VELUX KLF200

Plugin for HomeSeer

Version 1.1.2

{pseudocode}

{introduction}

This plugin allows VELUX INTEGRA devices to be controlled through HomeSeer via a VELUX KLF200 gateway.

It also works with other io-homecontrol devices (e.g. Somfy) which are supported by the KLF200.

This version has been confirmed working with the following device types:

ID	Description	Notes
0x00C0	Vertical Exterior Awning	Tested with Velux unit
0x0100	Window Opener	(not tested but same as 0x0101)
0x0101	Window Opener w. rain sensor	Tested with Velux unit
0x0280	Vertical Interior Blind	Tested with Velux unit
0x0440	Exterior Venetian Blind	Tested with Somfy IO motor • speed has no effect

Other device types should work since in most cases their basic functionality requires a 0 – 100% setting.

{concepts}

The plugin creates a HomeSeer device for each corresponding physical device found in the KLF200, which will:

- Reflect the status of its underlying physical device.
- Control the physical device when the HomeSeer device is changed.
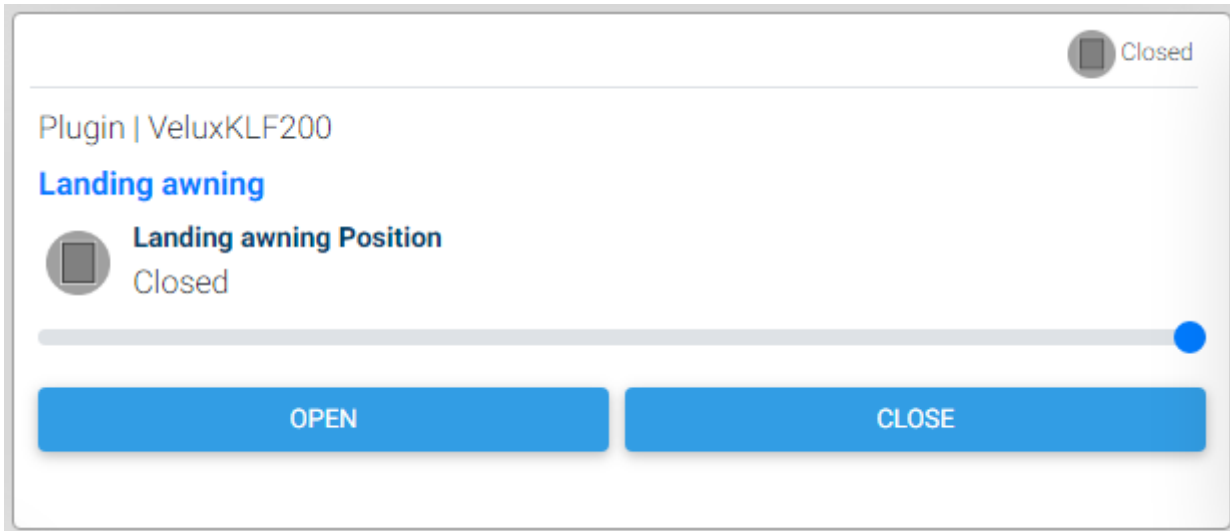
A gateway device (VELUX KLF200) is also created to show the status of the connection and allow connection / disconnection from the KLF200.
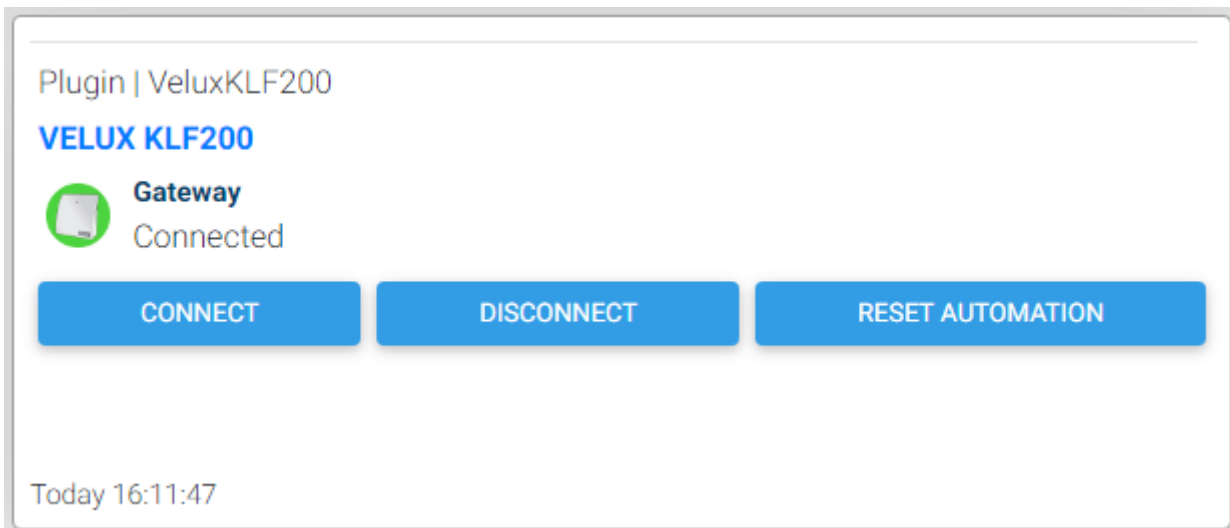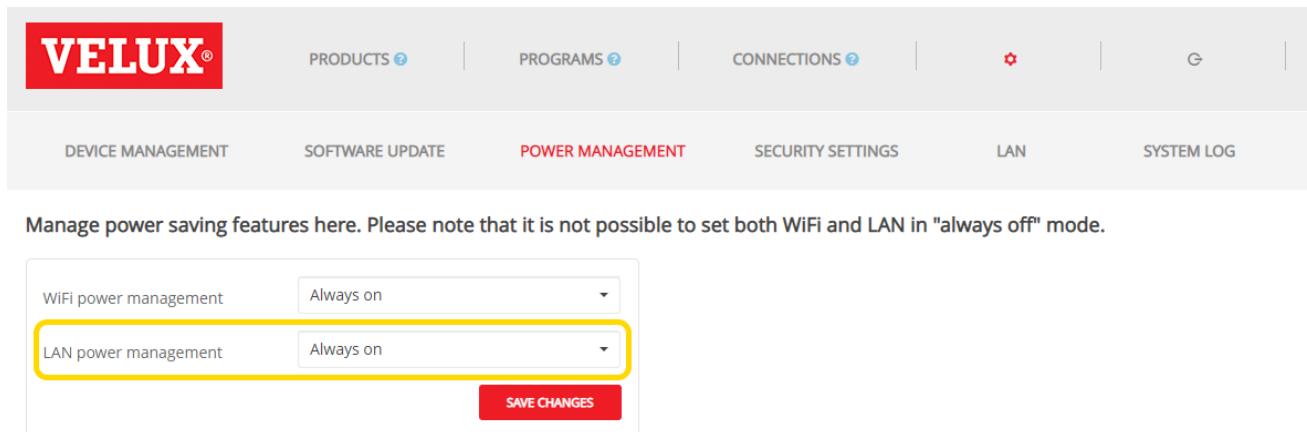

