0/2
Reports: 0 - Off
1 - Chroma * See note below
2 - Cpst
Control: Write the appropriate value to set Chr Clip Mode.
* Note - When set to Chroma use controls 20 & 21.

Control 20 When Control 15 set to Custom & Control 19 set to Chroma

Name: Chr Lo Clip
Menu: Clip
Type: Adjustable Numerical Field - Read/Write
Min/Max: -400/75
Reports: -400 - Min value equal to -40 IRE. Default level
75 - Max value equal to 7.5 IRG.
Control: Write value to set Chr Lo Clip to appropriate value.
Example: Write 15 for 1.5 IRE

Control 21 When Control 15 set to Custom & Control 19 set to Chroma

Name: Chr Hi Clip
Menu: Clip
Type: Adjustable Numerical Field Read/Write
Min/Max: 1000/1400
Reports: 1000 - Min value equal to 100 IRE
1400 - Max value equal to 140 IRE. Default value
Control: Write value to set Chr Hi Clip to appropriate value.
Example: Write 1225 for 122.5 IRE

Control 22

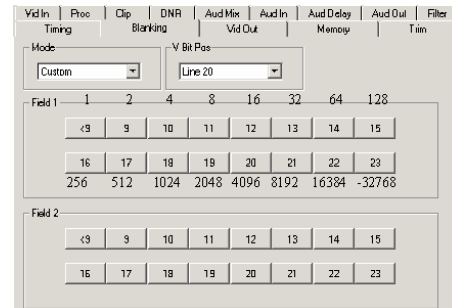
Name: Mode
Menu: Blanking
Type: Scroll List Read/Write
Min/Max: 0/2
Reports: 0 - Narrow
1 - Wide
2 - Custom * Works with Control 24 & 25
Control: Write the corresponding value to select Blanking mode.

Control 23

Name: V Bit Pos
Menu: Blanking
Type: Scroll List Read/Write
Min/Max: 0/2
Reports: 0 - Line 10
1 - Line 20
2 - Line 23
Control: Write the corresponding value to set V Bit position.

Control 24 This control has problems writing neg. numbers.

Name: Field 1
Menu: Blanking
Type: Toggle Push Button Read/Write
Min/Max: -32767/32767
Reports: Decimal value of the sum of the bits selected. Decimal value shown below.



Control: Write a 7 to turn on <9, 9 & 10.

Control 25 Same as Control 24

Name: Field 2
Menu: Audio Detect
Type: Toggle Push Button Read/Write
Min/Max: -32767/32767
Reports: See Above chart
Control: Write a 8191 to turn on <9 thru 20.

Control 26 This control has problems writing neg. numbers.

Name: Cb Offset
Menu: Trim
Type: Push Button Set Read/Write
Min/Max: -300/300
Reports: Value of Offset in IRE.
Control: Write the value you want to set Cb Offset.

Control 27 This control has problems writing neg. numbers

Name: Cr Offset
Menu: Trim
Type: Push Button Set Read/Write
Min/Max: -300/300
Reports: Value of Offset in IRE
Control: Write the value you want to set Cr Offset.

Control 28 This control has problems writing neg. numbers.

Name: Cb Gain
Menu: Trim
Type: Push Button Set Read/Write
Min/Max: -200/200
Reports: Value of Gain in IRE were -200 = -20.0 and 200 = 20.0.
Control: Write the value you want to set Cb Gain. Example 145 = 14.5.

Control 29 This control has problems writing neg. numbers

Name: Cr Gain
Menu: Trim
Type: Push Button Set Read/Write
Min/Max: -200/200
Reports: Value of Gain in IRE were -200 = -20.0 and 200 = 20.0.
Control: Write the value you want to set Cr Gain. Example 25 = 2.5.

Control 30

Name: Lum Sharp
Menu: Filter
Type: Scroll List Read/Write
Min/Max: 0/3
Reports: 0 - Max
1 - 1/2
2 - 1/4
3 - Off
Control: Write the corresponding value to set Lum Sharp.

