Analog Presets Manual
Release 3.0

NOTE: This version only works with the JNIOR 410, 412, 414

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1 What is the Analog Presets Program?

The Analog Presets program is a program that runs on the JNIOR that allows the user to implement multiple levels of analog control that can be sent to the analog output on the JNIOR analog expansion modules. The program works with the LED Dimmer module, the 0 – 10 VDC analog expansion module, and the 4 – 20 mA analog expansion module. It will work with up to four of the LED Dimmer modules and up to two of the other analog expansion modules per JNIOR. They can be the same type of module or different types.

# 2 The Purpose of the Analog Presets Program

The Analog Presets Program is meant to be a stepped analog control solution with optional relay output control. It is a way to allow the user to define specific analog values to be sent to the JNIOR analog outputs whenever a 'trigger' occurs. The trigger can be a change in state of a digital input or relay output, or a 'message' can be sent from another device or the INTEG Cinema program to the Analog Presets program. The amount of time it takes to transition from the current analog level to the new analog level can be adjusted.

3 Configuring the Analog Presets Program

After the Analog Presets Program has been loaded on to the JNIOR and rebooted, the Analog Presets Program is configured via the Analog Presets web page.

NOTE: You must use a 'modern browser' which is defined as Internet Explorer 10 or greater, Google Chrome or Firefox for the Analog Presets web page.

When you launch the Analog Presets web page, you will be asked to log in. Please use the default JNIOR username (jnior) and password (jnior).
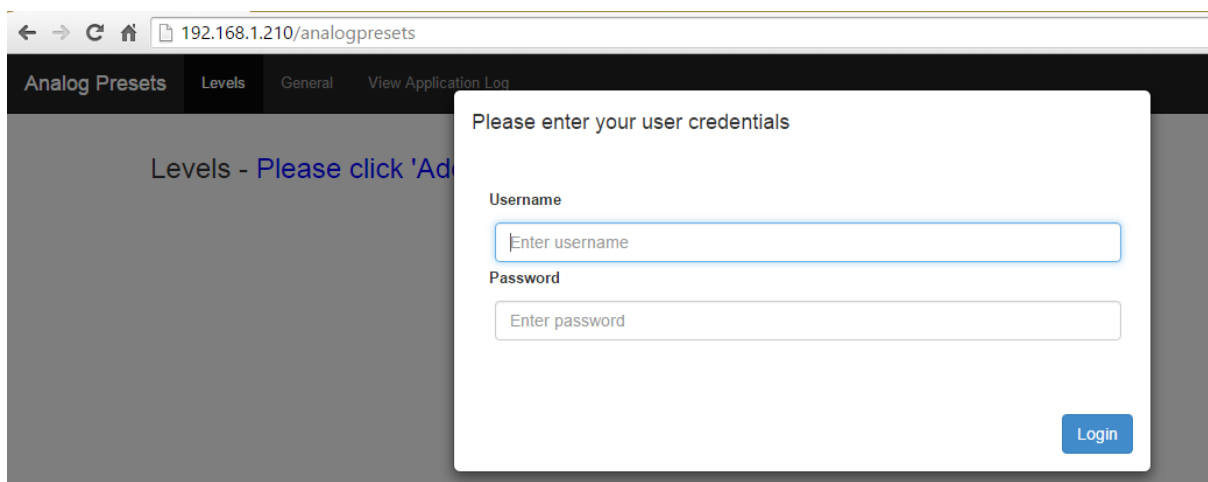
The web page on the Levels tab looks as follows:

NOTE: If you don't have the proper expansion module connnected, it will be grayed out like the 4-20mA and 10v fields are in the picture above.

3.1 Levels

The Analog Presets Program can have many different 'Levels'. Each level can contain multiple analog outputs to be controlled. Each Level contains unique settings for that Level.

Each Level is given a unique name and this is the name that can be sent from another program or device to 'trigger' the Level.

From the Analog Presets web page, click on the ADD LEVEL button at the bottom of the web page to add a level. **The Level name cannot contain any spaces.** Please use an underscore to separate words.

