Partner: Biamp
Model: Tesira
Device Type: Digital Signal Processor

GENERAL INFORMATION

SIMPLWINDOWS NAME:	Biamp Tesira Level Control v2.2
CATEGORY:	DSP
VERSION:	2.2
SUMMARY:	This module controls most level points in the Biamp Tesira.
GENERAL NOTES:	This Biamp Tesira Level Control v2.2 module is used to control a wide variety of control objects within the Biamp Tesira. This module's parameters need to be setup correctly in order to control the level object that you wish to control. So understanding what your level object requires is important to the settings of this module. ***The following are required***. **Instance_Tag**: Instance_Tag is the unique name that was assigned inside the Biamp Tesira Programming. *Note: If your Instance_Tag has spaces in its name, surround the name with quotes using the \x22 hex escape sequence. Example: \x22My Name\x22* **Attribute_Code**: Attribute_Code selection informs the module what type of level to control. This is required since some Biamp Tesira objects having multiple level control points. The choices are Level, InputLevel, OutputLevel, CrossPointLevel, SourceLevel, ChannelLevel, LevelIn, LevelOut, LevelSource, HostMasterVol and HostVol. If the object that you wish to control contains one of this control attribute codes, then this module will control that object. **Level_Step**: Selection to choose the dB offset for Incrementing and Decrementing. ***The following maybe optional***. **Index_1**: When controlling a Biamp Tesira object, part of the control protocol may use Index_1. When Index_1 is not required, the parameter needs to be set to 0. **Index_2**: When controlling a Biamp Tesira object, part of the control protocol may use Index_2. When Index_2 is not required, the parameter needs to be set to 0. Index_1 in most cases represents the input value, and Index_2 represents the output value. So when dealing with things like Crosspoints, both Index_1 and Index_2 are required. Understanding the Biamp Tesira control object is mandatory in order to setup this module correctly. During initialization of the module, it will automatically try to figure out based on the Instance_Tag what type of Biamp Tesira control object you are attempting to control. Once it acquires the identification, it will request only the appropriate state information from the Biamp Tesira control object. If the control object supports things like Max Level and Min Level, the module will automatically scale and control based on that range. So please use the internal settings of the Biamp Tesira control object where needed. If it was not able to figure out what type of control object, it will send queries based on a standard list. In this case you may get some errors back from the Biamp Tesira indicting the commands are not supported. This is normal, but if ALL commands are returned with errors, than your Instance_Tag may be incorrect or not currently configured.
CRESTRON HARDWARE REQUIRED:	3-series processor **only** (*Note: use 1.X modules for 2-series processors*)

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GENERAL INFORMATION *continued*

SETUP OF CRESTRON HARDWARE:	This module requires the Biamp Tesira Command Processor IP v2.2 or the Biamp Tesira Command Processor RS232 v2.2 modules in order to operate. Please read the help files associated with these modules.
VENDOR FIRMWARE:	Tesira Server - 3.1.0.144 Tesira Forte – 3.1.0.144

15 Volvo Drive • Rockleigh, NJ 07647
800.237.2041 / 201.767.3400

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PARAMETER:

Instance_Tag	Instance_Tag is the unique name, for the control object, that was assigned inside the Biamp Tesira Programming. *Note: If your Instance_Tag has spaces in its name, surround the name with quotes using the \x22 hex escape sequence. Example: \x22My Name\x22*
Attribute_Code	Attribute_Code selection informs the module what type of level to control. This is required since some Biamp Tesira objects having multiple level control points. The choices are Level, InputLevel, OutputLevel, CrossPointLevel, SourceLevel, ChannelLevel, LevelIn, LevelOut, LevelSource, HostMasterVol and HostVol. If the object that you wish to control contains one of this control attribute codes, then this module will control that object.
Index_1	When controlling a Biamp Tesira object, part of the control protocol may use Index_1. When Index_1 is not required, the parameter needs to be set to 0. Index_1 in most cases represents the input value, and Index_2 represents the output value. So when dealing with things like Crosspoints, both Index_1 and Index_2 are required. Understanding the Biamp Tesira control object is mandatory in order to setup this module correctly.
Index_2	When controlling a Biamp Tesira object, part of the control protocol may use Index_2. When Index_2 is not required, the parameter needs to be set to 0. Index_1 in most cases represents the input value, and Index_2 represents the output value. So when dealing with things like Crosspoints, both Index_1 and Index_2 are required. Understanding the Biamp Tesira control object is mandatory in order to setup this module correctly.
Level_Step	Selection to choose the dB offset for Incrementing and Decrementing.
Command_Processor_ID	Setting to indicate the ID for the command processor that this module will register itself with.

15 Volvo Drive • Rockleigh, NJ 07647
800.237.2041 / 201.767.3400

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CONTROL:

Poll_Level	D	Pulse to poll for the current value. If the control object that you are controlling has been able to successfully register a subscription, then this signal may not do anything. A subscription is a process of registering for unsolicited messages. Some Biamp Tesira Control objects have this capability.
Level_Up, Level_Down	D	Press and hold to adjust the volume level.
New_Level_dB	A	Sets the value to be set using Send_New_Level_dB. If the digital signal Send_New_Level_dB is high when this value changes, the module will automatically send the new value. The value will be validated prior to sending to insure this value falls in the correct range. This is a **signed dB level**. Valid ranges are the Max Level or Min Level settings set inside your Biamp Tesira programming. Note: A debounce value of 300ms has been added preventing this value to be reset to quickly, thus safe guarding communication queues. DO NOT BYPASS. Note: this input is not designed to be used with a Ramp symbol in SIMPL Windows. It is only designed to be used for preset levels.
Send_New_Level_dB	D	Pulse to send the volume entered in the New_Level_dB input. This will allow preset values to be sent to the Biamp.
New_Level_Percent	A	Sets the value to be set using Send_New_Level_Percent. If the digital signal Send_New_Level_Percent is high when this value changes, the module will automatically send the new value. The value will be validated prior to sending to insure this value falls in the correct range. This is an **unsigned level**. Note: A debounce value of 300ms has been added preventing this value to be reset to quickly, thus safe guarding communication queues. DO NOT BYPASS. Note: this input is not designed to be used with a Ramp symbol in SIMPL Windows. It is only designed to be used for preset levels.
Send_New_Level_Percent	D	Pulse to send the volume entered in the New_Level_Percent input. This will allow preset values to be sent to the Biamp.

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FEEDBACK:

Is_Initialized	D	Signal is high to indicate the module has successfully received all required responses from its initializing queries.
Volume_Level_dB	A	Analog volume level value. This is the signed dB level.
Volume_Level_Percent	A	Analog volume level value. This is the scaled unsigned level based on the Min/Max range for the level.
Volume_Level_Text	S	Serial signal indicating the current volume level.

15 Volvo Drive • Rockleigh, NJ 07647
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TESTING:

OPS USED FOR TESTING:	CP3: v1.501.0105
SIMPL WINDOWS USED FOR TESTING:	4.07.03
CRES DB USED FOR TESTING:	63.05.007.00
DEVICE DATABASE:	85.05.003.00
SYMBOL LIBRARY USED FOR TESTING:	1035
SAMPLE PROGRAM:	Biamp Tesira v2.2 IP Demo Biamp Tesira v2.2 RS232 Demo
REVISION HISTORY:	v2.0 – Initial Release v2.1 – No revisions have been performed. v2.2 – No revisions have been performed.

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