

Patch Editor/Librarian V5.00

FOR THE BLUE NEBULA TAPE ECHO AND GUITAR EFFECTS PEDAL



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PATCH EDITOR/LIBRARIAN FOR THE BLUE NEBULA TAPE ECHO & G-FX

Please note an up to date version of Java 8 must be installed on your computer in order to run Librarian. The 64-bit Librarian requires 64-bit Java to run. If you only see a grey box with no controls or buttons when you run the 64-bit Librarian then it means you only have 32-bit Java installed – the 32-bit Librarian **will** work, or if you prefer, you can install a 64-bit version of Java. This can be downloaded from the **official** Oracle website [here](https://www.oracle.com/uk/java/technologies/javase-downloads.html). I do **not** recommend that you download java from any other sites as it could contain **undesirable** stuff such as viruses or spyware.

The Blue Nebula Patch Editor/Librarian is a software program that allows **transfer** of User patches between the [Blue Nebula Tape Echo & G-FX pedal](#) and a host computer running Windows or Mac OS X. Patches can be sent from the computer to the Blue Nebula and vice versa. The Librarian also allows patches to be saved to and loaded from the computer's hard drive.

As the name suggests, the software also allows Patches to be **edited**, by selecting the required echo or effect model and adjusting the effect parameters such as Dry/Wet Mix, Heads/Program and Feedback values.

This looks a bit complicated, but we will break it all down into separate sections and explain how to use each feature.

