nanoleaf V1 Controller

Introduction

(http://indigodomo.com) that enables you to control nanoleaf devices from Indigo. It enables local LAN control of nanoleaf Devices without having to use an internet connection. The Version 1 series of the plugin is implemented using Indigo Dimmer Devices to control the

The Autolog nanoleaf Controller is a plugin for the Indigo (version 7+) home automation system

nanoleaf devices and fully supporting the new built-in RGBW controls in Indigo 7. In addition to the standard controls, the plugin provides a mechanism to discover nanoleaf devices and to set effects The plugin makes extensive use of the code base (modified) of the nanoleaf library by Software-2 for

It is **strongly recommended** to read this documentation to familiarise yourself with the how the plugin works.

Installation

Download and install the plugin as normal for Indigo plugins. **Plugin Configuration**

When the plugin starts for the first time, the Configuration dialogue will be displayed. This dialogue is also available via the main Indigo menu *Plugins > nanoleaf > Configure...*

Configure nanoleaf

This Plugin controls nanoleaf devices.

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Use status polling to update the state of the nanonleaf device(s) periodically. Status polling: Enable polling of all nanoleaf devices. Polling Interval: Every 5 minutes

Max polls missed limit?: 1

Specify maximum number of polls allowed to be missed before a nanoleaf device will be flagged with a 'no ack' Default timeout to use when discovering nanoleaf devices. Discovery Timeout: 10 Specify discovery timeout in seconds e.g 10 Use Update Check to check for a new release of the nanoleaf Controller plugin on Github. Use plugin menu to update plugin. Check for updates: Enable to check for new version of nanoleaf Controller plugin. Check Frequency: Check every week Select monitoring / debugging to be performed by ticking required option(s) below and then clicking Save. General: Oebug 'general' processing. Debug Send / Receive: Debug 'send / Receive to nanoleaf devices' processing. Method Trace: Trace Method calls. Debug Polling: Debug 'polling' processing. nanoleaf device Filter IP Address(es): Used for debugging only, in order to constrain processing to specific nanoleaf devices. ? Cancel Save The plugin configuration dialogue has a number of options:

Check for Plugin Update Update Plugin Force Plugin Update The plugin menu, in addition to the standard items, has additional items for update checking:

Select this item to perform a plugin update. The update will only proceed if there is a newer

All nanoleaf devices on the local network are discovered automatically by the plugin when it starts up.

Select this item to perform an immediate check for a plugin update

Model: nanoleaf Device Address: undefined Configure nanoleaf Device Nanoleaf Device ✓ - Select nanoleaf device -192.168.1.90 Nanoleaf One Name: Address: IP Address: Notes:

Authorise

The IP address of the nanoleaf to be authorised.

Cancel

٥

Save

To create a new nanoleaf device, perform the standard New... device option form the Indigo UI.

Configure nanoleaf Device 0 0 192,168,1,90 Nanoleaf Device: Select nanoleaf device to assign to this Indigo device.

Address:

have to add a new Indigo device.

IP Address: 192.168.1.90

Auth Token:

Authorise nanoleaf: Authorise

?

nanoleaf device.

Usage

appropriate.

follows:

State

with the nanoleaf device.

Device Name

Address

• Turn Off

Turn ON

RGB

W

Temp

Brightness Level

Will turn off the nanoleaf device

Will turn on the nanoleaf device

required in the adjacent field.

Indigo UI Home Window Device Info

Auth Token: zsJ1WE2cr1emBdVGMdg9UIZdTvM5sOTr

Notes User specified. Folder User specified. Model NL22 Protocol nanoleaf:) Firmware Shows the nanoleaf firmware version. **Built-In Indigo Controls** used to control the nanoleaf(s): Nanoleaf One (NL22) Color Controls **Device Details** On State on Turn Off Turn On (U) Brightness 97 RGB,W 84 29 96, 97 6500 K Last Update 2017-06-12 16:37:18 KILLER KAMERICA

The name of the specified by you when the device was created.

The random identifier address of the physical nanoleaf device.

new device.

Select the effect you require from the list.

Name: nanoleaf Effect Northern Lights

Edit Action Group "nanoleaf Effect Northern Lights'

?

Notes:

States

To Be Advised

The nanoleaf plugin's ID is 'com.autologplugin.indigoplugin.nanoleafcontroller'.

