LIMITED WARRANTY

Opcode Systems, Inc. warrants the Studio 128X against defects in materials and workmanship for a period of one (1) year from the date of original retail purchase.

If you discover a defect, first write or call Opcode Systems, Inc. at (650) 856-3333 to obtain a Return Merchandise Authorization Number (no service will be performed on any product returned without prior authorization). If the product needs to be returned to Opcode, please attach your name, address, telephone number, a description of the problem, and a copy of the dated bill of sale as proof of purchase. Write the Return Merchandise Authorization (RMA) Number clearly on the outside of the package and all correspondence. Upon receiving the returned product, Opcode Systems, Inc. will then, at its option, repair, replace, or refund the purchase price of the product.

This warranty applies only to the Studio 128X; Opcode software is warranted separately.

This warranty does not apply if the product has been damaged by accident, abuse, misuse, or misapplication, or has been modified without the written permission of Opcode Systems, Inc.

All implied warranties, including implied warranties of merchantability and fitness for a particular purpose, are limited in duration to one (1) year from the original date of retail purchase of this product. The warranty and remedies set forth above are exclusive and in lieu of all others, oral or written, express or implied.

Opcode Systems, Inc. is not responsible for special, incidental, or consequential damages resulting from any breach of warranty, or under any legal theory, including lost profits, downtime, good-will, damage to or replacement of equipment and property.

Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Except to the extent prohibited by law, all implied warranties made by Opcode Systems, Inc. in connection with this manual and software are limited in duration to ninety (90) days from the date of original purchase, and no warranties, whether express or implied, shall apply to this product after said period.

Opcode Systems, Inc. makes no warranty or representation, either express or implied, with respect to the software described in this manual. This software is sold "as is." The purchaser assumes the entire risk as to its quality and performance. Under no circumstances shall Opcode Systems, Inc. be liable for any loss or damage, direct, consequential, or incidental, arising out of the use or inability to use this product.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

TRADEMARKS

Studio 128X is a trademark of Opcode Systems, Inc. IBM is a registered trademark of International Business Machines Corporation. Windows is a trademark of Microsoft Corporation. Other product and brand names are trademarks or registered trademarks of their respective companies.

RADIO FREQUENCY INTERFERENCE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna of the affected radio or television.
- Increase the separation between the equipment and the affected receiver.
- Connect the equipment and the affected receiver to power outlets on separate circuits.
- Consult the dealer or an experienced radio/TV technician for help.

TABLE OF CONTENTS

CHAPTER 1:   Introduction

STUDIO 128X OVERVIEW

Thank you for purchasing Opcode's Studio 128X, a dual platform MIDI interface, patchbay, and SMPTE processor. The Studio 128X includes the following capabilities:

- Compatible with notebook, laptop, and desktop Macs or PCs;
- Serial port THRU connection (both MAC and PC) for easy access to serial devices;
- 8 x 8 MIDI interface with support for 128 channels;
- Read and write all SMPTE formats, also includes freewheeling and regeneration;
- Stand-alone MIDI patchbay—recall routings and filterings or even stripe SMPTE from front panel;
- 8 user programs accessible from front panel for MIDI routing and filtering;
- 4 preset programs accessible from front panel: PANIC, SMPTE, ALL, and TUNE;
- Front panel status LEDs for SMPTE and MIDI IN/OUT activity;
- Software, Mac and Windows, for on-screen editing of Studio 128X user programs;
- MME compatible driver for Windows 3.1, Windows 95, and Windows for Workgroups;
- OMS driver for Macs, including support for OMS Studio Patches.

What's Included in the Studio 128X Package

Your Opcode Studio 128X package includes:

- Studio 128X MIDI Interface
- DC power adapter
- PC serial cable, with cable adapter
- Macintosh serial cable
- PC floppy disk
- Macintosh floppy disks
- Getting Started Manual for easy setup
- Technical Support Information Sheet
- Registration card

System Requirements

To use the Studio 128X with a PC, you need:

- An IBM PC compatible with COM port;
- Windows 3.1, Windows for Workgroups, or Windows 95;
- MIDI instruments and cables.

