

HLS Getting Started Manual

Software Developed by Joe Hinkle



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Installing the Software

Download the software HLS_Install_**.joe from joehinkle.com/HLS (note: make sure you capitalize HLS) and save it to your desktop. Change the extension from Joe to EXE. And run the software.

Creating a Sequence

We will first create a simple sequence that has 24 outputs. For purposes of this example we will have one Renard 16 and one Renard 8 output module (24 outputs total).

The basic steps will be:

1. **Add a Wav file.** Note if you have an MP3 you must convert it to a WAV file. There are free converter programs on the web. Here is a link to one of them - http://download.cnet.com/MP3-to-WAV-Decoder/3000-2140_4-10060498.html
2. **Next we will configure the output channels.**
3. **We will build a simple sequence.**
4. **We will create a preview screen so we can watch it run.**
5. **We will configure the Com port and Protocol and run the sequence with actual hardware.**

Open HLS. You should see a screen like the one shown in Figure 1-1. Note that when you open HLS you are already creating a new sequence. You may only have one sequence open at a time. So if you are working on one and want to start another one, save your current sequence, shut HLS down and then restart HLS and work on the new sequence.

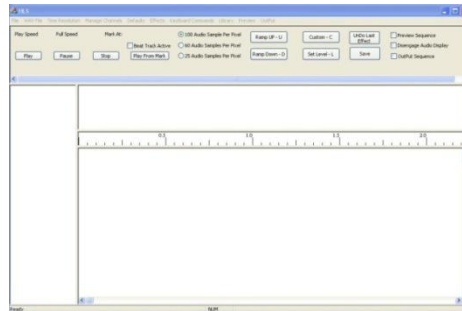


Figure 1-1.

Next we will choose a WAV file for the music to be used in this sequence. Click on the **WAV File** menu item at the top of the HLS screen and choose **Add Wave File for this Sequence**. Figure 1-2 will appear. Choose **Select WAV File**.

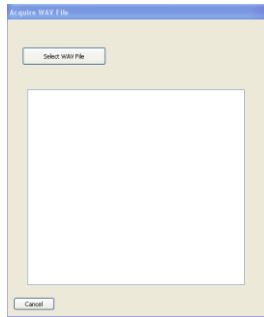


Figure 1-2.

Next select the WAV file. In this example Music Box Dancer will be chosen (see Figure 1-3).

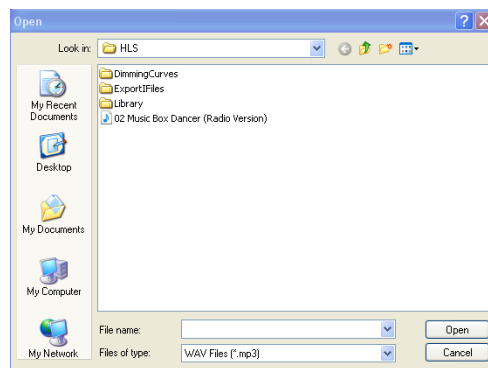


Figure 1-3.

After you have chosen the WAV file the screen shown in Figure 1-4 will appear. After the text appears in the screen showing the WAV file was added, click on the **I'm Done –Return** button.

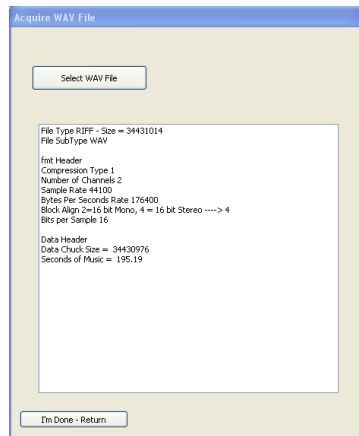


Figure 1-4.

Click on the Time Resolution tab at the top of the page and choose the time resolution you would like. 50 milliseconds is the default choice.

Next we will set up output channels. Click on the **Manage Channels** tab at the top of the page and then click on **Manage Raw Channels**. At this point you will see a message reminding you to choose your time period resolution before you continue (see Figure 1-5). Next, click on the **OK** button.

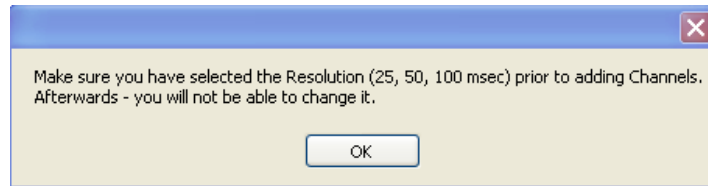


Figure 1-5.

The Channel Manager screen will now as appear (see Figure 1-6). This is where we will add and configure channel outputs. For this example we will use a Renard 16 and a Renard 8 module. This would be 24 outputs total. We do not have to tell the software we have two controllers in this example as they are both Renards and they will both be attached to the same com port. There are three entries we will need to change at the top of this screen. First right next to the **Number to Add/Replace Value** entry enter 24 for your 24 (16 +8) outputs.

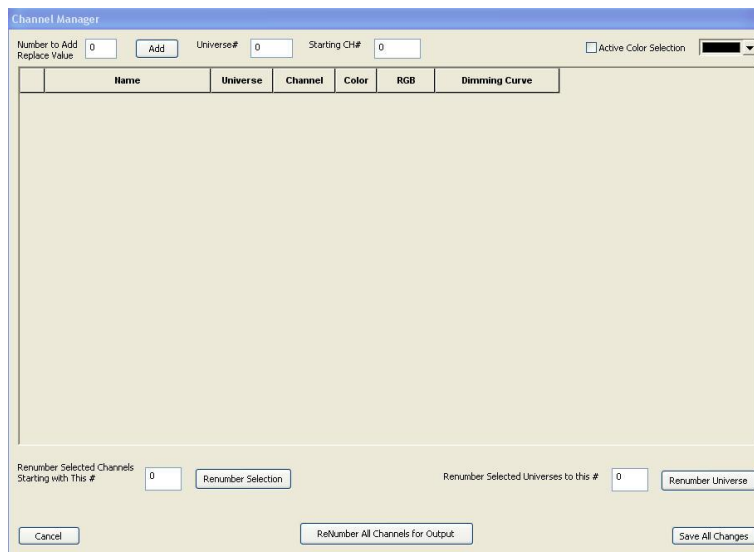


Figure 1-6.

Next, change the **Universe #** entry. It cannot be zero for real outputs. In this example we will only have one type of controller and one port so we will only use one universe. 1 was entered for this example. Next, the starting channel entry was changed to 1 to correspond to the first channel (output) in a Renard being 1.

Once these three changes have been made, click on the **Add** button to actually add the new channels.

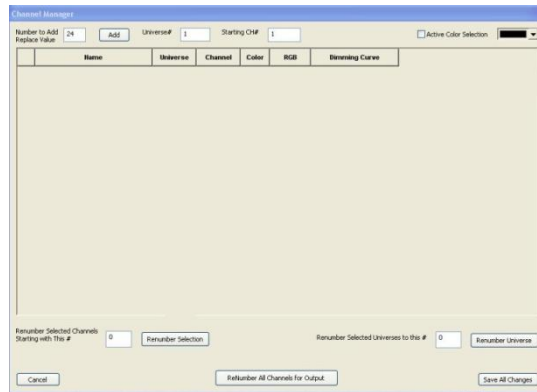


Figure 1-7.

Figure 1-8 shows the screen after the outputs have been added.

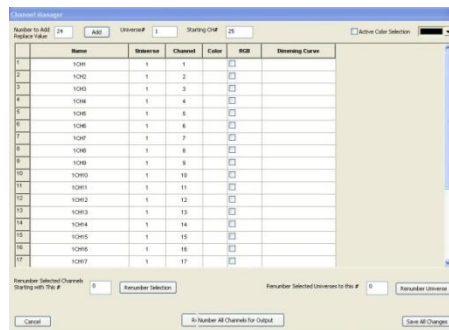


Figure 1-8.

Setting up channels

Examine output 1. Note the name of the output. It is 1CH1. The first one means it is in universe 1. The 1 at the end means it is output channel number 1. We will change the names to reflect their use. In this example we will have two trees: Tree_1 and Tree_2. Each tree will have 3 outputs. The first output will be red.

Click directly on the text for channel 1 (1CH1). Replace the name with Tree_1_Red (see Figure 1-9). Next the names for outputs 2-6 were entered.

The color was chosen for each output next. The color will be used in the simulation. To set the color for an output you must choose the desired color in the upper right of the screen (see Figure 1-9). In this example Red was chosen. Next you must Click on the **Active Color Selection** check box right next to the color box in the upper right corner. At this point you have chosen the desired color and checked the **Active Color Selection** check box.

Next right click in the desired channel row **Color** box and it will change to the chosen color (see Figure 1-9).

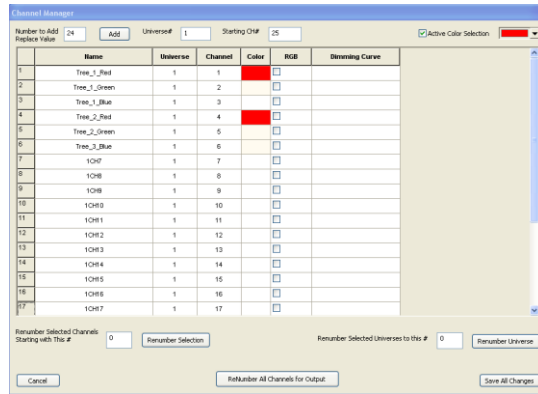


Figure 1-9.

The same process was followed to assign the green and blue colors to outputs. Note that this screen can also be used to renumber universes and or renumber output channels.

We are now done with this screen, click on the **Save All Changes** button.

Configuring Groups

The next step is to configure output channels into groups. In this example we will have two trees. Each tree will have 3 output channels. Each tree will be a group. Groups are very powerful things . For example, our trees might be three colors, we can create a group for each tree and a group that includes all trees, and maybe we would like a group that has only red lights form all of the trees, arches and other lighting elements in our display. WE can also have a group with all of the outputs. Groups make it possible to show and work with a subset of all outputs channels. Groups are a very powerful tool in HLS.

Click on the **Manage Channels** tab at the top of the page. Next select the choice **Select Channels and Assign to Group**. The screen shown in Figure 1-10 should appear.

Click the left mouse button down on the first output to be assigned to Tree_1 and move the mouse down to the last one to be included: outputs 1, 2, and 3 in this example. Note how they are highlighted after they have been chosen. Next you must click on the **Check** button on the bottom so that a check appears in the **Work** column for each output. The last step is to enter a name for the group Name box on the lower right. In this example First_Tree was entered for the group name. Next click on the **Save Changes** button on the bottom right on the screen. At this point we have created one group consisting of outputs 1, 2, and 3 and assigned them to a group named First_Tree.

*Note: you can also choose channels individually to include in a group by manually clicking on the **Work** check box for each. For example, if you wanted the first, third and fifth output to be included in a group you could individually click on the **Work** check box for each output to be included and the save them as a group.*

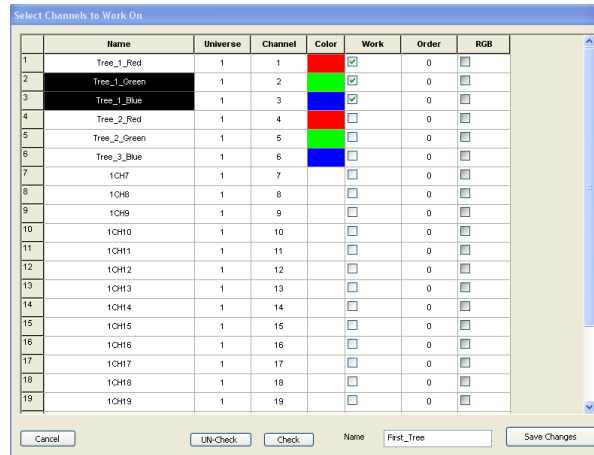


Figure 1-10.

Next we will add more groups. Click on the Manage Channels tab at the top. Choose the **Select Channels and Assign to Group** selection. This time, because one group was already created, a different style window will appear as shown in Figure 1-11. Note that the First_Tree group is now shown. Choose the **New** option to add a new group.

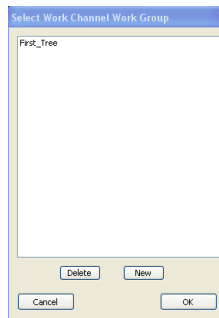


Figure 1-11.

Follow the same procedure to create a second group. Use the mouse to select the second three outputs (4, 5, and 6) to create a group named Second_Tree. When you are done, choose **Save Changes**. At this point we should have 2 groups: First Tree and Second Tree.

Now that we have groups we can begin to program a sequence. We need to choose the group that we would like to work with in the sequence editor.

Click on **Manage Channels** and then **Select Group to Work On**. The screen shown in Figure 1-12 should appear. Click on First_Tree as shown and then click on **OK**.

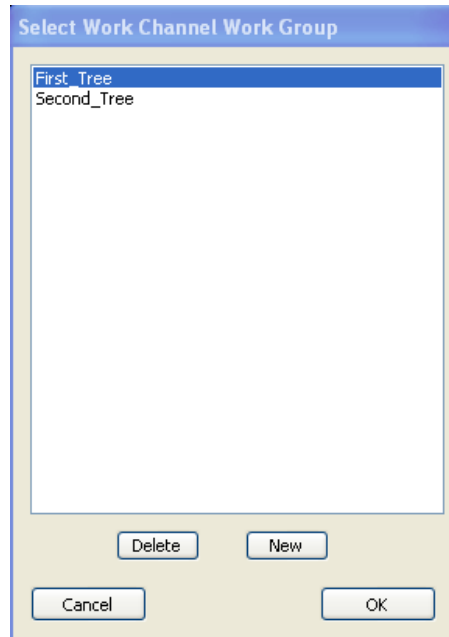


Figure 1-12.

The sequence editor screen will appear (see Figure 1-13). Note that it shows the three channels and their assigned color. Note the O-scope view of the WAV file at the top. There are high and low pass filters available to filter the WAV file for the O-scope view at the top of the sequence editor. The high and low pass filters are available in the WAV file tab. To use the filters you could enter new values in the high or low pass filter enable the filter, select OK and the O-scope view will be redrawn to show the new filter that has been applied.

Note also the three channels of 50 ms time divisions to the right of the channels.

