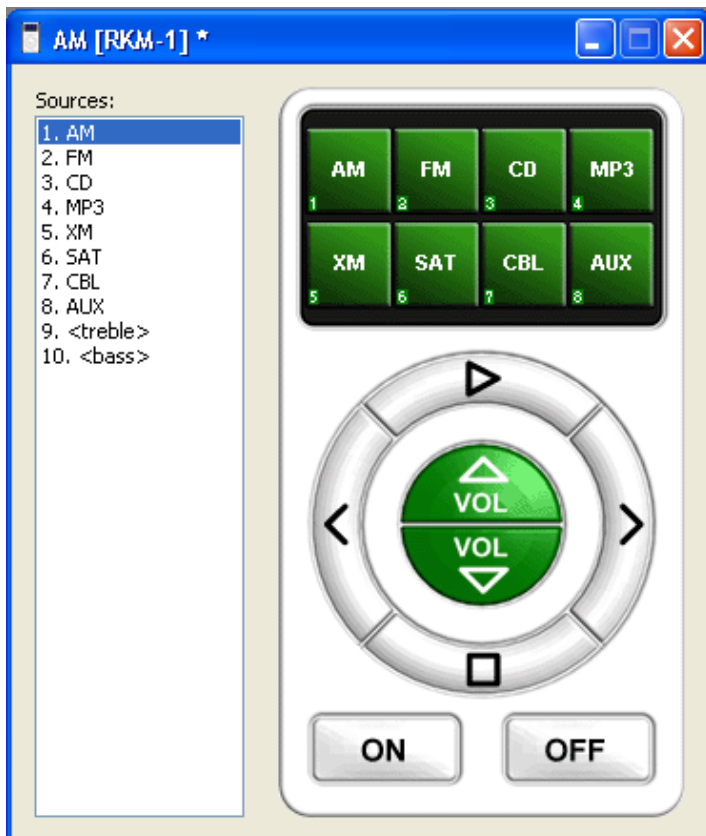


RKM-1+ Programming for Feedback

General Overview:



The RKM-1+ is designed for control of a single source with multiple inputs. The figure to the left illustrates how the eight inputs are organized. This inwall device also provides feedback as to the state of the source being controlled. Information includes volume, bass, treble, power state, as well as what input the user is on at a particular time.

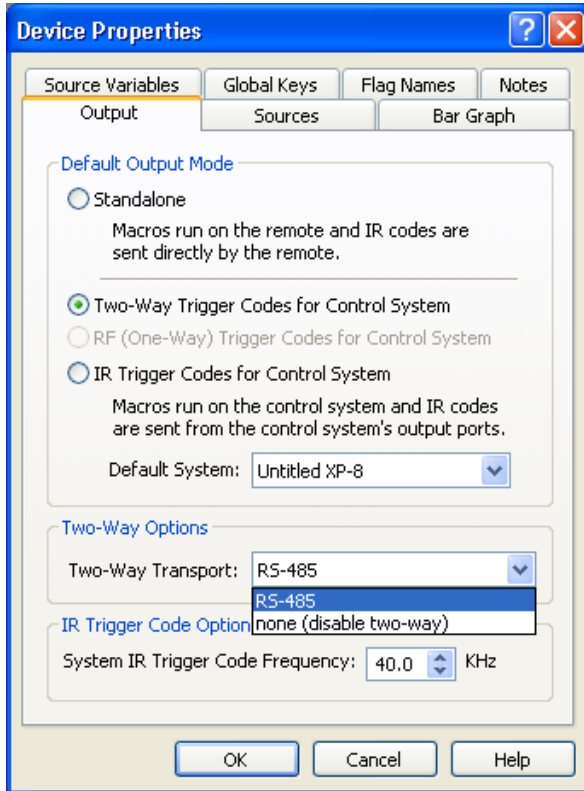
Note: Treble and Bass menus can be accessed by pressing and holding the "Select Music" button on the RKM-1+ for 10 seconds. The "Select Music" button is not shown on this graphic. Press and hold the "Select Music" button for another 10 seconds to toggle between Treble and Bass.