To use the Studio 128X with a Macintosh, you need:

- A 68020 Macintosh or faster, or a Power Macintosh;
- System 7.0.1 or later;
- 4 MB of available RAM;
- MIDI instruments and cables.

STUDIO 128X DOCUMENTATION

This *Getting Started* booklet was written to give customers a general overview of the Studio 128X capabilities and to provide a "quick start" reference for easy configuration.

Online Help

In addition to the *Getting Started* booklet, an extensive **online help** file is included with your Studio 128X package. If you can't find some particular information in this document, please consult the online help file; it contains detailed operational information for the Studio 128X.

For PC users, the help file (128X.hlp) is installed when running the **Setup** program from the provided PC disk.

The Macintosh help file (Studio 128X.hlp) is installed by running the **install** program from the provided help disk.

Once installed, simply launch either help file by double-clicking.

128X.hlp

Figure 1.1: Windows Online Help file

Studio 128X.hlp

Figure 1.2: Macintosh Online Help file

Then use point-and-click links and keyword indexed searches to find information on:

• Hardware connection/configuration;

• Software Setup;
• Step-by-step tutorials;
• SMPTE sync;
• Troubleshooting.

OMS and Studio Patches Manuals

Macintosh users must install and configure the Open Music System (OMS) to use the Studio 128X.

A printed manual for OMS and an electronic manual for the Studio Patches Editor are included. Please read these manuals to take full advantage of the Studio 128X's Mac capabilities.

NOTE: OMS Studio Patches provides advanced MIDI processing capabilities when connecting the Studio 128X to a Macintosh.

CUSTOMER SUPPORT

Registering your Studio 128X

Please complete and return your registration card right away. Doing so will enable us to deliver the best possible support to you; it also insures you'll receive important update/upgrade notices. You may register an Opcode hardware product online at http://www.opcode.com/support/registration.

Contacting Opcode

Opcode provides a variety of phone, fax, and online support options. Consult your *Technical Support Information* sheet on how best to contact Opcode.

CHAPTER 2: Front/Rear Panels
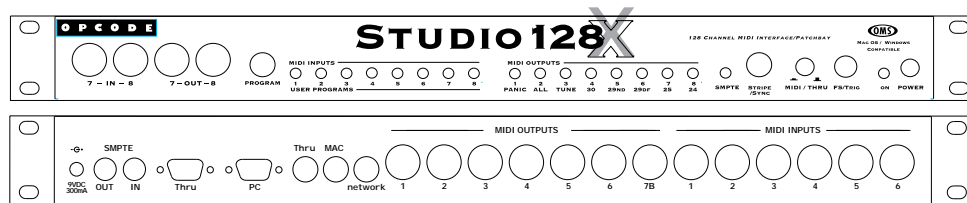
STUDIO 128X FRONT PANEL

Program Button

The PROGRAM button selects the current program. Press the button once and an LED flashes rapidly to indicate the currently selected program. Press the PROGRAM button repeatedly to advance to and select a particular program.

LEDs
- The red MIDI input LEDs flash when data is received. The red LEDs also indicate when a user program is selected.
- The green MIDI output LEDs flash when data is sent. The green LEDs also indicate when a preset program is selected.
- The yellow SMPTE LED serves three purposes. It blinks slowly when the Studio 128X is generating SMPTE; it flashes rapidly when receiving SMPTE; and when it glows steadily, it indicates the Studio 128X is turned on.

Stripe SMPTE Switch

Pushing the Stripe SMPTE Switch starts SMPTEoutput from the SMPTE output port on the rear of the unit. The SMPTE will be set at the frame rate shown on the front panel, and with a start time as set in the currently selected User Program. If a Preset Program is selected, the SMPTE will start at 00:00:00:00.

MIDI/Thru Switch

The MIDI/Thru switch specifies whether your computer is communicating with the Studio 128X or its "serial thru device." The switch must be set to MIDI for computer use.