The plugin also has special handling for automation which is covered later in this document.

`{setup}`

First set up the KLF200 gateway according to its instructions and associate your devices with it.

Set the names of your devices appropriately in the KLF200 web interface, as these will be used to name the corresponding HomeSeer devices.

Also make sure the LAN connection is turned on:
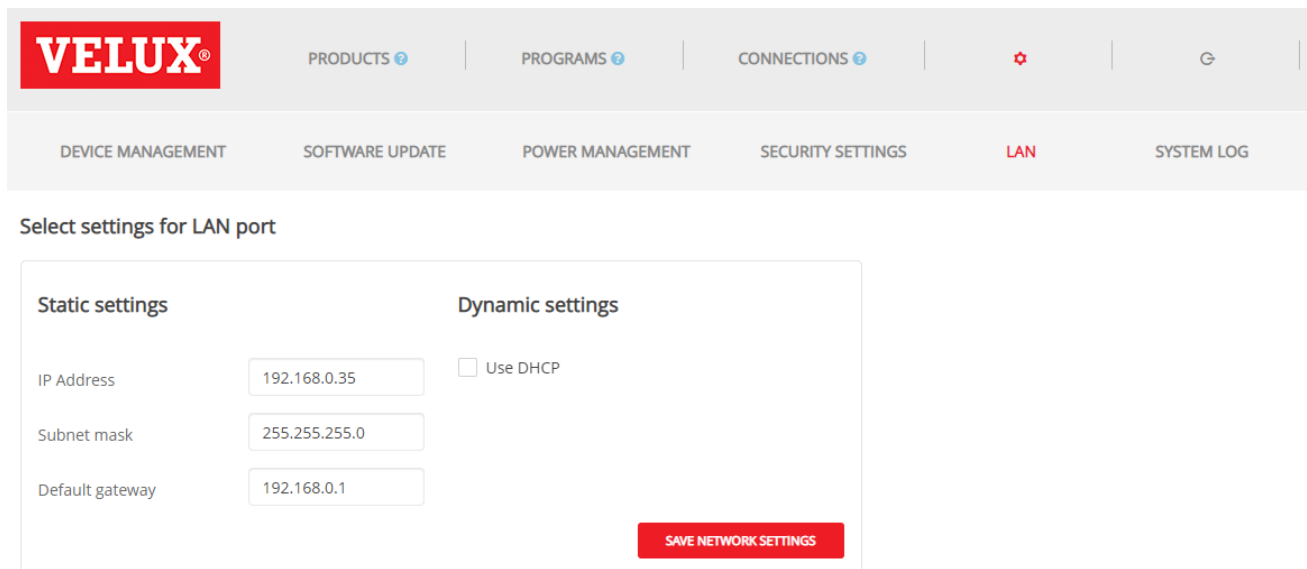
And set a fixed IP address, so the plugin can reliably find the KLF200 gateway:

(You can also used DHCP if you prefer to manage this through your router, as long as the IP address is fixed).

In HomeSeer in the plugin settings page, set the IP address of the KLF200 gateway and the password (usually the one written on the bottom of the gateway).

Login

Address / IP
192.168.0.35

Password
[redacted]

Automation Support

Automation block (minutes)
60

Logging

Level

Information   ▼

CANCEL   SAVE

The plugin should already have created the VELUX KLF200 device. Click the "Connect" button on this device.

The log should show successful connection to the KLF200 gateway, and a set of HomeSeer devices corresponding to your physical devices should be created.

{operation of devices}

A typical device in HomeSeer looks like this, with buttons for key positions and a slider for free positioning:
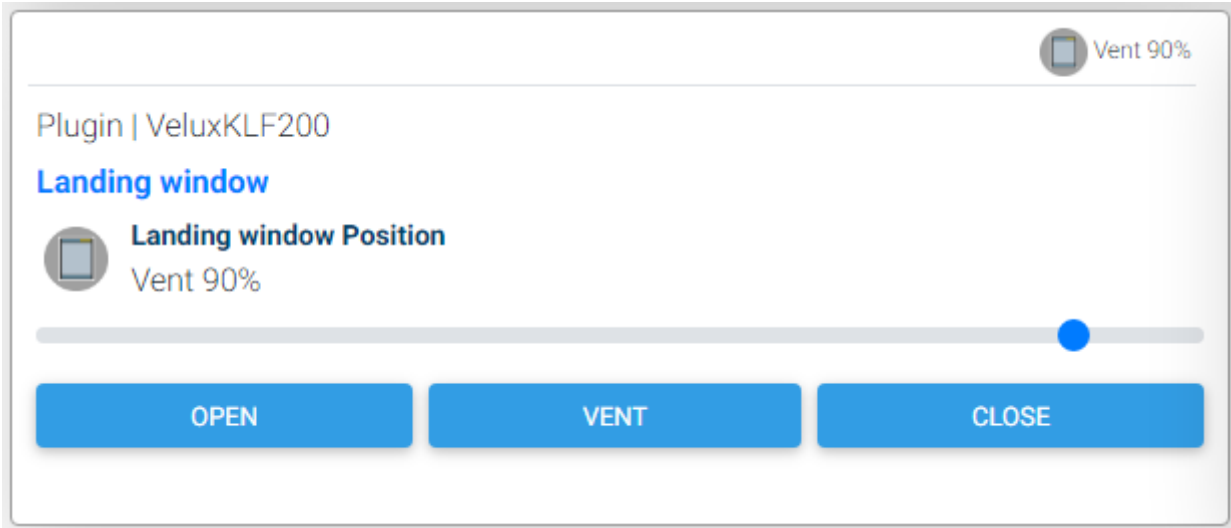

The plugin listens for notification from the KLF200 gateway of physical device movement, updating the corresponding HomeSeer device position as required.