Control 31

Name: Chr Sharp
Menu: Filter
Type: Scroll List Read/Write
Min/Max: -200/200
Reports: 0 - Max
1 - 1/2
2 - 1/4
3 - Off
Control: Write the corresponding value to set Chr Sharp.

Control 32

Name: Bypass
Menu: Vid Out
Type: Scroll List Read/Write
Min/Max: 0/3
Reports: 0 - Normal
1 - Bypass
2 - Split
3 - Split DNR
Control: Write the corresponding value to set Bypass mode.

Control 33

Name: Strip Aduio
Menu: Vid Out
Type: Check Box Read/Write
Min/Max: 0/1
Reports: 0 - Off
1 - On
Control: Write the corresponding value to turn on or off.

Control 34

Name: Setup
Menu: Vid Out
Type: Scroll List Read Only
Min/Max: 0/1
Reports: 0 - Off
1 - On
Control: Write the corresponding value to turn on or off.

Control 35

Name: Color Lock
Menu: Vid Out
Type: Scroll List Read Only
Min/Max: 0/4
Reports: 0 - 2 Field
1 - Normal
2 - Field 3
3 - Field 5
4 - Field 7
Control: Write corresponding value to set color lock.

Control 36

Name: Test Pattern
Menu: Vid Out
Type: Scroll List Read/Write
Min/Max: 0/3
Reports: 0 - Off
1 - Bars
2 - Black
3 - Pathological
Reset: Write corresponding value to set bars type.

Control 37 Must have DNR, 8520, installed - Check Control 99

Name: Mode
Menu: DNR
Type: Scroll List Read/Write
Min/Max: 0/5
Reports: 0 - Automatic Lo
1 - Automatic Hi
2 - Adaptive
3 - Adapt/Impulse1
4 - Adapt/Impulse2
5 - Non Adaptive
Reset: Write corresponding value to set DNR Mode.

Control 38 Must have DNR, 8520, installed - Check Control 99

Name: Bypass
Menu: DNR
Type: Scroll List Read/Write
Min/Max: 0/2
Reports: 0 - Normal
1 - Bypass
2 - Show Noise
Reset: Write corresponding value to set Bypass.

Control 39 Must have DNR, 8520, installed - Check Control 99

Name: Luma
Menu: Pri Errors
Type: Scroll List Read/Write Only
Min/Max: 0/1
Reports: 0 - Off
1 - On
Special: Always reads a 1 if control 37 set to 0 or 1. Can change on/off if control 37 is set to 2, 3, 4 or 5 only.
Control: Write corresponding value to turn off or on.

Control 40 Must have DNR, 8520, installed - Check Control 99

Name: Threshold
Menu: DNR
Type: Scroll List Read/Write
Min/Max: 0/250
Reports: Value dividid by 10 in IRE. 250 = 25.0
Special: Always reads 01 if Control 37 set to 0 and 05 if set to 1. When Control 42 set to Luma Tie (2) then also changes Control 43 to match.
Control: Write corresponding value to set Threshold. Example 43 = 4.3

Control 41 Must have DNR, 8520, installed - Check Control 99

Name: NR Factor
Menu: DNR
Type: Scroll List Read/Write
Min/Max: 0/20
Reports: Reports value of NR Factor in dB
Special: Always reads 1 if Control 37 set to 0, reads 2 if set to 1. All other settings allow adjustments.
Control: Write a value of 0 to 20 to set NR Factor.

Control 42 Must have DNR, 8520, installed - Check Control 99

Name: Chroma
Menu: DNR
Type: Scroll List Read/Write
Min/Max: 0/2
Reports: 0 - Off
1 - On
2 - Luma Tie
Special: Always reads 2 if Control 37 set to 0 or 1. All other settings allow adjustments.
Control: Write corresponding value to set Chroma.