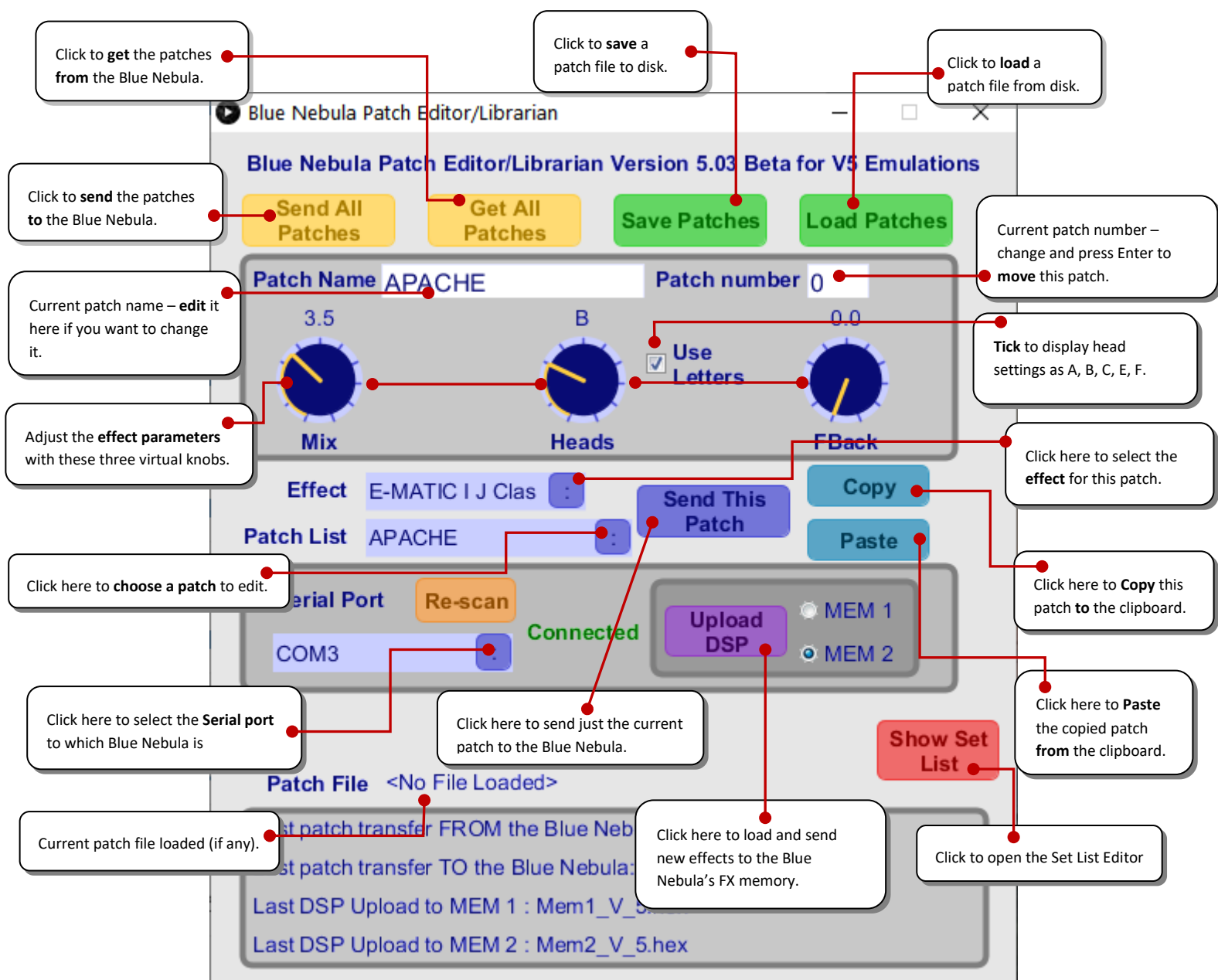


Figure 1: The Editor/Librarian Window

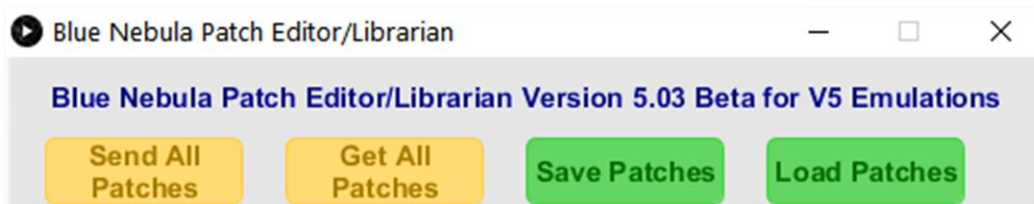
- Make sure your Blue Nebula is loaded with firmware Version 5.00 or later.
- Connect your Blue Nebula to your computer via a suitable USB lead.
- Run the Librarian application e.g. on Windows double-click *BN Librarian.exe*.



- Choose the Serial Port to which your Blue Nebula is connected from the Librarian's drop-down **Serial Port** list.
 - The Blue Nebula will restart if you have chosen the correct port.
 - The red '**Not Connected**' text will change to green '**Connected**'
- *If the Blue Nebula was not connected when you ran Librarian, click the orange **Re-scan** button to refresh the Serial Ports list and choose the serial port again. The 'new' port that wasn't there before will be your Blue Nebula's port.*

BASIC OPERATIONS

At the top of the Librarian window we have the yellow buttons for sending and receiving patches between the Librarian and the Blue Nebula and the green buttons for loading and saving patches between the Librarian and your computer.



To retrieve patches from the Blue Nebula: Click the **Get All Patches** button in the Librarian window. The LCD on the Blue Nebula will briefly display "Waiting for connection ..." then "Sending data ..." and after a few seconds the transfer of patches to your computer will be completed and the Blue Nebula will resume its normal operation.



Figure 2: The Blue Nebula sending patches to the Librarian

¹**To send patches from the computer to the Blue Nebula:** Click the Librarian's **Send All Patches** button. The Blue Nebula LCD will display "Receiving ..." and the number of each patch as it is received. After a few seconds, the transfer of patches to your Blue Nebula will be completed and it will resume its normal operation.

¹ The Librarian starts with a useful set of patches pre-installed. These include the factory-installed pre-sets that are copied to the Blue Nebula's user patches during initialization of the Blue Nebula, plus several extra patches including some suggested by the user community. You can have it start with your own patches if you save them to the *data* folder inside the Librarian app folder with the filename "*My patches.txt*". *Please note this filename is case-sensitive: if it does not match this name exactly it will be ignored.*



Figure 3: The Blue Nebula receiving patches from the Librarian

To save patches from the Librarian to your hard drive: Click the **Save Patches** button and a *Save Patch file as:* dialog box will open allowing you to name your file. To complete the save operation, click the Save button.

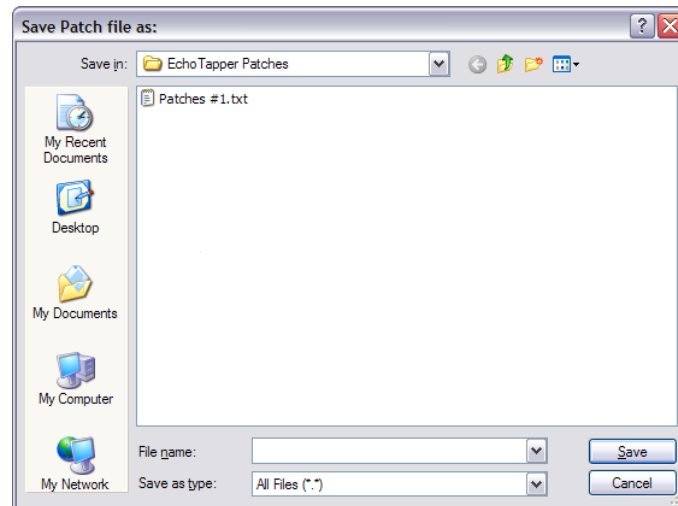


Figure 4: Saving a patch file.

