

nexia<sup>®</sup>

RS-232 Control Manual



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## RS-232 and Telnet Protocol

### Overview

Nexia can be controlled via the control dialogs in the Nexia software, or via third-party controllers using [RS-232](#) or [Telnet](#).

For control of Nexia, Biamp created NTP (Nexia Text Protocol). This simply means that Nexia will accept strings of ASCII characters to control and read settings of gain, mute, logic state, frequency, audio levels, and other parameters of DSP Blocks in Nexia products.

NTP strings can be sent via third-party controllers using RS-232 (see [RS-232 Control](#)) or Telnet via TCP/IP (see [Telnet Control](#)). A line feed needs to be sent after each command string sent.

The NTP string is structured in the following order:

[Command](#) [DeviceNumber](#) [Attribute](#) [InstanceID](#) [Index1](#) [Index2](#) [Value](#) <LF>

NTP strings require a space between each parameter; the last character in the string needs to be a line feed <LF>. A space is not required before a line feed, but is acceptable and is used in examples shown in this manual (for legibility only). A space normally proceeds the carriage return/line feed <CR><LF> in a response to a GET command (see Command and Responses).

For each control string a few components will need to be derived from the Nexia software: [Device Number](#), [InstanceID](#), and [Index](#). [Command](#) and [Attribute](#) are derived from this document. In a SET command, [Value](#) is used to specify what the DSP block attribute is to be set to. In an increment or decrement (INC or DEC) command [Value](#) is used to specify how much the DSP block attribute is to be changed by.

**\*\*Note\*\*** Nexia software will assign an Instance ID number to each DSP block on the initial [Compile](#) of the system. Subsequent compiles will not change the Instance ID numbers unless the "Reassign Instance IDs" check box is selected in the [Compile](#) tab of the [Options](#) screen (located on the Tools pull-down menu) in the Nexia software. Custom names ([Instance ID Tags](#)) may be assigned to DSP blocks, and used in lieu of Instance ID numbers within NTP command strings.

Example: A string to control a Fader Level might look like this: **SET 1 FDRLVL 2 1 9 <LF>**.

The individual components for this string are:

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	1	FDRLVL	2	1	None	9	<LF>

Notice that Index2 is not used since there is nothing entered in this parameter.

Example: A string to Mute a Standard Mixer Output: **SET 3 SMMUTEOUT 5 5 1 <LF>**

The individual components for this string are:

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	3	SMMUTEOUT	5	None	5	1	<LF>

Notice that Index1 is not used since there is nothing entered in this parameter.

Example: A string to turn up (increment) a Crosspoint on a Matrix Mixer: **INC 2 MMLVLXP 4 3 2 1 <LF>**

The individual components for this string are:

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
INC	2	MMLVLXP	4	3	2	1	<LF>

In this example Index1 and Index2 are both used, together they specify which Crosspoint to change.

## RS-232 Control

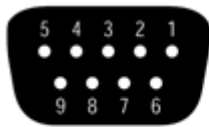
The RS-232 port on the back of an Nexia unit is set to a default baud rate of 38400, 8 data bits, no parity, 1 stop bit, and no flow control. (38400:8:None:1). If multiple Nexias are connected together in a system then only one RS-232 port needs to be connected to a third-party control system; communication data is shared via Ethernet through a switch.

When controlling multiple Nexia units that are not part of the same NEX file, each Nexia unit will need to be addressed via its own RS-232 port from a control system or PC. Nexia units cannot be linked together via RS-232, like some other BIAMP products can.

(The RS-232 baud rate can be set to 9600, 19200, 38400, 57600, or 115200 – default is 38400)

A straight through PC Serial Cable is used to communicate from an RS-232 port on a third-party controller (or PC\*) to the RS-232 port located on the back of an Nexia unit.

Since the Nexia's serial port does not implement flow control, waiting for a response from the Nexia is essential prior to sending the next command. After receiving the +OK response, the next command can be sent. By waiting for the +OK response, the serial buffer will not be overloaded.



pin #1 = not used

pin #2 = Transmit Data (Tx) output

pin #3 = Receive Data (Rx) input

pin #4 = not used

pin #5 = ground

pin #6 = not used

pin #7 = not used

pin #8 = not used

pin #9 = not used

(\* A PC can send/receive NTP Strings, using a terminal emulator program such as HyperTerminal.)

## Telnet Control

Nexia can be controlled using Telnet via TCP/IP. The same command strings that are used for RS-232 Control are used for Telnet.

When controlling multiple Nexias that are not a part of the same NEX file, each Nexia device will need to be addressed via its own Telnet session from a control system or PC.

Nexia supports standard Telnet Echo Negotiation. By default, the Telnet server will echo characters sent to it, one by one.

### To turn echo OFF during a session:

Send byte sequence 0xFF 0xFE 0x01.

Receive 3 byte response from server (0xFF 0xFC 0x01 = echo OFF).

Send desired commands.

### To turn echo back ON during a session:

Send byte sequence 0xFF 0xFD 0x01.

Receive 3 byte response from server (0xFF 0xFB 0x01 = echo ON).

Send desired commands.

**Command**

SET – Tells Nexia that a DSP attribute is to be set to a specific value – may contain negative numbers and/or decimal points

GET - Tells Nexia that a DSP attribute is to be read – the response may contain a decimal point and/or a negative number (see [Responses](#)).

INC - Tells Nexia that a DSP attribute is to be incremented by a specific amount

DEC- Tells Nexia that a DSP attribute is to be decremented by a specific amount

RECALL – Tells Nexia that a preset is to be recalled.

DIAL – Tells the Nexia that a dial command is being sent

*SETL and GETL can be used if negative numbers and/or decimals are not supported by a control system.*

SETL – Tells Nexia that a DSP attribute is to be set to a specific value, no decimal places or negative numbers –To convert a dB number: add 100 to the desired level and then multiply by 10.

Example: To set a level to –60.5dB, add 100 ( $-60.5 + 100 = 39.5$ ). Then multiply by 10 ( $39.5 \times 10 = 395$ ). Instead of Value being –60.5, Value after this SETL command will equal 395.

GETL - Tells Nexia that a DSP attribute is to be read without negative numbers or decimals. To convert this number to dB: divide the number by 10, then subtract 100.

Example: With a returned GETL response of 405, divide by 10 ( $405 / 10 = 40.5$ ), and then subtract 100 ( $40.5 - 100 = -59.5$ dB)

For your reference, the SETL/GETL Table on the following page shows .5dB increments converted into the SETL/GETL format.

Some Attributes do not support all commands. The [Attribute](#) section defines which commands support SET/SETL, GET/GETL, INC, or DEC functions. RECALL is only used on preset commands. DIAL is only used on telephone dialing commands.

\*When GET or GETL is used, a [Value](#) will not need to be specified since GET/GETL is a request command. A Value must be specified in order for strings with SET/SETL, INC, DEC, and RECALL to work.

**Note:** SETD, GETD, INCD, DECD, SETLD, and GETLD commands may be used when a 'full path' serial response to the command is desired (see [Responses](#)). A 'full path' serial response will provide identification of the target object, the original command, and the resulting value or state.