Footdwitch/Trigger Jack

You can connect a footswitch or feed a trigger signal to the Studio 128X at the FS/TRIG jack. A footswitch or trigger signal may be used to cause MIDI messages to be sent to the computer and/or selected MIDI outputs. More information on configuring the Footswitch/Trigger option is available in the electronic documentation.

Power ON/OFF Switch

The POWER switch turns on/off the Studio 128X. When powering up, all LEDs flash simultaneously four times. Make sure power is off before making any connections.

STUDIO 128X REAR PANEL

9V DC 300MA

The provided power adapter supplies power to the Studio 128X via this jack. The provided adapter has the following specifications:

• U.S. and Canada: 7.5vDC - 9vDC, 300mA, 5.5mm x 2.1mm center positive barrel plug.

• Europe: 7.5vDC, 300mA, 5.5mm x 2.1mm center positive barrel plug.

SMPTE IN/OUT

• The Studio 128X sends SMPTE timecode to this 1/4" unbalanced phone jack.

• The Studio 128X receives SMPTE timecode from this 1/4" unbalanced phone jack.

Mac Thru/Computer

• An additional Macintosh serial device connects to the Studio 128X's THRU port. For your computer to communicate with the thru device, set the front panel's MIDI/Thru switch to "Thru."

• The Mac COMPUTER port connects to the Mac's modem or printer port with the provided serial cable.

Mac Network

• A The 128X can share a serial port with the Studio 4, Studio 64 XTC or another Studio 128X, with any Studio 128X OMS (Mac) Driver 1.1 or above. You can check the version of your 128X OMS driver by doing the following:

① **Open the OMS Folder in your Mac's System Folder.**

② **Scroll down until you find the "Studio 128X OMS Driver."**

③ **Click once on the driver to highlight and select it.**

④ **Then click on the Finder Menu and pull down to "Get Info"**

⑤ **This opens a window describing the driver where the Version is displayed.**

• Visit the Opcode Web Page: http://www.opcode.com and check the Downloads > Hardware section to download the latest 128X OMS driver as well as the latest version of OMS, or contact Opcode's Tech Support department.

• Please print or refer to the Studio 128X Mac Online Help Files for details on networking the 128X with other Opcode interfaces.

PC Thru/Computer

• An additional PC serial device connects to the Studio 128X's THRU port. For your computer to communicate with the thru device, set the front panel's MIDI/THRU switch to "Thru."

• The PC COMPUTER port connects to an IBM PC's COM port with the provided serial cable.

• On IBM compatible PCs the Studio 128X will network only under Windows 98 software. Windows 95 does not allow a user to configure more than 11 MIDI Ports without crashing. Windows 98 will

correct this limitation. Opcode will have a revised PC driver for the 128X ready for the release of Windows 98 which will allow it to share a serial port with another 128X or the Studio 64 XTC.Visit the Opcode Web Page: http://www.opcode.com and check the Downloads > Hardware section to get the latest 128X (PC) driver, or contact Opcode's Tech Support department.

• Please print or refer to the Studio 128X PC Online Help Files for details on networking the 128X with other Opcode interfaces.

MIDI Outputs

The Studio 128X sends MIDI to any of eight MIDI outputs. Each output port (identified by number, 1-8) represents a discrete set of 16 MIDI channels. Two MIDI OUTs are provided for port 7. Therefore, devices connected to ports 7 and 7B, receive the same MIDI information. MIDI outputs 7 and 8 are located on the front panel of the unit.

MIDI Inputs

The Studio 128X receives MIDI from any of eight MIDI inputs. Each input port (identified by number, 1-8) represents a discrete set of 16 MIDI channels. MIDI inputs 7 and 8 are located on the front panel of the unit.

COMPUTER CONNECTION

The Studio 128X can be connected to either an IBM PC or Macintosh. What's more, the interface can even be connected to both types of computers at the same time.

However, when connecting to both a Mac and PC, the Studio 128X can communicate with only one computer at a time. Don't worry though; the Studio 128X's auto-sensing capability knows which computer to respond to.

MIDI CONNECTIONS

The Studio 128X is a multiport MIDI interface. This means that each of its eight discrete input/output ports supports 16 MIDI channels, providing a total of 128 channels.

