DMX I/O Card Installation

Introduction

The optional DMX I/O (input/output) card enables the Martin ShowDesigner to be used together with a DMX -512 controller or to control lights directly from your PC.

Note: The DMX I/O card can be damaged by static electricity. Follow precautions for handling electrostatic sensitive devices. Release static electric charge by touching a grounded metal object before handling the card and always handle the card by its bracket.

Procedure

Select memory address

Before installing the card, the computer memory must be checked to ensure the DMX card does not conflict with other devices. The DMX card must not use a memory block assigned to other hardware or memory device drivers. If more than one DMX card is installed, each card must have its own memory block assigned.

In Windows 95, the memory assignments are easy to find.

1. Right-click on "My Computer."
2. Click on "Properties."
3. Click on "Device Manager."
4. Click on "Properties."
5. Click on "Memory."

On screen is the list of memory assignments. See the example in figure 2. The DMX card can use any available block in the "C" or "D" segments. Memory assignments in other segments may be ignored.

Using your computer's memory assignments and table 1 on page 4, select an unassigned block of memory. If, for example, memory from 000C0000 to 000C7FFF is assigned, the next block, starting at 000C8000 and ending at 000C8FFF may be available. Make a note of the memory block selected so you can confirm the memory assignment later.

Set DIP switches:

The DIP switches are the very small switches labeled 1 through 10 on the side of the card opposite the mounting bracket. They must be set for the selected memory block. The settings are given in table 1.

1. Set all switches OFF. The OFF position is the position closest to the printed switch number.
2. Switch ON the switches listed in table 1 for the memory block selected.

Install card

1. Turn off the computer and disconnect the power cord. Failure to unplug the cord could result in injury to you or damage to the computer.
2. Remove the cover.
3. Find an available ISA expansion slot. Remove its cover plate from the back of the computer chassis. Save the screw for fastening the DMX I/O card.
4. Holding the card by the bracket and corner, push the card's copper contacts into the expansion slot. Fasten the card to the chassis.

5. Replace the cover and reconnect the power cord.
6. Connect the 9-pin connector of the DMX cable to the card.
7. Turn on the computer.
8. Open the "DMX-Out selection" window from the main Martin ShowDesigner menu.
9. Click on "Martin I DMX card."
10. Click on "Setup."
11. Check that the memory assignment is correct. See the example in figure 3.
12. If installing more than one DMX I/O card, set each card's DMX channels.

If you have problems, disconnect the computer, make sure the card is installed correctly in the slot, the listed DIP switches are ON, and that all other DIP switches are OFF.

Cable connections:

- For stand alone applications, connect the DMX serial link to DMX - OUT.
- For use with a DMX controller, connect the controller to the DMX - IN male and the serial link to the DMX - THRU female.