Level	Value	Level	Value	Level	Value	Level	Value	Level	Value
12	1120	-10.5	895	-33	670	-55.5	445	-78	220
11.5	1115	-11	890	-33.5	665	-56	440	-78.5	215
11	1110	-12	885	-34	660	-56.5	435	-79	210
10.5	1105	-12.5	880	-34.5	655	-57	430	-79.5	205
10	1100	-13	875	-35	650	-57.5	425	-80	200
9.5	1095	-13.5	870	-35.5	645	-58	420	-80.5	195
9	1090	-14	865	-36	640	-58.5	415	-81	190
8.5	1085	-14.5	860	-36.5	635	-59	410	-81.5	185
8	1080	-15	855	-37	630	-59.5	405	-82	180
7.5	1075	-15.5	850	-37.5	625	-60	400	-82.5	175
7	1070	-16	845	-38	620	-60.5	395	-83	170
6.5	1065	-16.5	840	-38.5	615	-61	390	-83.5	165
6	1060	-17	835	-39	610	-61.5	385	-84	160
5.5	1055	-17.5	830	-39.5	605	-62	380	-84.5	155
5	1050	-18	825	-40	600	-62.5	375	-85	150
4.5	1045	-18.5	820	-40.5	595	-63	370	-85.5	145
4	1040	-19	815	-41	590	-63.5	365	-86	140
3.5	1035	-19.5	810	-41.5	585	-64	360	-86.5	135
3	1030	-20	805	-42	580	-64.5	355	-87	130
2.5	1025	-20.5	800	-42.5	575	-65	350	-87.5	125
2	1020	-21	795	-43	570	-65.5	345	-88	120
1.5	1015	-21.5	790	-43.5	565	-66	340	-88.5	115
1	1010	-22	785	-44	560	-66.5	335	-89	110
.5	1005	-22.5	780	-44.5	555	-67	330	-89.5	105
0	1000	-23	775	-45	550	-67.5	325	-90	100
-0.5	995	-23.5	770	-45.5	545	-68	320	-90.5	95
-1	990	-24	765	-46	540	-68.5	315	-91	90
-1.5	985	-24.5	760	-46.5	535	-69	310	-91.5	85
-2	980	-25	755	-47	530	-69.5	305	-92	80
-2.5	975	-25.5	750	-47.5	525	-70	300	-92.5	75
-3	970	-26	745	-48	520	-70.5	295	-93	70
-3.5	965	-26.5	740	-48.5	515	-71	290	-93.5	65
-4	960	-27	735	-49	510	-71.5	285	-94	60
-4.5	955	-27.5	730	-49.5	505	-72	280	-94.5	55
-5	950	-28	725	-50	500	-72.5	275	-95	50
-5.5	945	-28.5	720	-50.5	495	-73	270	-95.5	45
-6	940	-29	715	-51	490	-73.5	265	-96	40
-6.5	935	-29.5	710	-51.5	485	-74	260	-96.5	35
-7	930	-30	705	-52	480	-74.5	255	-97	30
-7.5	925	-30.5	700	-52.5	475	-75	250	-97.5	25
-8	920	-31	695	-53	470	-75.5	245	-98	20
-8.5	915	-31.5	690	-53.5	465	-76	240	-98.5	15
-9	910	-32	685	-54	460	-76.5	235	-99	10
-9.5	905	-32.5	680	-54.5	455	-77	230	-99.5	5
-10	900	-33	675	-55	450	-77.5	225	-100	0



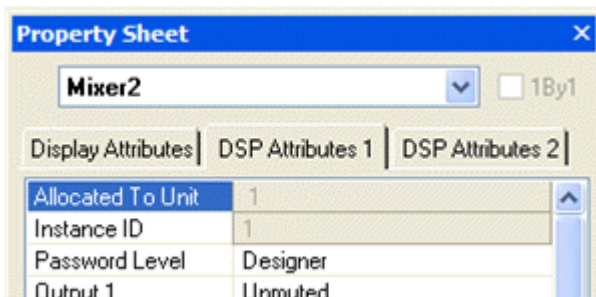
## Device Number

A Nexia Device Number represents the physical Nexia box's defined address. The Nexia software automatically sets this number when a system is [Compiled](#) and loaded.

The Device number that a DSP block has been assigned to can be determined in 3 ways:

### First Way:

1. Right click on the DSP block and select '[Properties](#)'.
2. Click on DSP 1 attributes tab and scroll down. The device that the block is assigned to will be displayed in the 'Allocated To Unit' field.



### Second Way:

1. In the [Display](#) tab of the [Options](#) screen select "Display Device Assignment in DSP Block info field". This will display the device that each DSP block is assigned to on the main screen.



### Third Way:

1. While connected an Nexia's RS-232 port, type the string; GET 0 DEVID  
Nexia will return the Device Number of the unit you are connected to.

**Attribute**

The Attribute defines the portion of the DSP block to be controlled (fader level, crosspoint mute etc). The following tables show whether each NTP Attribute supports SET/SETL, GET/GETL, INC, and DEC [Commands](#), as well as the [Value](#) range that the Attribute will accept. Index1/Index2 determines whether [Index1](#), [Index2](#) or BOTH are needed for a NTP String to be complete.

NTP Strings can address: (click on the links to view the tables in each topic)

[Input/Output Blocks](#)

[Mixer Blocks](#)

[Equalizer Blocks](#)

[Filter Blocks](#)

[Crossover Blocks](#)

[Dynamics Blocks](#)

[Router Blocks](#)

[Delay Blocks](#)

[Control Blocks](#)

[Meter Blocks](#)

[Generator Blocks](#)

### Input/Output Blocks

The following table of Attributes is valid for all Nexia input blocks except Nexia PM Stereo Line Inputs, Nexia TC & Nexia VC AEC Inputs, and Nexia TC & Nexia VC Pre-AEC Inputs.

Analog Inputs	Attribute	Commands	Index	Value Range
Input Gain	INPGAIN	SET, SETL, GET, GETL, INC, DEC	1	0, 6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66
Input Level	INPLVL	SET, SETL, GET, GETL, INC, DEC	1	-100 ~ 12 *
Phantom Power	PHPWR	SET, GET	1	0 = off 1 = on
Input Mute	INPMUTE	SET, GET	1	0 = unmuted 1 = muted
Invert Polarity	INPINVRT	SET, GET	1	0 = normal 1 = inverted

\* Can contain a decimal number.

**Note:** Nexia SP Line Inputs only support input gain values of 0, 6, 12, & 18 (dB).

Example: Set Device 1 Input Level at Instance ID 6, Input 3 to -10dB.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	1	INPLVL	6	3	None	-10	<LF>

Result: SET 1 INPLVL 6 3 -10 <LF>

The following table of Attributes is valid for all Nexia output blocks except Nexia PM Stereo Line Outputs.

Outputs	Attribute	Commands	Index	Value Range
Output Level	OUTLVL	SET, SETL, GET, GETL, INC, DEC	2	-100 ~ 0 *
Output Mute	OUTMUTE	SET, GET	2	0 = unmuted 1 = muted
Output Full Scale Level **	OUTFS	SET, SETL, GET, GETL	2	-31, 0, 6, 12, 18, 24
Invert Polarity	OUTINVRT	SET, GET	2	0 = normal 1 = inverted

\* Can contain a decimal number.

**Note:** Nexia SP Line Outputs do not support the output full scale value of -31 (dBu).

Example: Set Device 2 Output Mute at Instance ID 3, Output 4 to muted.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	2	OUTMUTE	2	None	4	1	<LF>

Result: SET 2 OUTMUTE 3 4 1 <LF>

The following table of Attributes is valid only for Nexia PM Stereo Line Inputs.