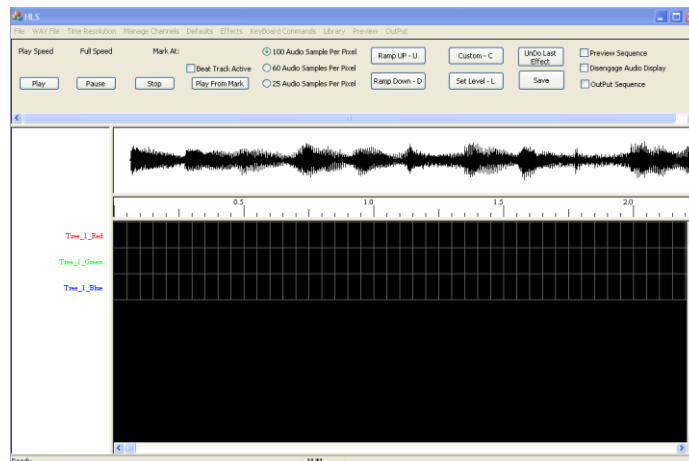


Figure 1-13.

Now we can begin to develop the sequence. To select cells to apply effect to, use the left mouse button and click in the leftmost cell that you want to apply the effect to. You will see a dotted line appear

around the cell. The drag your mouse to the right (and down if you want to apply the effect to multiple channels). When you are in the right most cell that you want the effect to apply to, Click the left mouse button once again. You should see all of the cells you chose surrounded by a dotted line (see Figure 1-14).

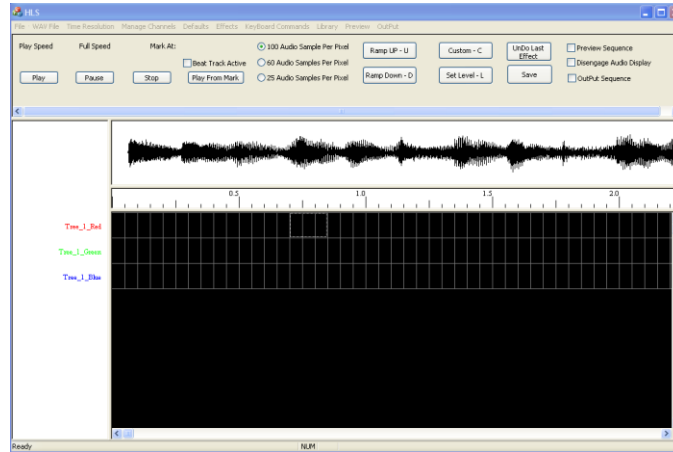


Figure 1-14.

Next you must choose an effect to apply to the cells. The available effects are on the right side of the screen above the O-scope view. Note that there are buttons for **Ramp UP (U)**, **Ramp Down (d)**, **Custom (C)** and **Set Level**. There is also a button to undue the last effect if you make a mistake. In this example the Set Level effect button was chosen (see Figure 1-15). Note that the effect showed up in the color that was configured for this output channel.

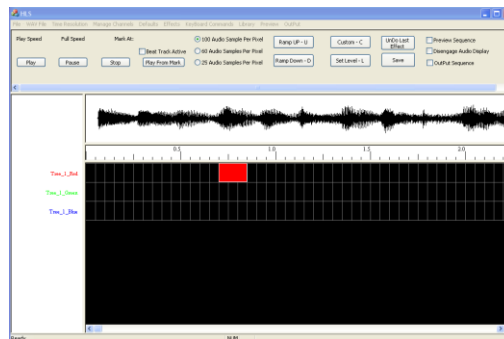


Figure 1-15. Note that the set level effect was chosen.

Note: if you ever want to cancel the selection you are currently working on you may use the **ESC** key to cancel the previous selection you are working with. For example, if you ever think the software has hung up while you are adding an effect, it really has not. It is probably waiting for you to apply an effect to selected cells. But you can use the ESC key to cancel the last selection. This is also very useful if you select the wrong cells by mistake and want to redo it. Use the ESC key.

Important Editing Features

Note that if you now click on the right-most cell once in an effect you can expand the number of cells the effect to the right or shrink the number of cells in the effect.

If you click on the left-most cell in the effect once you can move all of the cells in the effect to the right or left.

If you right-click on the cells you can modify the effect (see Figure 1-16). In this example you can change the cell length of the effect and the intensity level. You also could have changed the type of effect.

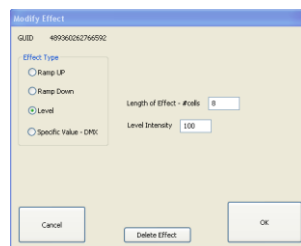


Figure 1-16.

Next a ramp up was added in Figure 1-17 for channel 2.

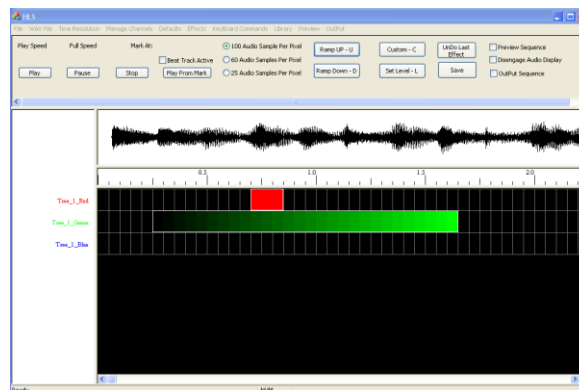


Figure 1-17.

A ramp down was added for channel 3 in Figure 1-18.

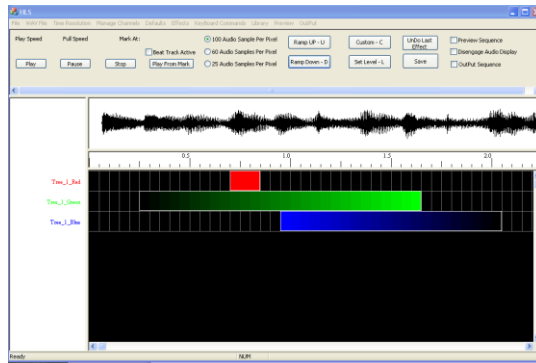


Figure 1-18.

Figure 1-19 shows what happens when the **Play** button was clicked on (upper left). Note the red vertical lines that appear as the song plays left to right. Note also that we will not see anything happen with the outputs yet because we have not created a sequence preview (simulation) yet.

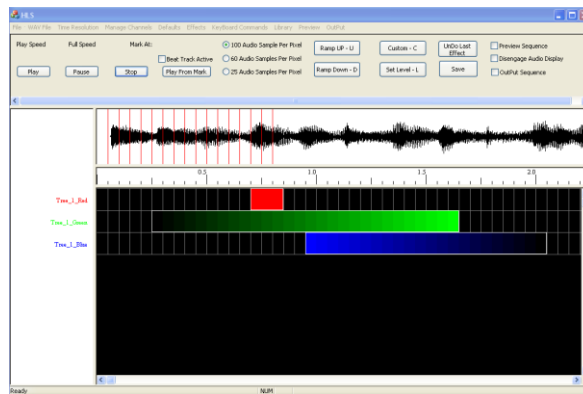


Figure 1-19.

Helpful hint: If you want to delete an effect, right click on it and then choose modify. You can then change the type of effect or delete the whole effect form the screen.

Review of the Cell Selection Process

A left-click starts the cell selection process. A second left click finalizes the selection of the rectangle.

ESC deletes the selection rectangle and aborts the selection process.

To select an effect for copy or anything but move or enlarge – start the selection by Ctrl Left Click on first cell. This tells the system that the operation is a selection Operation (NOT a move operation).

While you are in the selection process (before second left click) you can use the Page UP/Down,

or the arrow keys to shift the whole sequence screen up down, left or right. Note that the selection (cells selected) moves with the sequence. This could be used to move down or up to see more channels or advance to a different point in the song.

To copy the effects enclosed in the selection rectangle – use **Ctrl C**. To then paste the copied effects - select a single cell (two left clicks to make a single cell selection) – then use **Ctrl P**.

Copying Channel Effects

To copy one or more channels click on the channel and asterisks will appear to the left of the channel name (see Figure 1-20). The click again on the channel to select it. Then Select the **Manage Channels** tab and choose **Copy - Paste Whole Channels**. You will then be prompted to **Click on the Channel to Paste To**.

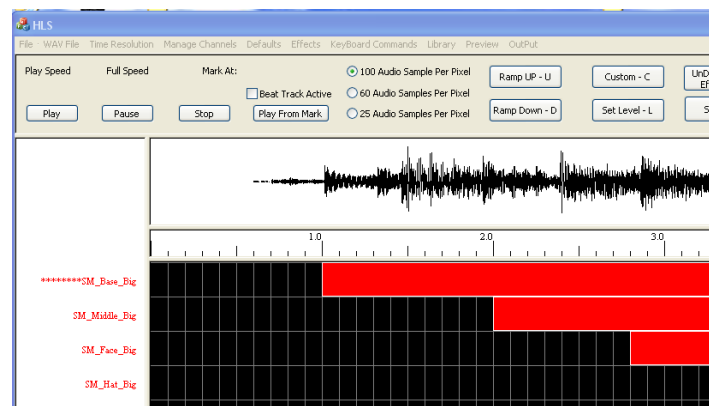


Figure 1-20.

To copy multiple channels click on the first channel to be copied and asterisks will appear to the left of the channel name. The without clicking move your mouse down to include all of the channels you would like to copy (see Figure 1-21). Asterisks will appear to the left of the channel to be copied. Once you have selected all of the channels to be copied click again on the last channel to be copied to select all of them. Then Select the **Manage Channels** tab and choose **Copy - Paste Whole Channels**. You will then be prompted to **Click on the Channel to Paste To**. Note that if you are copying a number of channels you will have to have that many to paste to.

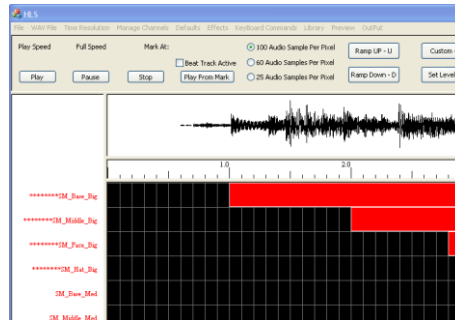


Figure 1-21.

Deleting an Entire Channel's Effects

To delete all the effects for a channel choose the **Manage Channels** tab and then select **Remove All Effects from a Channel**

Adding or Deleting Channels

To add channels to a sequence that has existing channels choose the **Manage Channels** tab and then select **Manage Raw Channels** (See Figure 1-22).

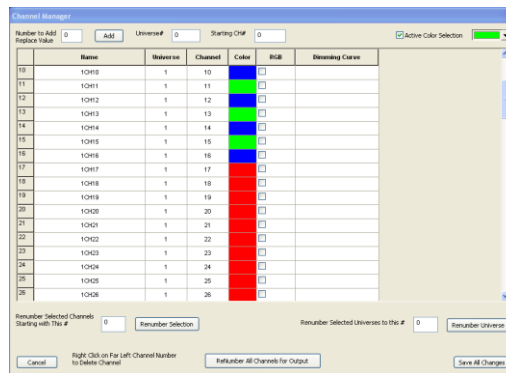


Figure 1-22.

In this example we will add 16 channels after channel 16. In Figure 1-23 channels 16 through the last channel were selected. ON the lower left there is an entry for **Renumeral Selected Channels Starting with This #**. In this example we chose channels 17 through the last channel we would like to renumber them to start at 33 (the next number after the 16 outputs channels we will be adding). The we clicked on the **Renumeral Selection** button.

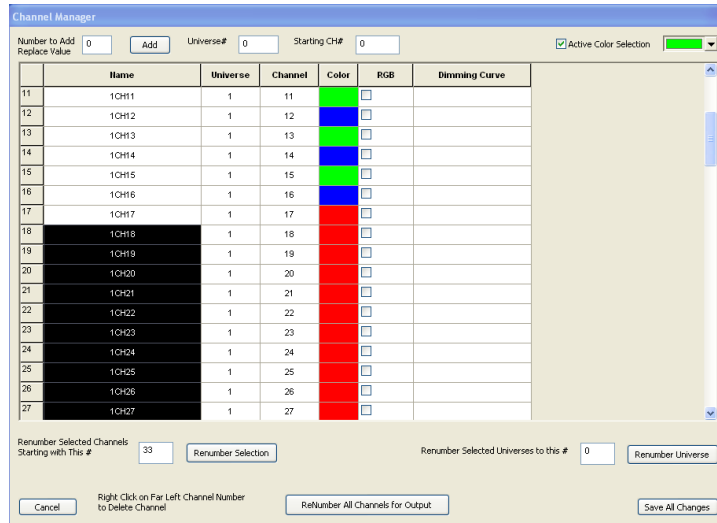


Figure 1-23.

Figure 1-24 shows the result. Notice that Output 17 is now channel 33. Also notice channel 16 is output 16. We now have a 16 channel gap.

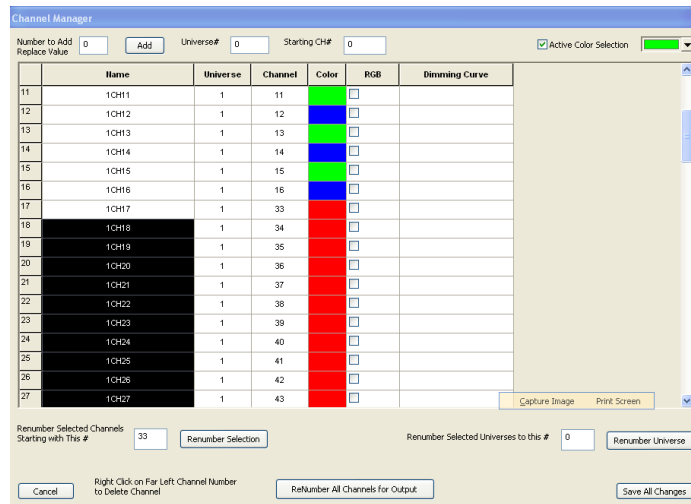


Figure 1-24.

Next we will add 16 channels (see Figure 1-25). Note that 16 was entered in the **Number of Channels Add Replace Value** box. Notice also that the universe is 1 and the **Starting Channel #** was set to 17.

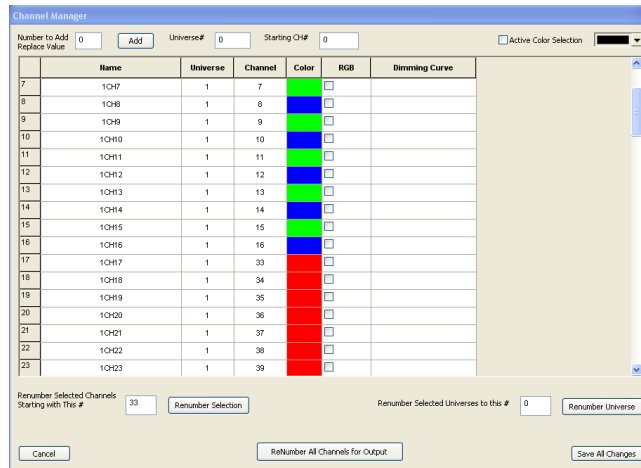


Figure 1-25.