The sources can be adjusted through the Device properties of the RKM-1+

Notes:

- *RS-485 wires must be connected for two way control.*
- *Update firmware to latest version*
- *Update software to latest version*

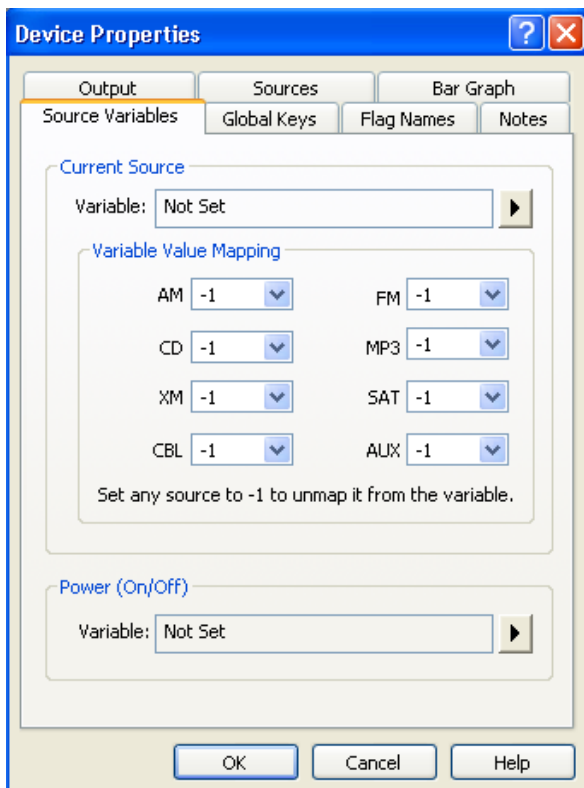
Output Properties:



When creating a system that will request information from the source being controlled it is important that you enable the output mode of “Two-Way Trigger Codes for Control System”

In addition you will see a “Two-Way Options” section which should default to RS-485

Assigning Variables:



The Source Variables tab is split into 3 sections, the first being the Current Source. This field allows the software to not only see the device being controlled but apply the information being supplied by said device.

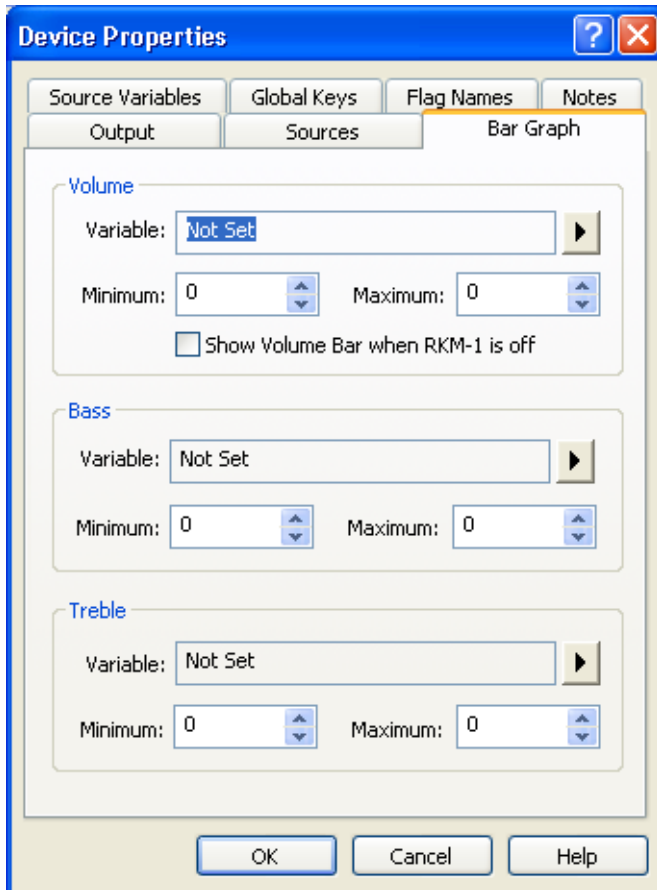
Below the Current Source is the Variable Value Mapping section. This allows the user to assign the number to the correct input.