PM Stereo Line Inputs	Attribute	Commands	Index	Value Range
Line Input Gain	INPGAINPML	SET, SETL, GET, GETL, INC, DEC	1	0, 6, 12, 18
Input Level	INPLVLPML	SET, SETL, GET, GETL, INC, DEC	1	-100 ~ 12 *
Input Mute	INPMUTEPML	SET, GET	1	0 = unmuted 1 = muted
Input Invert	INPINVRTPML	SET, GET	1	0 = normal 1 = inverted
Line Input Stereo Linking	INPGANGPML	SET, GET	1	0 = separate 1 = ganged

\* Can contain a decimal number.

**Note:** PM Line Input faders can be ganged as pairs: 1 & 2, 3 & 4, 5 & 6, 7 & 8, 9 & 10, and 11 & 12.

Index1 is used to indicate either one of the Inputs in the pair to be ganged (not both).

The following table of Attributes is valid only for Nexia PM Stereo Line Outputs.

PM Stereo Line Outputs	Attribute	Commands	Index	Value Range
Output Level	OUTLVLPM	SET, SETL, GET, GETL, INC, DEC	2	-100 ~ 12 *
Output Mute	OUTMUTEPM	SET, GET	2	0 = unmuted 1 = muted
Output Invert	OUTINVRTPM	SET, GET	2	0 = normal 1 = inverted
Output Full Scale Level	OUTFSPM	SET, SETL, GET, GETL	2	0, 6, 12, 18, 24
Output Stereo Linking	OUTGANGPM	SET, GET	2	0 = separate 1 = ganged

\* Can contain a decimal number.

**Note:** PM Output faders can be ganged as pairs: 1 & 2, 3 & 4, and 5 & 6.

*Index2* is used to indicate either one of the Outputs in the pair to be ganged (not both).

Example: Set Device 1 PM Output Gang at Instance 5 Output 2 to ganged (Outputs 1 & 2 ganged).

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	1	OUTGANGPM	5	None	2	1	<LF>

Result: SET 1 OUTGANGPM 5 2 1 <LF>

The following table of Attributes is valid only for Nexia TC & Nexia VC AEC Inputs.

AEC Inputs	Attribute	Commands	Index	Value Range
Input Gain	AECINPGAIN	SET, SETL, GET, GETL, INC, DEC	1	0, 6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66
Input Level	AECINPLVL	SET, SETL, GET, GETL, INC, DEC	1	-100 ~ 12 *
Phantom Power	AECPHPWR	SET, GET	1	0 = off 1 = on
Input Mute	AECINPMUTE	SET, GET	1	0 = unmuted 1 = muted
Invert Polarity	AECINPINVRT	SET, GET	1	0 = normal 1 = inverted
Enable AEC	AECENABLE	SET, GET	1	0 = off 1 = on
NLP Strength	AECNLP	SET, GET	1	0 = off 1 = soft 2 = medium 3 = aggressive
Noise Reduction	AECNR	SET, SETL, GET, GETL	1	0, and 6 ~ 15

\* Can contain a decimal number.

Example: Set Device 1 AEC NLP Strength at Instance ID 24, Input 3 to aggressive.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	1	AECNLP	24	3	None	3	<LF>

Result: SET 1 AECNLP 24 3 3 <LF>

TC Dialer	Attribute	Commands	Index	Value Range
Caller ID	TICID	GET	None	None
Full User Caller ID	TICIDUSER	GET	None	None
Hook-Flash	TILINE	FLASH	None	None
Hook-Switch State	TIHOOKSTATE	SET, GET	None	0 = off-hook 1 = on-hook
Speed Dial Tel. Number	TISDENTRY	SET, GET	1	enter the phone number
Speed Dial Name	TISDLABEL	SET, GET	1	enter the name
Last Number Dialed	TILASTNUM	GET	None	None
Speed Dial Entry to Dial	TISPEEDDIAL	DIAL	None	1 ~ 16
Phone Number to Dial	TIPHONENUM	DIAL	None	enter the phone number
Redial	TILASTDIALED	DIAL	None	none

**Note:** The TC can insert delay while dialing a phone number by inserting commas where desired (each comma provides 1 second of delay). Most PBX systems require delay after acquiring an outside line. Also, multiple TIPHONENUM commands can be used to dial the individual digits of a phone number. The TIPHONENUM command has a character limit of 32 characters for the "value" field.

Example: Get Device 1 TC Caller ID Information at Instance 23

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
GET	1	TICID	23	None	None	None	<LF>

Result: **GET 1 TICIDUSER 23 <LF>**

**Note:** GET 1 TICID 23 will return: "" if there is no caller ID information available. If there is CID information available, it will return in the format "MMDDHHmmXXXXXXXXXX" where the "X's" represent the ten digit phone number. For example "040211235035551212".

Example: Get Device 1 TC Full User Caller ID Information at Instance 23

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
GET	1	TICIDUSER	23	None	None	None	<LF>

Result: **GET 1 TICIDUSER 23 <LF>**

**Note:** GET 1 TICIDUSER 23 will return: "" "" "" if there is no caller ID information available. The first set of quotes contains the date and time in the format **MMDDHHmm**. The second set of quotes represents the incoming phone number in the format **5036417287**. The third set of quotes contains the name of the caller. If there are quotes contained within the name, there will be a backslash preceding the quotes within the name, i.e. **"David \"Dawg\" Grisman"**.

Example: Set Device 1 TC Speed Dial Entry at Instance 23 Speed Dial 16 to 1-800-826-1457.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
FLASH	1	TILINE	23	None	None	None	<LF>

Result: **FLASH 1 TILINE 23 <LF>** (dashes in phone number are optional)

Example: Set Device 1 TC Speed Dial Entry at Instance 23 Speed Dial 16 to 1-800-826-1457.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	1	TISDENTRY	23	16	None	18008261457	<LF>

Result: **SET 1 TISDENTRY 23 16 18008261457<LF>** (dashes in phone number are optional)

Example: Dial Device 1 TC Phone Number To Dial at Instance 23 of 1-800-826-1457.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
DIAL	1	TIPHONENUM	23	None	None	18008261457	<LF>

Result: DIAL 1 TIPHONENUM 23 18008261457<LF> (use DIAL instead of SET/GET commands)

TC Receive	Attribute	Commands	Index	Value Range
Receive Level	TIRXLVL	SET, SETL, GET, GETL, INC, DEC	None	-100 ~ 12 *
Receive Mute	TIRXMUTE	SET, GET	None	0 = unmuted 1 = muted
Number of Rings Before Auto-Answer	TIAUTOANSWER	SET, GET	None	0 = off 1, 2, 3, 4, or 5
Line Echo Cancellation	TIRXLEC	SET, GET	None	0 = off 1 = on
Noise Suppression	TIRXNS	SET, GET	None	0 = off 1 = on

\* Can contain a decimal number.

TC Transmit	Attribute	Commands	Index	Value Range
Transmit Level	TITXLVL	SET, SETL, GET, GETL, INC, DEC	None	-100 ~ 0 *
Transmit Mute	TITXMUTE	SET, GET	None	0 = unmuted 1 = muted

\* Can contain a decimal number.

Example: Mute the TC Transmit Block at Instance ID 21

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	1	TITXMUTE	21	None	None	1	<LF>

Result: SET 1 TITXMUTE 21 1 <LF>

## Mixer Blocks

Automixer	Attribute	Commands	Index	Value Range
Input Level	AMLVLIN	SET, SETL, GET, GETL, INC, DEC	1	-100 ~ 12 *
Output Level	AMLVLOUT	SET, SETL, GET, GETL, INC, DEC	2	-100 ~ 12 *
Input Mute	AMMUTEIN	SET, GET	1	0 = unmuted 1 = muted
Output Mute	AMMUTEOUT	SET, GET	None	0 = unmuted 1 = muted
Crosspoint Mute	AMMUTEXP	SET, GET	1	1 = unmuted 0 = muted
Logic Output	AMLOGOUT	GET	2	0 = off 1 = on

\* Can contain a decimal number.

