SYMETRIX SOLUTIONS: TECH TIP

February 2014

Creating Volume Controls in an ARC-2e or ARC-WEB that Display in %.

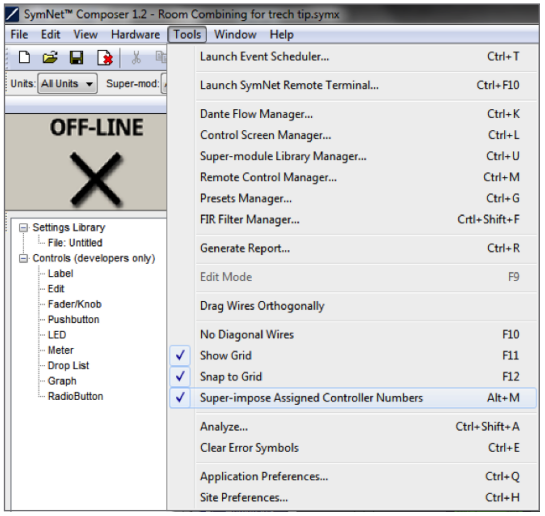
In order to be effective, end user control systems need to be simple and intuitive. Some might even call the previous sentence an understatement.

While in the audio world decibel, also known as dB, is the standard measurement of sound level and makes perfect sense when viewed on a fader or volume control on a control system. For the end user, reading a volume control's current position in dB might be much like reading a foreign language, not making much sense unless they have received formal training on what the dB scale means.

Rather than proving training manuals to explain a dB scaled volume control, it may often times prove much easier to simply provide the volume control to the end user as a percentage, or % value instead.

When using SymNet hardware this is easily accomplished with some creative programming in Composer. Here are the steps for creating volume menus in an ARC-2e or ARC-WEB that read in %.

1) First, be sure "Super-impose Assigned Controller Numbers" is checked under the Tools dropdown in Composer.



2) Next, assign controller numbers to the volume faders of a Gain, Mixer, Matrix, or Room Combiner in Composer using either:

   a. "Auto-assign Next Controller Number" (see Figure 1.1)

   b. "Set up to Remote Control… > Generic Controller Numbers Assignment" (see Figure 1.2) to the dB faders in which the end user will be given access to control with the ARC-2e or ARC-WEB. Do not add these assignments to the ARC-2e or ARC-WEB at this time.

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Figure 1.1: Auto-assigning a controller number to a BGM Room Combiner volume fader.

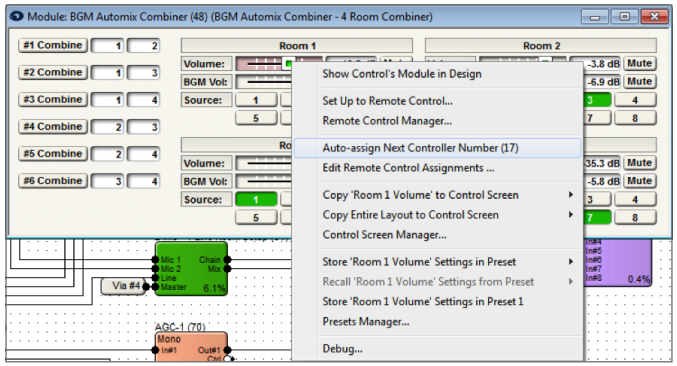
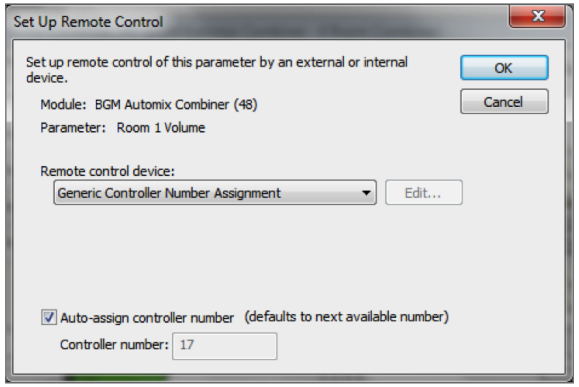
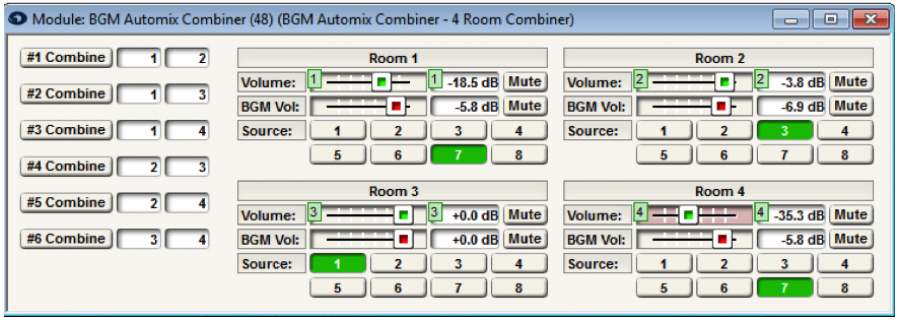