As you mouse over each area to be configured, a help window will be displayed providing you with details on the information to be entered. An example is shown below for the Setting Level box.

Setting Level		Enter the Channel Level as 0 – 100%. Different values for each channel being controlled with this Level are separated by commas.
Trigger		

Data to be entered is as follows. Fields not being used can be left blank.

Name – enter the name for the Level, but you can change it anytime

Setting Level – enter the value to be set for the channel. The number ranges from 0 – 100% and can be for one channel or multiple channels where each value is separated by commas. For example, 20,0,50,10,30,40 would be the value for 6 channels.

Trigger – the level can be triggered by a JNIOR digital input or relay output going from 'off' to 'on'. The format, for example, is DIN1 or ROUT1 (where 1 = 1 through 8)

Transition Time – this is the amount of time in milliseconds that the JNIOR will take to transition the channel settings from the current value to the new value in equal increments **for THIS LEVEL ONLY**. A zero (0) indicates an immediate transition to the new value. If the value is blank, then the Global Transition time under the General Settings is used.

4-20ma Output Channels – If a 4-20ma analog expansion module is not connected to the JNIOR, this box will be greyed out.

> Enter the channel(s) to be controlled separated by a comma
> Acceptable values: 1, 2, 3, 4 (if NOT USED leave blank or -1)
> 1 and 2 are the outputs on the first 4-20 expansion module
> 3 and 4 are the outputs on the second 4-20 expansion module

10v Output Channels – If a 10 v analog expansion module is not connected to the JNIOR, this box will be greyed out.

> Enter the channel(s) to be controlled separated by a comma
> Acceptable values: 1, 2, 3, 4 (if NOT USED leave blank or -1)
> 1 and 2 are the outputs on the first 10 v expansion module
> 3 and 4 are the outputs on the second 10 v expansion module

3 Channel LED Output Channels – If a 3 Channel LED expansion module is not connected to the JNIOR, this box will be greyed out.

> Enter the channel(s) to be controlled separated by a comma
> Acceptable values: 1 to 12 (if NOT USED leave blank or -1)
> 1, 2 and 3 are the outputs on the 1st LED Dimmer module
> 4, 5 and 6 are the outputs on the 2nd LED Dimmer module
> 7, 8 and 9 are the outputs on the 3rd LED Dimmer module
> 10, 11 and 12 are the outputs on the 4th LED Dimmer module

Start Relay Output Action – a relay output (or multiple relay outputs) to be controlled when the level transition **STARTs**.

End Relay Output Action – a relay output (or multiple relay outputs) to be controlled when the level transition **ENDs**.

Example Relay Output Actions

> Action(s) can be entered for one or more relay outputs
> Acceptable values: **See Appendix A**
> For example, a value of   c1   would close output 1
> A value of   o1   would open output 1
> A value of c1p=1000 would pulse closed output 1 for 1 second

The buttons at the bottom of the web page are used to Save your changes, Cancel your changes, Add a Level, Remove a Level or Test the level (after you have saved your changes).
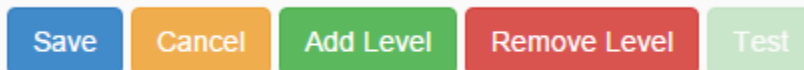
Please note that your changes take effect immediately after you save them. You do NOT have to reboot the JNIOR for the changes to take effect.

3.2 General Settings

By clicking on the General tab at the Analog Presets web page, the following web page is displayed.

3.2.1 Global Transition Time

The Global Transition Time is the amount of time, in milliseconds, that the JNIOR will take to make the transition from the current 'analog output' value being used by the expansion module to the new value defined in the Level that was triggered. The JNIOR will make this transition in steps of approximately equal amounts until the new value is reached. **The Global Transition Time applies to all 'levels' unless a specific Level has a transition time defined that will override the global transition time for that Level.**

The default value is 5000 milliseconds (5 seconds) and a 0 indicates an immediate sending of the new value

3.2.2 Remote Control Server

The Analog Presets Program can receive the command 'trigger level_name' from one or more clients and the Analog Presets Program will immediately execute that Level.