**Note:** Typically, *Index1* represents the input/row, and *Index2* represents the output/column. However, Automixers have only a single output and, therefore, *Index2* is not used to specify an output/column.

Example: Set Device 1 Automixer Crosspoint Mute at Instance 3 Crosspoint 1 to muted.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	1	AMMUTEXP	3	1	None	0	<LF>

Result: **SET 1 AMMUTEXP 3 1 0 <LF>** (Automixers have only 1 output, so *Index2* is not required)

Matrix Mixer	Attribute	Commands	Index	Value Range
Input Level	MMLVLIN	SET, SETL, GET, GETL, INC, DEC	1	-100 ~ 12 *
Output Level	MMLVLOUT	SET, SETL, GET, GETL, INC, DEC	2	-100 ~ 12 *
Input Mute	MMMUTEIN	SET, GET	1	0 = unmuted 1 = muted
Output Mute	MMMUTEOUT	SET, GET	2	0 = unmuted 1 = muted
Crosspoint Level	MMLVLXP	SET, SETL, GET, GETL, INC, DEC	1 & 2	-100 ~ 0 *
Crosspoint Mute	MMMUTEXP	SET, GET	1 & 2	1 = unmuted 0 = muted

\* Can contain a decimal number.

**Note:** For attributes with 2 Index fields, *Index1* is the input/row, and *Index2* is the output/column.

Standard Mixer	Attribute	Commands	Index	Value Range
Input Level	SMLVLIN	SET, SETL, GET, GETL, INC, DEC	1	-100 ~ 12 *
Output Level	SMLVLOUT	SET, SETL, GET, GETL, INC, DEC	2	-100 ~ 12 *
Input Mute	SMMUTEIN	SET, GET	1	0 = unmuted 1 = muted
Output Mute	SMOUTMUTE	SET, GET	2	0 = unmuted 1 = muted
Crosspoint Mute	SMMUTEXP	SET, GET	1 & 2	1 = unmuted 0 = muted

\* Can contain a decimal number.

**Note:** For attributes with 2 Index fields, *Index1* is the input/row, and *Index2* is the output/column.

Room Combiner	Attribute	Commands	Index	Value Range
Wall State	RMCMBWALL	SET, GET	1	0 = down 1 = up
Output Level	RMCMBLVL	SET, SETL, GET, GETL, INC, DEC	2	-100 ~ 12 *
Output Mute	RMCMBMUTE	SET, GET	2	0 = unmuted 1 = muted
Group State	RMCMBGROUP	SET, GET	1	0 ~ 16

\* Can contain a decimal number.

+ **Note:** The behavior of **RMCMBGROUP** is the same as that of the "Set Selected Group" commands in the right-click-context menus of the Room Combiner dialog screen in Nexia Software: the specified room is either separate (group 0) or combined with other rooms of the selected group (1~16). All other rooms maintain their previous group assignments. Index1 represents the room being addressed. As rooms are combined, room levels become ganged, so only one output level needs to be addressed.

**Note:** For Wall State, Index1 indicates the wall to be affected and Value indicates the actual wall state (down=open=combined; up=closed=separated).

Example: Set Device 1 Room Combiner Wall State at Instance 4 Wall 2 to up (close/separate).

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	1	RMCMBWALL	4	2	None	1	<LF>

Result: SET 1 RMCMBWALL 4 2 1 <LF>

Auto-Mixer Combiner	Attribute	Commands	Index	Value Range
Group State	MCMBGROUP	SET, GET	1	0 ~ 32

**Note:** Index1 is the input being addressed. Value is the group; this is represented by a letter in Nexia software, but addressed as a number in ATP commands. (Example: ungroup=0, A=1, B=2, C=3....)

**Note:** The Auto-Mixer Combiner was previously the Mix-Minus Combiner. The above command will continue to work with a Mix-Minus Combiner block in a previously created Nexia file with a Mix-Minus Combiner.



## Equalizer Blocks

Graphic EQ	Attribute	Commands	Index	Value Range
EQ Band Level	GEQLVLBND	SET, SETL, GET, GETL, INC, DEC	1	-30 ~ 15 *
Bypass All Bands	GEQBYPALL	SET, GET	None	0 = active 1 = bypassed

\* Can contain a decimal number.

**Note:** *Index1* represents the filter to be controlled. Graphic EQ filters are numbered from left to right, and the selected band is displayed in the upper left hand corner of the Graphic EQ dialog screen in Nexia software. Use this number as *Index1* for Graphic EQ strings.

Example: Set Device 2 Graphic EQ Bypass All Bands at Instance 9 to bypass.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	2	GEQBYPALL	9	None	None	1	<LF>

Result: SET 2 GEQBYPALL 9 1 <LF>

Parametric EQ	Attribute	Commands	Index	Value Range
EQ Bandwidth	PEQBWBND	SET, SETL, GET, GETL	1	0.010 ~ 4.000 *
Bypass EQ Band	PEQBYPBND	SET, GET	1	0 = active 1 = bypassed
Center Freq.	PEQFCBND	SET, SETL, GET, GETL, INC, DEC	1	20 ~ 20000
EQ Band Level	PEQLVLBND	SET, SETL, GET, GETL, INC, DEC	1	-30 ~ 15 *
Bypass All Bands	PEQBYPALL	SET, GET	None	0 = active 1 = bypassed

\* Can contain a decimal number.

**Note:** *Index1* represents the filter to be controlled. Parametric EQ filters are initially numbered from left to right, and the selected band is displayed in the upper left hand corner of the Parametric EQ dialog screen in Nexia software. Use this number as *Index1* for Parametric EQ strings.

Example: Increment Device 1 Parametric EQ Band Level at Instance 11 Band 2 by 2dB.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
INC	1	PEQLVLBND	11	2	None	2	<LF>

Result: INC 1 PEQLVLBND 11 2 2 <LF>

Feedback Suppressor	Attribute	Commands	Index	Value Range
Reset All Filters	FBSRESET	SET	None	None
Fix All Filters	FBSFIXALL	SET, GET	None	0 = not fixed 1 = fix all

Example: Set Device 1 Feedback Suppressor Reset All Filters at Instance 4.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	1	FBSRESET	4	None	None	None	<LF>

Result: SET 1 FBSRESET 4 <LF>

**Filter Blocks**

HPF	Attribute	Commands	Index	Value Range
Cut-Off Freq.	HPFLTFC	SET, SETL, GET, GETL, INC, DEC	None	20 ~ 20000*
Filter Bypass	HPFLTBYP	SET, GET	None	0 = active 1 = bypassed

\* Can contain a decimal number.

LPF	Attribute	Commands	Index	Value Range
Cut-Off Freq.	LPFLTFC	SET, SETL, GET, GETL, INC, DEC	None	20 ~ 20000*
Filter Bypass	LPFLTBYP	SET, GET	None	0 = active 1 = bypassed

\* Can contain a decimal number.

High Shelf	Attribute	Commands	Index	Value Range
Cut-Off Freq.	HSFLTFC	SET, SETL, GET, GETL, INC, DEC	None	20 ~ 20000*
Gain	HSFLTGAIN	SET, SETL, GET, GETL	None	-27 ~ 9 *
Filter Bypass	HSFLTBYP	SET, GET	None	0 = active 1 = bypassed

\* Can contain a decimal number.