Control 43 Must have DNR, 8520, installed - Check Control 99

Name: Threshold
Menu: DNR
Type: Scroll List Read/Write
Min/Max: 0/250
Reports: Value dividid by 10 in IRE. 250 = 25.0
Special: Always reads 01 if Control 37 set to 0 and 05 if set to 1. When Control 42 set to Luma Tie (2) then changed by Control 40.
Control: Write corresponding value to set Threshold. Example 43 = 4.3

Control 44 Must have DNR, 8520, installed - Check Control 99

Name: NR Factor
Menu: DNR
Type: Scroll List Read/Write
Min/Max: 0/20
Reports: Reports value of NR Factor in dB
Special: Always reads 1 if Control 37 set to 0, reads 2 if set to 1. All other settings allow adjustments.
Control: Write a value of 0 to 20 to set NR Factor.

Control 45 This control has problems writing neg numbers.

Name: Fine Phase
Menu: Timing
Type: Slide Bar Read/Write
Min/Max: -40/40
Reports: Reports value in nano seconds.
Control: Write value to set Fine Phase adjustment.

Control 46 This control has problems writing neg numbers.

Name: Hor Timing
Menu: Timing
Type: Slide Bar Read/Write
Min/Max: -1716/1716
Reports: Reports value in clocks.
Control: Write value to set the Horizontal Timing in clocks.

Control 47 This control has problems writing neg numbers.

Name: Vert Timing
Menu: Timing
Type: Slide Bar Read/Write
Min/Max: -525/525
Reports: Value in Lines
Control: Write value to set the Vertical Timing in lines.

Control 48

Name: Delay
Menu: Timing
Type: Text Box Read Only
Min/Max: 0/650
Reports: Total amount of delay in lines of the module.

Controls 49 through 91 * See audio card MIBS 8410, 8415 or 8510

Control 92

Name: Comb Mode
Menu: Vid In
Type: Scroll List Read/Write
Min/Max: 0/2
Reports: 0 - 3 Line
 1 - 5 Line
 3 - Off-Notch
Control: Write corresponding value to set the Comb mode.

Control 93

Name: Save
Menu: Memory
Type: Push button Read/Write
Min/Max: 0/1
Reports: 0 - Not enabled
 1 - Enabled for Register save.
Control: Write 0 to enable a register save, then select register to save to Controls 94 to 98.

Control 94

Name: Reg 1
Menu: Memory
Type: Push button Read/Write
Min/Max: 0/1
Reports: 0 - Not enabled
 1 - Enabled
Control: To select this memory register write a 0. To save to this memory register write a 0 to Control 93 then write a 0 to this register.

Control 95

Name: Reg 2
Menu: Memory
Type: Push button Read/Write
Min/Max: 0/1
Reports: 0 - Not enabled
 1 - Enabled
Control: To select this memory register write a 0. To save to this memory register write a 0 to Control 93 then write a 0 to this register.

Control 96

Name: Reg 3
Menu: Memory
Type: Push button Read/Write
Min/Max: 0/1
Reports: 0 - Not enabled
1 - Enabled
Control: To select this memory register write a 0. To save to this memory register write a 0 to Control 93 then write a 0 to this register.

Control 97

Name: Reg 4
Menu: Memory
Type: Push button Read/Write
Min/Max: 0/1
Reports: 0 - Not enabled
1 - Enabled
Control: To select this memory register write a 0. To save to this memory register write a 0 to Control 93 then write a 0 to this register.

Control 98

Name: Reg 5
Menu: Memory
Type: Push button Read/Write
Min/Max: 0/1
Reports: 0 - Not enabled
1 - Enabled
Control: To select this memory register write a 0. To save to this memory register write a 0 to Control 93 then write a 0 to this register.

Control 99

Name: DNR Opt.
Menu: Not on Menu
Type: Read Only
Min/Max: 0/3
Reports: 0 - Not installed
1 - Faulted
2 - Installed
Special: Must be installed for Controls 37 through 44 to work.