Figure 1-26 shows that the channels were added and numbered correctly but they were added at the end. If you click on the **Renumber all Channels for Output** button the channels will be put in the correct order in the list. 17-32 will appear right after 1-16.

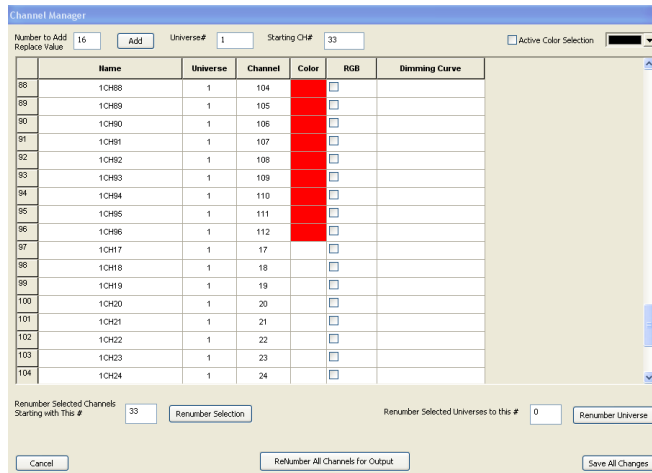


Figure 1-26.

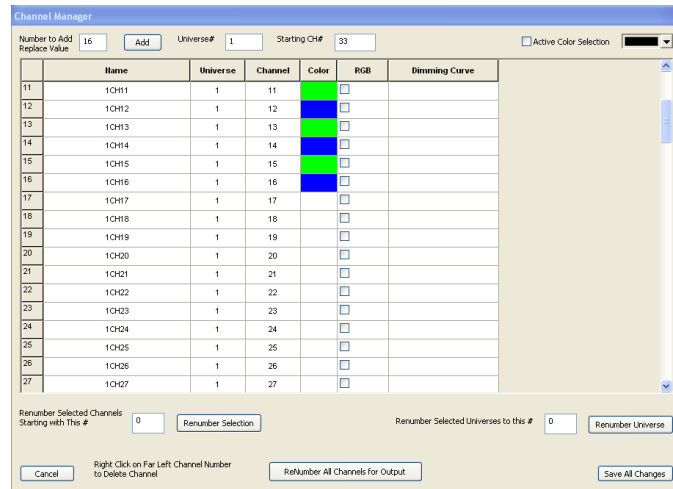


Figure 1-27.

Deleting Channels

Channels can be deleted one at a time. To delete a channel choose the **Manage Channels** tab and then select **Manage Raw Channels**. Right-click on the channel number that you would like to delete (channels are deleted one at a time) in the left-most column in the **Manage Raw Channels** screen (see Figure 1-28). Then click on the **Yes** button if you are really sure you want to delete the channel.

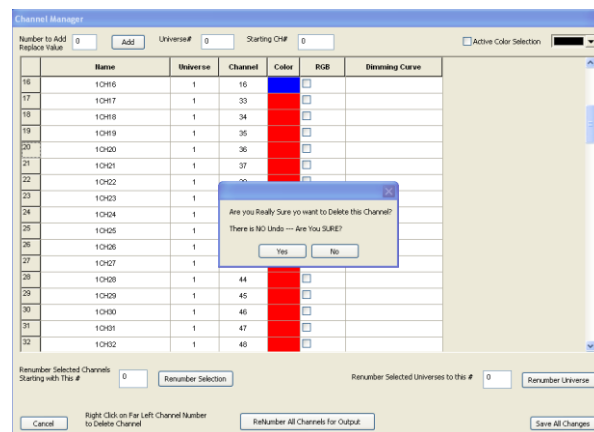


Figure 1-28.

Creating a Preview

Next we will create a sequence preview (simulator). Select the **Manage Channels** tab at the top and then the **Edit Sequence Paint** selection. The screen should then look like the one in Figure 1-29. Note the channels (outputs) are shown on the left in their configured color. Also note the asterisks to the left of the first channel. The asterisks show that channel 1 is the active channel for drawing now. The arrow

up and arrow down keys on the keyboard can be used to switch channels for drawing. **If the up or down arrow key does not seem to switch channels for drawing hit the ESC key.**

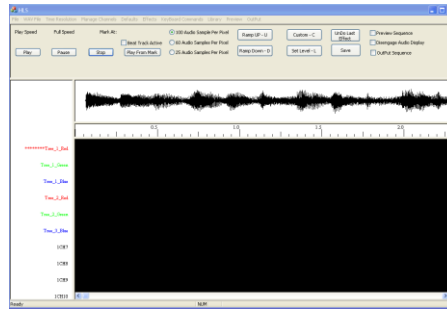


Figure 1-29.

You can draw the lighting elements on the screen at this point. Lines or points can be drawn. A triangle to represent output channel 1 was drawn to represent a tree (see Figure 1-30). This would be drawn as three lines. To draw a line, depress the left mouse button, keep at depressed and move the mouse until you are at the endpoint, then release the left button

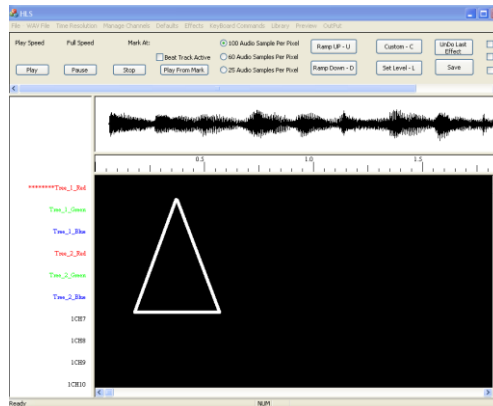


Figure 1-30.

If you make a mistake and want to erase the work you have done on the tool, hit the **delete** button on the keyboard. You will be prompted as to whether you want to delete this preview channel (see Figure 1-31). Note that it will only delete the graphics for the current tool.

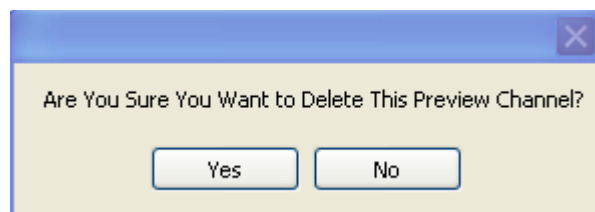


Figure 1-31.

Figure 1-32 shows the completed sequence simulator. In the left tree each channel was drawn as a triangle. In the right tree Channel 4 was drawn as a triangle and 5 and 6 were drawn as dots. Note that line width and dot size can be changed (before they are drawn) under the preview tab on the top right.

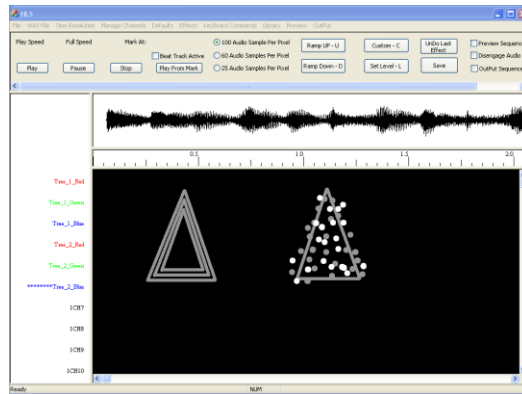


Figure 1-32.

Figure 1-33 shows what the simulator would look like if all channels were on.

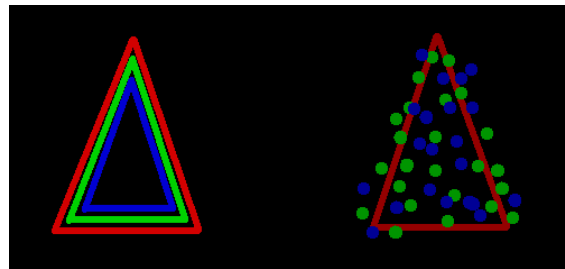


Figure 1-33.

To run the simulation, the preview (simulation) screen must be showing. Next you must put a checkmark in the Preview Sequence check box on the upper right of the screen. Then choose the play button on the upper left of HLS and your sequence should run and the simulator should show your outputs working. Remember that we did not program many effects in this example yet.

Note: you may change the speed at which the WAV file is played under the WAV file tab at the top of HLS. You may choose $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ or full speed.

Adding a BMP to the Preview

It might be helpful to add a bitmap image (bmp) of your house and yard to your preview (simulator). To do this, choose the **Manage Channels** tab and then select **Manage Bitmap of Preview**. The screen shown in Figure 1-34 will appear.

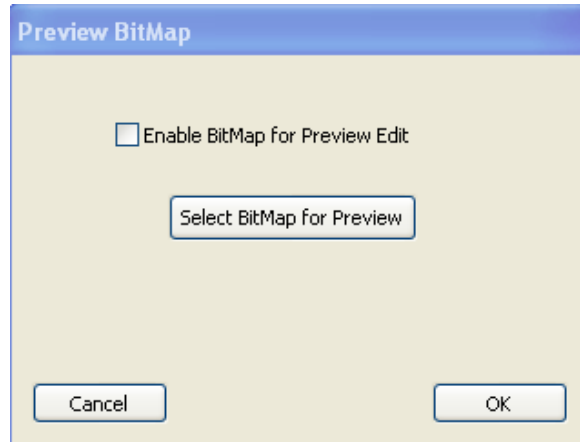


Figure 1-34.

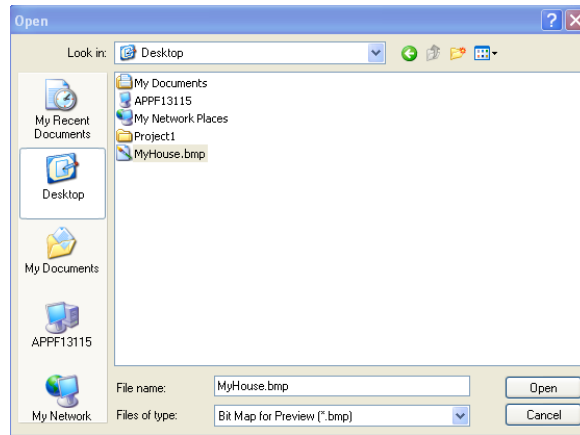


Figure 1-35.

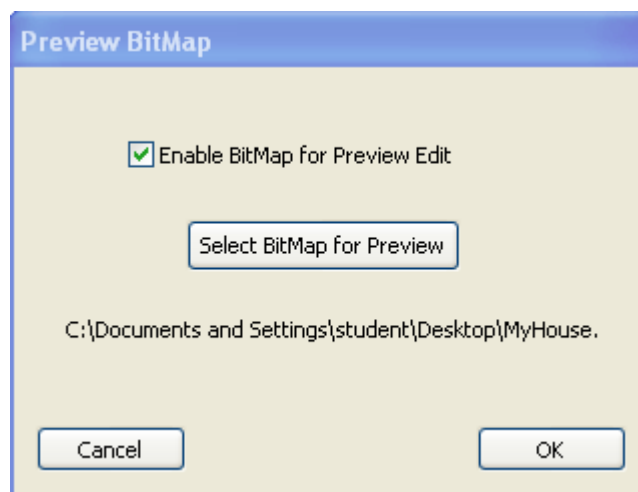


Figure 1-36.

The Bitmap will be scaled to fit the HLS pane and will be converted to Black & White. You should make your Bitmap as dark as possible since I draw the preview vectors in White.

Adding a Beat Track

Let's add a beat track. We will also illustrate another feature that can be used in HLS. Remember that we put our actual outputs in Universe 1. Our beat tracks do not have to be real output channels. We will add some outputs in Universe 0 to use for beat tracks and for other things.

Choose **Manage Channels** from the top tab and then **Manage Raw Channels**. For this example we will add 8 channels in Universe 0 (see Figure 1-37).

First right next to the **Number to Add/Replace Value** entry enter 8.

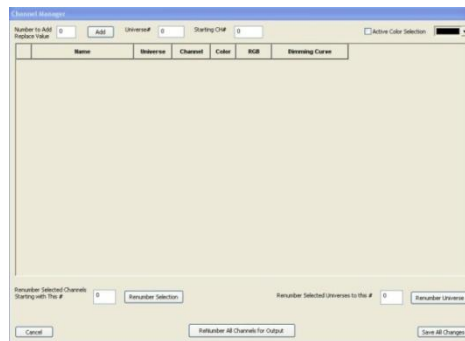


Figure 1-37.

Next, change the **Universe #** entry. 0 was entered for the **Universe #**. Next, the starting channel entry was changed to 25 (remember that the Renard outputs will be using 1-24).

Once these three changes have been made, click on the **Add** button to actually add the new channels. You have now added 8 channels in Universe 0, starting at channel 25 (see Figure 1-38).

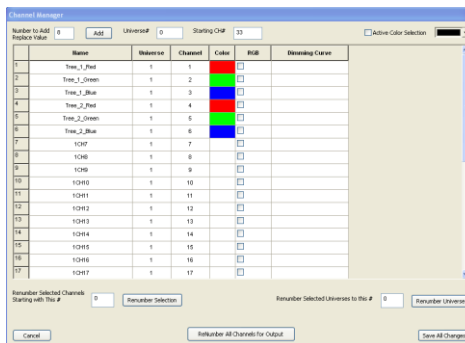


Figure 1-38.

If you scroll down to see the 8 new channels that were added for universe 0 you will see what is shown in Figure 1-39.

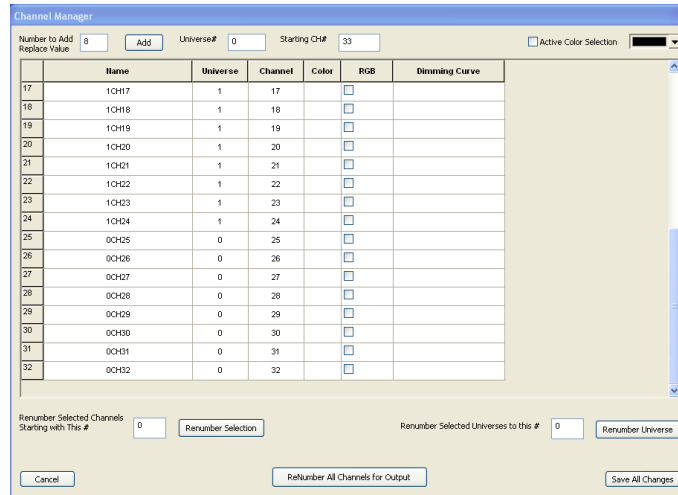


Figure 1-39.

