

Harmony Controller instructions, for version 2.15

Install from the App Market

This plug in is available on the MiOS App market as **Harmony Hub Control**. Use the standard Vera Install Apps to install.

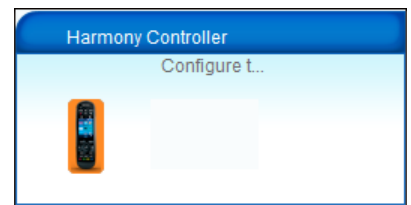
In case you have multiple Hubs you have to install multiple instances of this plug-in. Simply go to My Apps. Choose the Harmony and click Create another, and put the IP address of the second Hub in the IP address as explained below.

Install on openLuup

As of version 2.7 this plugin also work on openLuup. To install do not copy the files from your Vera, but install from the ALTUI App Store. To create a second instance of the plugin, you must create the device manually.

You can also download them from GitHub <https://github.com/reneboer/vera-Harmony-Hub> for a manual install.

The device will show with an amber icon when not configured:



Harmony Controller instructions, for version 2.15

Configure the Harmony Hub Control Plug-in

First complete the settings page. Do not use the Advanced tab to enter any data, always use the Settings tab.

Enter the Harmony Hub IP address. Enter the email and password you registered for your Hub at Harmony.

You can set the Harmony Hub communication time out to a value that works best for you. On a reliable network 5 (default) or even 2 seconds can work. If you have issues with commands send reliably increase the time out.

When Current Activity poll interval is selected, the current activity and buttons on the harmony Control device will be updated automatically were the delay is no longer than the interval. This way you can trigger scenes even when controlling the Hub via the remote or Harmony Android/IOS App.

When Ok acknowledge interval is set, the icon will show with a green background after a command is completed for that number of seconds.

After you have defined activities, you can configure one of those as a Default Activity that will be selected when SetTarget = 1. The AuthomationHD android app can see the Harmony plug in as a switch and you can switch the default activity on and off.

When Wait on Activity Start complete is Yes, the plugin will wait until the Hub reports that last step of the activity is completed, before updating the Current Activity value and firing any triggers. However, this can tie up the Vera with this job for a fairly long time, and it does not like that if it is more than 40-50 seconds. When set to No the plug-in just reads the first message and then updates the Current Activity value.

Set Enable HTTP Request Handler to Yes to query the harmony hub via the Vera. This is especially useful to find device commands or control via a web browser or so. See the last page for examples.

When Enable Remote Icon Images is Yes the Icon images will be pulled from a remote web server rather than from you Vera. Benefits are that you will also see the Icons when accessing your Vera remotely. Drawback can be a, very minor, performance difference.

You can set your own preferred log level when you need to debug some odd behavior or just want to see how things flow in more detail.

If you have a syslog server (like a Synology NAS) you can enter its IP address and syslog port. Saves you from digging through the Vera log file. The default syslog port is 514, so for example enter 192.167.1.2:514.

Control	Settings	Activities	Devices	Back
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Device #44 Harmony Control

Harmony Hub IP Address: 192.168.178.31

Harmony Hub Email: dummy@email.com

Harmony Hub Password: ☒ Show Password

Harmony Hub communication time out: 5 Sec (default)

Current Activity Poll Interval: 15 Sec

Ok Acknowledge Interval: 1 Sec

Default Activity: Sonos

Wait on Activity start complete: No

Enable HTTP Request Handler: Yes

Enable Remote Icon Images: Yes

Log level: Error

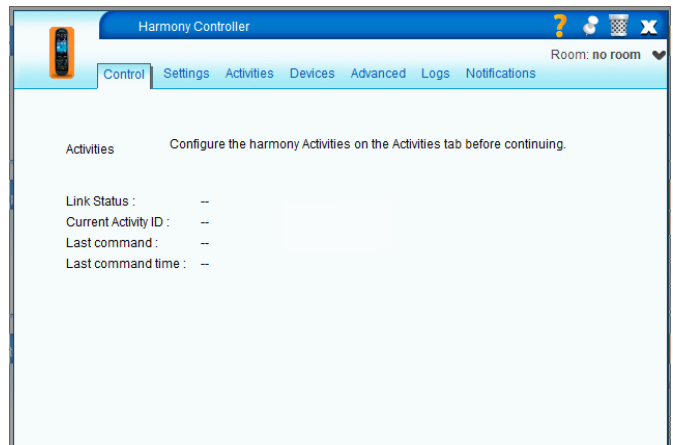
Syslog server IP Address:Port:

Save Changes

Harmony Controller instructions, for version 2.15

When saving the settings, the Vera will do a LUUP reload to make sure all settings are properly stored and processed.