Changing the position of the HomeSeer device by using the controls or through events or scripts will trigger a command to the KLF200 gateway to move the corresponding physical device.

Devices may be renamed in HomeSeer, the plugin does not use this information and it will not break the link to the KLF200 device. Similarly the group/detail/category settings may be changed freely.

If a device is removed from the KLF200 gateway, stop the plugin, delete the corresponding HomeSeer device, then restart the plugin. Attempts to control a HomeSeer device whose physical device has been removed could lead to unpredictable behaviour.

The plugin will recreate any missing HomeSeer devices on connection to the KLF200 gateway.
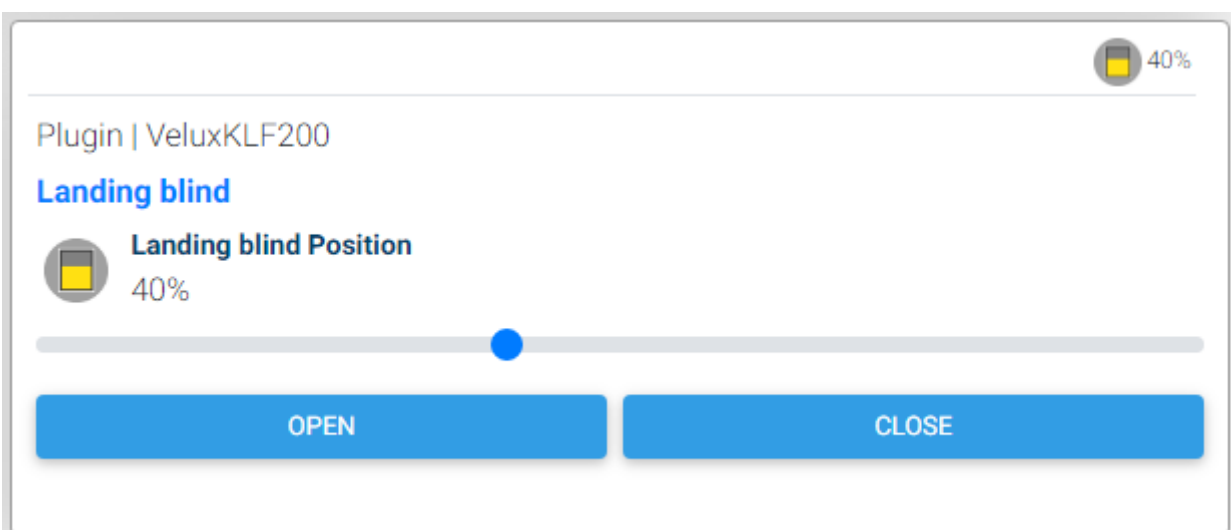
{sub-features}

Some devices will have sub-features which control the way the device behaves or other aspects of the device.

Implemented so far:

Speed

Adjusts the speed of movement between normal and slow (50%); may not have any affect, depending on the device.

Slats

For venetian blinds, adjusts the angle of the slats. Note that feedback from the device is not received, so manual changes will not be recognised.

The value will be set automatically to Open (0%) when the blind is fully opened, or Closed (100%) when the blind is fully closed.

Moving the blind to values between 1% and 99% usually maintains the slat orientation.