NOTE: Two MIDI OUTs are provided for port 7. Therefore, devices connected to ports 7 and 7B, receive the same MIDI information.

When to connect an instrument's MIDI IN and OUT jacks

When you need to send *and* receive MIDI (which may include performance data, system exclusive, or sync information) from an instrument, connect both of its MIDI jacks (OUT and IN) to the Studio 128X.
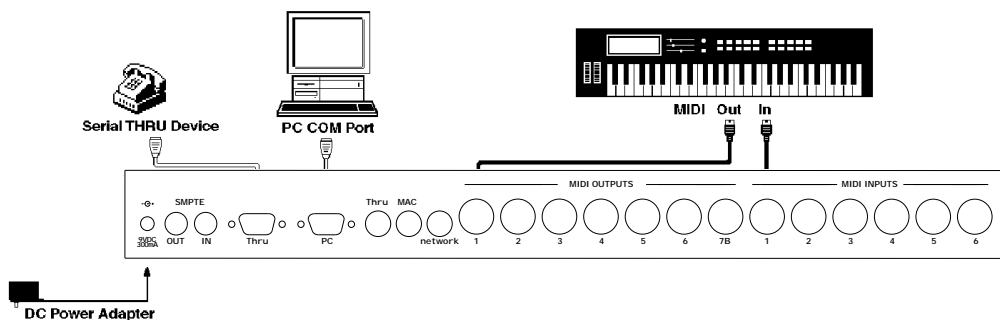
NOTE: When using both MIDI ports of an instrument, always connect to the same Studio 128X port number.

A common scenario necessitating this two-way communication is when using Editor and/or Librarian software.

CHAPTER 3:   Quick Start Guide for PC

PC CONFIGURATION

*IMPORTANT: If you have any other devices con-
nected to any serial ports on your PC, consult
Setting Up Your Serial Port Interface (pg. 9)
before proceeding.*

Connect Hardware

① **Turn off your computer, peripherals,
and MIDI instruments.**

② **Plug one end of the provided serial
cable into the PC COMPUTER port of
your Studio 128X.**

③ **Plug the other end of the serial cable
into your computer's COM port.**

Please make note of whether you are
connecting to COM1 or COM2.

If your COM port has a 25-pin connector,
use the provided PC cable adapter.

④ **If you have an extra serial device (and
no available COM ports), connect it to
the PC THRU port of the Studio 128X.**

Never plug your mouse in the PC THRU
port of the Studio 128X.

⑤ **Using standard MIDI cables, connect
the MIDI OUTs of your instruments to
the MIDI INs of the Studio 128X; then
connect the MIDI INs of your
instruments to the MIDI OUTs of the
Studio 128X.**

⑥ **Plug the small end of the provided
power adapter into the Studio 128X's
9V DC 300MA jack; plug the other end
into an AC power source.**

Make sure your power adapter is set to or
compatible with the AC voltage in your
area.

⑦ **Turn on your computer, peripherals,
Studio 128X, and MIDI instruments—
in that order.**

Run the Setup Program

To install the necessary PC software for the Studio 128X:

① **First, make sure your Studio 128X is properly connect to your PC and turned on before proceeding with any software installation.**

② **Insert the PC disk and double-click the Setup program.**

Setup.exe

③ **Specify the install directory and click the Install button.**

If you have a previously installed driver, or if you're adding a second Studio 128X, make the necessary selections when prompted.

④ **When prompted, specify which COM port and IRQ you are using for the Studio 128X connection.**

Although yours may differ, generally COM ports default to these settings:

Com Port	Address	IRQ
COM 1	03F8	4
COM 2	02F8	3
COM 3	03E8	4
COM 4	02E8	3

⑤ **Once you've specified the COM port settings, click OK to install all necessary software.**

Files copied to your hard disk include the Studio 128X driver files, **128XDIAG** (diagnostics software), **128X.exe** (Patch-bay program), and **128X.hlp** (online manual).

Additionally, the necessary changes are made to your System.ini file. A backup of your original system.ini file (renamed to "system.128") is stored in your Windows directory.