Scripting Scripting example to follow

effect list to be built for selection in the action.

The plugin provides the following states:

Monitor Send / Receive: Monitor messages sent and Received to/from nanoleaf devices

 Status Polling & Polling Interval Tick to enable polling of the nanoleaf devices and select the Polling Interval from the pull down. Polling is used to detect external changes to the Auroras from for example, the nanoleaf iOS App. Typical values might be *Every 30 Seconds* or *Every Minute*. Max polls missed limit Specify maximum number of polls allowed to be missed before a nanoleaf device will be flagged with a 'no ack'. This is used to identify nanoleaf devices that have disappeared from the local network e.g because it has been inadvertantly physically switched off. Default Durations Specifies separate default durations to be used if not otherwise specified (See the description of these duration settings in the Device Configuration section) Update Check Use Update Check to check for a new release of the nanoleaf plugin on Github. Use plugin menu (see later) to update plugin. Check tick box to enable checks for updates and select frequency (daily or weekly). Monitoring / debugging These options are to support monitoring and debugging. All logging is now done to Indigo 7 standards and to a separate file that can be accessed by clicking on the Show Events Logs Folder button in the Indigo Event Log window. The log file is plugin.log in the com.autologplugin.indigoplugin.nanoleafcontroller folder. This folder also contains date stamped logs from the previous five days. Logging is not normally required but can be useful for fault finding and debugging. nanoleaf device Filter IP Address(es) Used to filter the processing to one or more nanoleaf devices (mainly for testing and debugging purposes). If a nanoleaf device's IP address is specified, any messages sent to or received from other devices not in the list will be ignored. If you send a command (e.g. Turn On) to another nanoleaf device while the filter is active, then this will cause an error warning message to be displayed in the Indigo Event log.

 Force Plugin Select this item to force a plugin update. The update will effectively refresh the current version if there isn't a newer one available or update to a newer one if there is. **Device Configuration**

Type:

?

Address

IP Address

nanoleaf

To fully configu

✓ Enable Indigo communication

Update Plugin

version available.

Plugin Menu

Configure...

About nanoleaf v1.0.0...

Check for Plugin Update

The discovery period defaults to 30 seconds.

On starting the plugin for the first time, the plugin will:

Start discovery to detect nanoleaf devices on the local network.

Create New Device

Authorise nanoleaf:

Auth Token:

Once the plugin has discovered nanoleaf devices, this is reported in the Indigo log.

Disable Reload

The configuration options are: Nanoleaf Device Select an available nanoleaf device that has been previously discovered by the plugin. If there are no nanoleaf devices available to assign to the new Indigo device, then the list will show the message - No available nanoleaf devices discovered -

<PSEUDO MAC ADDRESS>

This is the IP Address of the nanoleaf device on your network.

^ The IP address of the nanoleaf to be authorised.

?

Authorise nanoleaf: Authorise Auth Token: ? Save Cancel

This looks like a MAC Address but is in fact a random identifier generated by the nanoleaf device that will change only when the Aurora is reset. The the only time it changes is when authorization information is erased (reset), which implies a user must set things up again. If this happens you will

Once you have selected a nanoleaf device from the list, the configuration dialogue will show:

Authorise For the plugin to be able to control the nanoleaf device, it has to be authorised. You do this by pressing and holding the power button on the nanoleaf device for 5-7 seconds until the indicator light on the nanoleaf device starts flashing. If you don't do this you will get an error: Configure nanoleaf Device Na Access Forbidden to nanoleaf device! Press and hold the power button for 5-7 seconds first! (Light will begin flashing) OK Authorise nanoleaf: Authorise ? Cancel Save As soon as the indicator light on the nanoleaf device starts flashing, you can let go of the power button (the light will stop flashing) and you can then press the Authorise button. Assuming the authorisation works, then the dialogue will show the following. Configure nanoleaf Device Nanoleaf Device: 192.168.1.90 Select nanoleaf device to assign to this Indigo device. <PSEUDO MAC ADDRESS> Address: IP Address: 192.168.1.90 ^ The IP address of the nanoleaf to be authorised.

Start Up When Indigo is restarted or the pluguin is reloaded, the plugin will run a Discovery of nanoleaf devices on the local network (as previously noted in the section above).

