Amazon Alexa 1ˢᵗ Generation Devices Integration Note

Manufacturer:	Amazon
Model Number(s):	**1ˢᵗ Generation Amazon Echo, Echo Dot, Amazon Tap**
Core Module Version:	**Elan Control 8.0.x**
Document Revision Date:	2/27/18

OVERVIEW AND SUPPORTED FEATURES

Amazon Alexa is a Virtual Personal Assistant software suite that runs on several Amazon devices. Alexa enables voice control of several types of home automation equipment. Elan has capitalized on this ability to allow Alexa to execute events within the Elan Control 8.0.x system, enabling the end user to execute on and off commands using their voice. Alexa commands are added as Sense Inputs on the Input/output tab, and both the on and off states can execute a large number of Events as programmed by the installer. A total of 64 Alexa inputs are supported.

IMPORTANT NOTE: This document is for the ELAN version 8.0 upnp Alexa control that supports only 1ˢᵗ generation Alexa devices. Refer to the Alexa ELAN Skill Integration Note on the ELAN Dealer website for the ELAN 8.2.300 Alexa Skill Driver configuration details.

ALEXA INTEGRATION SUPPORTS THE FOLLOWING FEATURES:

Automatic Discovery by Alexa of programmed Inputs: When told to "Discover my Devices", Alexa will query the network and discover the programmed Inputs.

Voice Control of Event Maps: Each input added to ELAN can be commanded to turn ON or turn OFF providing two event map triggers for each discovered input.

By simply saying "Alexa, turn (device name) on" the Alexa-enabled device will set the Input with the corresponding name to on, thus triggering the event map programmed for the Input off-on event.

When the command "Alexa turn (device name) off" is given, the state of the input will go to off, thus triggering a separate command sequence.

It is not necessary to have inputs for both "On" and "Off"- this will result in Alexa having difficulty in distinguishing between the two commands.

NOTE: In order to be automatically discovered by Alexa, Elan Control emulates Belkin Wemo lighting devices. If any actual Wemo lighting devices are used in the building unexpected results may occur. It is important that no Wemo device uses a name assigned to an Elan Control Input Device.

ALEXA INTEGRATION DOES NOT SUPPORT THE FOLLOWING FEATURES:

Alexa 2ⁿᵈ generation or newer devices: This document is for the ELAN version 8.0 upnp Alexa control that supports only 1ˢᵗ generation Alexa devices. Refer to the Alexa ELAN Skill Integration Note on the ELAN Dealer website for the ELAN 8.2.300 Alexa Skill Driver configuration details.

Feedback from Elan Control: Elan Control does not provide any feedback to Alexa regarding Input States or other system data.

More than 64 Alexa Input Devices: No more than 64 Alexa input devices should be added in Configurator.

NOTE: There is no limit to the number of Alexa inputs that may be added in Configurator, however it has been determined through testing that the Alexa can only reliably discover up to sixty-four emulated WeMo devices. Be sure to check the Alexa app to ensure that all Alexa inputs have been correctly discovered.

CONFIGURATION OVERVIEW

Integration with Amazon Alexa requires the manual addition of an Input Controller on the Input/Output tab and the creation of one or more Inputs assigned to the Input Controller. Once the Inputs have been created, Event Maps may be assigned to perform actions within the Elan Control system in response to state changes initiated by Alexa

ADDING AN INPUT CONTROLLER AND INPUTS:

From the Input/Output tab in Configurator:

- Right Click the Sense Inputs heading and select "Add New Input Controller". The "Add New Input Controller" dialog box will be displayed:
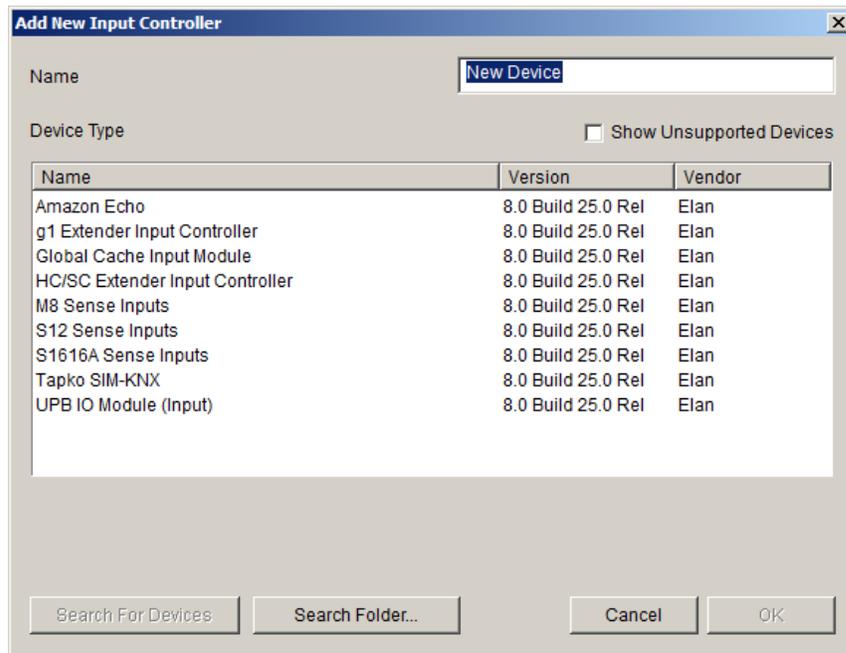
- Select "Amazon Echo" from the list of available Input Controllers and click "OK".
- Set the settings to upnp mode.
- Expand the list of Inputs assigned to the Input Controller by clicking the "+" sign next to the name.
- Right Click the "No Inputs" Input placeholder and select "Add New Input"

    o Assign a unique and user friendly name to the device. This is the name that will be discovered by Alexa and the command that must be spoken to trigger the event.

    o Since there may be multiple zones that are to be controlled be sure to specify the zone location and device to be controlled in the input name. For example, use specific names such as "Kitchen lights" or "Dining room lights".

ADDING EVENT MAPS

Once the Inputs have been added to the Alexa Input Controller, Event Maps may be assigned to be triggered by changes in the state of the Input. The simplest method of creating these event maps is to right click the Input name and select "Create Event Map For:" and then choosing the appropriate I/O state change:
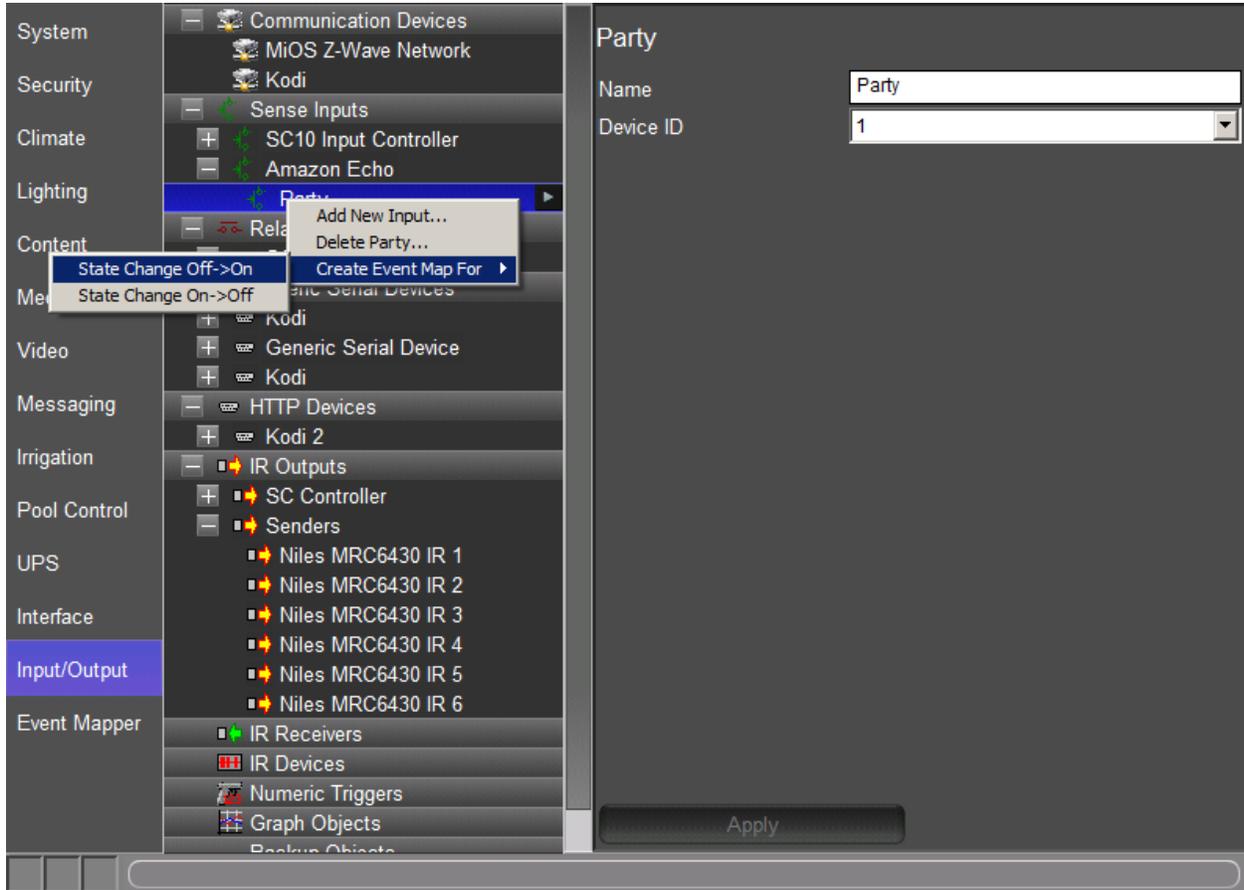
The "Create New Event Map" dialog will be displayed. The name in the box is the default and may be changed to reflect that the event originated with the Alexa device by prefacing the command with "Alexa:" or "Echo:" or similar. Consistent naming will allow for easier fine-tuning from the Event Mapper tab in Configurator should this prove necessary in the future.