Low Shelf	Attribute	Commands	Index	Value Range
Cut-Off Freq.	LSFLTFC	SET, SETL, GET, GETL, INC, DEC	None	20 ~ 20000*
Gain	LSFLTGAIN	SET, SETL, GET, GETL	None	-27 ~ 9 *
Filter Bypass	LSFLTBYP	SET, GET	None	0 = active 1 = bypassed

\* Can contain a decimal number.

Example: Set Device 1 High Shelf Filter Gain at Instance 100 to -10dB.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	1	HSFLTGAIN	100	None	None	-10	<LF>

Result: SET 1 HSFLTGAIN 100 -10 <LF>

All-Pass Shelf	Attribute	Commands	Index	Value Range
Bandwidth	APFLTBWBND	SET, SETL, GET, GETL	1	0.01 ~ 4.0 *
Center Freq.	APFLTFCBND	SET, SETL, GET, GETL	1	20 ~ 20000 *
Filter Bypass	APFLTFBYBND	SET, GET	1	0 = active 1 = bypassed
Bypass All	APFLTBYPALL	SET, GET	None	0 = active 1 = bypassed

\* Can contain a decimal number.

**Note:** *Index1* represents the filter band to be controlled. All-Pass Filter bands are initially numbered from left to right, and the selected band is displayed in the upper left hand corner of the All-Pass Filter dialog screen in Nexia software. Use this number as *Index1* for All-Pass Filter strings.

## Crossover Blocks

2-Way	Attribute	Commands	Index	Value Range
Cut-Off Freq.	XOVR2FC	SET, SETL, GET, GETL	1	20 ~ 20000 *

\* Can contain a decimal number.

3-Way	Attribute	Commands	Index	Value Range
Cut-Off Freq.	XOVR3FC	SET, SETL, GET, GETL	1	20 ~ 20000 *

\* Can contain a decimal number.

4-Way	Attribute	Commands	Index	Value Range
Cut-Off Freq.	XOVR4FC	SET, SETL, GET, GETL	1	20 ~ 20000 *

\* Can contain a decimal number.

## Notes:

2-way crossover:

*Index1 = 1* is the low-pass filter cut-off frequency  
*Index1 = 2* is the high-pass filter cut-off frequency

3-Way crossover:

*Index1 = 1* is low-pass filter cut-off frequency  
*Index1 = 2* is the lower slope of the mid filter cut-off frequency  
*Index1 = 3* is the higher slope of the mid filter cut-off frequency  
*Index1 = 4* is the high-pass filter cut-off frequency

4-way crossover:

*Index1 = 1* is the low-pass filter cut-off frequency  
*Index1 = 2* is the lower slope of the low-mid filter cut-off frequency  
*Index1 = 3* is the higher slope of the low-mid filter cut-off frequency  
*Index1 = 4* is the lower slope of the mid-high filter cut-off frequency  
*Index1 = 5* is the higher slope of the mid-high filter cut-off frequency  
*Index1 = 6* is the high-pass filter cut-off frequency

Example: Get Device 2 Crossover 3-Way Cut-Off Frequency at Instance 40 Low-Pass filter.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
GET	2	XOVR3FC	40	1	None	None	<LF>

Result: **GET 2 XOVR3FC 40 1 <LF>**

**Dynamics Blocks**

Leveler	Attribute	Commands	Index	Value Range
Bypass	LVLRBYP	SET, GET	None	0 = active 1 = bypassed

Comp/Limiter	Attribute	Commands	Index	Value Range
Bypass	CLIMBYP	SET, GET	None	0 = active 1 = bypassed

Ducker	Attribute	Commands	Index	Value Range
Input Level	DKRLVLIN	SET, GET, SETL, GETL	None	-100 ~ 12 *
Level Sense	DKRLVLSENSE	SEET, GET, SETL, GETL	None	-100 ~ 12 *
Bypass Ducker	DKRBYP	SET, GET	None	0 = active 1 = bypassed
Sense Mute	DKRMUTESENSE	SET, GET	None	0 = unmuted 1 = muted
Input Mute	DKRMUTEIN	SET, GET	None	0 = unmuted 1 = muted
Logic In Enable	DKRENLOGIN	SET, GET	None	0 = disabled 1 = enabled
Logic Out Enable	DKRENLOGOUT	SET, GET	None	0 = disabled 1 = enabled
Logic Input Invert	DKRINVLOGIN	SET, GET	None	0 = normal 1 = inverted
Logic Output Invert	DKRINVLOGOUT	SET, GET	None	0 = normal 1 = inverted

\* Can contain a decimal number.

Noise Gate	Attribute	Commands	Index	Value Range
Bypass	NGBYP	SET, GET	None	0 = active 1 = bypassed

Example: Set Device 3 Noise Gate Bypass at Instance 55 to active.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	3	NGBYP	55	None	None	0	<LF>

Result: SET 3 NGBYP 55 0 <LF>

## Router Blocks

Router	Attribute	Commands	Index	Value Range
Crosspoint	RTRMUTEXP	SET, GET, SETD, GETD	1 & 2	1 = unmuted 0 = muted

**Note:** For attributes with 2 Index fields, *Index1* is the input/row, and *Index2* is the output/column.

Example: Set Device 1 Router Crosspoint at Instance 98 Row 4 Column 5 to muted.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	1	RTRMUTEXP	98	4	5	0	<LF>

Result: **SET 1 RTRMUTEXP 98 4 5 0 <LF>**

Source Selection	Attribute	Commands	Index	Value Range
Source	SRCSELSRC	SET, GET, SETD, GETD	1	0 = No Source/muted 1 = Source 1 2 = Source 2 3 = Source 3
Level	SRCSELLVL	SET, GET, SETL, GETL, SETD, GETD	1	-100 ~ 12

Example: Set Device 1 Source Selection Source at Instance 99 Source 2 selected.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	1	SRCSELSRC	99	1	None	2	<LF>

Result: **SET 1 SRCSELSRC 99 1 2 <LF>**

Example: Set Device 1 Source Selection Volume at Instance 99 to -54 dB for source input 3.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	1	SRCSELLVL	99	3	None	-54	<LF>

Result: **SET 1 SRCSELLVL 99 3 -54<LF>**

In this example, Index 1 represents the input source, where in the previous example, Index 1 represents the output channel.

**Delay Blocks**

Delay	Attribute	Commands	Index	Value Range
Delay in Milliseconds	DLYMSEC	SET, GET, SETL, GETL	None	0 ~ ? *
Delay in Centimeters	DLYCM	SET, GET, SETL, GETL	None	0 ~ ? *
Delay in Meters	DLYM	SET, GET, SETL, GETL	None	0 ~ ? *
Delay in Inches	DLYIN	SET, GET, SETL, GETL	None	0 ~ ? *
Delay in Feet	DLYFT	SET, GET, SETL, GETL	None	0 ~ ? *
Delay Bypass	DLYBYP	SET, GET	None	0 = active 1 = bypassed

\* Can contain a decimal number.

**Note:** Value Range is from 0 to the maximum value for the specific delay block. For example, a 50mSec delay has a maximum setting of 1717 centimeters, 17 meters, 676 inches, or 56 feet.