On the Control tab you should now see the message it is time to map the activities to buttons.



Harmony Controller instructions, for version 2.15

Set up the Harmony Activities

After saving the settings you can start to configure the activities that you want as buttons on the Vera UI.

Open the Activities Tab. You can specify up to the number of buttons as you selected in your settings. The buttons will map to one of the activities you configured on your hub.

Note that opening the activities tab will take some time as the activities are read from your Harmony Hub when selecting the Tab. During this you will see the message; Loading activities from Harmony Hub. Please wait...

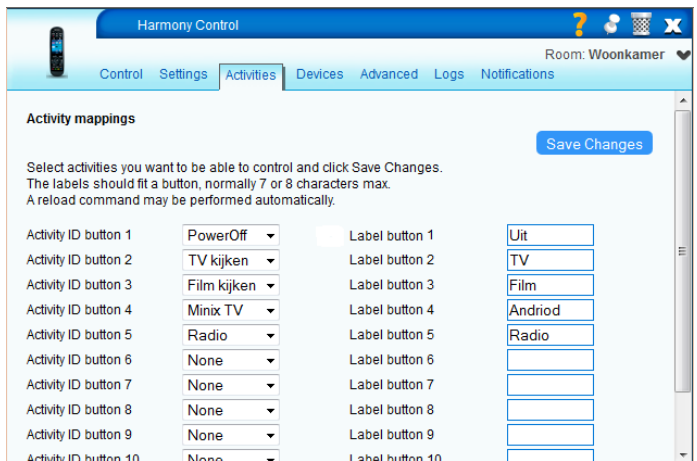
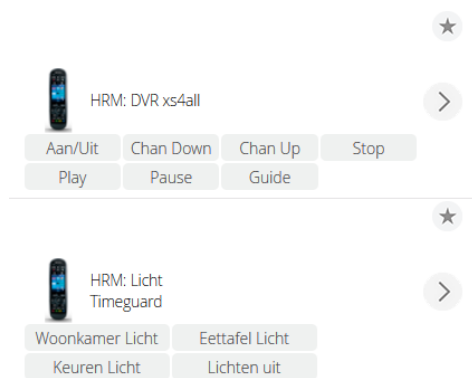
Once you selected the activities and specified the labels for the buttons, click Save Changes.

After a few seconds you will see the message; Changes to the buttons made. Your Vera will reload, so wait a minute and refresh your browser page!

The plug-in will look something like this. On UI5, if the number of buttons is more then 8, the dashboard will be larger to accommodate them.



On UI7.05 the button width is adjusted when the number of columns to display the buttons is less than five. This allows for longer labels.



Harmony Controller instructions, for version 2.15

Setup Harmony Devices

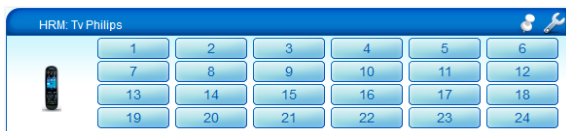
Select the Devices Tab to see the device details from your Harmony Hub.

In the dropdown you can select one, several, or all your Harmony devices. For each selected device, a child device will be created. To select multiple devices use Ctrl-click.