Once the Event Map has been created, Conditions and Commands may be added to the Event as desired. Large strings of commands may be built to be executed sequentially, thus allowing the programming of "Macros" to perform multiple tasks from a single voice command.

ALEXA CONFIGURATION:

Once the Inputs and Events have been created in Configurator, the Inputs must be discovered by the Alexa software before they can be executed via voice commands. The best way to discover the Inputs is with the Alexa App on a smartphone or tablet. Discovery in this way will present a list of devices in the app so that you can be certain all devices were detected and re-discover if needed.

The Discovery procedure occurs in the following manner:

- When the "Discover" command is issued, Alexa sends a packet to the UPnP broadcast IP address.
- The Elan controller will see this discovery command and present the first 16 Alexa inputs for discovery by the Echo.
- These 16 devices are then flagged as "Discovered" in the ELAN Control software for three minutes. No visual indication of this will be given in Configurator.
- The next "Discover" command will present the next sixteen devices to the Echo for discovery and flag them for three minutes.
- Proceed to discover as many times as needed to get through all of the devices in sixteen device chunks.
- Check the Alexa app to see if all of your devices were discovered properly.
- If any devices were missed, wait three minutes, and then perform the discovery procedure again to pull in the missing devices.

Discovery may also be accomplished by simply stating "Alexa, Discover Devices". If this method is used, it is recommended that the app still be used to verify the presence of all Elan Control Inputs in the Alexa database.

Once all inputs are discovered, they may be triggered using the programmed names in the following manner:

- Saying "Alexa, turn (device name) on" will set the state of the device to "On", triggering the associated Commands if all Conditions are met.
- Saying "Alexa, turn (device name) off" will set the state of the device to "Off", triggering the associated Commands if all Conditions are met.

COMMON MISTAKES:

1. **Multiple Inputs with the same Name**: All Input names must be unique. Do not add separate inputs for On and Off with the same name.
2. **WeMo Devices on the same network:** Alexa will not be able to differentiate between Elan WeMo-style Inputs and actual WeMo gear. If there is actual WeMo gear on the same network, all device names in both systems must be unique.
3. **Devices not discovering:** Make sure that the Alexa-enabled device is on the same network as the Elan Controller.
4. **Amazon Accounts:** All Alexa devices registered to a particular Amazon account will see every device that any of the Alexas have discovered. It is therefore vital that each home have its own Amazon account.