Example: Set Device 1 Delay In Centimeters at Instance 24 to 40 centimeters.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
SET	1	DLYCM	24	None	None	40	<LF>

Result: **SET 1 DLYCM 24 40 <LF>**

## Control Blocks

Level Faders	Attribute	Commands	Index	Value Range
Fader Levels	FDRLVL	SET, SETL, GET, GETL, INC, DEC	1	-100 ~ 12 *
Mute Fader	FDRMUTE	SET, GET	1	0 = unmuted 1 = muted

\* Can contain a decimal number.

Mute Button	Attribute	Commands	Index	Value Range
Mute	MBMUTE	SET, GET	1	0 = unmuted 1 = muted

Logic State	Attribute	Commands	Index	Value Range
Logic State	LGSTATE	SET, GET	1	0 = off 1 = on

Presets	Attribute	Commands	Index	Value Range
Preset	PRESET	RECALL	1	1001 ~ maximum preset number

**Note:** Instead of SET, SETL, GET, GETL, INC, or DEC; the Preset attribute uses RECALL as the command. Preset numbers begin at 1001. Regardless of preset name, the first preset defined is 1001, the second is 1002, and so forth. However, the numbers of any deleted Presets will not be available. Since Presets apply to entire systems, the Device Number will always be 0 for Preset strings.

Example: Recall Device 0 Preset number 1001.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
RECALL	0	PRESET	None	None	None	1001	<LF>

Result: **RECALL 0 PRESET 1001 <LF>** (use RECALL instead of SET/GET commands)

**Meter Blocks**

Meters	Attribute	Commands	Index	Value Range
Signal	SPMTRSTATE	GET	1	0 = no signal 1 = signal
Peak	PKMTRLVL	GET, GETL	1	-100 ~ 36 *
RMS	RMSMTRLVL	GET, GETL	1	-100 ~ 36 *
Logic	LGCMTRSTATE	GET	1	0 = no signal 1 = signal

\* Can contain a decimal number.

**Note:** Meters only use GET and GETL commands, which do not include a Value. Instead, Nexia will respond to these GET/GETL commands with the requested value (current level).

Example: Get Device 1 RMS Meter Level at Instance 48 Meter 1.

Command	Dev #	Attribute	Inst ID	Index 1	Index 2	Value	Line Feed
GET	1	RMSMTRLVL	48	1	None	1001	<LF>

Result: **GET 1 RMSMTRLVL 48 1 <LF>** (use GET/GETL commands only)

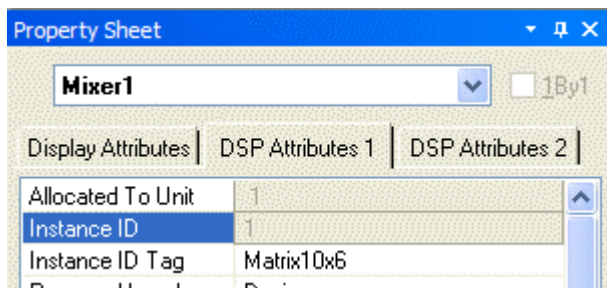


## **Generator Blocks**

No Attributes are specified at this time

### Instance ID

Nexia uses an Instance ID number to specify the exact DSP block to be controlled. Custom names (Instance ID Tags) may be assigned to DSP blocks, and used in lieu of Instance ID numbers within NTP command strings. Instance ID Tags may be up to 32 characters, but may not start with a number or contain the following characters: <&>".. If the Instance ID Tag includes spaces, it must be double-quote delimited ("Instance ID Tag") when used in a command string. The Instance ID number (and Instance ID Tag) can be found by right-clicking the DSP block and selecting "Properties". Both identifiers are available on the DSP Attributes 1 tab.



**The property sheet can only be accessed in an off-line screen.**

**\*\*Note\*\*** Nexia software assigns an Instance ID number to each DSP block on the initial system [Compile](#). Subsequent compiles will not change the Instance ID numbers unless the "Reassign Instance IDs" check box is selected in the [Compile](#) tab of the [Options](#) screen (located on the Tools menu) in Nexia software.

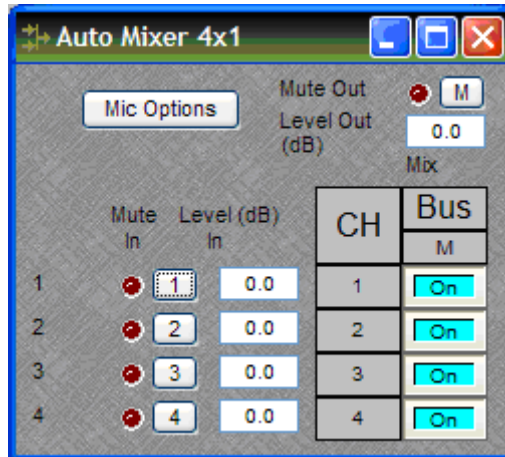
If one or more DSP block is disconnected from the audio path (when connections are not made to at least one input or output) Instance ID numbers will be unassigned. Instance ID numbers will be reassigned once the DSP blocks are properly connected again. The use of Instance ID Tags (in lieu of Instance ID numbers) may help prevent command string conflicts caused by reassignment of Instance ID numbers.

**Index**

Index refers to inputs, outputs, or cross points of an [Attribute](#). Some Attributes will need an *Index1* (Input or Row) and/or an *Index2* (Output or Column). The tables in the *Attribute* section will define which, if any, indexes are required for the string.

Example: INC 1 AMLVLIN 4 1 1 <LF>

In an Auto Mixer on Device 1 we are increasing the level of input 1 on instance ID 4 by 1dB. Index1 is used to represent the input number.



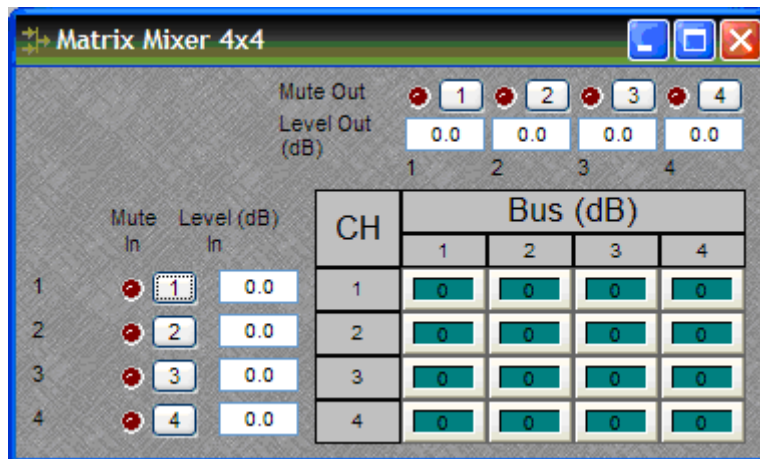
Example: DEC 2 AMLVLOUT 6 1 2 <LF>

In an Auto Mixer on Device 2 we are decreasing the level of output 1 on instance ID 6 by 2dB. Index2 is used to represent the output number.

Example: SET 1 MMLXP 5 1 2 -5 <LF>

In a Matrix Mixer on Device 1 we are setting crosspoint 1:2 (Input/Row 1, Output/Column 2) level to -5dB on instance ID 5.

**Note:** For commands with 2 Index fields, Index1 is the Input/Row, and Index2 is the Output/Column.



## Value

Value determines what a DSP block is being set to, incremented by, or decremented by. The [Attribute](#) section will define which type of value the string will need in order to execute the NTP string.

Example: INC 1 AMLVLIN 4 1 **1** <LF>

In an Automatic mixer input level string, the *Value* equal to **1** states that the fader is to be incremented by 1 dB.