Note:

- The “-1” means the input does not have a variable assigned to it. This is important because if the variable for an input remains at “-1” then the RKM-1+ will not properly reflect the state of the device.
- When the device being controlled switches to the “cable” input, it doesn’t send the name of the input, it sends a number.
- If you don’t know the number associated with each input. See if the driver has a “General Input” variable. This is explained in greater detail at the end of this tech bulletin.

Once the numbers for each input being used have been determined they need to be assigned in the Variable Value Mapping section. This will mean that the RKM-1+ will illuminate the LED for a source if it sees’s the corresponding number from the device being controlled.

The Power On/Off field is used to assign the variable for the power state of the device. This way when the device is off, the RKM-1+ will be able to reflect the power state



The Bar Graph tab allows the Volume, Bass, and Treble variable information to be assigned to the RKM-1+ for the device being controlled.

The minimum and maximum information is set when you assign the appropriate variable. The software does allow you to adjust those levels but it is not recommended.

Once the variable information has been properly assigned, the RKM-1+ will then reflect the proper state of the device being controlled. This is important because it allows the end user to not only turn up the volume but know where it was just turned up to.

“Show Volume bar when RKM-1+ is off” checkbox allows the end user to see the volume level of the device they are controlling before they turn it on.

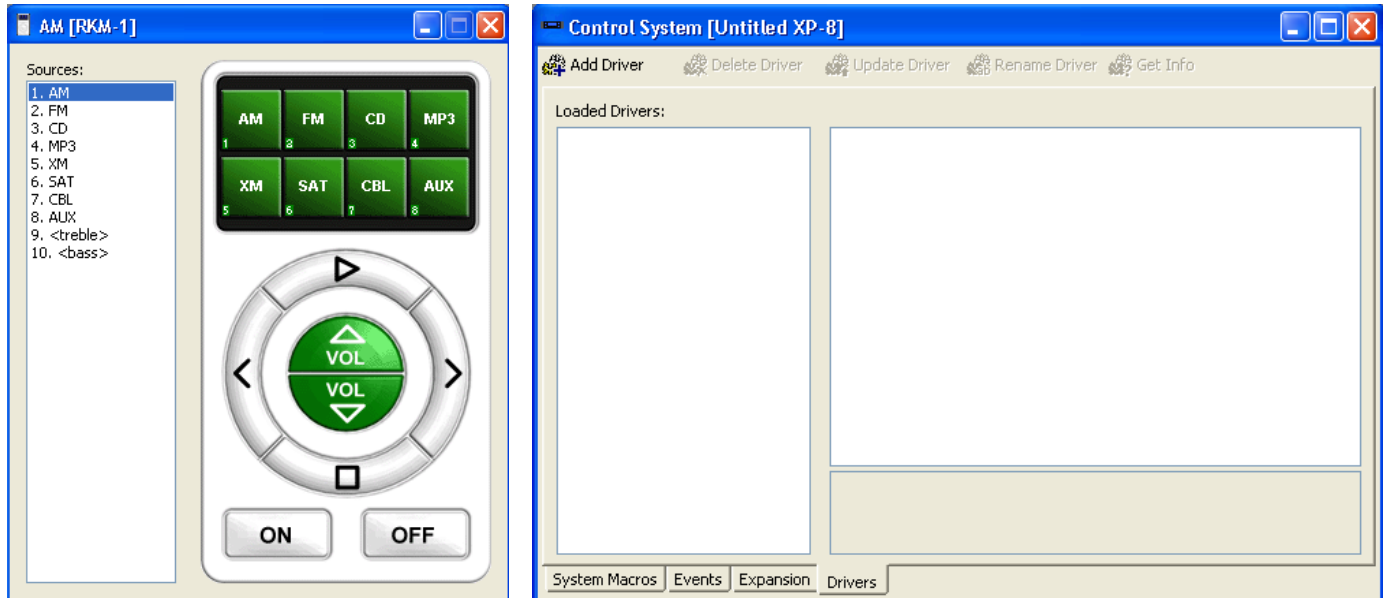
Notes:

- The default for the volume buttons on the RKM-1+ is for them to be global. The global assignment extends past the main eight inputs and also includes the treble and bass pages. This means that when you assign the volume command it will be the command on the volume buttons for the treble and bass pages. The workaround is to assign the appropriate volume command to the volume button when it is global and then remove the global feature. This will then allow the programmer to change the bass and treble pages individually.
- If it isn't important to use the volume keys to adjust treble and bass then using the play and stop commands, or the arrows left and right is also an option. It is assumed that the treble and bass is something that will only be adjusted by the installer which is the reason for the navigational path to those pages.
- Treble and Bass menu's can be accessed by pressing and holding the “Select Music” button on the RKM-1+ for 10 seconds. The “Select Music” button is not shown on this graphic. Press and hold the “Select Music” button for another 10 seconds to toggle between Treble and Bass.

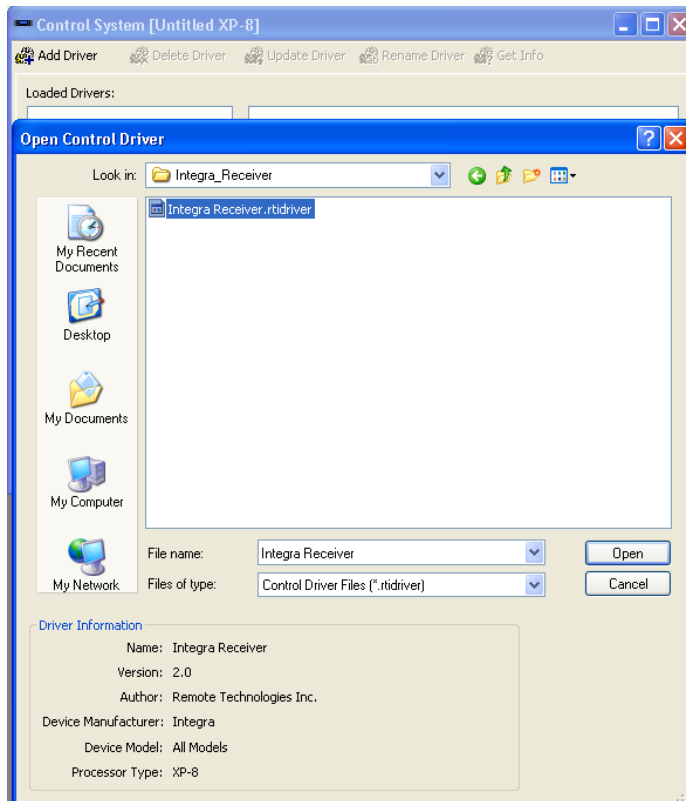
Programming Example:

The following is an example of an RKM-1+ being programmed to control and reflect the state of an Onkyo® Receiver. This example is utilizing the RKM-1+ In-wall controller, XP-8 Processor, Integra® 2.0 Driver, and an Onkyo Receiver.