⑥ **When prompted, restart Windows for changes to take effect.**

USING WINDOWS SOFTWARE

Once you've installed the Studio 128X driver, the following ports are available in Windows MIDI applications:

• **Studio128X In 1** - **In 8**: Receives MIDI from the specified input ports.

• **Studio128X Sync Port**: Receives MIDI Time Code, corresponding to received or generated SMPTE; also receives responses to sysex messages sent to it via the Control Port.

• **Studio128X Out 1** - **Out 8**: Sends MIDI to the specified output ports.

• **Studio128X Broadcast Port**: Sends MIDI to all output ports simultaneously.

• **Studio128X Control Port**: Sends system exclusive messages to the Studio 128X governing its operation. Most users will not use this port and should not select it.

It's important to grasp that these various input/output ports designate how MIDI is communicated between the Studio 128X and Windows applications.

When recording performance data, make sure you enable the **In** port to which your main keyboard controller is attached. When assigning MIDI tracks for playback, specify the correct **Out** port for the desired instrument. And if you intend to sync to SMPTE, you must select the **Sync Port**.

NOTE: If you are ever unsure of where MIDI is being sent or from where it is being received (or if you are receiving SMPTE timecode), just look at the LEDs on the front panel of the Studio 128X.

For details on selecting and assigning MIDI ports in Windows applications, consult your software manual.

SETTING UP YOUR SERIAL PORT INTERFACE

Configuring your Serial Port for use with your Studio 128X

① **Before hooking up the interface it is important to make sure the serial port that you are going to use is not being used by any other peripheral devices in your system (i.e. modems, serial mouse, joysticks, hand held scanners, etc.)**

② **If your mouse has a rectangular or "D"-shaped plug, it is a serial mouse which may conflict with the interface, in which case you should proceed to step 3.**

If your mouse has a round plug then it is a PS2 mouse and should not conflict with the interface, in which case you should proceed to step 4.

③ **Look at the ports on the back of the computer and locate which one the mouse is hooked up to. Using the documentation for your computer determine the number (COM 1, COM**

2, etc.) of the port to which the mouse is attached. Write this number down.

If you are unable to determine the number of the COM port to which the mouse is attached you may be able to get this information by going to the Start Button > Settings > Control Panel > System > Device Manager > Mouse. Look on all pages of this driver information for any indication of the COM port, Address or IRQ which the mouse driver is configured to use. Write this information down.

(Note: If you are still having trouble determining which COM port your mouse is using, contact the manufacturer of your computer and they should be able to help you determine which COM port your mouse is using.)

④ **Do you have a modem? If yes, proceed to step 5. If not, proceed to step 6.**

⑤ **You need to determine the number of the COM port which is being used by your modem. To do this go to the Start Button > Settings > Control Panels > System > Device Manager > Modem. Look on all pages for any information about the Port, Address or IRQ which the modem driver is configured to use. Write this information down.**

Note: If you are having trouble finding this information contact the manufacturer of your modem or computer. They should be able to help you determine which COM port your modem is attached to.

⑥ **You should now have a written list of the COM ports which are in use by your mouse and modem.**

If you have no other serial port peripheral devices attached to your computer then you are ready to proceed to step 7.

If you have other serial port devices then you need to determine which COM ports those devices are attached to and write that information down and then proceed to step 7.

⑦ **If your list shows no COM ports are in use, proceed to step 9. If your list has one COM port in use, proceed to step 8.**

If your list contains two or more items then you are going to need to make some adjustments before you will be able to install the Interface. This is due to the fact that COM 1 and COM 3 share IRQ 4 and COM 2 and COM 4 share IRQ 3. While each individual COM port has a distinct Address which can be used by the Interface, the Interface will not share an IRQ with another device. You will need to either remove one of the devices (and its corresponding drivers) that is currently hooked up to one of the serial ports or purchase an after market Serial Port Card which is configurable for an IRQ and address that are not being used by any other devices in your system. Once installed this card will give you an extra serial port to which you can attach any serial port device. Proceed to step 8.