To load patches from your hard drive to the Librarian: Click the **Load Patches** button and browse to the file you want in the *Open a Patch file:* dialog box, and then click the **Open** button.

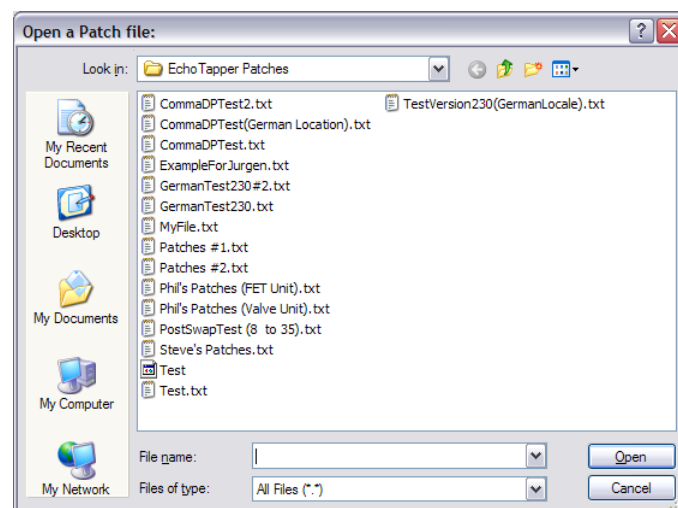


Figure 5: Opening a patch file

The information panel at the bottom of the Librarian window (Figure 6) will show you the last date and time that you sent and received a patch file between the Librarian and your Blue Nebula. These will be shown as N/A until the first time you use these features. It also records the names of the last MEM 1 and MEM 2 uploads, or N/A if you have not uploaded new DSP code yet.



Figure 6: The Information Panel

USING THE EDITOR

In addition to its 'librarian' functions (saving and loading patches and transferring them to and from the Blue Nebula) the software also has an 'editor' role which allows individual patches to be edited. The editor occupies the central part of the Librarian window.

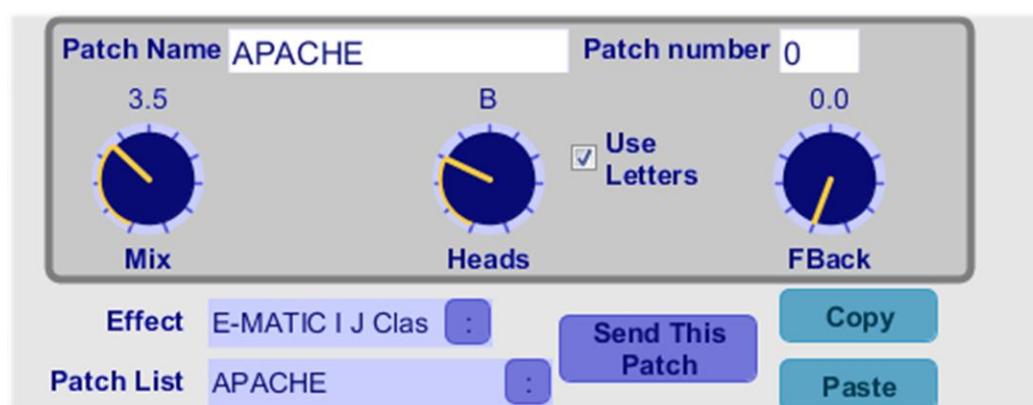
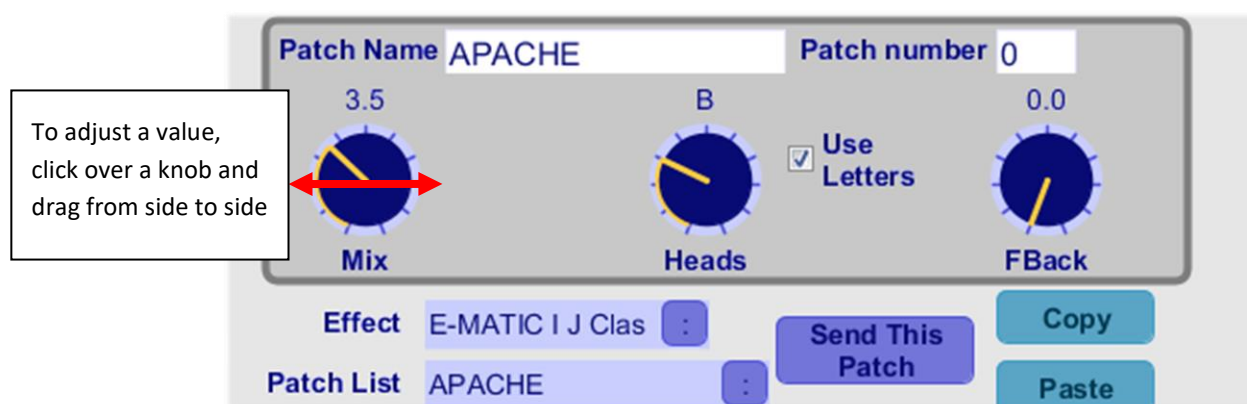


