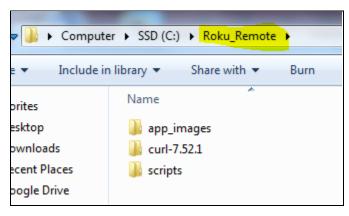
A couple of notes about this setup:

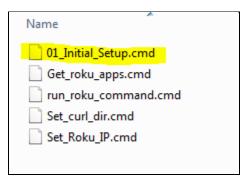
- Make sure that you are logged in as a user with Administrator privileges. I think by default Tobii is setup where the default user is also an Administrator, so for most cases simply booting up Tobii and performing the subsequent instructions should suffice.
- This setup only applies for the Enhanced "point-anywhere" Roku remotes. The other Roku remotes are standard IR remotes that can be setup the same way as any standard TV remote.
- I'll spare the technical details, but this works by utilizing an open-source software app called "curl". It is the critical piece that allows the buttons to send the commands in the proper format to the Roku that it can "understand". More info on the app can be found here. If folks are not comfortable using this on their Tobii, then they should not use this setup.
- Using this setup requires the use of system environmental variables which are created using the steps and scripts described below. I have automated this process so that the user only has to click a file and the magic happens for them. This will **NOT** "blow up" the Tobii or anything and it is very harmless and can be easily backed out if it somehow causes issues or conflicts. The same thing can be accomplished without the use of system environment variables, but this was the best way to "dummy-proof" the process. If doing this without the use of environment variables is desired, I can offer up details on how to do that too.
- This is very important, but I have only tested this on a Windows 7 <u>Tobii I-12</u>, so I'm not sure if these steps will work on Tobiis using different Microsoft operating systems (i.e. Windows 8/10), but they probably will work.

Setting up Tobii Communicator as a Roku remote:

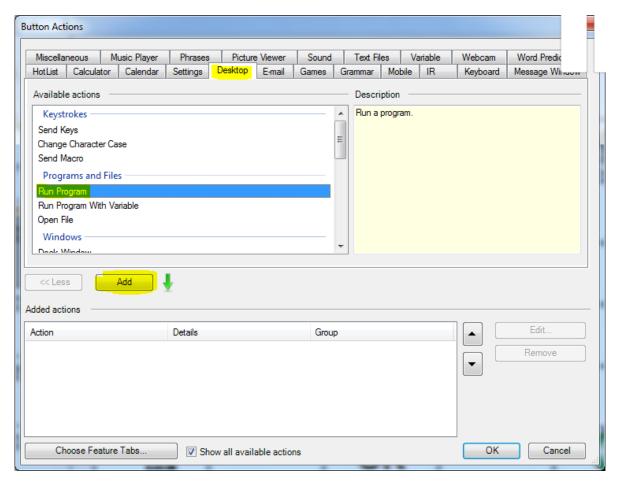
- 1. If the Communicator software is open, shut down Communicator.
- 2. Copy/paste the Roku_Remote.zip to your folder of choice.
 - a. One suggestion is to simply drop it at the root of the C-drive (C:\) or in your "Documents" folder (assuming you have Administrator privileges).
- 3. Right-click the zip file and use the "Unzip to Roku_Remote\" option. This should automatically create the following folder structure:



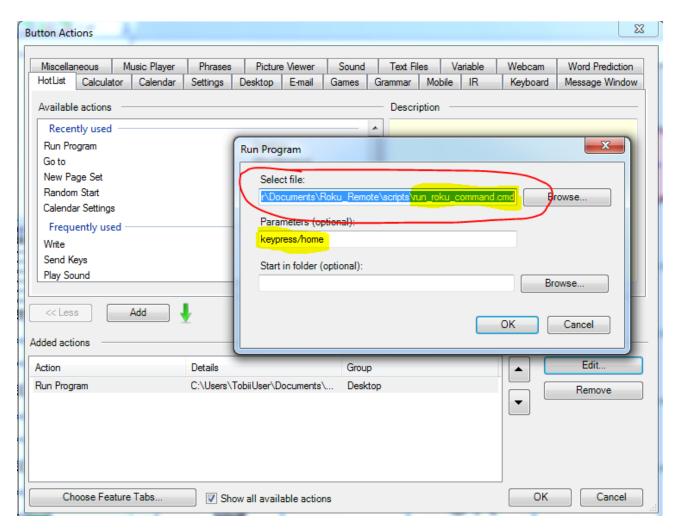
- a. The **app_images** folder is where I was placing the images for the channel buttons (i.e. Netflix, Amazon, etc.). You can use any folder though I just threw these in since they are fairly popular channels on Rokus.
- b. The **curl-7.52.1** folder is where the curl application is stored. **DO NOT** alter or move this folder in any way as it will mess up the subsequent steps. I could set this up to not be this restrictive, but that would require a little more "magic" to accomplish. This is just a simple way to get it to work and once the user has unzipped the file, there is really no reason to alter or change it.
- c. The **scripts** folder is where the scripts that will perform all the behind-the-scenes magic reside. Again, **DO NOT** alter or move this folder in any way as it will mess up the subsequent steps.
- 4. Go into the scripts folder, right-click on the "01_Initial_Setup" file, and select the "Run as administrator" option.