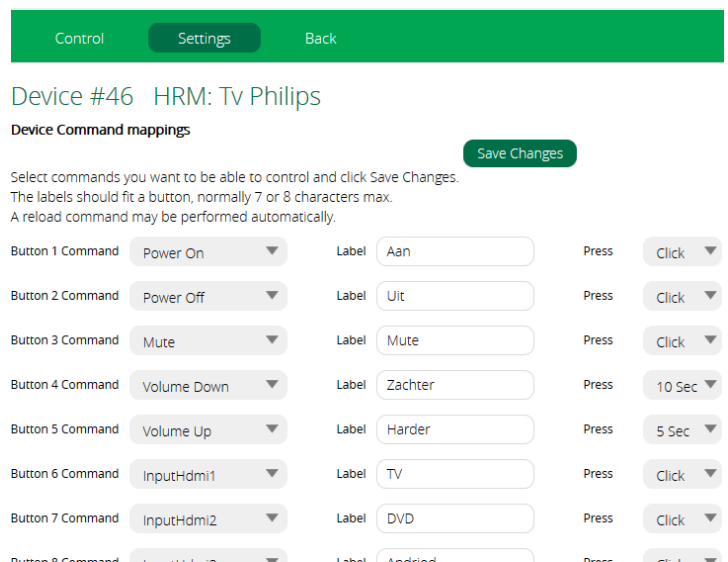
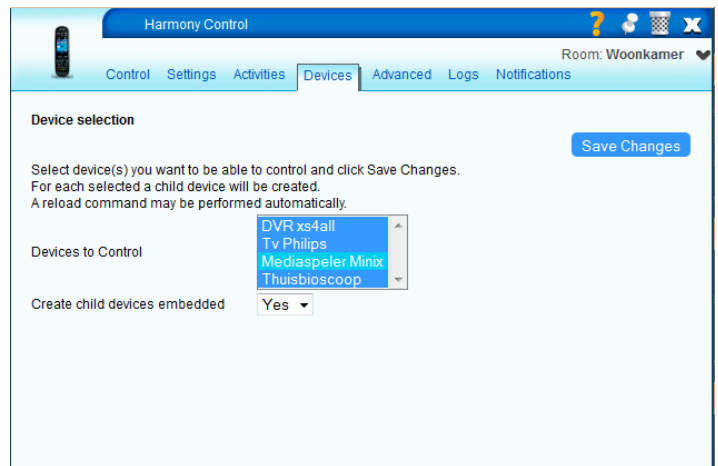
When `Create child devices embedded` is yes, the child devices will show in the same room as the main Harmony Hub Control device. When you change the room of a child device, the child device will get recreated again in the same room as the parent, and you will lose its button definitions! This will also happen when changing the `Create child devices embedded` setting.

After clicking Save Changes, your Vera will reload several times. This is normal behavior when adding or removing child devices.

For each child device you can configure Buttons just as for the main device. Each Button is mapped to a command of the Harmony Device the child device is created for.



With version 2.5 you can specify how long the button should be held down. Click is just that, and a Press in seconds simulates holding the button for that number of seconds.



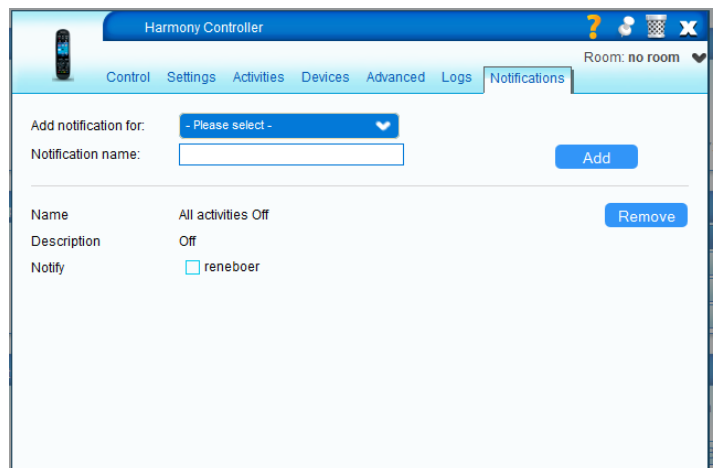
Harmony Controller instructions, for version 2.15

Configure Scenes Triggers and Notifications

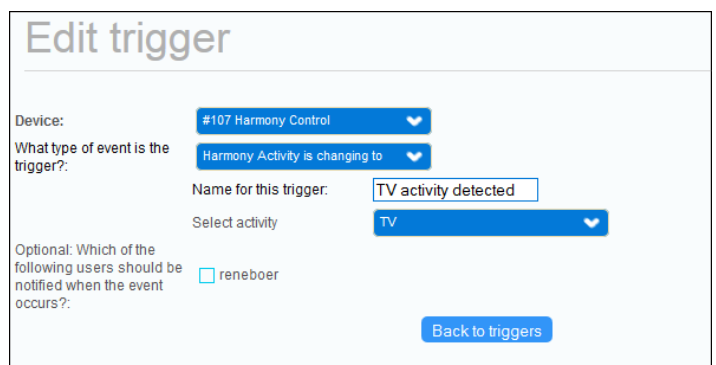
Last option you have is to configure notifications or use the Harmony Hub Control devices to trigger scenes.

For the main harmony Hub Control device, the trigger will occur when the selected activity is turned on. Either via clicking the Buttons, a Scene, a luup.call_action command or when you start the activity via your remote or mobile App, provided Current Activity Polling is enabled.

Notifications or triggers for the child devices will only happen via clicking the Buttons, a Scene, or a luup.call_action command.



