



JNIOR Series 3

A Network I/O Resource
Utilizing the JAVA™ Platform

Analog Presets Program Manual

Release 1.2

NOTE: JNIOR OS 3.4 or greater required

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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 from 1 to 16 levels of analog control values that can be sent to the analog output on the JNIOR analog expansion modules. The program works with the 0 – 10 VDC analog expansion module and the 4 – 20 mA analog expansion module. It will work with one or two analog expansion modules per JNIOR. They can both be the same type of module or one of each type.

2 The Purpose of the Analog Presets Program

The Analog Presets Program is meant to be a stepped analog control solution with relay output control. It is not a complete logic controller, but rather a way to allow the user to define specific analog values to be sent whenever a ‘trigger’ occurs. The trigger can be a change in state of a digital input or relay output. The amount of time it takes to transition from the current analog level to the new analog level can be adjusted.

3 Installing the Analog Presets Program

The Analog Presets Program is an add-on program. INTEG distributes the program via an Update Project that is used with the JNIOR Support Tool. The JNIOR Support Tool and Analog Presets Program Update Zip can both be downloaded from the INTEG website (www.integpg.com) or by contacting INTEG.

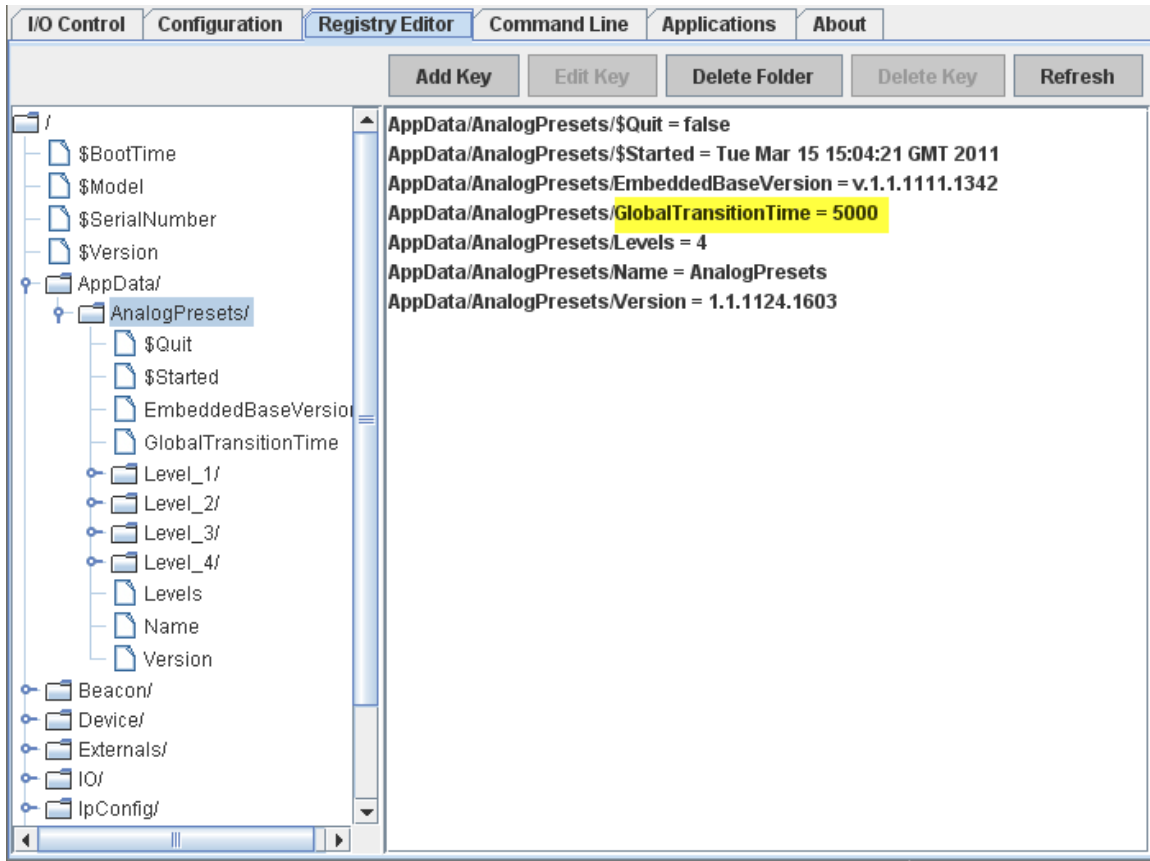
When you run the Update Project, the project will load the software, set the program to run on boot and cause the JNIOR to reboot so the program is started.