The UI Status of nanoleaf devices will initially be shown as 'No Ack' (No Acknowledgement). Once a

The discovered nanoleaf devices reside in whatever folder was used when the device was created

within the Indigo Home Window (that lists device). The relevant Device info listed in the Window is as

Shows nanoleaf device state, normally an on or off icon and dimming state from 0 to 100. Can also be a red dot with 'No Ack' (No Acknowledgement) indicating communication has been lost

status update has been received, the standard light on or light off symbols will be shown as

Cancel

You should see the unique genearted Auth Token which the plugin will use when communicating

with the nanoleaf device. Now press Save to let the plugin complete the setup of the Indigo

Save

Custom States authToken = zsJ1WE2cr1emBdVGMdg9UIZdTvM5sOTr brightness = 97 colorMode = hs

The field next to the *Turn On* button contains the overall nanoleaf *brightness level*

nanoleaf device and put the device into hs (hue/saturation) mode.

The color swatch represents the current colour of the nanoleaf device. Clicking on the color

swatch launches the Color Picker. You can choose different color modes e.g. RGB Sliders, HSB

Indigo color model (RGBW). Whilst there is for the most part a vey good correlation between the two models, there can at times be slight deviations. Adjusting the sliders will alter the color of the

W represents White Level and adjusting this alters the brightness of the nanoleaf device and puts

the nanoleaf device into ct (color temperature) mode. You can also directly enter the White level

Sliders etc. The plugin handles the translation of the nanoleaf color model (HSBK) to and from the

 Set RGBW Levels Note: Pending a further required Indigo update (to be available post version 7.0.3) to resolve an issue with how the plugin can understand the user input, it is not possible to set the color via an Action.

Inner Peace Nemo Set Effect (nanoleaf Actions) Effect Name ✓ Northern Lights Romantic Device: nanoleaf ONE Refresh Effects Snowfall Sunset Edit Action Settings. Vibrant Sunrise set effect

?

Note that communication must have been successfully made to the nanoleaf device for the dynmaic

 Toggle On/Off Set Brightness Brighten by % • Dim by % Match Brightness nanoleaf Actions

Set Effect (Action) in the list. Configure Set Effect Effect Name: Northern Lights Refresh Effects: Refresh

The Plugin provides two additional actions under 'nanoleaf Actions': Set Effect Discover nanoleaf Devices **Discover nanoleaf Devices (Action)** Running this action will cause the plugin to try and discover nanoleaf devices on the local network. Once new nanoleaf devices are found, You can use the * NEW... command from the main UI to add a Use this action to select an availbale effect already defined on the physical nanoleaf device. When you run the action the effect will be run on the nanoleaf device. Press the Refresh button to refresh the list if you have amended the effects available on the Nanoleaf device and the effect isn't available

Cancel

Save

- Select nanoleaf effect -

Cancel

Save

Color Burst Fireplace

Flames Forest

This is the White Temperature (kelvin) of the nanoleaf device and puts the nanoleaf device into ct (color temperature) mode. You can also directly enter the White Temperature (Kelvin) required in the adjacent field. This will also be adjusted according to the above table **Device Actions** The nanoleaf devices can be controlled using the built-in standard Indigo Device Actions > Light/Appliance Controls: All Off All Lights On All Lights Off • Turn On Turn Off

This is the nanoleaf device model retrieved from the physical device by the plugin: The plugin is implemented as an Indigo Dimmer Device, so the built-in Indigo controls can be be colorTemperature = 6500 connected = true effect = *Solid* hue = 289 ipAddress = 192.168.1.90 manufacturer = Nanoleaf name = Nanoleaf Aurora nanoleafOnOffState = on nanoleafOnState = true saturation = 70 serialNo = S17192A0072 The various built-in controls are described below:

already defined on the nanoleaf device. which much thanks are due:) - see (https://github.com/software-2/nanoleaf) **Prerequisites** This version of the nanoleaf Plugin controls nanoleaf Aurora devices running at least version 1.5.0 of the firmware. You may need to do a firmware update when you first get your nanoleaf Aurora device. This Plugin needs some nanoleaf Auroras to control! The latest version of the plugin has been developed and tested on OS X El Capitan (10.11.6) and also tested on macOS Sierra (10.12.6). Installation