

Creating and Using Patch Librarians

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Introduction

A Patch Librarian is a place to store information about a MIDI device so that you can use Anthem as a central controlling program. This makes the job of making music easier to organize and a lot more fun. Anthem uses information stored in Patch Librarians to store patch and note names, automate the tedious tasks of tracking patch numbers and to send and receive your own library of SysEx patches. The Anthem Patch Librarian can even store setup controller events that can be sent to a MIDI instrument before playing.

If you use OMS 2.x , you can subscribe to any patch librarian or editor and select patches and note names from these directly in Anthem dialog boxes.

If you elect to use the MIDI Manager instead, you can still pass names to Anthem documents by copying and pasting into Anthem documents from the built-in patch librarian. This passes patch number information as well as names so this information only needs to be stored once.

Some advanced features of a Patch Librarian involve entering MIDI message strings. If typing hex numbers isn't your thing don't be alarmed. An Anthem Device document is extremely useful even if you don't know hex from a hippopotamus. For example you can type in the patch names for your favorite synth and immediately start assigning sounds to your score voices by name instead of numbers. This chapter starts with easy procedures that you can start using right away to make Anthem more powerful for you. As you gain confidence go on to the latter parts of this chapter and plumb the depths of this truly powerful capability.

Before you start it's a good idea to have the manual for the MIDI device in front of you. Most synthesizers, effect modules, etc., have a MIDI implementation section that you should turn to now. If your device doesn't have MIDI information listed in the manual you can call the manufacturer for

more information or call the International MIDI Association (IMA) for detailed information on your device. Be aware that not all manufacturers will give out detailed MIDI information and the IMA requires a fee for membership before sending information.

Another excellent source of MIDI information is the MIDI System Exclusive Book by Steve De Furia and Joe Scacciaferro.

Remember that Anthem Patch Librarians are still very useful even without detailed MIDI information.

reating a Patch Librarian

Under the menu "Library" select "New Patch Librarian." Enter the name of a MIDI device that you'd like to create an Anthem Patch Librarian document for. A Device icon will appear on your desktop with that name. As in all Anthem documents, double clicking on the icon later will open Anthem and the Patch Librarian's main control window. Within Anthem you can open a device from the "Open Patch Librarian" menu item under the "Library" menu or under the general "Open" under the "File" menu.

Defining a Device's Characteristics

After you've named your new Patch Librarian a dialog box similar to the one below will appear.

For right now you can fill in a few important items but you can ignore most of this dialog for now. Later in this chapter will discuss this dialog in detail under headings that are descriptive of the function performed by the device.

irst open the pop-up menu for the manufacturer and scroll until you find the name of the manufacturer on the MIDI device you have selected. Anthem has all registered manufactures listed at the time of the copyright of the software. If you can't find the manufacturer, don't worry. Anthem will still perform most of its functions without it. Also pull down the Type menu and select the type of device. Fill in the product ID and model ID of the device.

Under the line that says "responds to," use the mouse to enter a check mark in the boxes for the messages that your device responds to. Most devices have a table of recognized messages included with the documentation provided.

The lower half of the "Device Characteristics" dialog contains specific information that allows Anthem to automate the transfer of MIDI System. Click on "Handshaking Protocol" if this device require handshaking. Each bank can be given its own protocol that will override the general protocol if necessary.

o the right is a typical window that appears when a Device is first opened. This window has some additional information about how your device connects to your system. If your device has a "base channel," click on the arrows to select the correct channel. If you are using the MIDI Manager, click on the icon on the upper right corner to select the

correct port that your device connects to.

In the lower half of the Device's main window is a list of items called "Modes" created and maintained by the user. To create a new item in this list, use the "New" menu item under "File" or press command -- D.

Device Mode

Note that only one "device mode," as defined by OMS, can be active at one time. It's a good idea to create a separate patch librarian for each set of patches that correspond one set of memory addresses. You don't have to do it this way but otherwise you will have to change the active mode when you switch to a different set of patches AND switch the mode in the OMS name setup dialog. A good use for multiple modes in an Anthem Patch Librarian is storing additional data that is not normally sent to the device e.g. tuning tables.

Mode Characteristics

When you have created a new Patch Librarian the item (mode) in the lower list will be labeled "Unknown." Make sure this row is selected and press command -- I which will bring up the following dialog: <P>

fill in the mode name.
This is the name that will be displayed in the OMS Name setup dialog. Multiple modes are useful when the device has to be manually switched between operating modes. Select the check box if this mode should send its parameters automatically when OMS decides it's appropriate. (Only one mode can be active at a time.)

Some devices require a MIDI message to switch between modes. Fill this message in (in hex) if appropriate and select the radio button to indicate this message should be sent.

Bank List

Double clicking on the mode will open a list of banks. Command -- D will create any number of banks. A typical bank list is shown above to the left. Selecting one of the banks and pressing command -- I will allow you to setup each bank with the appropriate information.

If your device uses Bank Select, enter the bank number associated with the patch names or note names that you will be creating. For this reason you should limit information within each bank to patches or notes that can be assigned using a single bank select message.

Bank Patch List

Double clicking on a bank will open a window containing the patches and controls for sending and receiving patch data.

Above is an example of an Anthem patch librarian bank containing a list of patch names. Use the Send and Receive buttons to send and receive SysEx information about each patch. This will allow you to build your own custom patch library for your device.

Entire banks can be sent and received using the Bank Send and Bank Receive.

Send Auto and Receive Auto use protocols to automate the sending and receiving of patch information. The protocols are defined by selecting the Protocol item under the Library menu item.

Circles labeled Ready and Ack (Acknowledge) are indicators that show when these messages are being transmitted or received. These indicators are only used if your device uses handshaking messages. They allow you to monitor the progress of a data transfer and debug any messages you created in the Device Characteristics dialog.

Patch information can be sorted and searched by name using the Sort and Search buttons.

The graph labeled "Mem:" shows if System Exclusive information is stored and gives an idea as to the relative magnitude of the data. Also double-clicking on a patch name will show a dump of the data stored as shown below:

The above window was produced by double-clicking on the "Orchestral!" row of the bank labeled "ROM" above.

To create a new patch select the menu item "New List Row" under the Edit menu or press command -- D. Use the Receive button to accept patch data as a MIDI SysEx message from the device. In some cases you can automate this process. See your device's documentation for messages that automatically transmit patch upon command. In this case use the Receive Auto button.

Anthem will automatically fill in the name of the patch if it can find a likely string in the patch data during upload. This may not work or you may have to edit the name that Anthem has entered. To edit the name, either click into the name column of the patch list window or, after making sure the row is selected, press command-I. Enter the patch name in the resultant dialog.

In this manner, keep entering names until you have created the entire list of names for a single bank. On the other hand, in many cases Anthem can upload entire banks with the correct patch names if it has been given the proper protocol information.

Note Names

Note banks are created in the same way as patch banks except that note numbers are associated with each name.

Selecting "New Row List" will create another row with the next number in ascending order although you can change this order if you wish. There should be a separate row for each note assignment even if the only difference between notes is pitch.

For example pitches E1 and F1 are two Tom Tom sounds that are slightly different in pitch but have the same name.

Enter names and note numbers by pressing command -- I after selecting a row in a Note bank. Names may also be entered directly into the list.

Once you have created the note names, click on the names to audition the sound. If your device has Bank Select it will switch banks before sending the appropriate note.