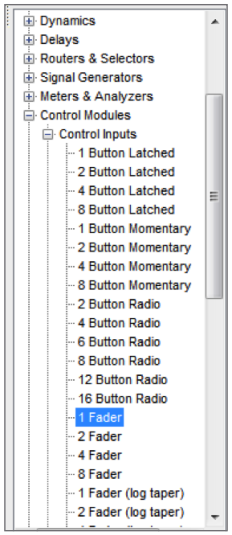
Figure 1.2: Set up to Remote Control… > Generic Controller Numbers Assignment



3) After assigning volume faders a controller number, the assignment should be visible on the module's user interface – see the green rectangles with control numbers.



4) Next, from the Composer toolkit, from Control Modules>Control Inputs drag out a "1 Fader" module into the design.



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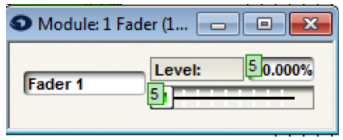
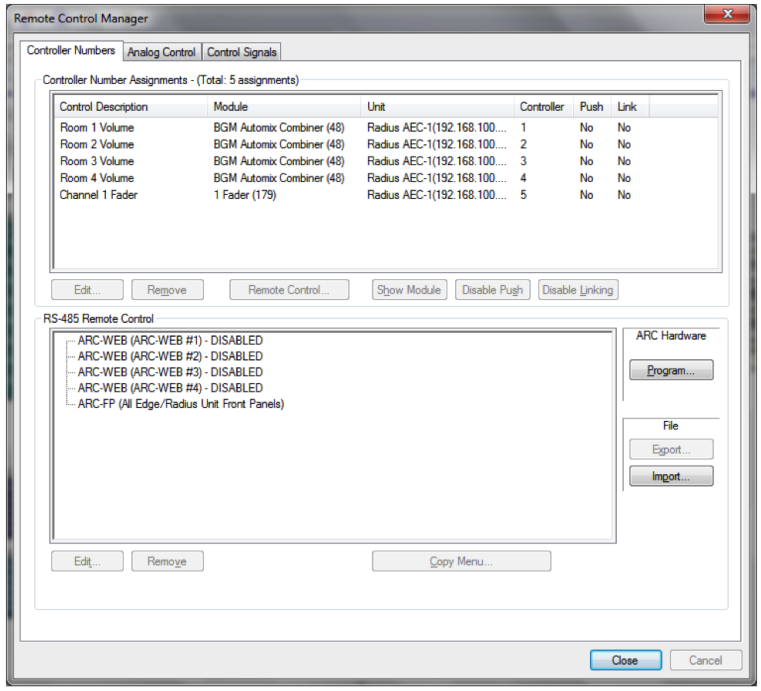
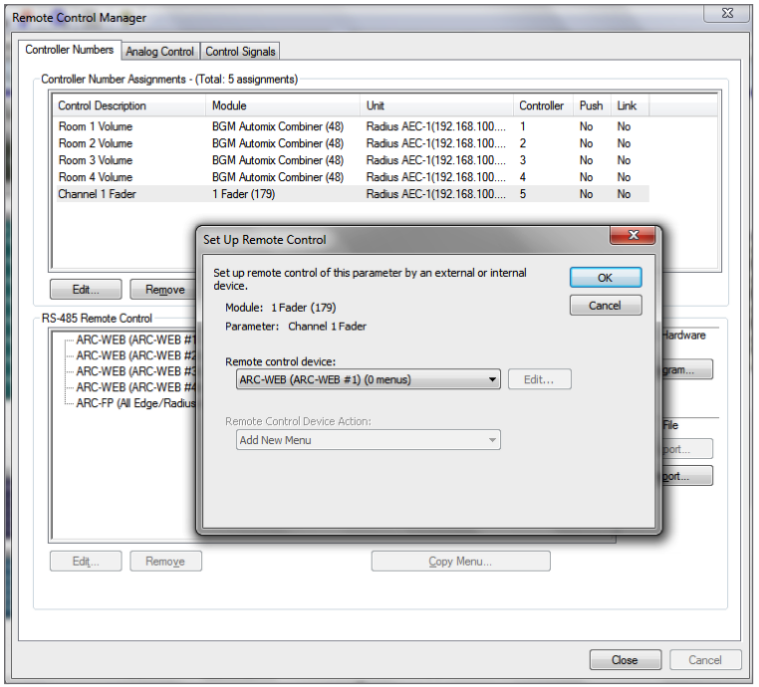
5) Next, open the 1 Fader module and assign a controller number to the control fader. Notice the control fader reads in % instead of dB.