Example: SET 2 MMLVLIN 5 2 **-100** <LF>

In a matrix mixer input level string, the value is set to -100dB.

Example: RECALL 1 PRESET **1004** <LF>

For a preset recall we are telling device 1 to recall the fourth preset.

\*When GET is used, a *Value* will not need to be specified since GET is a request command. A *Value* must be set in order for SET, INC, DEC, and RECALL command strings to work.

Example: GET 4 MMLVLOUT 5 <LF>

We are asking the level of a matrix mixer's output. There is no *Value* required for this string.

## Responses

When a successful SET, SETL, INC, DEC, or RECALL command is sent to an Nexia device via RS-232 or Telnet, Nexia will respond with: '+OK' followed by a carriage return and line feed.

Example: Sending the string: SET 2 AMLVLIN 4 2 1 <LF> will result in an: +OK<CR><LF> response.

A successful GET or GETL command will result in a numerical response to the command string followed by <CR><LF>.

The response from an NTP string with a GET command may contain a decimal point (with 4 numbers after the decimal) and/or negative numbers, depending on type of *Attribute* addressed. If the control system does not support negative numbers or decimal places a GETL command may be used instead (see page 6).

Example: After sending the above example to an Nexia device the string:

GET 2 AMLVLIN 4 2<LF> would result in the response: 1.0000 <CR><LF> this tells us that the level is currently set to 1dB.

If an incorrect command string is sent, an Nexia will respond with: -ERR<CR><LF>

A space normally proceeds the carriage return/line feed <CR><LF> in a response to a GET command, but this space is not present in the standard '+OK' or '-ERR' responses.

**Note:** SETD, GETD, INCD, DECD, SETLD, and GETLD commands may be used when a 'full path' serial response to the command is desired. A 'full path' serial response will provide identification of the target object, the original command, and the resulting Value. A 'full path' response to a valid command will always begin with a pound sign (#) and end normally (as described above).

Examples:

Command = SETD 1 IPADDR 192.168.1.197  
Response = #SETD 1 IPADDR 192.168.1.197 +OK

Command = GETD 1 IPADDR  
Response = #GETD 1 IPADDR 192.168.1.197

Command = SETD 1 MMLVLXP 38 1 1 -1.1  
Response = #SETD 1 MMLVLXP 38 1 1 -1.1 +OK

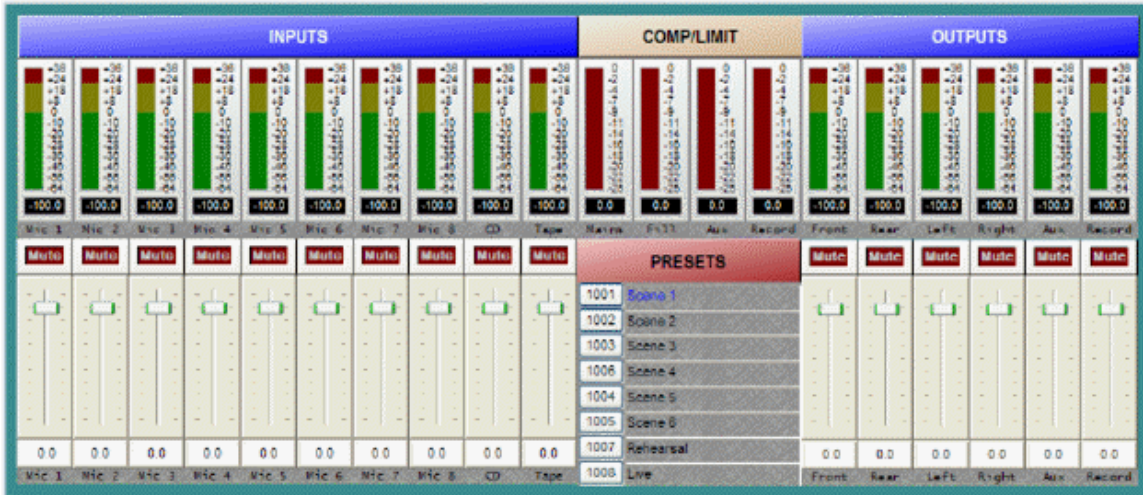
Command = INCD 1 MMLVLXP 38 1 1 1.0  
Response = #INCD 1 MMLVLXP 38 1 1 -0.1000 +OK

It should be noted that, unlike SETD commands/responses, INCD or DECD commands and responses will most often contain different Values. This is because SETD commands specify an exact Value (which will be the same in the response), whereas, INCD and DECD commands specify a 'change' in Value.

### Control Dialog - Overview

Nexia software can be used to control Nexia units real time via a network. After connecting to a Nexia device, users, technicians, and designers (as determined by passwords) can access their appropriate level of control of the system. Depending on the authorized access level of control Levels, Meters, Presets, and layers can be accessed and changed.

Level Control, Invert, Meter, and Preset block control dialog screens can be minimized and arranged to provide a simple, and intuitive, user interface for the system. Connecting Nexia’s Ethernet port, through a switch, to network jacks in various locations can provide control to the system from different locations via a Laptop or Desktop computer.

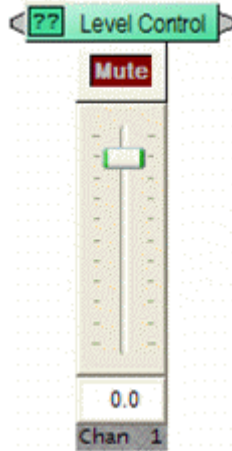


**Note:** Nexia’s control network can be easily shared on an existing network without compromising network bandwidth. This includes Ethernet connections, but not NexLink which remains separate.

**Control Dialog - Levels, Presets, & Meters**

**Levels**

Once Level Controls are placed in a signal path audio levels can be increased, decreased or muted as needed.



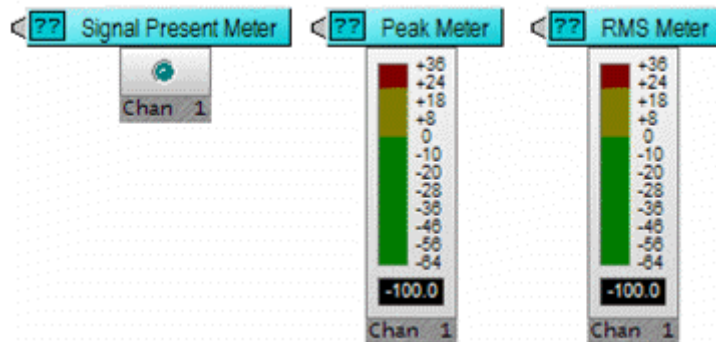
**Presets**

Once *Presets* are created, Preset buttons can be placed on screen and used to easily recall different scenarios.



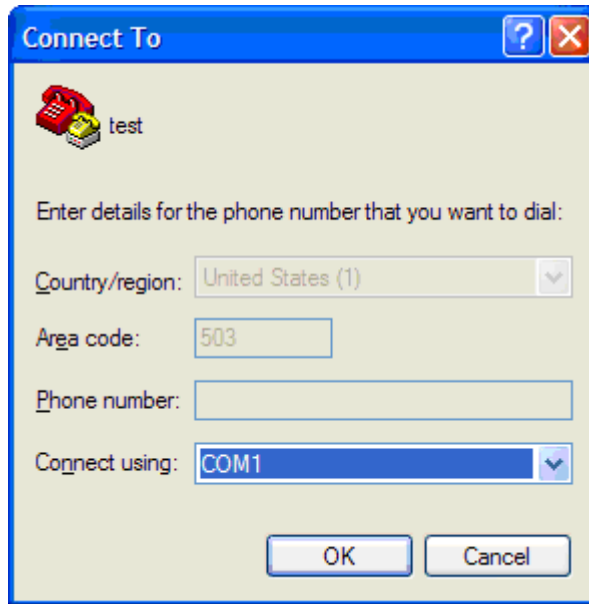
**Meters**

If meters are placed on screen, users can view real time Signal Present, RMS, Peak, and Logic indications.