Next the names of the 8 channels were changed and colors were changed for each channel (see Figure 1-40). The first three were named Beat_Track_1, 2, and 3. Then the next three were named Low or hi pass filter beat tracks. Note that there are high and low pass filter tools available under the WAV File tab at the top of HLS. You can set parameters for low or hi pass filters, and then use the O-scope display and create beat tracks also.

Channels 7 and 8 were named Any_Use showing that channels can be used for anything you want. You may want to build effects on extra channels and then copy them to your actual outputs, for example.

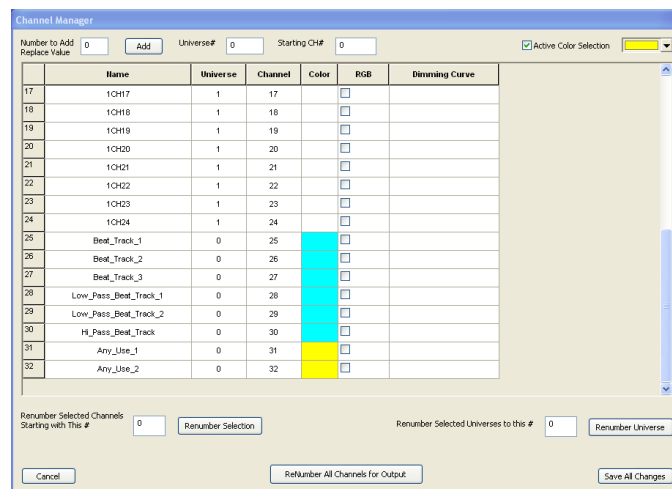


Figure 1-40.

If you are still in the Simulator screen you will need to switch back to the **Channel View** screen. Choose the **Manage Channels** tab and then select **Restore Channel View from Sequence Paint** and the sequence

editor should appear. Note that we can also go to the **Sequence Paint** screen from the **Manage Channels** tab.

Next we will create a group that includes our two trees and a beat track channel. Choose the Manage Channels tab at the top and then the **Select Channels and Assign to Group** selection. The screen shown in Figure 1-41 will appear. Click on the Check boxes under the **Work** column for every channel to be included in this group. In this example 1-6 and 25 were checked. These represent the 6 output channels for our two trees and the one for a beat channel. Six are real outputs and the beat channel is in universe 0 so it is not an actual output. Then a name (Both_Trees_And_Beat_Track_1) was entered for the new group name and the **Save Changes** button was clicked. Now we have created a group that includes 2 trees and the beat track and named it Both_Trees_And_Beat_Track_1.

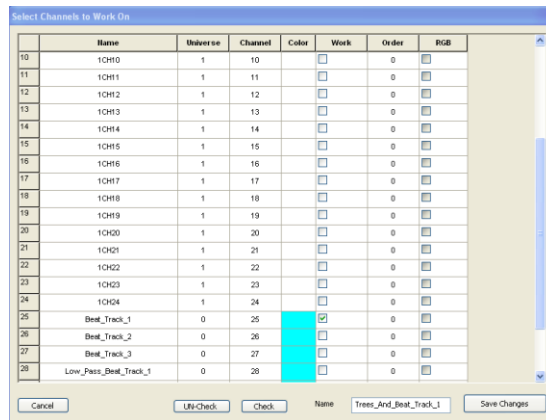


Figure 1-41.

Next we will add the actual beat track. To add a beat track, put a check mark in the **Beat Track Active** check box on the top left of HLS (see Figure 1-42). Next you must specify a channel for the beat track. When we created the group named Both_Trees_And_Beat_Track_1, we added an extra output channel (number 25). We will use channel 25 (Beat_Track_1) for the beat track.

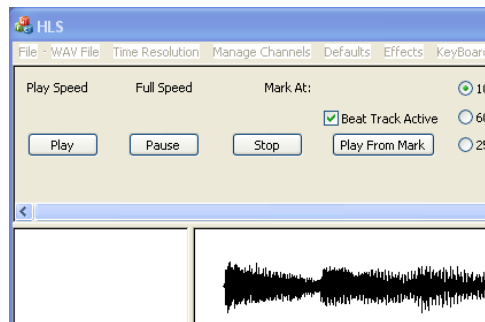


Figure 1-42.

Select the **Manage Channels** tab and then the **Select a Beat Track Channel** choice. In Figure 1-43 the channel named `Beat_Track_1` was chosen to be the beat track.

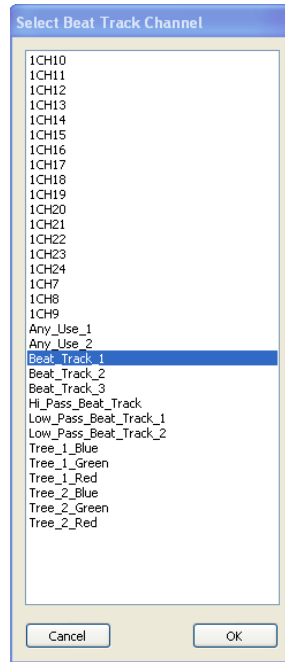


Figure 1-43.

Select the channel you want to be used for the beat track and then choose **OK**.

Next you must turn the **Preview Sequence** check box off (upper tight in Figure 1-44), if it is on (upper right of HLS). Note the **Beat Active** Check box has been checked.

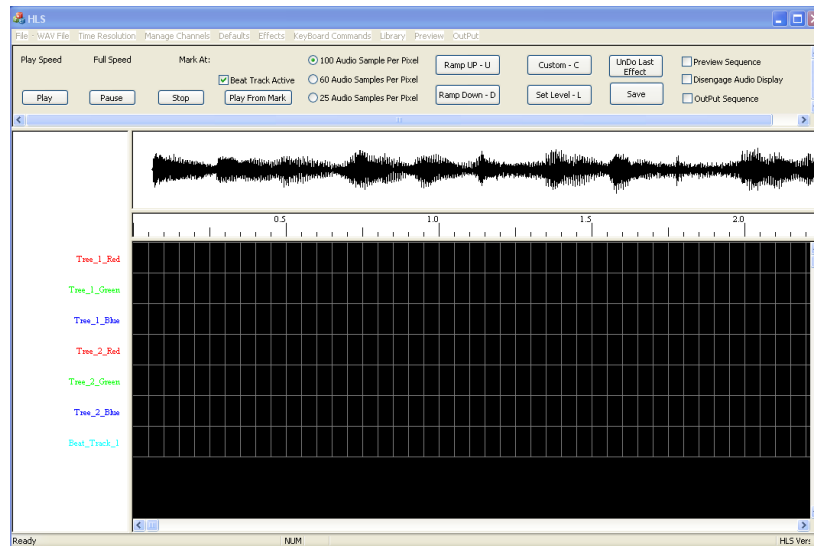


Figure 1-44.

Now we are ready to create a beat track. Hit the **Play** button (upper left on HLS) and then tap either the **CTRL** key or the **left mouse button** to create the beats. The beats will be shown as two filled cells for each beat (see Figure 1-45).

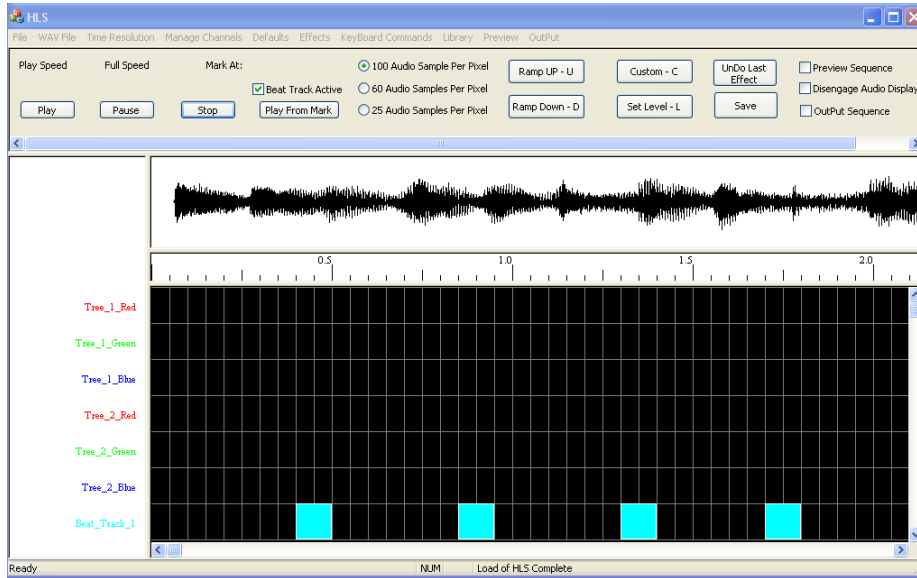


Figure 1-45.

Configuring the Sequence for Output

We are now ready to configure the sequence for the com port and output hardware.

On the top of the HLS screen choose **Output** and then **Setup COM Ports**. The screen shown in Figure 1-46 should appear.

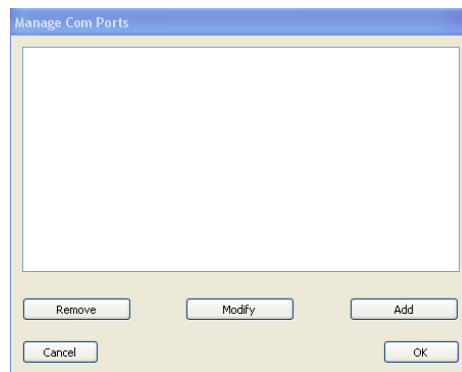


Figure 1-46.

Choose **Add** and the screen shown in Figure 1-47 will appear.

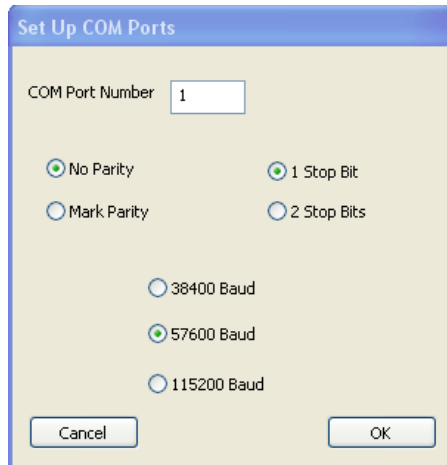


Figure 1-47.

The default choices are correct for this example so choose OK.

Figure 1-48 show what the **Manage Com Ports** screen will look like now. Ok was chosen and the Com Port is now setup.

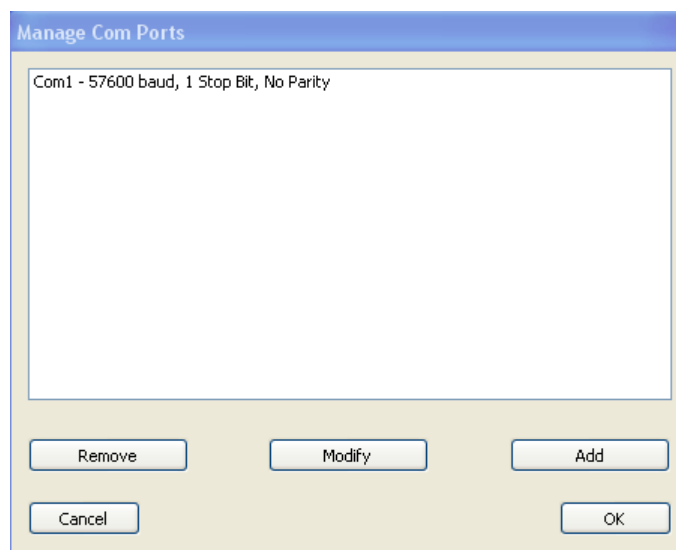


Figure 1-48.

In Figure 1-49 notice that universe 1 is the one we are working with for output. We only used universe 0 for the beat track. In this example we are only using one Port and one protocol (Renard), so only one universe appears here. Next choose **Output** from the top tab again and then **Select Output Method**.

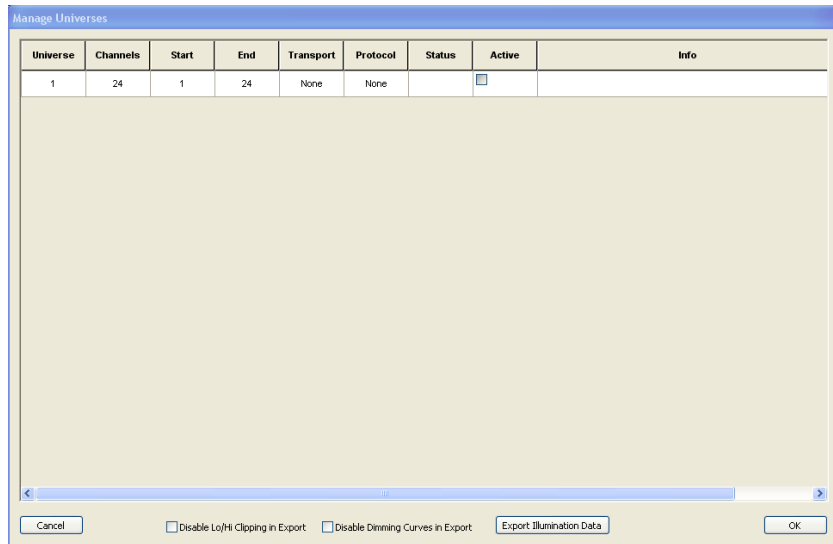


Figure 1-49.

Next you must configure three things: **Transport** (Port to use), **Protocol** (Renard in this example), and make the universe active in the **Active** checkbox. First let's choose the **Transport**.

In Figure 1-50 **COM** was chosen in the example (we will be using Com port 1 that we already configured).

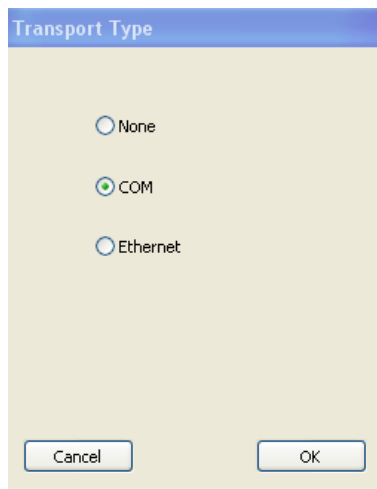


Figure 1-50.