To move the blind and set the orientation, set the blind opening value first then the slats (there is no need to wait for the blind to stop moving before setting the slat orientation).
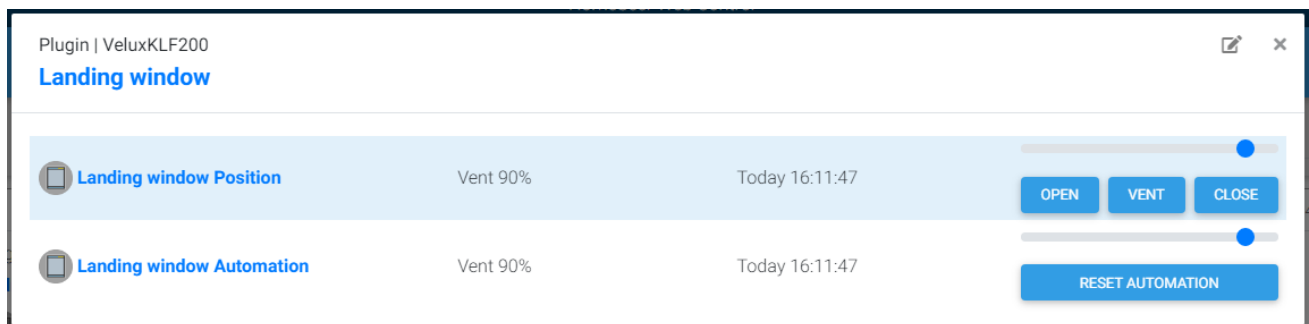
`{automation}`

When automating movements, the user may also want to control the physical device (directly, or via HomeSeer) and not have the automation rapidly override this.

With that in mind, each HomeSeer device has an additional "automation" feature.

Controlling the automation feature will be rejected if the device has been controlled physically or through the main position feature within a definable time (default 60 minutes). Automation events / scripts may use this feature to easily implement manual override.

The automation block time can be configured on the plugin settings page, and defaults to 60 minutes.

The feature also has a button to reset the automation block, effectively setting the device last update time to (now - block period). The VELUX KLF200 device has a button to reset automation for all devices.

To aid scripting, a plugin function is provided which will check if automation would be blocked for a device, returning true if automation will be accepted and false if it would be blocked.

A typical use-case being if further actions are dependent on this information, or to reduce logging changes which are later blocked.

Example function which wraps this for use in your own scripts:

```
Function CanAutomate(ref as Integer)
    Return CBool(hs.PluginFunction("VELUX KLF200", "", "CanAutomate", new Object() {ref}))
End Function
```

{plugin functions}

Plugin functions can be called from scripts, the following are implemented.

CanAutomate

Check whether the specified device is blocked for automation by a recent manual move.

Parameters

Integer **ref**   reference of the device to check

Returns

Boolean   true if automation allowed, false if not

Example script

```
Function CanAutomate(ref as Integer)
    Return CBool(hs.PluginFunction("VELUX KLF200", "", "CanAutomate", new Object() {ref}))
End Function
```

Reboot

Sends a reboot command to the gateway.

Note that the gateway is typically very stable, regular reboot is unlikely to be required.

Parameters

Returns

nothing

Example script

```
Sub Reboot()
    hs.PluginFunction("VELUX KLF200", "", "Reboot", Nothing))
End Sub
```

{troubleshooting}

General

Additional logging can be turned on in the plugin settings page.

Debug logging shows messages sent and received from the KLF200 gateway and can therefore be quite a lot of entries.

The plugin tries to connect to the KLF200 gateway a number of times on startup or if the connection is lost. If this fails it will show an error state, and further reconnection attempts will not be made until the plugin is restarted or the Connect button pressed on the VELUX KLF200 HomeSeer device.

Connection

As noted in the {setup} section, make sure you have a LAN connection for your KLF200 Gateway with a fixed IP address. Note this is <u>not</u> the same as the WiFi connection the gateway exposes for the web management pages.

The API only allows two connections, and may keep an incorrectly terminated connection open for 15 minutes or more. If you are testing or suffer power outages on your HS device, you may need to reboot or powercycle the KLF200 gateway to free up connections.

Device Types

If you have a device which is not fully supported, send me a note on the support forums so I can investigate adding it.

{changes}

Version	Changes
1.0.0	Initial version
1.1.0	Added support for exterior venetian blind slats; also minor fixes, hide the automation features
1.1.1	Improved handling of SSL errors from the Gateway Added menu item for the Forum page Internal updates to slats feature value now trigger correct HS response Improved some logging
1.1.2	Fixed issue with intermittent startup exception on Linux