6) Now open the Remote Control Manager under the Tools dropdown. Notice the volume fader assignments and the 1 fader assignment in the top window.



7) Click on the 1 Fader control assignment to select it and then hit the "Remote Control…" button.



8) Use the dropdown to select the Remote Control Device of choice, an ARC-WEB or ARC-2e and then click OK. This will add a 0-100% menu item into the selected remote control device.

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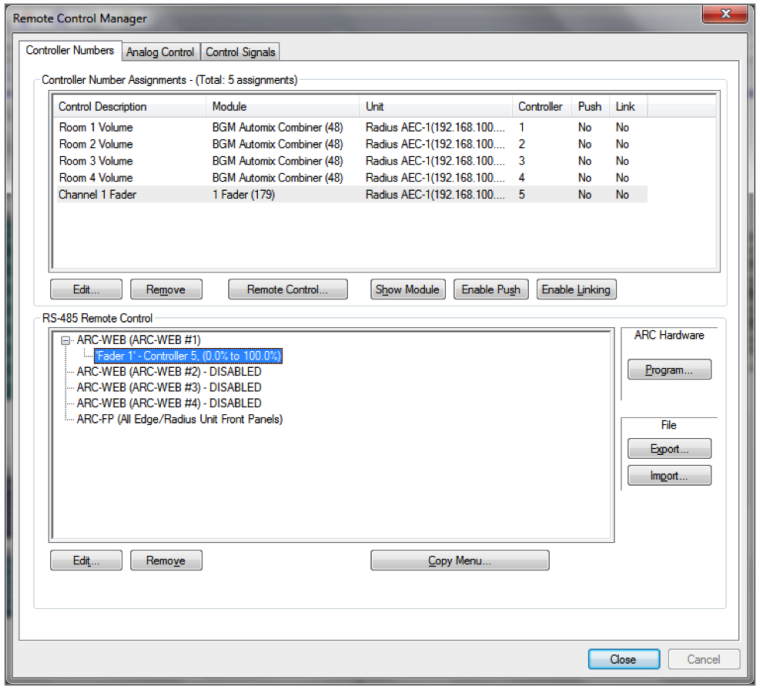
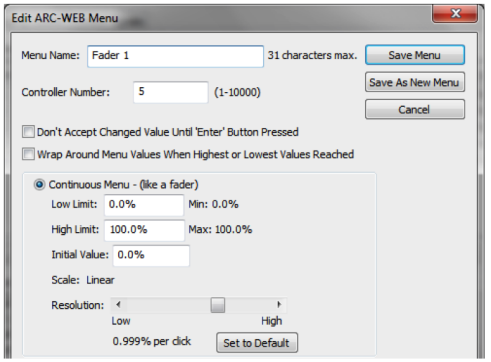
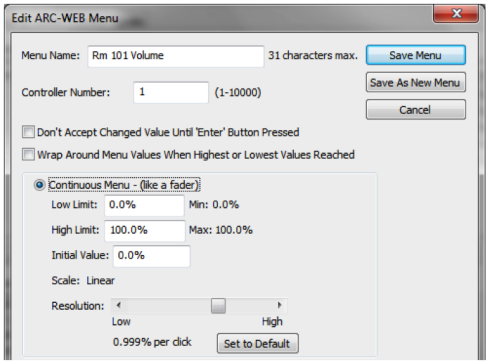
9) Expand the ARC and then double click on the Fader 1 menu or click to highlight and hit the Edit… button below the RS-485 Remote Control window to access the Edit ARC Menu.