4 Configuring the Analog Presets Program

After the Analog Presets Program has been loaded on to the JNIOR and rebooted, the Analog Presets Program can be configured via the Main JNIOR Web page. The JNIOR must also be rebooted after each configuration change to the Analog Presets program so that the new values are used. The web interface makes it easy to define each level of control and to adjust the transition time. All the edits are made from the Registry Editor tab. To launch the Main JNIOR Web page, type the IP address of your JNIOR in your Web browser address line. An example is as follows: <http://10.0.0.208>

When you launch the Main JNIOR Web page, you may be asked to log in. This will depend upon if you have configured your main JNIOR web page for automatic (Autonomous) log in or not. If you have to log in, please use the default JNIOR username (jnior) and password (jnior) or one that you have created.

After the Main JNIOR Web page has loaded, click on the Registry Editor tab. When this has loaded, in the left column, click on the AppData folder and then the AnalogPresets folder. You will see all the Registry Keys associated with the Analog Presets Program as shown below.



4.1 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 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'.

Registry Key

Value

Global Transition Time

Any whole number (no decimal place)

Value is the time in **milliseconds**

Default value is 5000 milliseconds (5 seconds)

0 indicates an immediate sending of the new value

4.2 Levels

The Analog Presets Program can have up to 16 different levels. Each level can contain a different analog output to be controlled (either a 10 VDC output or a 4-20mA output, but NOT both for the same level), a relay output (or multiple outputs) to be controlled, a value for the analog output (Setting) and a trigger (Trigger) that causes the value to be sent to the analog expansion module. Registry Keys for four (4) levels are created by default. The user can create additional levels via the Registry Editor by modifying the Levels Registry Key.

```
AppData/AnalogPresets/GlobalTransitionTime = 5000
AppData/AnalogPresets/Levels = 4
```

Registry Key

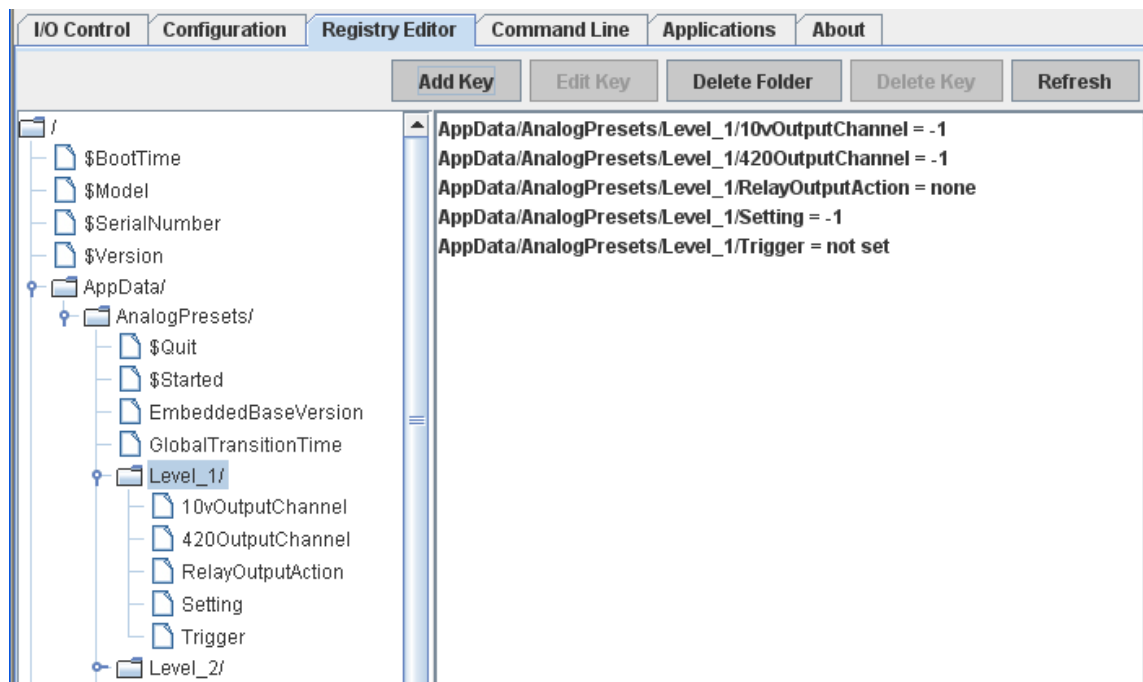
Value

Levels Any whole number between 1 and 16 (default = 4)

After you change the desired number of levels of control, reboot your JNIO and the additional folders with the appropriate Registry Keys will be created.