On the General Settings tab, as shown above, the user can configure the port that is 'listening' on the JNIOR to receive commands. The default port is 9700, but it can be changed to any valid port. Multiple connections can be made to this port.

A termination string must be sent by the sending device at the end of the command. The default is \r\n   The valid choices are:

> \r\n - which is a carriage return (0D), line feed (0A)
> \r   - which is just a carriage return
> \n   - which is just a line feed

NOTE: A reboot of the JNIOR is required to restart the Analog Presets program for these new settings to take effect.

Below is an example of a device sending a command to the Analog Presets program that makes the connection to port 9700 and maintains the connection. If the connection is maintained, the Analog Presets program will respond indicating that the trigger was executed successfully or not.

### 3.2.3 Remote Control via the INTEG Cinema Program

The Analog Presets Program can also be controlled from macros utilized by the INTEG Cinema program. The Cinema program can be loaded on the same JNIOR running Analog Presets or a different JNIOR or multiple JNIORs because multiple connections can be made to the Analog Presets program.

Please see the INTEG website Support section for additional details on loading and configuring the Cinema program. Below is a summary of how to connect to the Analog Presets program and send the trigger commands.

In order to trigger Levels used by the Analog Presets program, the JNIOR running the Analog Presets program must be configured as a Raw Ethernet device as part of the Devices file for the JNIOR running the Cinema program (the same or different JNIOR) as shown below.
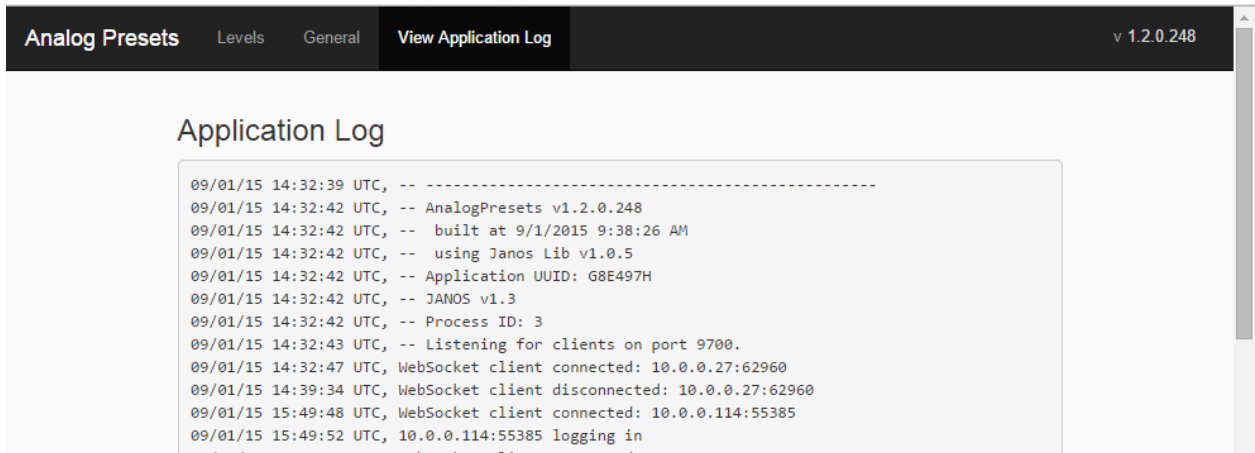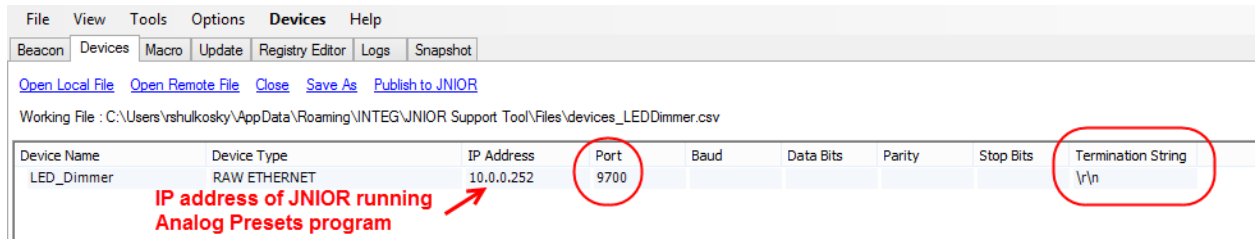