⑧ **Based on your list of COM ports in use you will now select a COM port to use for your interface. Choose a COM port and IRQ that are not already in use by another device.**

Note: Generally, COM 1 and COM 3 share IRQ 4 and COM 2 and COM 4 share IRQ 3. If you are using an after market serial port card make sure that the IRQ and Address for which the card is configured are not used by any other devices in your system. The Studio 128X driver currently supports only COM ports 1 through 4.

⑨ **With the computer turned off, remove any software keys, dongles, or switchboxes from the COM port which you are going to connect to the Interface.**

⑩ **Attach the interface to the computer using the cable that came with the interface and if needed the 9 Pin to 25 Pin adaptor. Plug in the power adaptor for the interface.**

⑪ **Turn on the interface and computer in that order.**

⑫ **Run the installer from the driver disk that came with the interface, by double clicking on the setup icon which appears on the disk in Windows Explorer.**

⑬ **When prompted enter the address and IRQ of the COM port to which the interface is attached.**

⑭ **Reboot your computer with the interface on when the installer finishes installing the driver.**

⑮ **You are now ready to start using the patchbay software included with the Interface or your sequencing software.**

CHAPTER 4:   Quick Start Guide for Mac
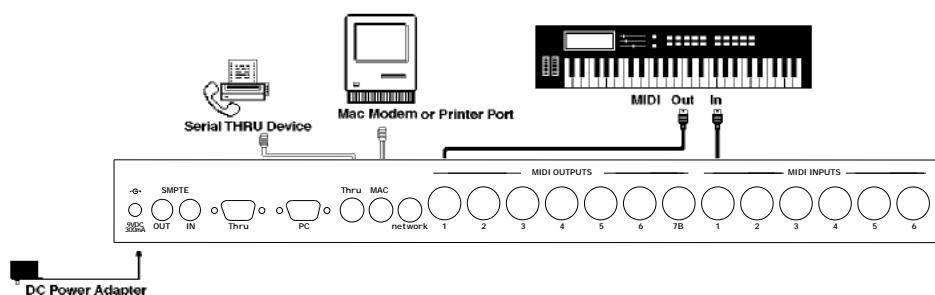
MACINTOSH CONFIGURATION

Connect Hardware

① **Turn off your computer, peripherals, and MIDI instruments.**

② **Plug one end of the provided serial cable into the MAC COMPUTER port of your Studio 128X.**

③ **Plug the other end of the serial cable into your computer's modem or printer port.**

④ **If you have an extra serial device (and no available ports), connect it to the MAC THRU port of the Studio 128X.**

⑤ **Using standard MIDI cables, connect the MIDI OUTs of your instruments to the MIDI INs of the Studio 128X; then connect the MIDI INs of your instruments to the MIDI OUTs of the Studio 128X.**

⑥ **Plug the small end of the provided power adapter into the Studio 128X's 9V DC 300MA jack; plug the other end into an AC power source.**

Make sure your power adapter is set to or compatible with the AC voltage in your area.

⑦ **Turn on your computer, peripherals, Studio 128X, and MIDI instruments—in that order.**

Install and Configure OMS

① **Insert the OMS disk 1 and double-click Install OMS.**

At the initial prompt, specify you are using a Studio 128X.

② **When reaching the main install screen, choose the Easy Install option and then click the Install button.**

③ **Insert each disk as prompted.**

④ **When completed, exit installer and Restart your Macintosh.**

⑤ **After restarting, launch the OMS Setup application and configure a "New Studio Setup."**

Consult your OMS manual for help with Studio Setup configuration.

Once OMS is correctly configured, a **Studio 128X menu** appears in the OMS Setup application. Use this menu you to store and retrieve user programs, open the Program Edit and SMPTE windows, and check the unit's ROM version.

Install Studio 128X Help File

For detailed operational info on the Studio 128X, install its online help file. Insert the appropriate disk and run the **install** program.

OMS STUDIO PATCHES

"OMS Studio Patches" provides advanced MIDI processing capabilities for the Studio 128X (only implemented on the Macintosh). Studio patch documents, which are created in the **Studio Patches Editor** program, may contain complex merges, splits, layers, filters, transpositions, and more.