1. Add devices to the system file.

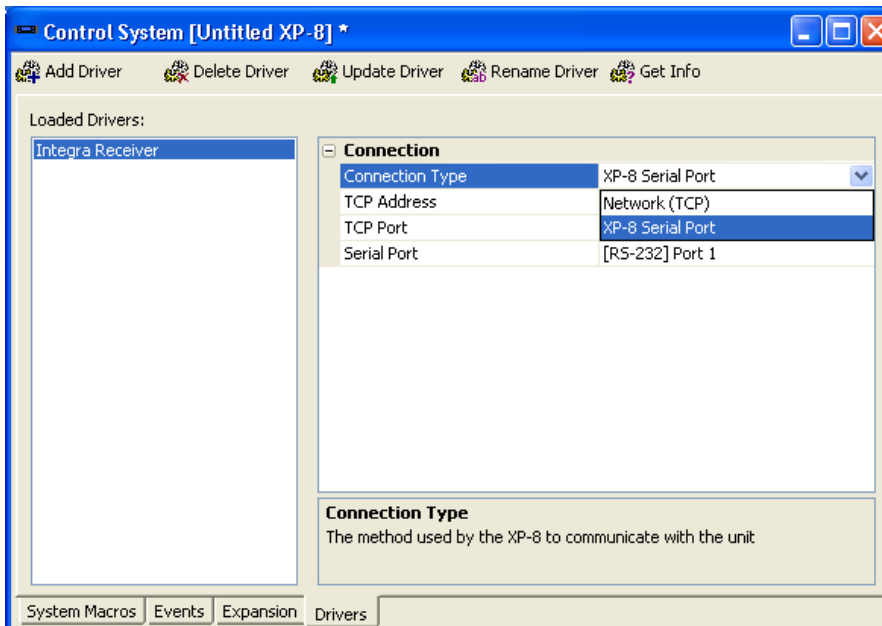


2. Add the driver to the XP processor



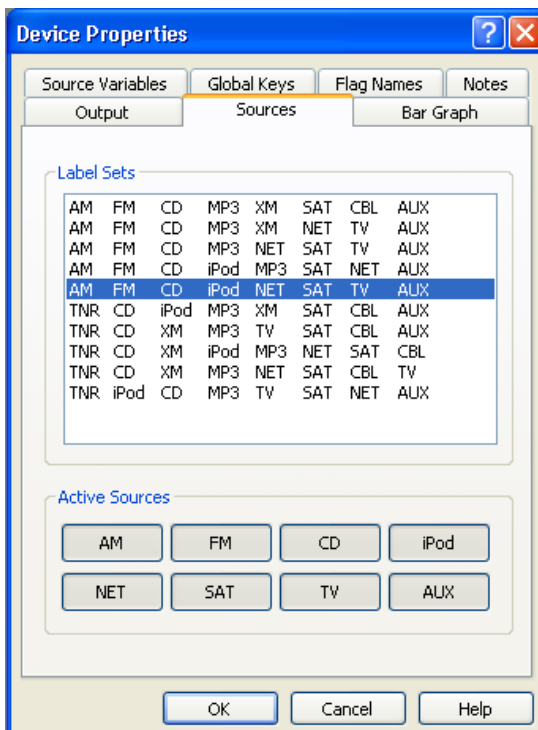
When the XP processor is open in Integration Designer navigate to the Drivers tab and select “Add Driver”. Locate the appropriate driver on your PC and open/attach the file.

- Many drivers will give you the option of connecting to the device over TCP or Serial. For the sake of this example we are connecting to the Onkyo receiver via RS-232. Make sure that the Connection Type is assigned appropriately and also make sure that you have the correct RS-232 port assigned to this driver.



Note: It is important to assign the RS-232 port correctly; otherwise there won't be any communication. It is also important to not have any other driver assigned to the same port as another device. Any unused drivers should be removed to ensure proper functionality.