Macros are then created that will send the 'Trigger' command to the Analog Presets program as shown below.
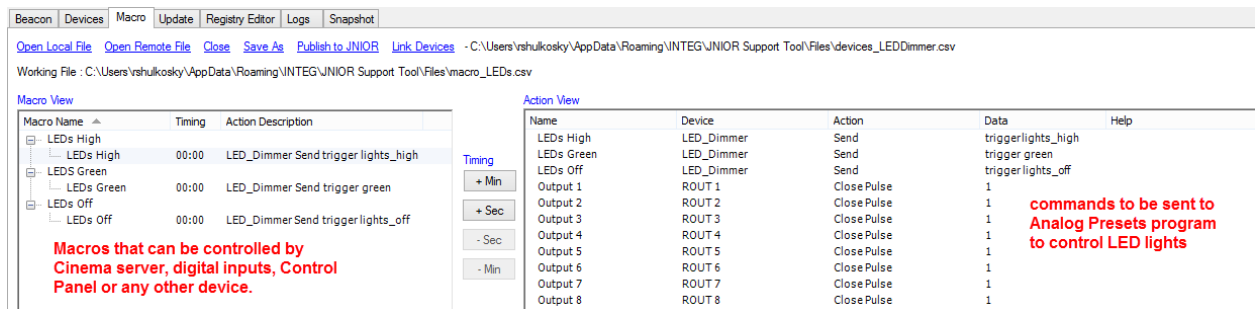
Make sure when entering the value in the data column in the action view that the termination string is at the end of the value, or else the macro will not execute.

Relay Output Control Commands

The following commands can be used for the RelayOutputAction value in each Level.

cX   **Close the output** (relay is "on" closing the contact)
where x = 1 through 8 for the internal relay outputs on the JNIOR 310
and x = +1 through +8 for the external relay outputs on the 4 Relay Output
Expansion Modules

oX   **Open the output** (relay is "off" opening the contact)
where x = 1 through 8 for the internal relay outputs on the JNIOR 310
and x = +1 through +8 for the external relay outputs on the 4 Relay Output
Expansion Modules

p=yyy   **Pulse duration** (milliseconds) and is used in conjunction with the 'close'
or 'open' command

Examples:
c2p=1000   close output 2 for 1 second and then open again
c+2p=1000   close output 10 for 1 second and then open again
o3p=10000   open output 3 for 10 seconds and then close again

c*   Close all outputs at the same time (includes internal and external)

o*   Open all outputs at the same time (includes internal and external)

These commands can be abbreviated and used in combination, such as:

c1   close relay output 1
c+1   close relay output 9 (first output on <u>first</u> expansion module)
c+5   close relay output 13 (first output on <u>second</u> expansion module)
c1+1+5   combination of the above all in one command
c1234   close relay outputs 1 through 4
c1368   close relay outputs 1, 3, 6, 8
o125   open relay outputs 1, 2, 5
c1+1p=1000 close relay outputs 1, 9 and pulse each for 1 second simultaneously

Summary

Thank you for purchasing the **JNIOR**. Hopefully this manual made the getting-to-know process of your new **JNIOR** very quick and easy. The **JNIOR** has many more wonderful tools and features available, and are explained in detail in the supplied documents.

Please do not hesitate to contact our **JNIOR** team at **INTEG Process Group, Inc**. We can be reached via phone, fax or e-mail as follows:

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