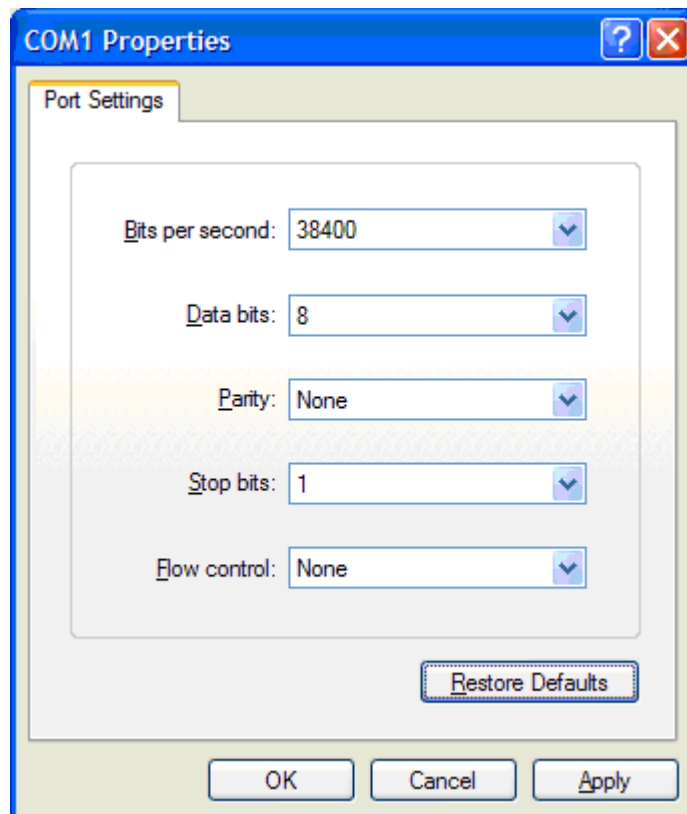


## HyperTerminal

HyperTerminal is a useful tool that comes with Windows® and can be used for RS-232 purposes. Simply open a HyperTerminal session by going to: Start> Programs> Accessories> Communications> HyperTerminal. Enter a name for your connection and click 'OK'. Under the pull-down menu labeled 'Connect Using' select the location of your RS-232 Comm. port.



Under the Comm. port properties set it to 38400, 8, None, 1, and None as shown below. Now HyperTerminal is ready to use. Nexia does not echo characters typed, so if you want to view what is being typed into Nexia, click on "echo typed characters locally" in the ASCII setup screen.



Windows® is a registered trademark of Microsoft Corporation.

## IP Address Commands

Audia has some useful IP and reset tools that may be useful when returning to older systems for service work.



Audia will automatically output its IP Address through the RS-232 port when it is powered up and functioning. Simply have a straight through RS-232 cable connected to Audia and a PC with HyperTerminal running. When Audia is powered up it will print the data in the HyperTerminal screen.

### Get Device ID

By typing "**GET 0 DEVID <LF>**" in HyperTerminal, Audia will reveal the device number that is assigned to that particular device within the system. If an Audia does not have a system loaded into it, the device ID will always be "0". Device ID "0" is always used for network related ATP commands and reset related commands.

### Get/Set IP Address

By typing "**GET 0 IPADDR <LF>**" in HyperTerminal Audia will reveal the IP Address it is set to. Substituting the "0" for a 1, 2, 3, etc will tell Audia to reveal the IP Address for the device who's number is 1, 2, 3 etc. A "0" asks for the IP Address of the Audia you are currently connected to. Note: You can only use a 1, 2, 3 etc if there is a system loaded into the Audia's. If it is a single device system, the only device number will be 1.

If an Audia does **not** have a system loaded into it, you can set the IP Address via the RS-232 port. Example: "**SET 0 IPADDR 192.168.1.101 <LF>**". If there is no DAP file in the Audia, and the command is typed correctly, Audia will send back a "+OK" response. You will need to power cycle the Audia for the new IP Address to take effect. As stated above, Audia will output the IP Address when powered up, or you can use the GET IPADDR command mentioned above.

### Get/Set Subnet Mask

By typing "**GET 0 SUBNETMASK <LF>**" in HyperTerminal, Audia will reveal the Subnet Mask it is set to use. Substituting the "0" for a 1, 2, 3, etc will tell Audia to reveal the IP Address for the device who's number is 1, 2, 3 etc. A "0" asks for the IP Address of the Audia you are currently connected to. Note: You can only use a 1, 2, 3 etc if there is a system loaded into the Audia's. If it is a single device system, the only device number will be 1. By default, the subnet mask is set to 255.255.255.0

If an Audia does **not** have a system loaded into it, you can set the Subnet Mask via the RS-232 port. Example: "**SET 0 SUBNETMASK 255.255.255.0 <LF>**". If there is no DAP file in the Audia, and the command is typed correctly, Audia will send back a "+OK" response. You will need to power cycle the Audia for the new subnet mask to take effect. As stated above, Audia will output the default gateway IP Address when powered up, or you can use the GET SUBNETMASK command mentioned above.

### Get/Set Default Gateway Address

By typing "**GET 0 DEFAULTGW <LF>**" in HyperTerminal Audia will reveal the Default Gateway IP Address it is set to use. Substituting the "0" for a 1, 2, 3, etc will tell Audia to reveal the IP Address for the device who's number is 1, 2, 3 etc. A "0" asks for the IP Address of the Audia you are currently connected to. Note: You can only use a 1, 2, 3 etc if there is a system loaded into the Audia's. If it is a single device system, the only device number will be 1.

If an Audia does **not** have a system loaded into it, you can set the Default Gateway IP Address via the RS-232 port. Example: "**SET 0 DEFAULTGW 192.168.1.1 <LF>**". If there is no DAP file in the Audia, and the command is typed correctly, Audia will send back a "+OK" response. You will need to power cycle the Audia for the new default gateway IP Address to take effect. As stated above, Audia will output the default gateway IP Address when powered up, or you can use the GET DEFAULTGW command mentioned above.

### Get MAC Address

By typing "**GET 0 MACADDRESS <LF>**" in HyperTerminal Audia will reveal the MAC Address of the Audia's network interface. Substituting the '0' for a 1, 2, 3, etc will tell Audia to reveal the MAC Address for the device who's number is 1, 2, 3 etc. A "0" asks for the MAC Address of the Audia you are currently connected to. Note: You can only use a 1, 2, 3 etc if there is a system loaded into the Audia's. If it is a single device system, the only device number will be 1.

## Reset

In rare instances it may become necessary to reset the Audia device. A reset can be accomplished through the device maintenance screen, and this is the desired method for a reset. However, there is a reset command available via the RS-232 port. Simply type: "**CLEAR 0 DEVCONFIG <LF>**" and the device will be reset.

## Reboot Device

When needed, the Audia can be restarted without suspending audio. Simply type: "**REBOOT 0 DEVICE**". This will restart a single Audia device without suspending audio.

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