Make sure you select the Com port you want to use before clicking OK. Note that Com1 is highlighted in Figure 1-51.

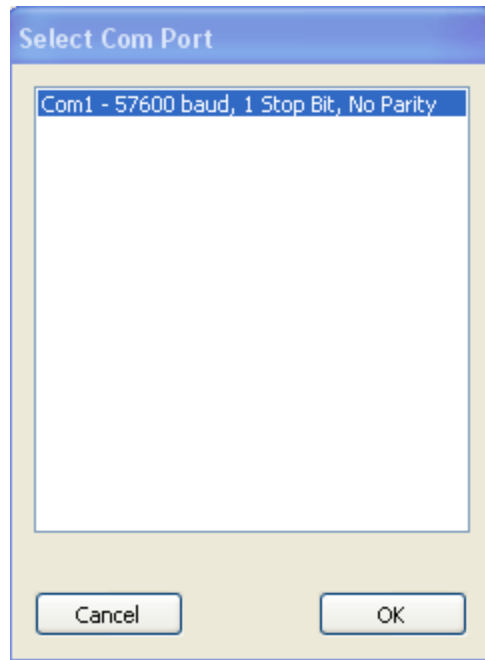


Figure 1-51.

After you choose OK the screen shown in Figure 1-52 will appear. Note that **Renard** was chosen. Make sure it is highlighted before you click **OK**.

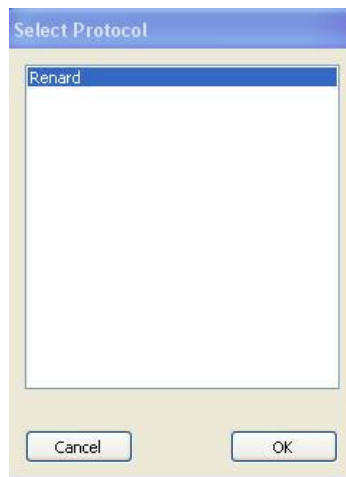


Figure 1-52.

Figure 1-53 shows that the status of the Com port is 1 (good) and you must set the checkmark under **Active** for the output to be active.

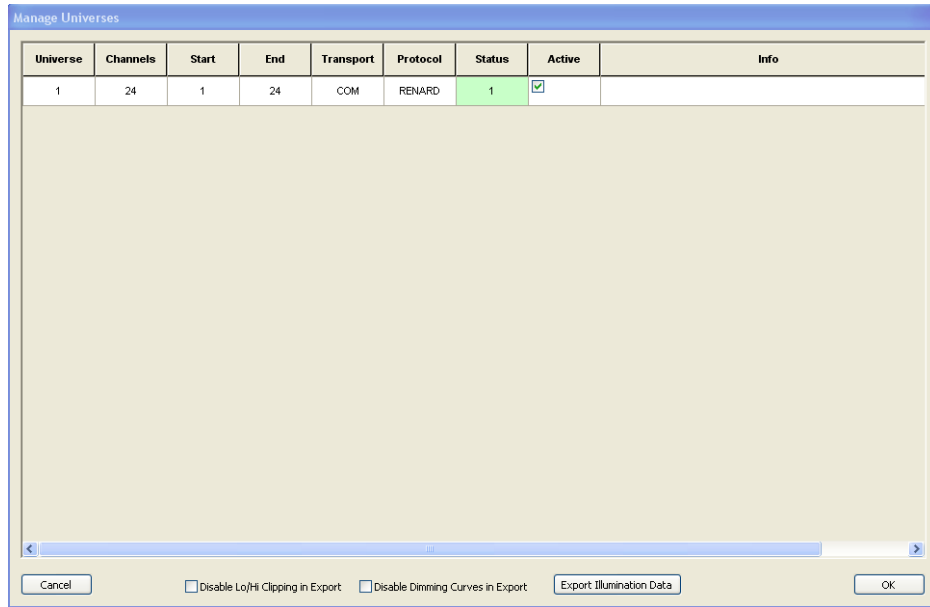


Figure 1-53.

To run the sequence with actual outputs make sure your Renard is plugged into the COM port you specified, click on the check box for **OutPut Sequence** on the upper right of the screen (see Figure 1-54). Note that when you do that the check box for **Disengage Audio Display** will also be checked so that the audio display does not run during actual output.

Hit the play button and lights should flash according to your sequence.

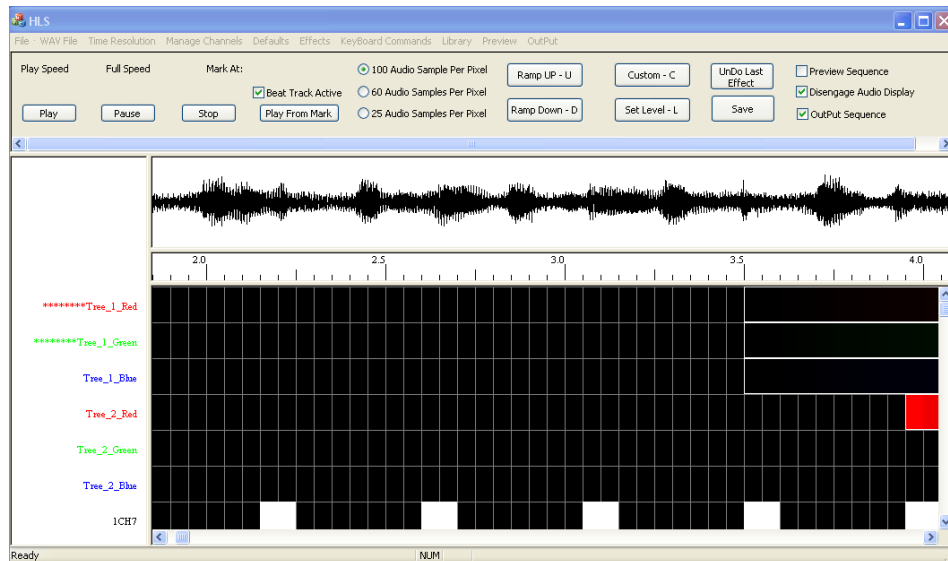


Figure 1-54.

Creating Chases

Here is one way to create a chase. Figure 1-55 shows how to start. Click in the upper left cell of the first arch output with the left mouse button, then release the mouse button and drag your mouse down to the right most cell you want included in arch output 8 and then click once with the left mouse button in the cell. Now you should see a dotted line around the whole area of cells for the 8 arch outputs. Next the ramp down effect was chosen and the ramp effect showed up on the screen (See Figure 1-55).

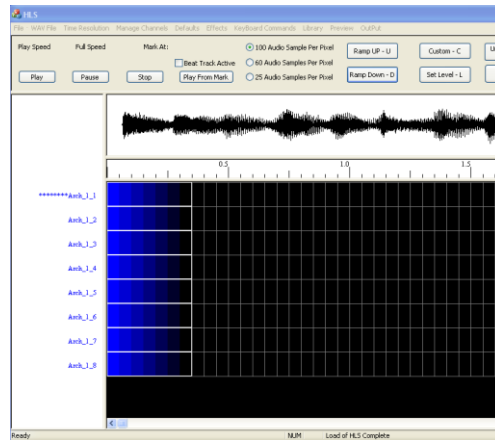


Figure 1-55.

Next we will slide each channel effect to create the chase (see Figure 1-56). Remember that this is done by clicking once on the left-most cell on channel 2 first and then moving the mouse to the right. The whole 7 cells in the effect will slide to the right. The same procedure was used for the rest of the channels. Note that these could then be copied by selecting all of the cells in the total effect and the pasted at the appropriate places in the sequence. This could also be saved as an effect to the library if it is an effect you would like to keep and use again. Saving an effect to a library will be covered later in this manual under the Custom Effects section.

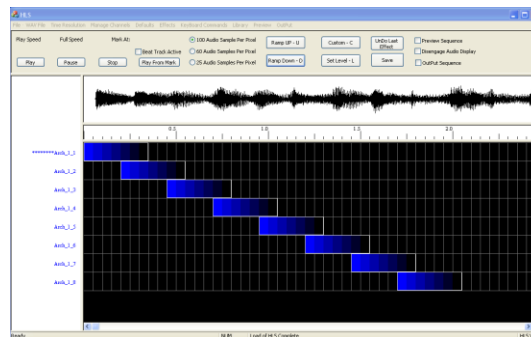


Figure 1-56.

Mirroring

You can mirror selections horizontally or vertically. To mirror an effect you must select the area to be mirrored. Figure 1-57 shows an example of a selection. To do it you do the normal left click in the upper left cell and then left click on the right-most bottom cell. Note that to copy, past or mirror you need to select the cell one to the upper left of the desired effect and one cell to the right- bottom of the desired effect. Once you have made the selection you can use the CTRL H for horizontal mirror or CTRL V for vertical mirror. You can also move the effect while you are doing the horizontal or vertical mirror.

For horizontal mirroring - if you make the box longer to the right of the selection - it will placed the new mirrored effects relative to the far right edge. If you make box taller than effects for a vertical mirror - it will mirror to the top of the box.

Remember that the Keyboard commands for copy, past, mirror, and many other tools can be found in the KeyBoard Commands tab at the top of HLS.

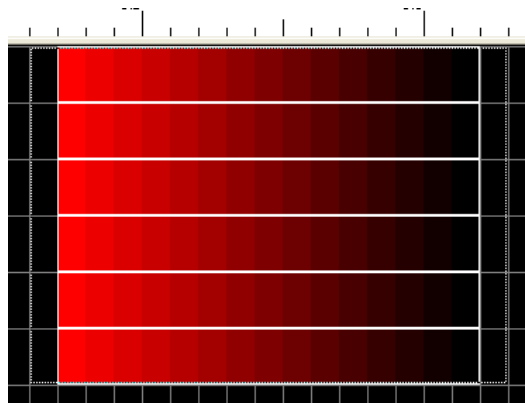


Figure 1-57.

Creating Custom Effects

Choose **Effects** from the top tab on HLS and then **Add a Custom Effect Group**. The screen shown in Figure 1-58 will appear.

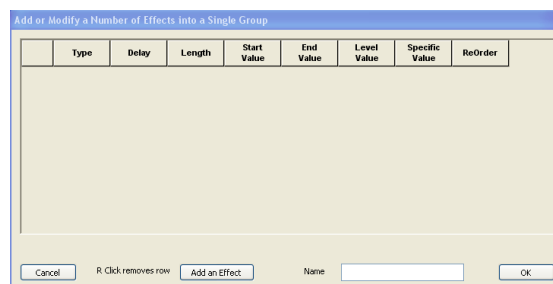


Figure 1-58.

Next we will create the actual effect for our new custom effect. Next click on **Add an Effect** (see Figure 1-58) and the screen shown in Figure 1-59 will appear.

	Type	Delay	Length	Start Value	End Value	Level Value	Specific Value	ReOrder
1	None							1

Buttons: Cancel, R. Click removes row, Add an Effect, Name: _____, OK

Figure 1-59.

There will be 2 effects in our new custom effect. Let's create the first effect for our new custom effect (see Figure 1-60). In Figure 1-60 Level effect was chosen for Type, 5 was entered for the Length of the effect, and 100 was entered for the level value. The first effect is now complete. Click on the **Add an Effect** button to add the second effect to this custom effect. After you click **Add an Effect** the screen shown in Figure 1-59 appears.

	Type	Delay	Length	Start Value	End Value	Level Value	Specific Value	ReOrder
1	Level		5			100		1

Buttons: Cancel, R. Click removes row, Add an Effect, Name: _____, OK

Figure 1-60.

Figure 1-61 shows that a second effect was added. **Ramp_Down** was chosen for the Type of the effect, 12 was entered for the **length** of this effect, 90 was entered for the **Start Value** of the ramp down and 10 for the **End Value** level of the ramp down. This completes what will be in this custom effect. This custom effect will have a 5 cell level effect followed by a 12 cell long ramp down. The name **Chase_Effect** was entered for the **Name** of this effect. Then the **OK** button was clicked.

	Type	Delay	Length	Start Value	End Value	Level Value	Specific Value	ReOrder
1	Level		5			100		1
2	Ramp_Down		12	90	10			2

Buttons: Cancel, R. Click removes row, Add an Effect, Name: Chase_Effect, OK

Figure 1-61.

Let's use our new custom effect. A group of cells was selected in Figure 1-62. Note the dotted line around 8 vertical cells in the second column. This example uses 8 channels for an arch.

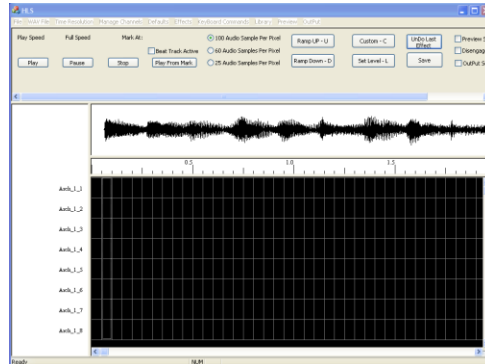


Figure 1-62.

After you have selected the cells that this effect will apply to you can select the effect from the Custom effect button on the top right. Next you would choose the effect from the list (Chase-Effect) in this example (see Figure 1-63). Then click **OK**.

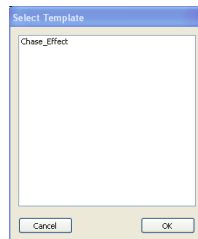


Figure 1-63.

The screen shown in Figure 1-64 would then appear. This screen enables you to change some of the effect's parameters. This screen enables you to create effects like random, chase (if multiple channels are selected by cells) and so on.

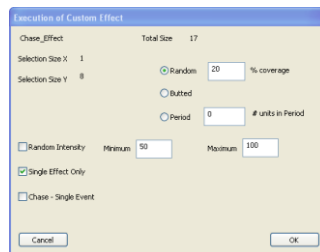


Figure 1-64.

When you are done you would click on OK and the effect will be applied to the sequence (see Figure 1-65).

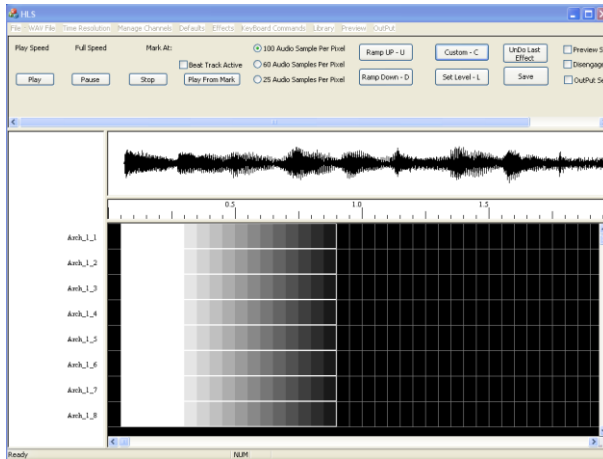


Figure 1-65.