Unlike Studio 128X user programs, Studio Patches are only active when your computer is running an OMS-compatible application (or if OMS is set to "Run MIDI in the Background").

To learn more about OMS Studio Patches consult the electronic manual.

USING OMS-COMPATIBLE APPLICATIONS

Once you have configured an OMS Studio Setup (a document referencing your MIDI studio), using OMS-compatible applications is quite easy. Any devices contained in your current Studio Setup are automatically available in your OMS applications, and you can even select them by name. If at some point you make changes in your Studio Setup, OMS applications are updated automatically.

If you wish to receive SMPTE timecode in an OMS application, the Studio 128X appears as a sync source.

If you have created a Studio Patches document, any of its "virtual instruments" and "virtual controllers" are also accessible from OMS applications.

Using Non-OMS Applications

The Studio 128X is compatible with non-OMS applications. When using such an application, the Studio 128X acts like a standard MIDI interface—thereby providing only 16 MIDI channels. In "standard interface" mode, the Studio 128X merges all MIDI inputs into the computer; additionally, transmitted MIDI is simultaneously sent to all eight output ports.

IMPORTANT: To use non-OMS applications, the current Studio 128X user program must route one or moreMIDI ports to and from the computer.

CHAPTER 5:   Studio 128X Programs

USER PROGRAMS

The Studio 128X has eight user programs that specify how the Studio 128X processes MIDI input and output, and how it stripes SMPTE. User programs are stored in nonvolatile memory and recalled from the front panel with the PROGRAM button.

IMPORTANT: When a user program is selected, its settings are always active—whether a MIDI software program is running, or even if the Studio 128X is not connected to a computer.

User programs can be edited on the PC or Macintosh with the provided software.

Default Factory Programs

The eight *default* user programs shipped with the Studio 128X are as follows:

•   User Program 1: Sequencing, no routing;

•   User Program 2: Each IN routed to all OUTs except its corresponding OUT;

•   User Program 3: Each IN routed only to its corresponding OUT;

•   User Program 4: Same as Preset 3, ALL

•   User Programs 5 through 8: Repeat User Programs 1 thourgh 4.

IMPORTANT: If at any time you'd like to restore the default factory programs, you can initialize the Studio 128X. See Initializing User Programs (pg. 15).

Preset Programs

In addition to eight user programs, the Studio 128X has eight *preset* programs. The preset programs provide the following special functions:

•   Preset 1, PANIC: Sends an "all notes off" command to each port.

•   Preset 2, ALL: Routes all MIDI inputs to all outputs.

•   Preset 3, TUNE: Sends continuous "A440" note messages to all outputs.

•   Preset 4 - 8, SMPTE: Initiate striping SMPTE at rate of 30 FPS non-drop, 29.97 FPS drop-frame, 29.97 FPS non-drop, 25 FPS, and 24 FPS respectively, all beginning at 00:00:00:00.

EDITING USER PROGRAMS

Studio 128X user programs can be displayed, edited, and saved in either of the following environments:

•   On the PC, use the **Patchbay** program by launching **128X.exe**;

•   On the Mac, choose **Studio 128X**>**Edit Programs** in the OMS Setup program to open the **Program Edit Window**.

User programs route and merge MIDI by defining "connections," each of which may have its own set of filterings for MIDI messages and channels. The four user programs are saved in files called "program sets."