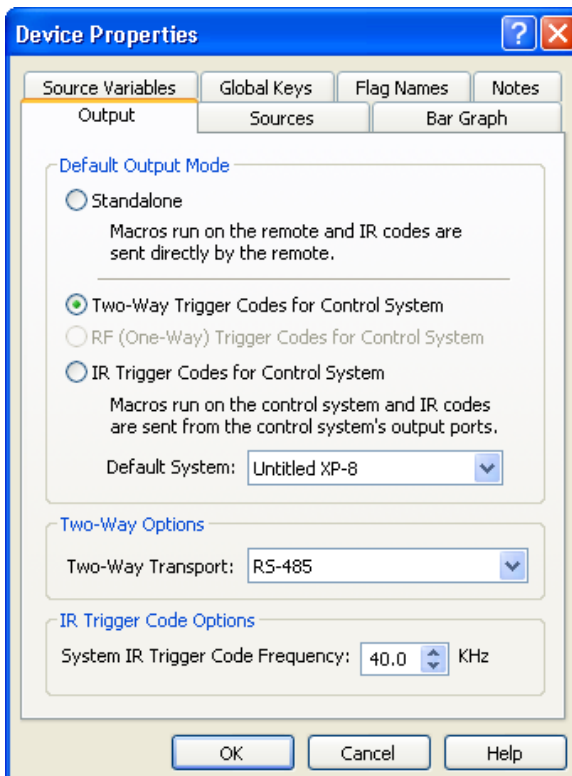
- Assign the label set that corresponds to the systems configuration.



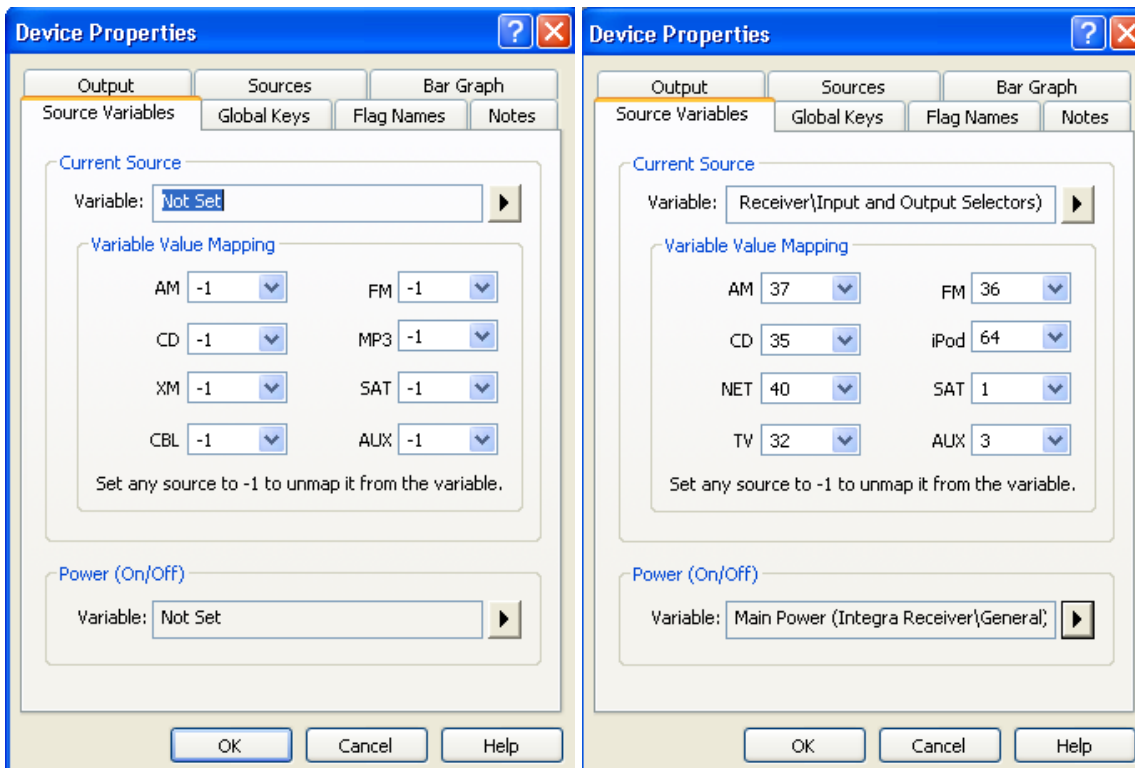
After the correct label set has been selected there is also the option of making only certain sources active on the RKM-1+.

Make sure to have all used inputs active otherwise navigating to that input will not be an option.