Figure 7: The Editing Controls

To choose a patch for editing, select it from the **Patch List** drop down. The name of the selected patch will appear in the **Patch Name** box where it may be edited if required.

You can change the effect used by the displayed patch by selecting it in the **Effect** drop down and choosing from one of the 16 effects available in the two effects memories in your Blue Nebula.

Each effect has three parameters that you can adjust. You can adjust the value of the three effect parameters by clicking and dragging from side to side on any of the three knobs **Mix**, **Heads** and **FBack**. *Note, the labelling of the knobs will change depending on which effect is currently selected – see Table 2: THE EFFECTS MODELS SUPPLIED AS STANDARD.*

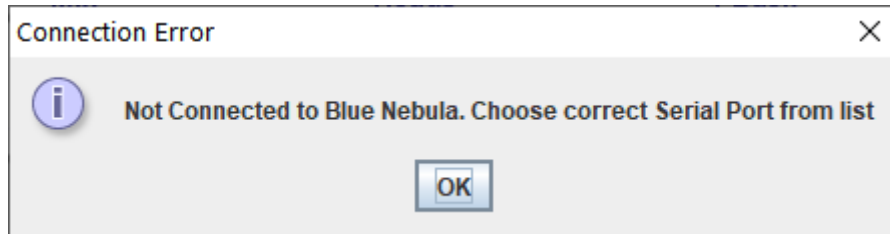


The **Use Letters** checkbox, if ticked, instructs the Librarian to display the **Heads** setting as a letter, A, B, C, E or F, as in the Meazzi Echomatic I and Vox Long Tom echo machines which used a switch to select different magnetic playback head

combinations, rather than a numeric value. *See the Blue Nebula User Manual for details of the heads selected by each Heads setting. This option is ignored for echo models and other effects that do not feature a 'Heads' switch.*

To send the edited patch to the Blue Nebula so you can hear how it sounds click the **Send This Patch** button. The patch will be transferred to the corresponding patch location in the Blue Nebula, *overwriting any patch that was stored there*. The Blue Nebula will also switch to the transferred patch number, if it was not already set to that patch, so you can try it out.

Note: *If you attempt to send or receive patches from the Blue Nebula or if you try to upload new DSP content and the Librarian and Blue Nebula are not connected (the **Not Connected** message is displayed or the USB cable is not connected), the following dialog box will be shown:*



CREATING A SET LIST USING THE SET LIST EDITOR

You may wish to create a set-list for a gig with the patches for all the tunes you will be playing in set-list order. You will then be able to simply step through the list on your Blue Nebula by pressing the Up footswitch as you come to play each tune. Version 5 of the Librarian introduces a new *Set List Editor* which makes creating and editing setlists very quick and easy.