The custom effect was placed in a box in Figure 1-65. You can grab the left cell of each row and move each row to create the chase. The rows have been moved in Figure 1-66.

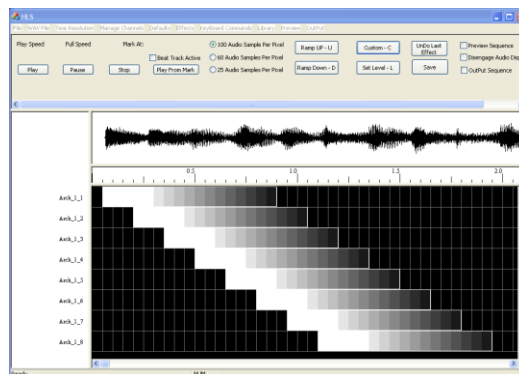


Figure 1-66.

Creating a library of Group Effects

This is another way to create your own effects. You can create your own group effects from portions of sequences you have created and save them to a library and then use them as effects tools.

Whole effects that you have created can be saved to a library. First we must create a library to hold the effects. Select the **Library** tab on top and then the **Insert Library** choice (see Figure 1-67). The name Custom Effects Library was entered for the name of our new library.

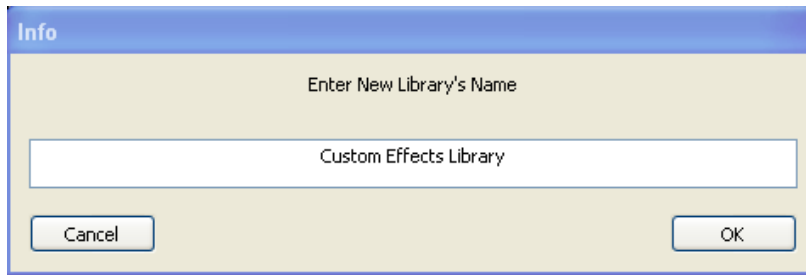


Figure 1-67.

Figure 1-68 shows that our new library now appears in the library list. This is under the **Library** tab at the top of the HLS screen under the **Just View- See What's Available** selection.

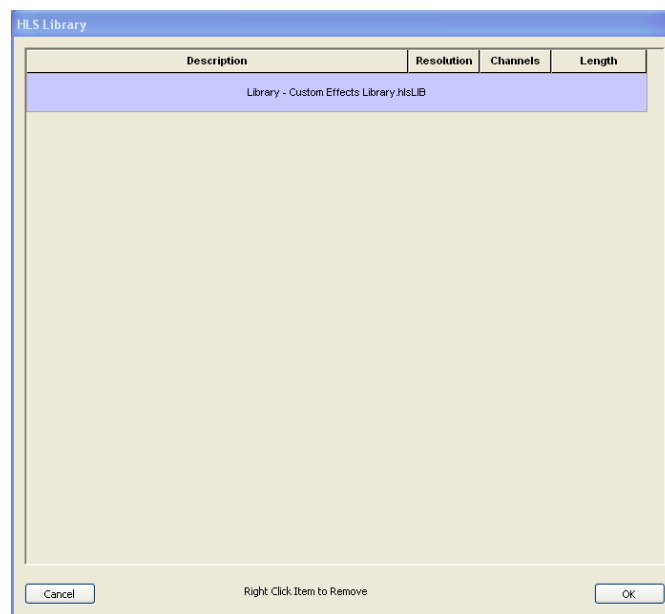


Figure 1-68.

Next you select the portion of the sequence that you want to save as an Effect group. Figure 1-69 shows that the left mouse button was used to select the upper-left most cell just to the left of the effect we want to save. Then the mouse was dragged down and to the right to the cell just after the effect, then clicked once and the dotted box appears around the selected area for our effect.

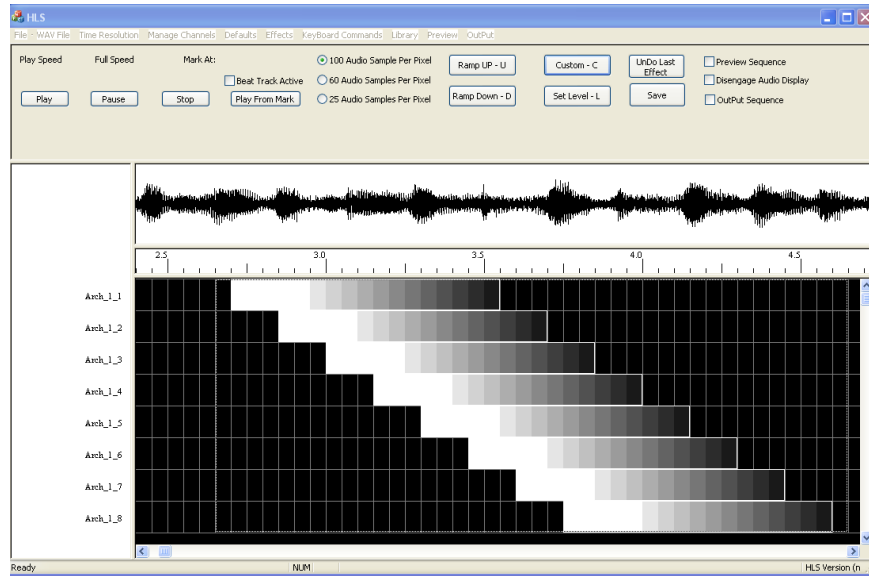


Figure 1-69.

Then we go to **Library** and then select **Add Effect Group or Layout to a library**. We will be adding an effect group. A layout is all of the channel information for the sequence, similar to a profile in Vixen.

Study Figure 1-70. The Library name of the library we created was chosen and the name Arch_Effect_1 was entered. The check box next to **Effect Grouping** was also chosen. Then the OK button was clicked and we have finished creating an effect group.

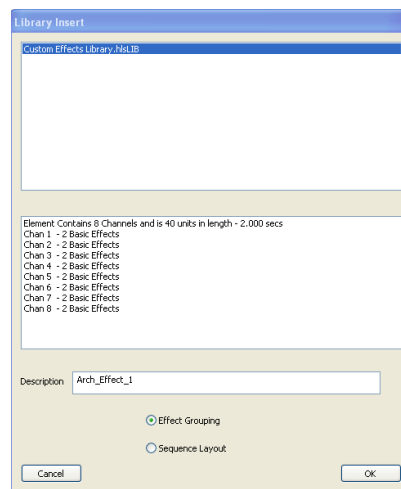


Figure 1-70.

If we were to look at the library again we would see that the effect group we just created is now in the library.

Let's try to use the effect group we just created. Choose the library tab at the top of HLS and select **Insert Into Sequence an Effect from Library**. The screen shown in Figure 1-71 appears.

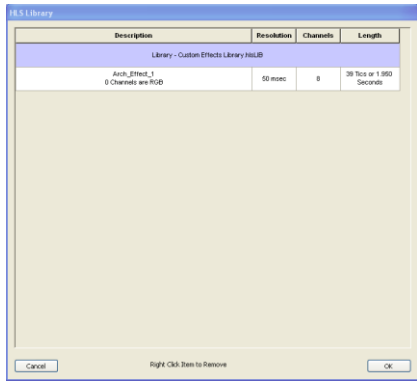


Figure 1-71.

Click on the Arch_Effect_1 effect group and it will be highlighted as in Figure 1-72. Then click **OK**.

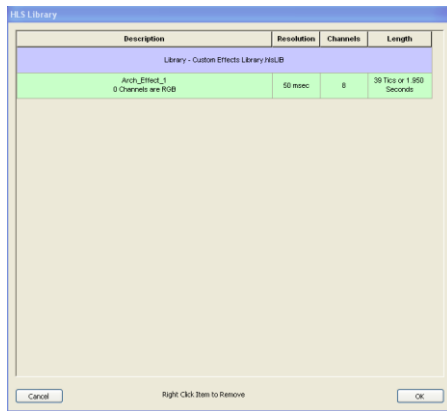


Figure 1-72.

The screen shown in Figure 1-73 will appear. It is a warning, asking if you really want to insert the effect group into your sequence. Click on **Yes** to proceed.

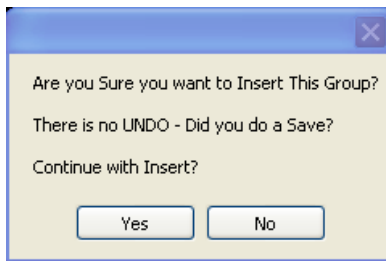


Figure 1-73.

Next you will be prompted to click on the cell where you would like to insert the effect group (see Figure 1-74).

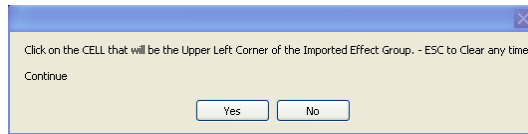


Figure 1-74.

When you click on the upper left corner of where you would like the effect group to be placed, it will be placed and appear automatically (see Figure 1-75). Note that you cannot edit an effect group once it has been placed. You can right click on it for each channel and modify it to delete it channel by channel if you need to.

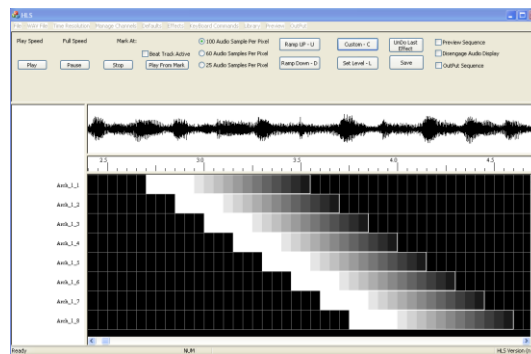


Figure 1-75.

Play from a Mark

It is possible to choose a different start point to start to play from. Figure 1-75 shows an example. To select a new start point for play, right click your mouse on the timeline where you would like to start playing. A Red mark will appear in the timeline (see Figure 1-76). Next you have to click on the **Play From Mark** button to start from that point. Remember that you can change the play speed to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ or full speed under the WAV file tab.

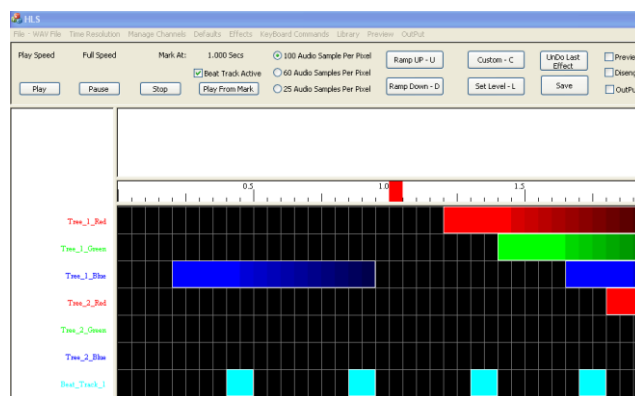


Figure 1-76.

Apply an Over Control Ramp

This tool can be used to put an overall ramp over a portion of a sequence. For example, imagine a song that builds in volume and excitement over the first 5 seconds and slowly decreases in volume and excitement over the last 5 seconds. You might want to have your effects present from the start, but have the effects grow in intensity as the song builds over the first 5 seconds. You might also want the reverse to happen at the end. This tool can accomplish that. You program your channels in the regular way and then apply this tool over the top. Figure 1-77 shows the beginning of a song. We would like to add an overall Ramp Up over the beginning so we still see the effects but they grow in intensity.

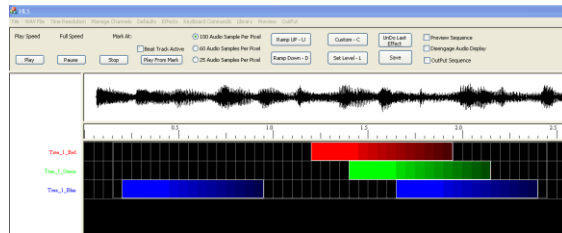


Figure 1-77.

Note in Figure 1-78 that you can also Ramp Down, set or set a level. You can also delete an Apply Over Control Ramp effect.

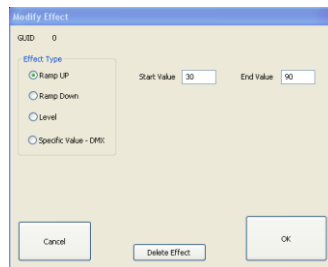


Figure 1-78.

Figure 1-79 shows what the screen looks like after the effect is applied.

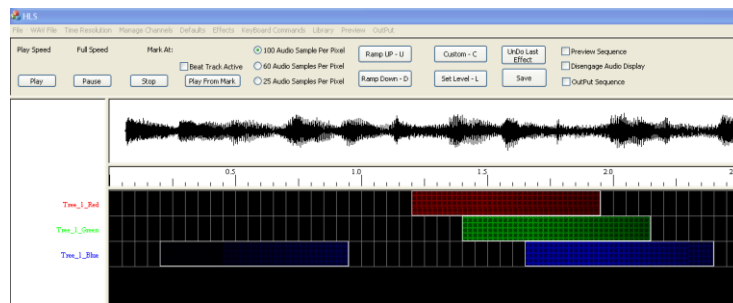


Figure 1-79.

Creating a Playlist and a Schedule

A Playlist (Show in Vixen) is the list of sequences to run. You may have up to 4 playlists scheduled to run each day at different times. Figure 1-80 shows the PlayList creation screen.

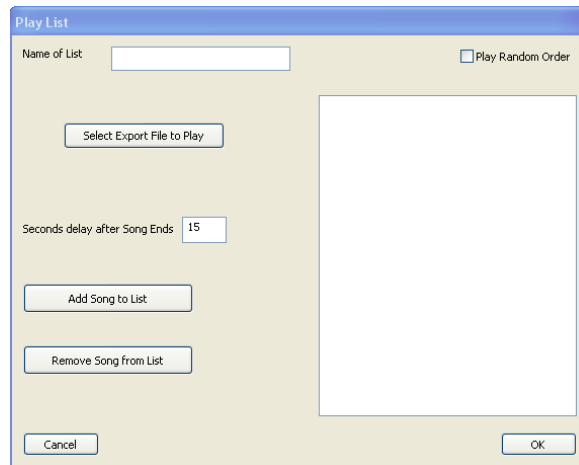


Figure 1-80.