- 5. A command window will appear giving you the status of the script whether it encountered errors or not and it will also request for you to enter your Roku's IP address. Enter the IP address and select the Enter key.
 - a. The Roku's IP address can be found from the settings page on the Roku.
 - b. Once it has completed successfully, click any key to exit. If it did encounter errors, the script can be executed multiple times in the case that you have corrected the errors and need to run the file again. If you cannot figure out what the problem is, you'll need to let me know.
- 6. At this point, you are ready to open up Communicator and start adding commands to buttons, so open up Communicator and right-click the button you wish to program as a Roku button.
- 7. Select the "Button Actions..." option.
- 8. Select the "Desktop" tab, then select "Run Program" from the "Available actions" section, then select the "Add" button:



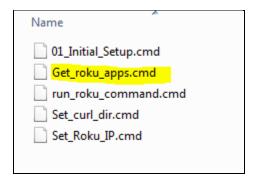
- 9. From the "Run Program" dialog, enter the following values:
 - a. "Select file" this will be the full directory path to the run_roku_command.cmd file that is located in the scripts folder (from step 3c.).
 - b. "Parameters (optional)" even though this says "optional", they are not optional in this case! You will want to reference Roku's SDK (Software Development Kit) page for this. Scroll down to the section titled "Keypress Key Values" and use the info there to determine how you want this particular button to perform. For example, to have the button perform the same action as selecting the Home button on the Roku remote, you would enter "keypress/Home"; the Back button would be "keypress/Back"; the OK button would be "keypress/Select"; etc. See image below for an example of how the Home button would be designated.



- 10. Once you have specified the correct values for those fields, select OK to exit the Run Program dialog and OK again to exit the Button Actions dialog. At this point, the button is programmed and should be ready to perform the designated action on the Roku!
- 11. Repeat steps 6-10 to program other buttons to mimic Roku remote commands.
- 12. If you are done adding buttons to your page, restart the Communication software. **NOTE: This is important because the changes above will not take effect until you restart the Communication software.**

Creating channel buttons:

- 1. If the Communicator software is open, shut down Communicator.
- 2. To create a button for a specific channel, such as Netflix, you'll need to request the channel list from the Roku itself.
- 3. Navigate to the scripts folder and double-click on the Get_roku_apps file. If there are no errors this will create an XML-formatted text file named *RokuApps MMDDYYYY.txt* (where *MMDDYYYY* is the day the script was run) that lists the channels installed on your Roku.

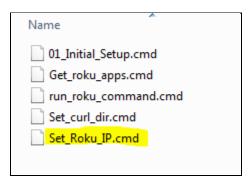


- 4. Open the file and find the channel you would like to program into the button. It should look like this:
 - <app id="12" type="appl" version="4.2.75018045">Netflix</app>
- 5. Make note of the "id" value (highlighted above).
- 6. Open the Communicator software.
- 7. Perform steps 6-10 from the previous section, except that this time from the "Run Program" dialog you will enter a different value into the "Parameters (optional)" field. You will enter "launch/<id>" where "<id>" is the "id" value noted in step 4, so it would look like "launch/12" if using the example line referenced in step 3.
- 8. At this point, the button should be programmed to automatically run the specified Roku channel!
- 9. If you are done adding buttons to your page, restart the Communication software. **NOTE: This is important because the changes above will not take effect until you restart the Communication software.**

To change/update the Roku's IP address:

If you do not have an assigned or static IP setup, from time-to-time you may need to update you Roku IP address reference on the Tobii so that the buttons will work (I can elaborate if that doesn't make sense). To accomplish this, follow the steps below. This can also be used to quickly change the Tobii to control a different Roku (such as at a relative's house, etc.).

- 1. If Communicator is open, shut down Communicator. NOTE: This is important because the changes below will not take effect until you restart the Communication software.
- 2. From the scripts folder, double-click the Set Roku IP file and it will ask the user to enter their Roku IP.



- 3. Enter the new IP address and select the Enter key.
- 4. Open the Communicator software.
- 5. The Roku buttons should now start working with the new Roku IP address.

Below is the page layout we are using for our little one. We hid all of the unused buttons and created a space between the down button and OK button so that our little one wouldn't have as many conflicts on those buttons. We do have two Back buttons, but the top-left one is for the Roku Back button and the lower-right Back button is to exit the page. Our little one LOVES LOVES having the control of our Roku and has picked it up quickly!!