- Next verify that the Output settings are appropriate for the RKM-1+. The Output Mode should be set to Two-Way Trigger Codes for Control System and the Two-Way Transport should have defaulted to RS-485.

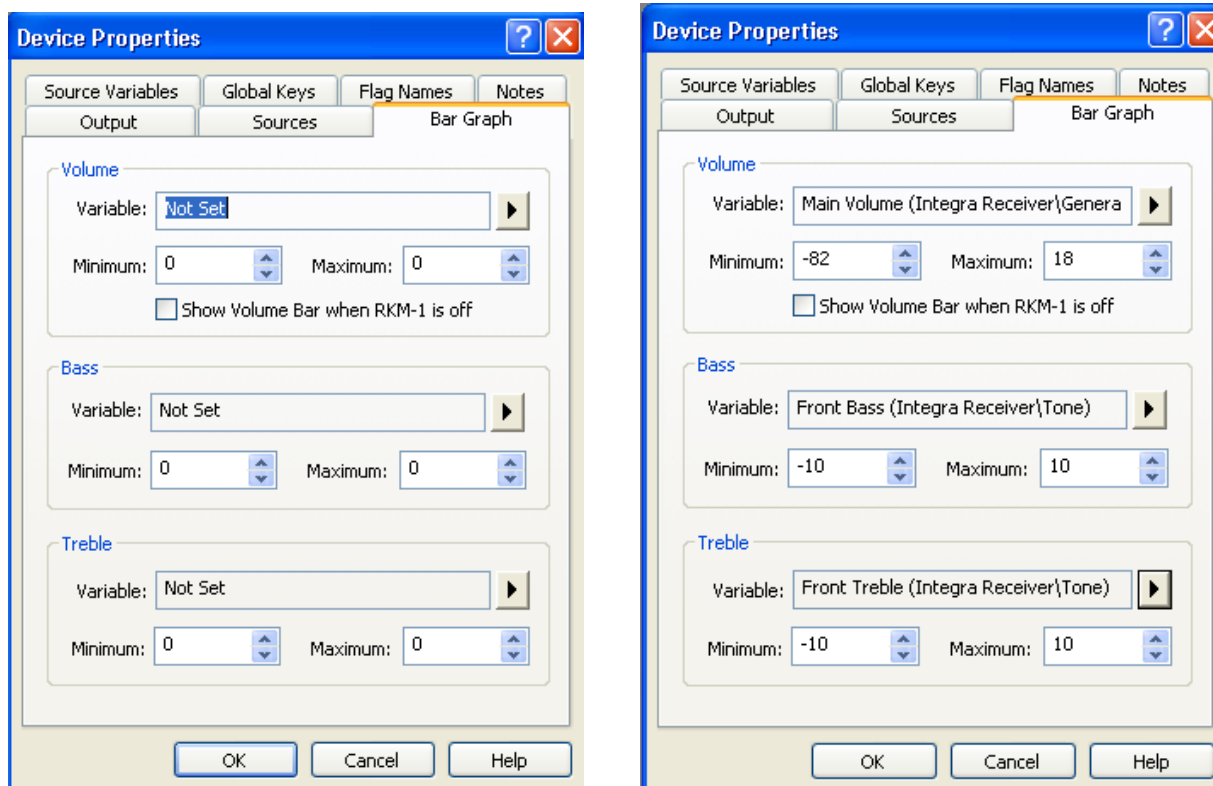


6. The Source Variables tab will allow the RKM-1+ to reflect the state of the Onkyo receiver as well as the current input being used. The images below reflect a before and after.



For a full description of how these numbers were determined see the "Finding Input Variable Number"

7. The Bar Graph tab allows the user to assign the appropriate variables for volume, bass, and treble to the RKM-1+ so that it correctly reflects the state of the device being controlled on the LED bar graph.



8. Make sure that the correct driver commands have been assigned on the hard buttons as well as the sources LED graphics. It is also important to go to the treble and bass pages to assign the appropriate bass and treble commands.