Note that you can enter a delay in seconds between songs. Note also that you could choose the Play Random Order check box. The name Playlist_2012_M-F was entered for the name of the playlist in Figure 1-81.

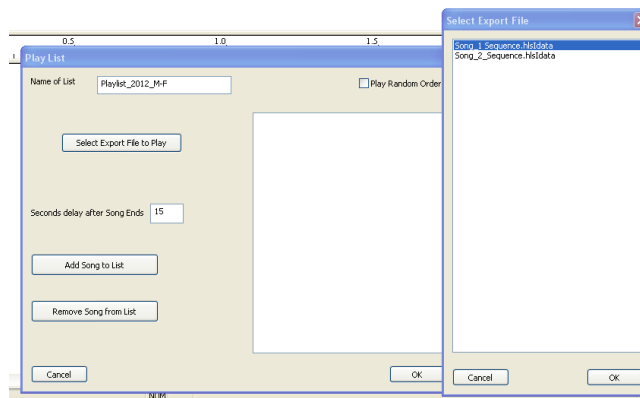


Figure 1-81.

Select Export File click on the desired Export File (sequence) in the list and then click on the **Add Song to List** button (see Figure 1-82). Do the same and select any other Export Files (sequences) that you want to add to the play list.

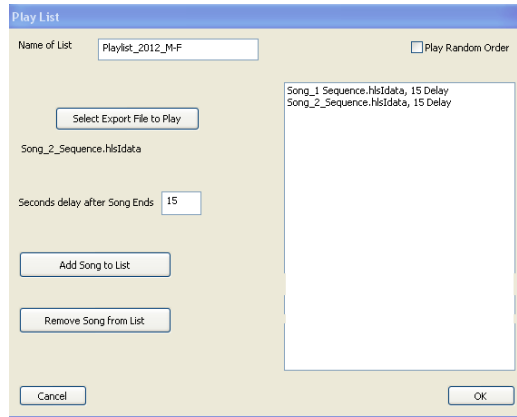


Figure 1-82.

You have now developed a playlist.

Scheduling a Playlist

Choose the **Output** tab at the top of HLS and select **Create/Modify Show Schedule**.

Figure 1-83 shows the weekly schedule. Note that 4 shows can be scheduled with different start and end times each day. Just double click on one of the four boxes for each day to schedule it.

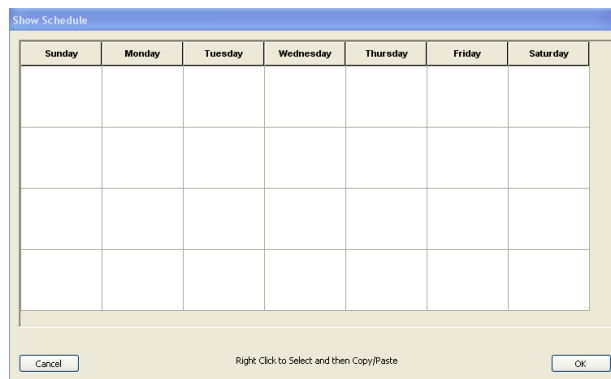


Figure 1-83.

When you double click on one of the boxes in the schedule the screen shown in Figure 1-84 will appear. In this example the 4th box on Monday was chosen.



Figure 1-84.

Next the Select Play List button was clicked and the screen in Figure 1-85 appears. You choose the playlist you want and then click on **OK**.

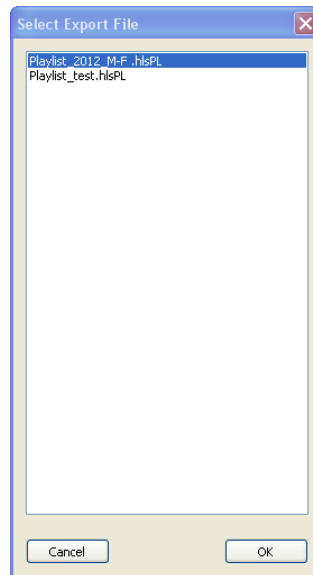


Figure 1-85.

Figure 1-86 shows how times for the start time of the show are chosen. Note that Am or PM must be chosen and then the start time set with the check boxes.

Next the **Select Start Time** button is clicked and the screen in Figure 1-86 appears.



Figure 1-86.

Next the **Select End Time** button is clicked and the screen in Figure 1-87 appears. The Figure shows how times for the end time of the show are chosen. Note that Am or PM must be chosen and then the end time set with the check boxes.

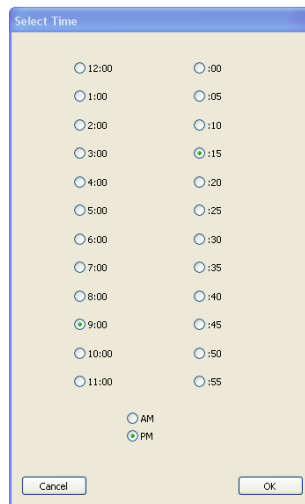


Figure 1-87.

Once the end time is entered and OK selected the screen shown in Figure 1-88 appears showing the playlist and times are shown in the schedule.

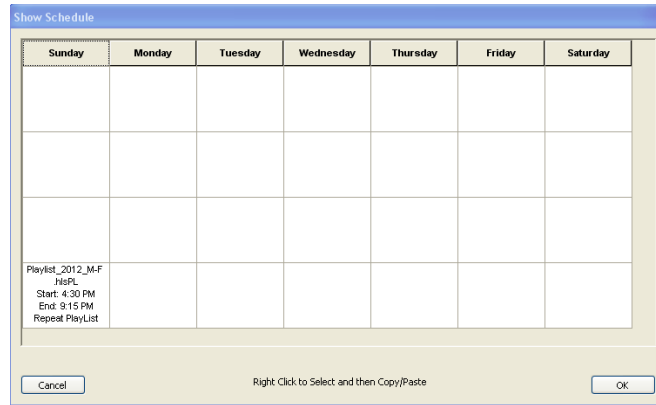


Figure 1-88.

Playing the scheduled shows

To run the shows you just choose the Output tab on the top of HLS and select **Play Show Schedule**.

Setting Defaults for Ramps, Level, and Minimum and Maximum Output Levels

Choose the Defaults tab on top of HLS and select the item you would like to set defaults for. For this example I chose Ramp Up. The screen shown in Figure 1-89 will appear. You can change any values you would like and they will be saved as the new default values.

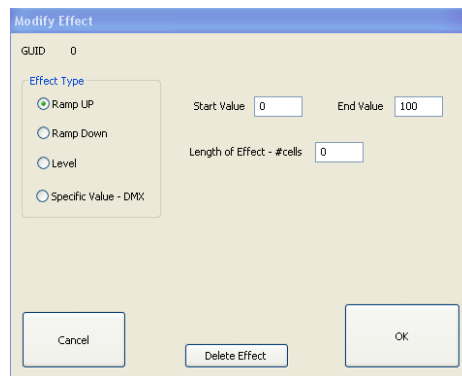


Figure 1-89.

Dimming Curves

Dimming curves are located under the Library Tab on top of HLS. You can create custom dimming curves by single clicking on the salmon colored cell (you may have to scroll down to see them) and then clicking on the cell where you would like it to be. A dimming curve edit was started and is shown in Figure 1-90.

The first 9 values were shifted up. After completing the rest of the values you can **save** it or do a **Save As** under a different name.

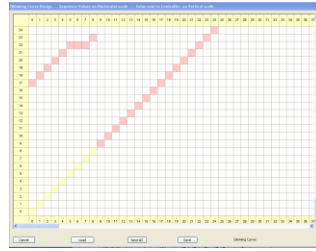


Figure 1-90.

Dimming curves can be assigned to channels in the Manage Channels tab. Figure 1-91 shows how it is done. Right-click on the box for the channel under the Dimming Curve heading and choose the dimming curve to be applied.

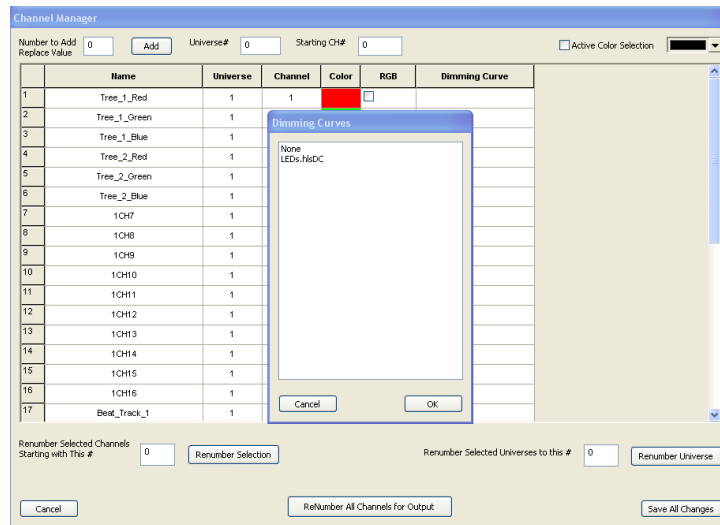


Figure 1-91.

After you click on OK the screen will show the dimming curve for that channel (see Figure 1-92).

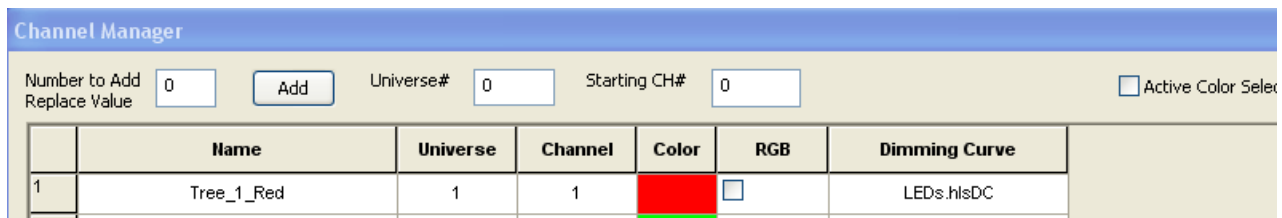


Figure 1-92.

RGB

Let's create a simple sequence with 8 RGB channels.

Start the sequence as usual and add a WAV file for the music. Choose the **Manage Channels** tab and select **Manage Raw Channels**. For this example we will create a special RGB arch. 8 outputs will be red, 8 will be green, and 8 will be blue. Because we are using RGB outputs, we will only need to add 8 output channels to our HLS sequence. Each RGB channel will control 3 outputs- 1 red, 1 green, and 1 blue.

In Figure 1-92, 8 was entered for the number of channels. The universe was changed to 1 and channel numbering was set to begin at 1.

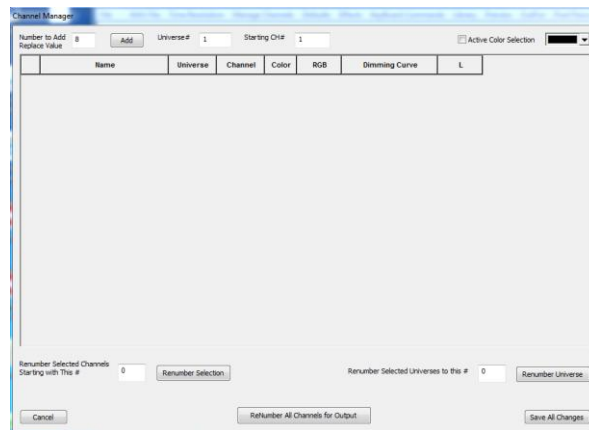


Figure 1-93.

Next the **Add** button was clicked at the top of HLS and the screen shown in Figure 1-94 appeared. Note that the channels were added. Note the column labeled RGB. In HLS an RGB channel will use 3 outputs. So if we make channel 1 an RGB channel it will use outputs 1, 2, and 3.

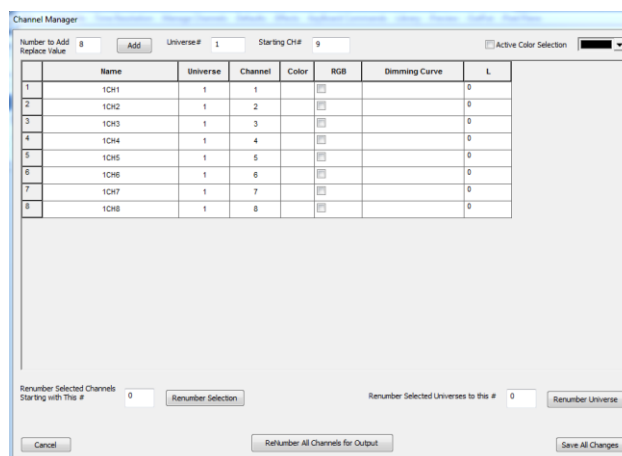


Figure 1-94.

We need 8 RGB channels ($8 \times 3 = 24$ outputs). Figure 1-95 shows that the RGB box was checked for the 8 outputs. Note that the channels that are visible on the screen are still named as output channels 1-8. Note also that the names of the channels were not changed for this example they are still 1CH1 through 1CH8.

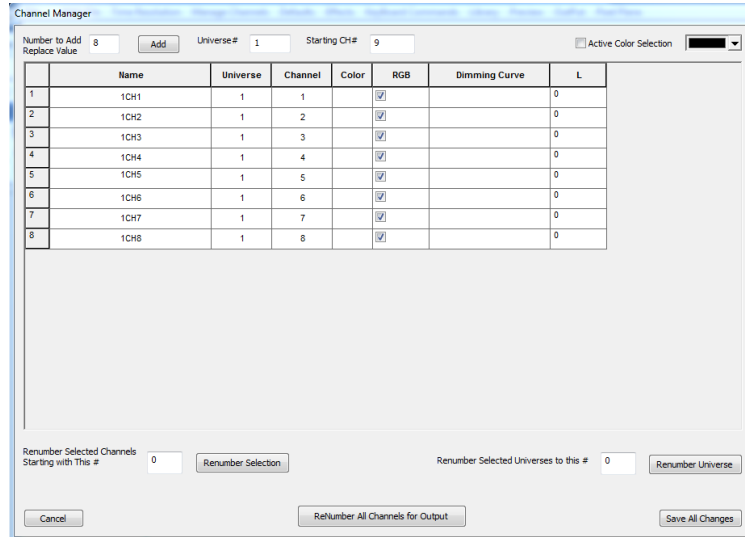


Figure 1-95.