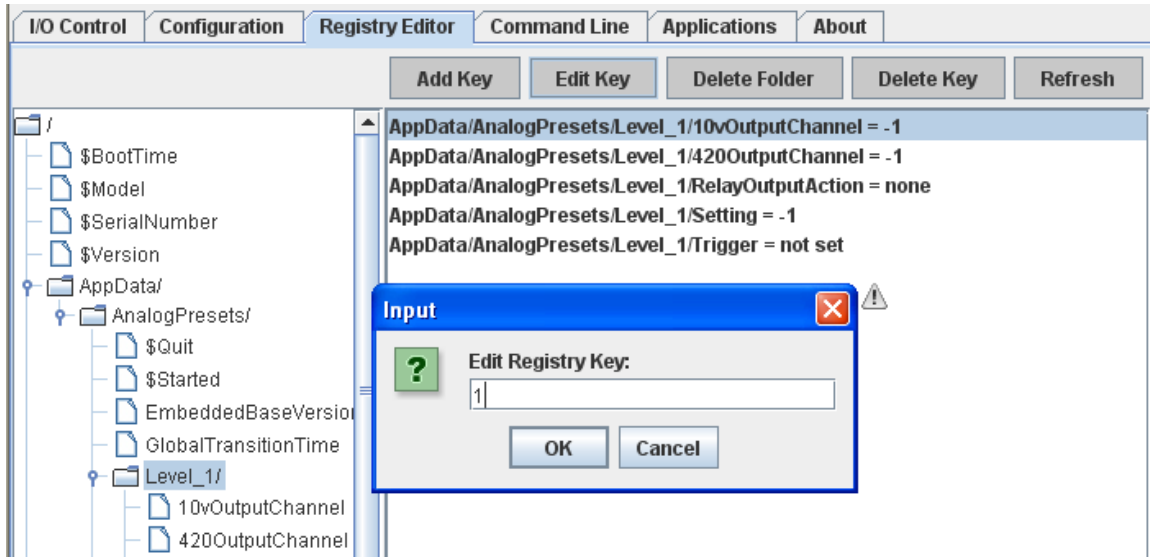
Level Settings

To adjust the settings for a specific level of control, click on a Level folder in the left window to view the Registry Keys that can be edited.



<u>Registry Key</u>	<u>Value</u>
10vOutput Channel	Indicates the channel on the 0 – 10 VDC module Acceptable values: 1, 2, 3 or 4 (-1 indicates it is NOT USED) 1 and 2 are the outputs on the first 0-10 expansion module 3 and 4 are the outputs on the second 0-10 expansion module
420Output Channel	Indicates the channel on the 4 – 20 mA module Acceptable values: 1, 2, 3 or 4 (-1 indicates it is NOT USED) 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
RelayOutputAction	Control action 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
Setting	Any positive number and it can contain a decimal place The number represents the ‘percentage’ of output The 0 – 10 VDC output ranges from 0 (0%) to 10 VDC (100%) The 4 – 20 mA output ranges from 4 (0%) to 20 mA (100%) Acceptable values: 0.00 to 100.00 For example, 45 or 45.5 is valid
Trigger	Digital input or relay output that will Trigger the program to send the Setting to the analog output channel Acceptable values: dinX (where X = 1 through 8, for example, din1) routX (where X = 1 through 8, for example, rout4)

To change any Registry Key, click on the key in the right window and then click on the Edit Key button at the top. Click OK and the Registry Key will be modified.



5 Utilizing Your New Settings

After you have changed any of your Registry Keys, the JNIOR must be rebooted to restart the program.

Please do NOT disconnect the power for the reboot. If you disconnect the power too fast, the JNIOR may not have completed the saving of all your changes to flash memory and some may be lost. Please implement a soft reboot either from the About tab in the Main JNIOR Web page or by typing `reboot` in the Command Line tab or a Telnet or HyperTerminal session.

A APPENDIX – 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.

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