To open the *Set List Editor*, click the **Show Set List** button at the bottom right of the main Librarian window. This will open another window showing the Set List Editor:



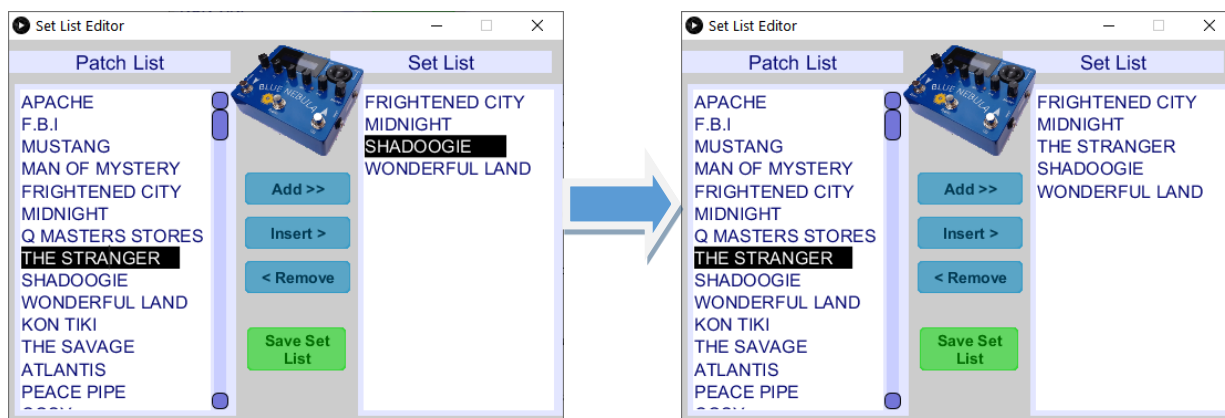
Figure 8: The Set List Editor Window

On the left hand side is the *Patch List* showing all the currently loaded patches and on the right hand side is your *Set List*, which is currently empty. You *select* items in either list by clicking on them with the mouse.

Between the two lists are four buttons:

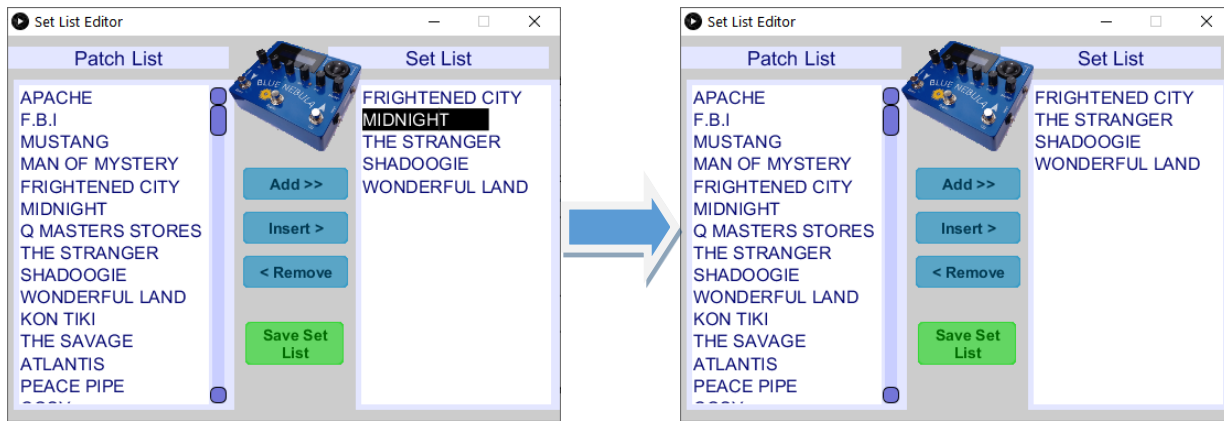
Add >> will add the patch which is currently selected in the Patch List to the end of the Set List. *You can also double-click an item in the Patch List to add it to the end of the Set List.*

Insert > will insert the patch which is currently selected in the *Patch List* ahead of the patch selected in the *Set List*. For example, in the following, when the Insert button is pressed, 'THE STRANGER' will be inserted before 'SHADOOGIE':



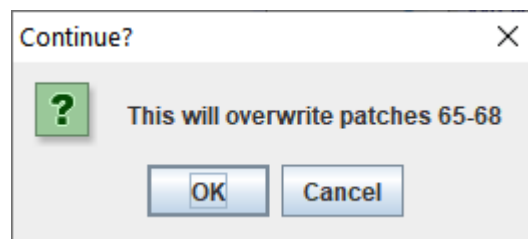
< Remove will remove the patch which is currently selected in the Set List.

In the following 'MIDNIGHT' is selected in the Set List and is removed when the **< Remove** button is clicked:



Save Set List will copy the *Set List* into the *Patch List* starting from Patch number 65 – you can have up to 63 items in the list starting at User Patch 65 up to User Patch 127.

When you click the **Save Set List** button a dialog box will open asking you to confirm that you want to go ahead and overwrite the patches in the *Patch List*. Click OK to proceed or Cancel if you’ve changed your mind.