Click on the button labeled **ReNumber All Channels for Output** button and the screen shown in Figure 1-96 will show that the RGB channels were renumbered to take into account that each RGB channel controls 3 outputs. Note in Figure 1-83 that the first RGB output is now 1 (1, 2, and 3) and the second RGB output begins at 4 (4, 5, and 6). The last of our 8 RGB outputs begin at output 22 (22, 23, and 24).

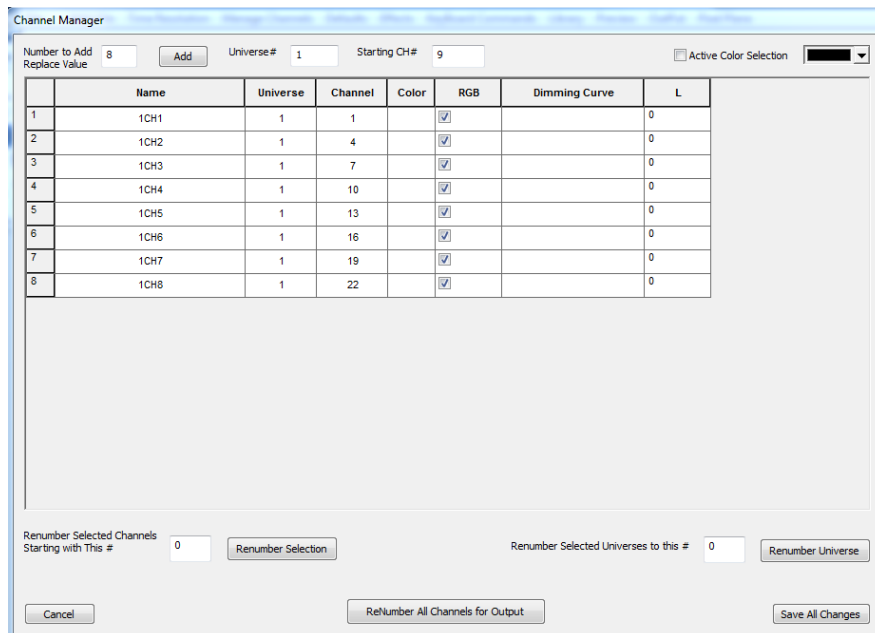


Figure 1-96.

Next we will save our changes and create a group for the RGB arch. From the **Channel Manager** tab the **Select Channels and Assign to Group** was selected (see Figure 1-97). The 8 RGB channels were selected and the **Check** button was clicked to put checks in the work box next to each channel in the group.

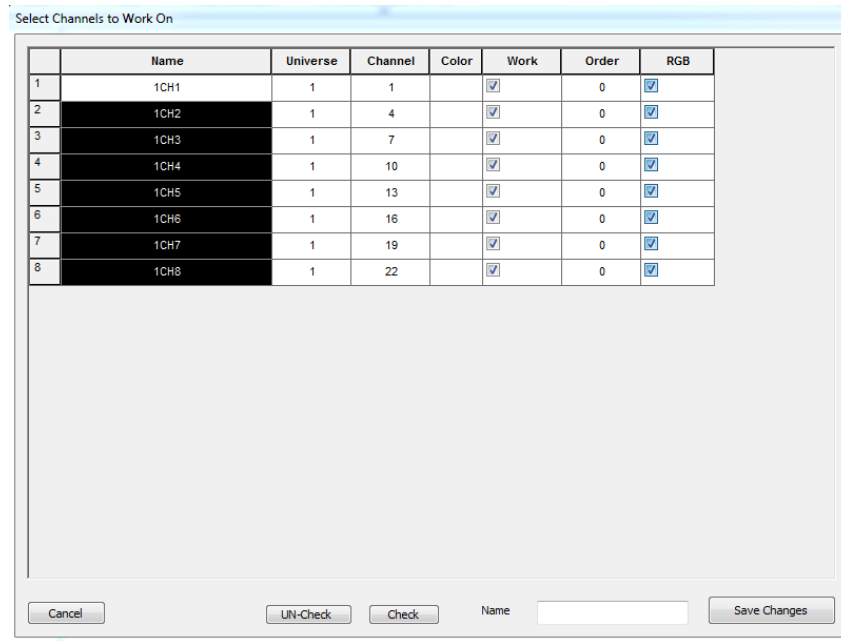


Figure 1-97.

Next a name was entered for the group RGB_ARCH_1 (see Figure 1-98) and the **Save Changes** button was clicked.

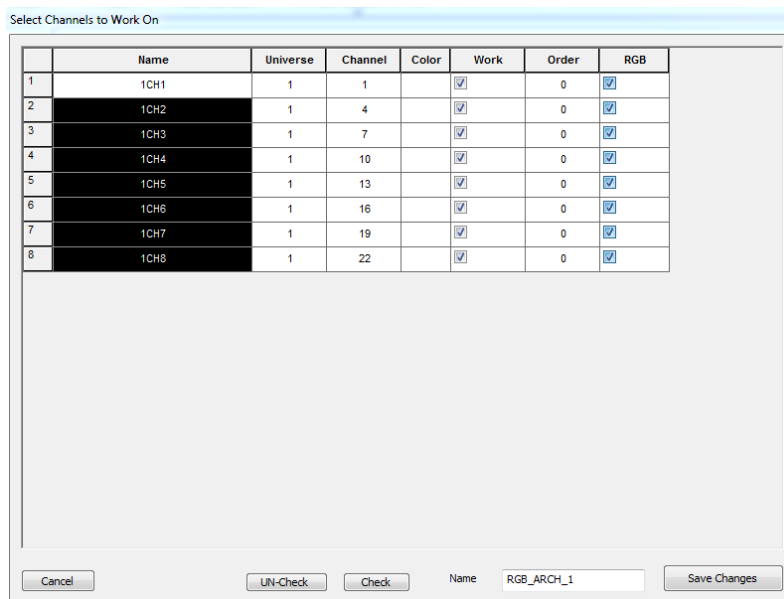


Figure 1-98.

Next the **Manage Channels** tab was chosen and Select Group to Work on was selected (se Figure 1-99). **RGB_ARCH_1** Was selected and the **OK** button was clicked.

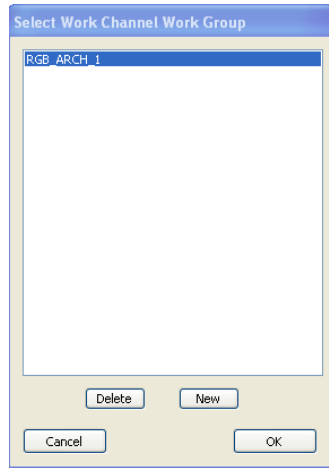


Figure 1-99.

Figure 1-100 shows the normal sequence programming screen. Note that the channels are labeled RGB-1CH1 through RGB-1CH8. Also note that each RGB channel now controls 3 outputs. So channel 1 is actually three outputs (output 1-red, output 2-green, and output 3-blue). Here is the fun part. If red is chosen for the color of the 8 RGB outputs and a chase effect is programmed, only the red outputs will do the chase. If I choose blue, only the blue will do the chase effect, and likewise for green. If white is chosen for the color- all of the outputs (red, green, and blue) will do the chase. If a different color is chosen the RGB will control each of the 3 channels at different levels to create the effect in that color. The default color for RGB is white.

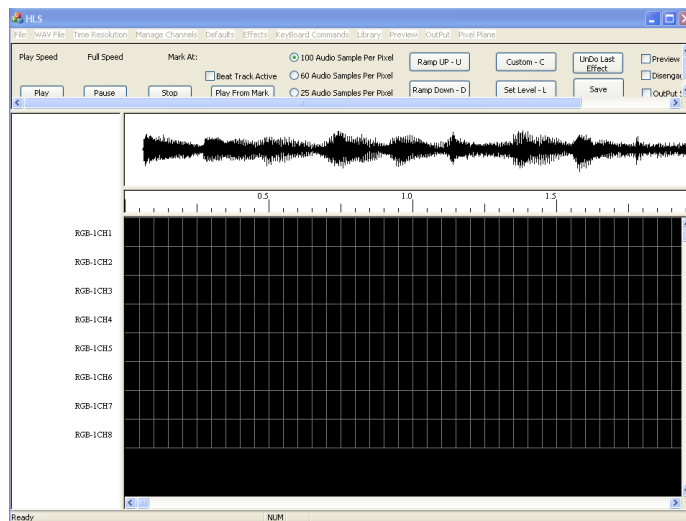


Figure 1-100.

Two chase effects were created in Figure 1-101. The first one was done with the default RGB color of white. This would make all red, green, and blue lights turn on and chase on the arch. Then the

programmer right clicked on the white effect for each channel individually and selected the **Change RGB Color** button and chose red. The programmer then created the second chase. The second one would just use the red channel for the chase effect. Note that if a different color than white, red, green, or blue is chosen, HLS will vary the output level of the red, green and blue to produce that color.

NOTE: you must change the RGB color for the effect before you create the next effect. In the example in Figure 1-100 the white chase was created and then the RGB color was changed to red before creating the second red chase effect.

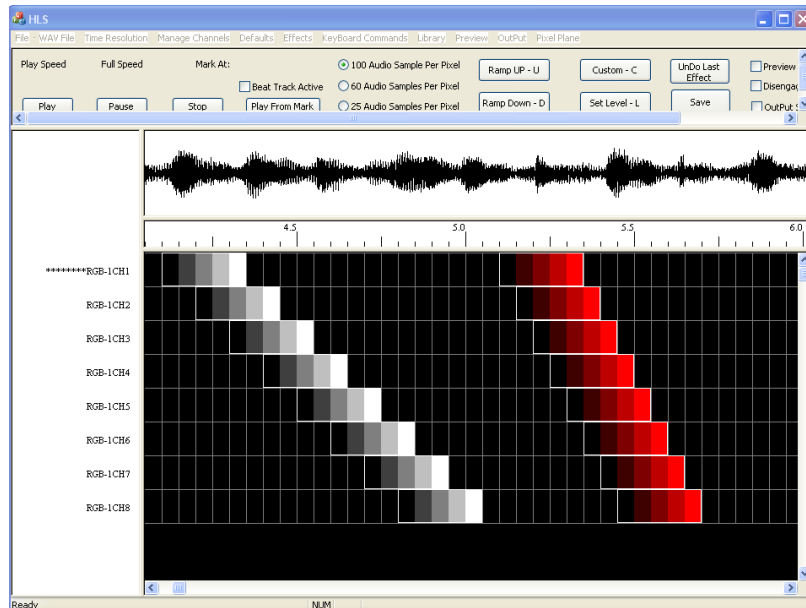


Figure 1-101.

RGB can also be used to program non-RGB lights to reduce the number of channels by 2/3. For example, imagine a Mega tree with 16 strings red, white and blue lights (48 strings total). Each RGB channel could represent 3 outputs, red, white, and blue. When programming, if red is chosen for the effect the red lights would be on. When green is chosen for the effect the white string would be on, when Blue is chosen blue would be on. If white is chosen for the effect color, all three would be on.

Converting Three Channel Red, Green, Blue channels Into a Single RGB Channel

1A also contains a three channel - Red, Green, Blue - conversion into a single RGB channel. This should help reduce channel count from a converted Vixen file.

The way to do the RGB conversion follows: Add your RGB channels to your sequence. Create a group that contains a few of your new RGB channels and their associated single channels.

Under the Menu "Manage Channels" - select "Convert Three Channels to RGB". Note the warning about overlapping channels - you can manually clean those up later. Perform the conversion.

When you are happy with the conversion - go into "Manage Raw Channels" and DELETE the three single channels - NOTE - they will not be removed until you close HLS down. Close HLS - then restart HLS. Conversion is now complete and old channels are gone leaving only single RGB for you to sequence with.

Converting Vixen Files to HLS

1. Note: your Vixen sequence used an MP3 format. You must convert it to a WAV file. There are free converter programs on the web. Here is a link to one of them - http://download.cnet.com/MP3-to-WAV-Decoder/3000-2140_4-10060498.html. Convert the file before you open HLS to make the Vixen sequence conversion to HLS.
2. Open HLS and click on the **WAV File** tab and then select **Add QWAV File to This Sequence**. Next, select your WAV file and after it is loaded, click on the **I'm Done Return** button (see Figure 1-102).

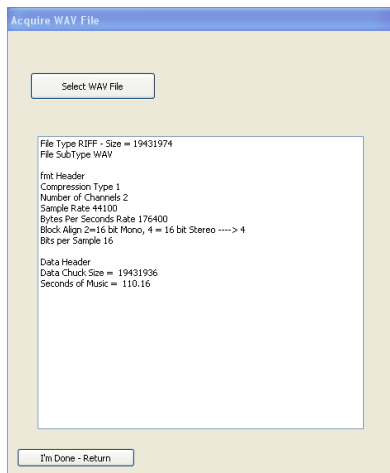


Figure 1-102.

3. Under the **File** tab- select **Import a Vixen File**. – You will be prompted to select the VIX file.. Select the VIX file you would like to convert. **Note that the HLS conversion will give the new HLS file the same name as your VIX file with different extensions**. You may see a note about HLS making a slight timing adjustment to the VIX timing to make it more exact. Select OK, The conversion will take place and you will see a note showing that the channels have been converted. Note: there is a lot happening and it will take time to complete the conversion. A conversion of 600 channels takes about 3-4 minutes. A conversion of 3500 channels may take 20 minutes. There is a Vixen Conversion Channel Counter to give you feedback as to how far you are into the conversion.

4. After the conversion you can choose the **Manage Channels** tab, select channels to create a group and work like you normally would with HLS. See the beginning of this document to see how to program in HLS.

HLS Video and other Links

MP3 to WAV Decoder

<http://download.cnet.com/MP3-to-WAV-...-10060498.html>

I made a short youtube video demonstrating what the sequencer will do so far. (02-02-2012, 10:31 PM)

http://www.youtube.com/watch?v=aOwrz-P5Bf0&feature=player_embedded

I have enhanced the fade to black or black to color ---- and have fully implemented RGB capabilities (02-04-2012, 08:28 PM)

http://www.youtube.com/watch?v=RTr6tZ7JiaU&feature=player_embedded

HLS Beta 0 (02-06-2012, 02:59 PM)

http://www.youtube.com/watch?v=6zus4...layer_embedded

Here is a short video on Dimming Curves and Effect Library. (02-09-2012, 02:50 PM)

http://www.youtube.com/watch?feature=player_embedded&v=qYSaSB5Dioc#!

Short training video to help show how to convert three single channels into a single RGB channel (03-05-2012, 07:41 PM)

[http://www.youtube.com/watch?v=TDVOv...layer_embedded\[/QUOTE\]](http://www.youtube.com/watch?v=TDVOv...layer_embedded[/QUOTE])