10) Change the Menu Name and Controller Number to the desired dB fader assignment from Step 3. In this example Controller #1 was for Room 1 Volume. Note, the controller number must match the assignment but the Menu Name can be labeled anything. This menu name is what the end user will see on the ARC display.



11) Hit the Save Menu button. Notice the ARC menu item now reads in % for the respective controller assignment.



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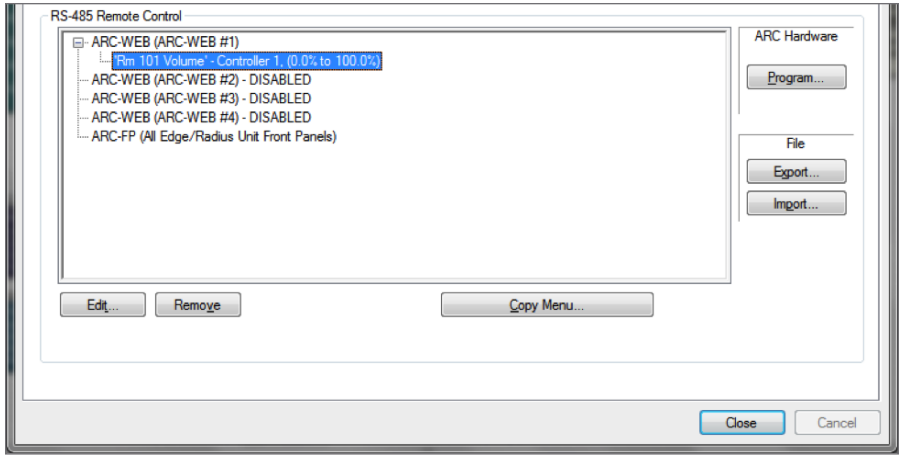
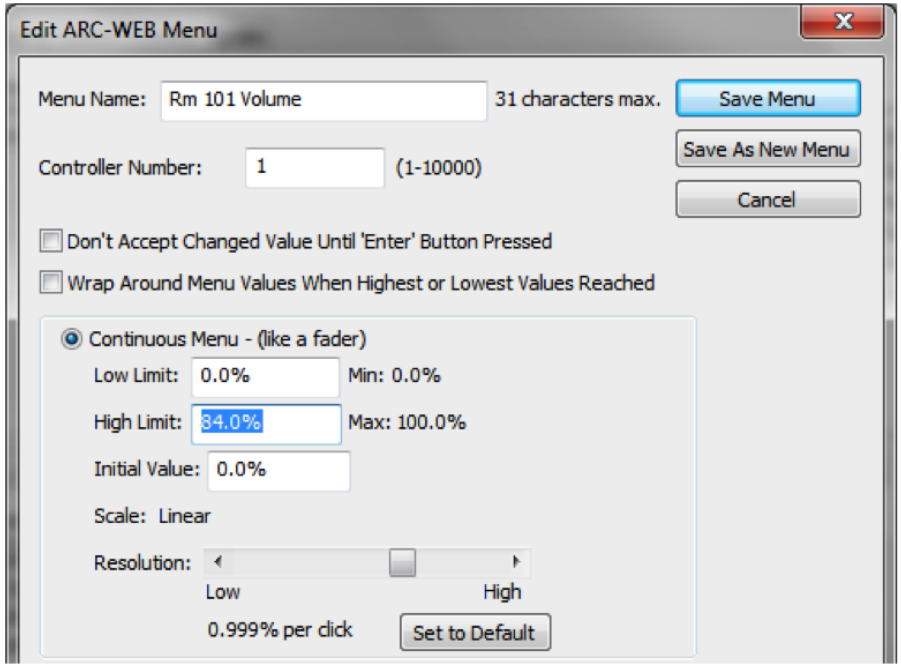


12) Repeat Steps 7-12 for all subsequent volume fader assignments that will read in % value.

13) When completed with the % value ARC programming. Push the site file to the SymNet system and program the RS-485 network.

14) The end user will now see % values for volume controls rather than dB values.



15) *Note:* On a -72dB to +12dB volume fader, if it is desired to scale a volume control so that 0dB is the max level an end user can turn up the gain, set the High Limit to 84%.

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