Now you can send the complete patch list (which will include your Set List starting at patch 65) to your Blue Nebula by clicking the **Send All Patches** button on the main Librarian window.

SAVE YOUR EDITED PATCH LIST BEFORE EXITING THE LIBRARIAN USING THE SAVE PATCHES BUTTON.

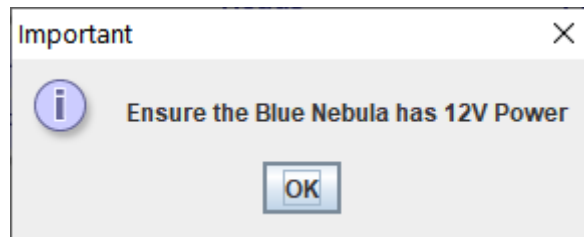
USING COPY AND PASTE

The Blue Nebula can store 128 possible user patches and many tunes use quite similar effects and settings; in fact, many tunes will use identical effects and settings. To avoid having to switch backwards and forwards between patches for each tune, you may find that you prefer to have a separate patch for each tune so you can simply step through the patches as each tune comes up in the set list. Using the ability to name each patch (with a name of up to 16 characters), you can match the patch name to the song name meaning you always know you've selected the correct patch for the next tune!

The **Copy** and **Paste** buttons make it easy to do all this. You simply select a patch you want to copy, click the **Copy** button to place the patch on the clipboard, then go to the destination patch and click the **Paste** button. Change the patch name and make any tweaks to the parameter knobs if required and repeat, as necessary.

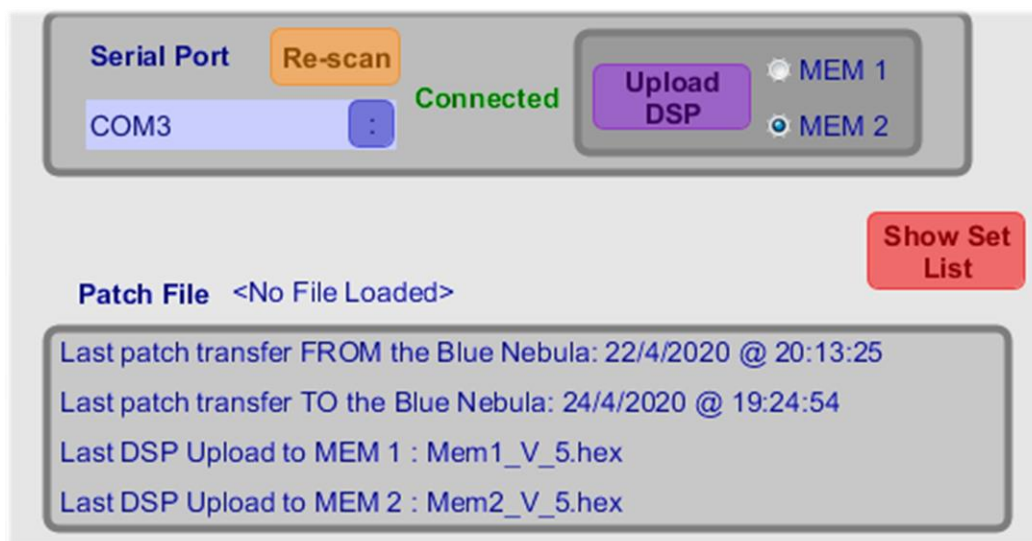
DON'T FORGET TO SAVE YOUR EDITED PATCH LIST BEFORE EXITING THE LIBRARIAN.

IMPORTANT: YOUR BLUE NEBULA MUST BE POWERED VIA THE 12V DC JACK DURING THIS PROCEDURE. THIS DIALOG BOX WILL POP UP TO REMIND YOU TO CHECK THAT THE 12V POWER IS CONNECTED



The Blue Nebula has two DSP memories, MEM 1 and MEM 2, which each hold the DSP (Digital Signal Processing) code for 8 effects. MEM 1 holds the 8 'core' echo effects (numbered 0-7) which are emulations of classic tape or disc echo machines such as the Meazzi Echomatic I and the Vox Long Tom. These are not normally changed by the user but if there are improvements or minor changes made to the DSP code, these can be updated by loading the new code to MEM1.

The second memory, MEM 2, is available for the user to upload the DSP code for another 8 effects (numbered 8-15) of their choice from suitable sets of effects that may be made available. This code will be supplied in an Intel hex format file (.hex) for uploading to the Blue Nebula by clicking the **Upload DSP** button in the Librarian and selecting the .hex file from the file browser.