The screenshot shows the 'Notifications' tab in the Harmony Controller interface. At the top, there's a navigation bar with 'Control', 'Settings', 'Activities', 'Devices', 'Advanced', 'Logs', and 'Notifications'. The 'Room' is set to 'no room'. Below the navigation bar, there's a section for adding a new notification. It includes a dropdown for 'Add notification for:' (currently showing '- Please select -'), a text input for 'Notification name:', and an 'Add' button. Below this, there's a table with columns for 'Name', 'Description', and 'Notify'. The table contains one entry: 'All activities Off' with a description of 'Off' and a checkbox for 'Notify' labeled 'reneboer'. A 'Remove' button is next to the entry.



The screenshot shows the 'Edit trigger' page. It has a title 'Edit trigger' at the top. Below the title, there's a section for configuring the trigger. It includes a dropdown for 'Device:' (currently showing '#107 Harmony Control'), a dropdown for 'What type of event is the trigger?:' (currently showing 'Harmony Activity is changing to'), a text input for 'Name for this trigger:' (currently showing 'TV activity detected'), and a dropdown for 'Select activity' (currently showing 'TV'). Below this, there's an optional section: 'Optional: Which of the following users should be notified when the event occurs?'. It includes a checkbox for 'reneboer'. A 'Back to triggers' button is at the bottom right.

Harmony Controller instructions, for version 2.15

LUUP.Call_action commands

In LUA you can use the following `luup.call_action` commands in scenes LUUP code or your own plug ins:

`GetCurrentActivityID`, `StartActivity`, `IssueDeviceCommand`, `SendDeviceCommand`

Use the http commands `list_activities`, `list_devices` and `list_device_commands` as described next to find out all arguments you can use with these functions.

When starting an activity or sending a command any set notifications or Scene trigger will fire.

Some `luup.call_action` examples:

Get the current activity ID;

```
rc, rs, jb, rarg = luup.call_action("urn:rboer-com:serviceId:Harmony1",
    "GetCurrentActivityID", {}, 28)
if (rc==0) then curActID = rarg.currentActivityID end
```

Start activity with ID 10439301;

```
rc, rs, jb, rarg = luup.call_action("urn:rboer-com:serviceId:Harmony1",
    "StartActivity", {newActivityID=10439301}, 28)
```

Send Mute command to device 21447853;

```
rc, rs, jb, rarg = luup.call_action("urn:rboer-com:serviceId:Harmony1",
    "IssueDeviceCommand", {DeviceID=21447853, Command="Mute", Duration="0"}, 28)
```

or Send a VolumeUp command with holding the button for five seconds to child device. #30 in this example;

```
rc, rs, jb, rarg = luup.call_action("urn:rboer-com:serviceId:HarmonyDevice1",
    "SendDeviceCommand", {Command="VolumeUp", Duration="5"}, 30)
```

Turn on the default activity;

```
rc, rs, jb, rarg = luup.call_action("urn:upnp-org:serviceId:SwitchPower1", "SetTarget",
    {newTargetValue=1}, 28)
```

Turn all activities off;

```
rc, rs, jb, rarg = luup.call_action("urn:upnp-org:serviceId:SwitchPower1", "SetTarget",
    {newTargetValue=0}, 28)
```

Harmony Controller instructions, for version 2.15

HTTP Request Commands

Using the following HTTP requests you can query your Harmony Hub configuration or control your Harmony Hub. When starting an activity or sending a command any set notifications or Scene trigger will fire.

Replace 192.168.1.1 with your Vera IP address and 66 your main plug in ID:

To List all activities;

```
http://192.168.1.1/port_3480/data_request?id=lr_Harmony66&cmd=list_activities
```

To List all devices as a JSON string;

```
http://192.168.1.1/port_3480/data_request?id=lr_Harmony66&cmd=list_devices&format=json
```

To List all device commands for device 21133494;

```
http://192.168.1.1/port_3480/data_request?id=lr_Harmony66&cmd=list_device_commands&cmdp1=21133494
```

To start the activity controlled by Button 1;

```
http://192.168.1.1/port_3480/data_request?id=lr_Harmony66&cmd=start_activity&cmdp1=1
```

To start the activity 10439329;

```
http://192.168.1.1/port_3480/data_request?id=lr_Harmony66&cmd=start_activity&cmdp1=10439329
```

To get the current Activity ID;

```
http://192.168.1.1/port_3480/data_request?id=lr_Harmony66&cmd=get_current_activity_id
```

To issue a device command for device holding button for five seconds;

```
http://192.168.1.1/port_3480/data_request?id=lr_Harmony66&cmd=issue_device_command&cmdP1=21447853&cmdP2=VolumeUp&cmdP3=5
```