See the following page for a brief explanation of the Patchbay (PC) and Program Edit (Mac) Windows.
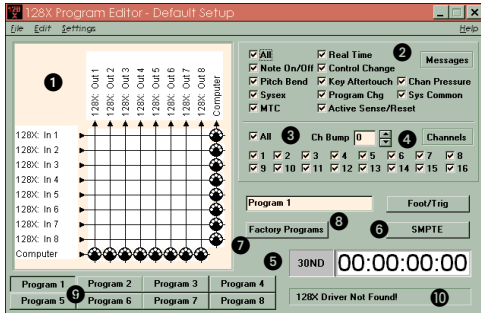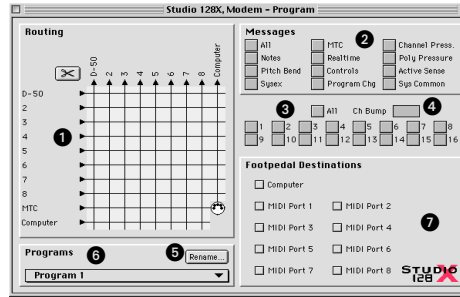
Figure 5.1: Patchbay Window for PC

Figure 5.2: Program Edit Window for Macintosh

❶ Connection Grid, defines *connections* between inputs (on left) and outputs (on top). Device names may be edited individually.

❷ Message Filtering, specifies which MIDI messages are routed for the selected connection(s).

❸ Channel Filtering, specifies which channels are routed for the selected connection(s).

❹ Channel Bump, shifts channel assignment for MIDI messages for the selected connection(s).

❺ SMPTE Monitor, displays scrolling SMPTE frames when receiving/generating timecode.

❻ SMPTE button, opens the SMPTE Settings Window.

❼ Factory Programs/User Programs Button, specifies whether the preset or user programs are displayed.

❽ Program Name field, renames the current program.

❾ Program Button, specifies the current program.

❿ Status Field, displays communication status between the Studio 128X and PC.

❶ Connection Grid, defines *connections* between inputs (on left) and outputs (on top). Device names are taken from your current OMS Studio Setup file.

❷ Message Filtering, specifies which MIDI messages are routed for the selected connection(s).

❸ Channel Filtering, specifies which channels are routed for the selected connection(s).

❹ Channel Bump, shifts channel assignment for MIDI messages for the selected connection(s).

❺ Rename Button, renames the current user program.

❻ Program Pop-up, specifies the current program.

❼ Footswitch MIDI destinations.

For more detailed information on creating and editing Studio 128X user programs (including settings in the SMPTE Window), please consult your online help file.

CHAPTER 6:   Front Panel Operation

SELECTING A PROGRAM

The PROGRAM button selects the current program. Press the button once and an LED flashes rapidly to indicate the currently selected program. Press the PROGRAM button repeatedly to advance to and select a particular program. This will sequence through each of the 8 User Programs and 8 Preset Programs.

When either the TUNE or SMPTE presets are selected, pressing the PROGRAM button once will interrupt these routines and return to the previously selected user program.

After the PANIC preset is selected and the "all notes off" messages are sent to each port, the Studio 128X returns to the previously selected user program.

INITIALIZING USER PROGRAMS

The user programs for the Studio 128X are set to defaults at the factory. These user programs can be viewed and edited to accommodate your specific needs. For more information, see *Editing User Programs* (pg. 13).

If after making changes to the user programs you would like to return the Studio 128X to its default state, you can initialize the unit with the following procedure:

① **Turn off the Studio 128X.**

② **Press the PROGRAM button and hold it down while turning the unit back on—note that no LEDs are lit.**

③ **After several seconds, release the PROGRAM button**

All LEDs flash four times, indicating the Studio 128X user programs have been initialized.

IMPORTANT: Initializing the Studio 128X is also recommended if, for some reason, the user programs have become corrupted.

STRIPING FROM THE FRONT PANEL

To begin generating SMPTE timecode, simply select one of the SMPTE preset programs. Timecode is then automatically sent out the Studio 128X's SMPTE OUT jack. To stripe SMPTE while using a user program, select the user program with the Program button, and then press the SMPTE Switch on the front panel of the unit. The SMPTE settings used in the case of user programs are those contained in the selected user program themselves. The default user programs are set to use a frame rate of "30 Non-Drop" with a SMPTE start time of 00:00:00:00.

For more details on using SMPTE with the Studio 128X, see your online help file.

USING A SERIAL THRU DEVICE

If you would like your computer to communicate with your serial thru device, set the MIDI/Thru switch to the out position (Thru). Even when the Studio 128X is not communicating with your computer, it still operates as specified by the currently selected program.