Tip: The Blue Nebula pedals supplied by Stanley FX come with MEM 2 pre-loaded with a selection of excellent echo and other effects models. See **Table 2: The effects models supplied as standard** for a list of these. Again, when updates to these effects are released, you will be able to download the files and upload them to MEM 2.

If you wish to upload your own effect models or a custom set built by using the MemBuilder app, please refer to the MemBuilder User Manual for full details on how to do this.

Assuming the new effects code is contained in a file called "NewFX.hex" then there must also be a matching *labels* file. It must have the same name as the hex file except that it has a .lbl extension and it must reside in the same folder as the .hex file. In this example the labels file would be called "NewFX.lbl". **Important:** the filenames are case-sensitive so, for example naming your labels file "newFX.lbl" will result in a file error dialog box (Figure 9) and the upload will be aborted.

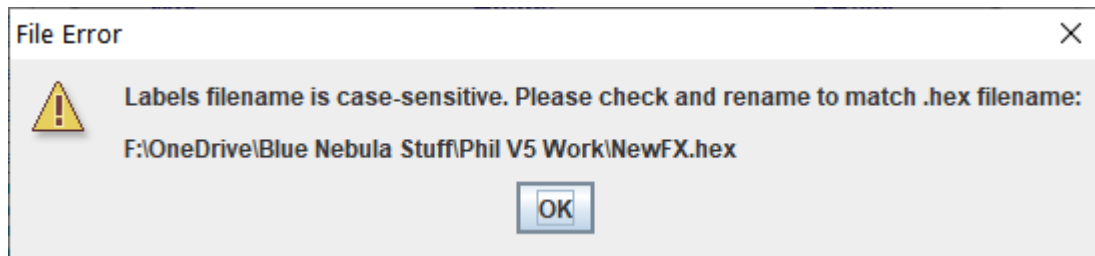


Figure 9: Error Dialog for Incorrect Labels Filename

To upload “NewFX.hex” to your Blue Nebula, first make sure that the **MEM 2** radio button is selected - this is the default, only change to MEM 1 if you are updating the core echo effects programs - then click the **Upload DSP** button, browse to the folder containing “NewFX.hex”, click on it and click the **Open** button in the file browser dialog box:

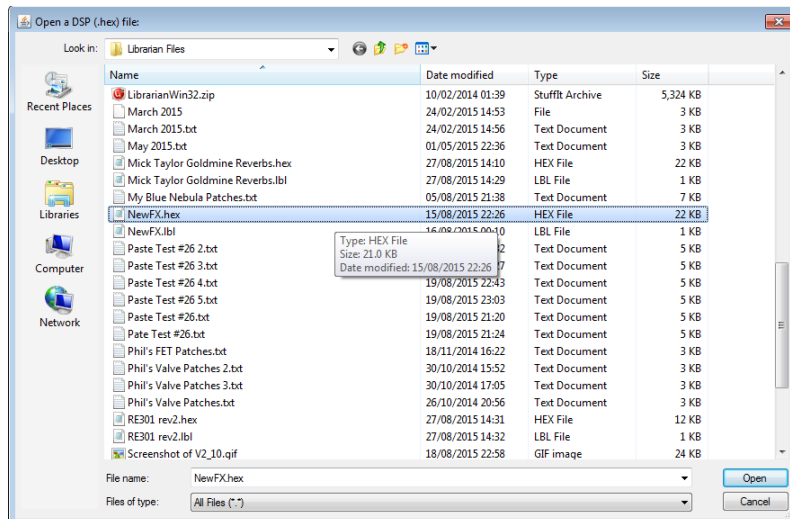


Figure 10: Selecting a new DSP .hex file

If the .hex file does not contain valid Intel Hex data, the Librarian will display an error dialog like this:



Figure 11: Invalid .hex file error dialog box

If the .lbl file is missing you will get an error dialog like this:

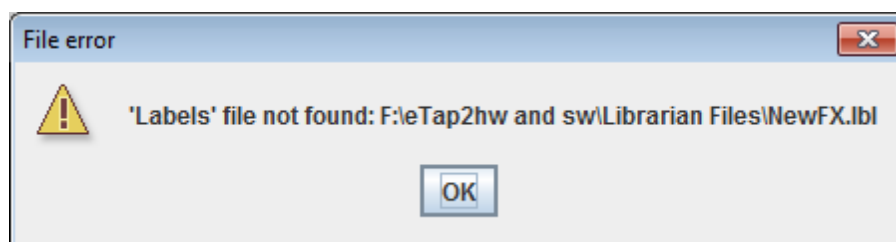


Figure 12: Error Dialog if the Labels (.lbl) file is missing

If the two files are found and contain the correct information, the DSP code and the new labels will be sent to the Blue Nebula which will show the message shown in Figure 13 while the code is uploading:



Figure 13: Blue Nebula is loading new DSP Code

The upload takes around 55-60 seconds. *To make the new code take effect you need to restart the Blue Nebula* – disconnect the USB cable and unplug the DC power cable from the Blue Nebula, wait a few seconds then reconnect the power cable. Your new effects will now be ready to try out and can be used in any User Patch, just like the original built-in effects, which can of course still be used as well.

Note that the Librarian's effects list and knob labels will also be updated and will be remembered the next time it starts up so that it remains in sync with your uploaded Blue Nebula effects. The information panel at the bottom of the Librarian window will show the names of the most recent DSP files loaded into MEM 1 and MEM 2. The names of 'official' DSP files supplied by StanleyFX include the Version number of the DSP code and you can check on the website that you have the latest ones available installed.

TABLE 2: THE EFFECTS MODELS SUPPLIED AS STANDARD

EFFECT #	EFFECT NAME	ECHO MODEL NAME	P1	P2	P3
0	E-MATIC 1 J Clas	Echomatic 1 Model 'J' Classic	Mix	Heads	FBack
1	E-MATIC I F Spec	Echomatic I Model 'F' Special	Mix	Heads	FBack
2	COPICAT VALVE 3H	WEM Copicat Valve model	Mix	Heads	FBack
3	COPICAT IC300 3H	WEM Copicat IC300 model	Mix	Heads	FBack
4	Vox Long Tom	Vox Long Tom Classic	Mix	Heads	FBack
5	E-MATIC II Class	Echomatic II Classic	H123	H4	FBack
6	Roland R301 Vari	Roland Model 301 Mode 5	Mix	Vari	FBack
7	Meazzi PA306	Meazzi PA306 Tape Echo	Mix	Heads	FBack
8 ³	BINSON-B2-1-5	Binson B2 Switch Positions 1-5 ⁴	Mix	Heads	FBack
9	BINSON-B2-6-10	Binson B2 Switch Positions 6-10 ⁵	Mix	Heads	FBack
10	BINSON-B2-11-15	Binson B2 Switch Positions 11-15 ⁶	Mix	Heads	FBack
11	Echoplex	Based on an Echoplex Tape echo	Mix	Delay	Repeat
12	E-MATIC 1F Class	Echomatic 1F Classic	Mix	Prog	FBack
13	Reverb / Tremolo	Reverb with tremolo	Rev	Rate	Depth
14	Chorus	Chorus	Delay	Rate	Depth
15	Guitar Abbey Rev	Based on a famous reverb sound	Level	Decay	Damp

² Effects 0-7 are in MEM 1

³ Effects 8-15 are in MEM 2

⁴ In this model the LCD shows the switch positions 1-5 as A, B, C, E and F, respectively

⁵ In this model the LCD shows the switch positions 6-10 as A, B, C, E and F, respectively.

⁶ The Binson B2 had a 12-way switch used to select different combinations of its three playback heads so only 12 combinations were possible. The echo model *Binson-B2-11-15* adds the three combinations not available with a 12-way switch. Switch positions 11 and 12 are shown on the LCD as A and B respectively. The 'extra' positions 13-15 are shown as C, E and F respectively.

APPENDIX 1: FINDING THE 'DATA' FOLDER

The data folder is found inside the application folder containing the .exe file for the Librarian. The location of the application folder depends on where you saved it after downloading the Librarian zip file and extracting the contents.

You only need concern yourself with the location of the data folder if you intend to save your own "My patches.txt" file into the data folder so that Librarian starts up each time with your own patches, rather than the default factory patches.

TYPICAL DATA PATH ON WINDOWS

C:\BN-Librarian-V5.00-Win64\data

This path assumes *BN-Librarian-V5.00-Win64* is installed in the root of the C: drive and is the application folder in this example: it contains the BNLibrarian_5_00.exe and the data folder.

TYPICAL DATA PATH ON APPLE MACOSX

BNLibrarian_5.00 > Contents > Java > data

BNLibrarian_5.00 is the executable for the Librarian. Find where you installed the executable and click on it to open *Contents > Java > data*