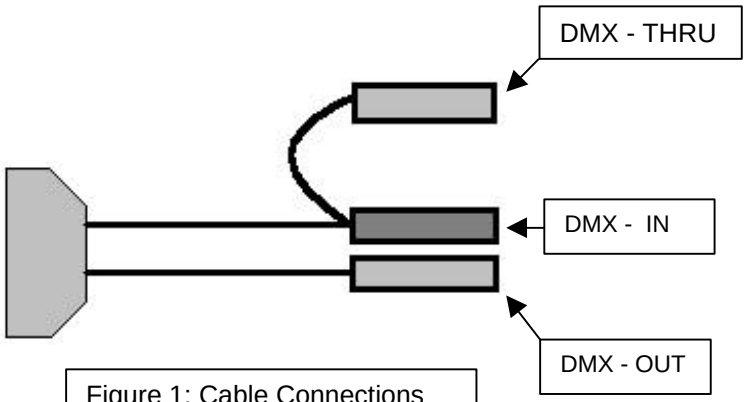

Figure 1: Cable Connections

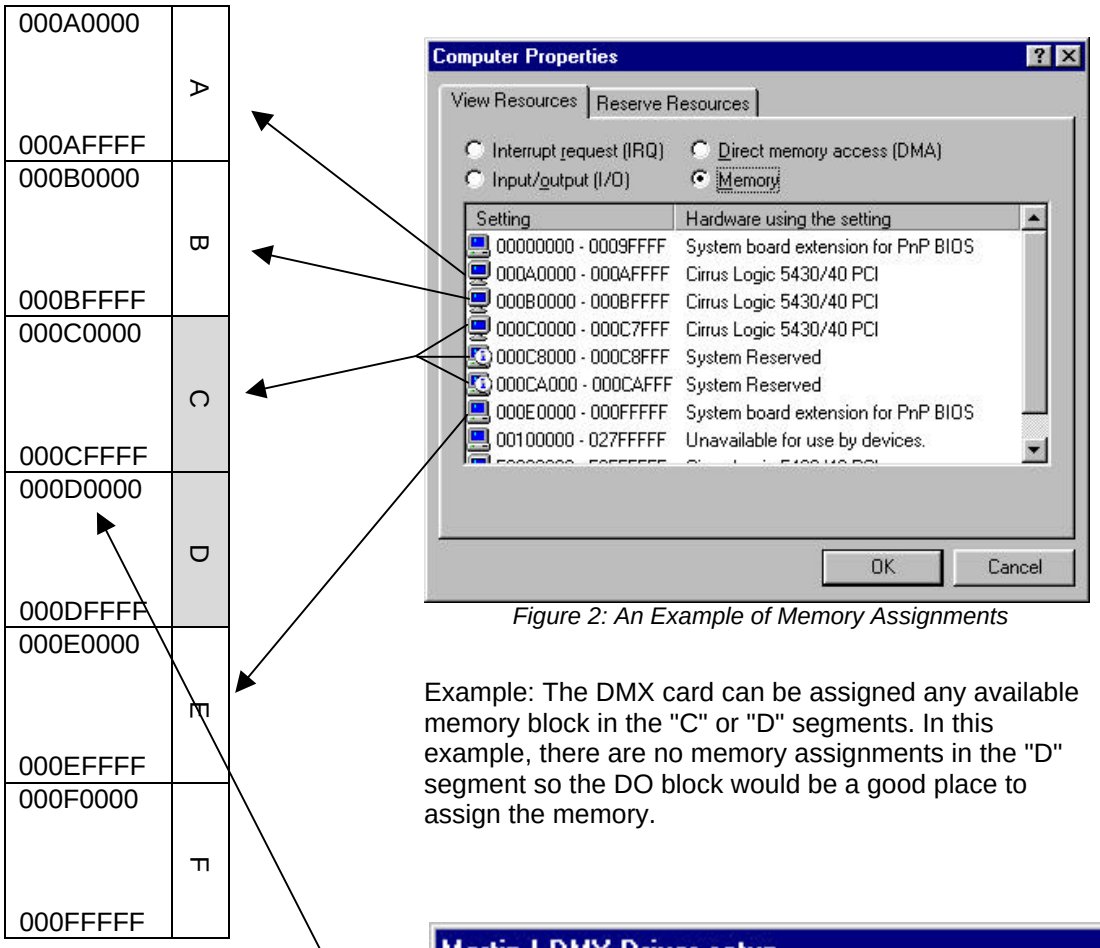

Figure 2: An Example of Memory Assignments

Example: The DMX card can be assigned any available memory block in the "C" or "D" segments. In this example, there are no memory assignments in the "D" segment so the DO block would be a good place to assign the memory.

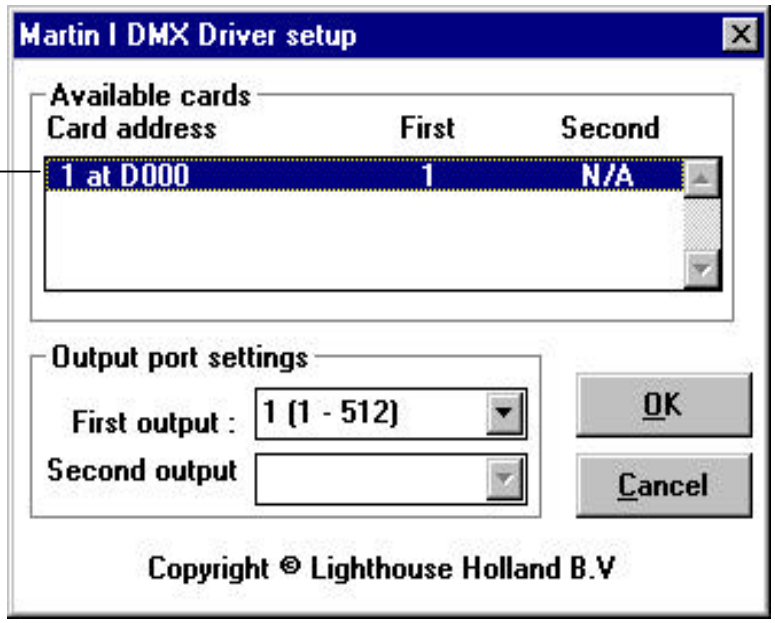

Figure 3: The DMX - Out Selection Screen After Installation

Confirm the memory assignment after installation. If using more than one card, set each card's DMX channels here.

	Block	Address Range	DIP Switches On
C SEGMENT	C0	000**C0**000 000**C0**FFF	None
	C1	000**C1**000 000**C1**FFF	1
	C2	000**C2**000 000**C2**FFF	2
	C3	000**C3**000 000**C3**FFF	1, 2
	C4	000**C4**000 000**C4**FFF	3
	C5	000**C5**000 000**C5**FFF	1, 3
	C6	000**C6**000 000**C6**FFF	2, 3
	C7	000**C7**000 000**C7**FFF	1, 2, 3
	C8	000**C8**000 000**C8**FFF	4
	C9	000**C9**000 000**C9**FFF	1, 4
	CA	000**CA**000 000**CA**FFF	2, 4
	CB	000**CB**000 000**CB**FFF	1, 2, 4
	CC	000**CC**000 000**CC**FFF	3, 4
	CD	000**CD**000 000**CD**FFF	1, 3, 4
	CE	000**CE**000 000**CE**FFF	2, 3, 4
	CF	000**CF**000 000**CF**FFF	1, 2, 3, 4

	Block	Address Range	DIP Switches ON
D SEGMENT	D0	000**D0**000 000**D0**FFF	5
	D1	000**D1**000 000**D1**FFF	1, 5
	D2	000**D2**000 000**D2**FFF	2, 5
	D3	000**D3**000 000**D3**FFF	1, 2, 5
	D4	000**D4**000 000**D4**FFF	3, 5
	D5	000**D5**000 000**D5**FFF	1, 3, 5
	D6	000**D6**000 000**D6**FFF	2, 3, 5
	D7	000**D7**000 000**D7**FFF	1, 2, 3, 5
	D8	000**D8**000 000**D8**FFF	4, 5
	D9	000**D9**000 000**D9**FFF	1, 4, 5
	DA	000**DA**000 000**DA**FFF	2, 4, 5
	DB	000**DB**000 000**DB**FFF	1, 2, 4, 5
	DC	000**DC**000 000**DC**FFF	3, 4, 5
	DD	000**DD**000 000**DD**FFF	1, 3, 4, 5
	DE	000**DE**000 000**DE**FFF	2, 3, 4, 5
	DF	000**DF**000 000**DF**FFF	1, 2, 3, 4, 5

Table 1: DMX Card Memory Block Addresses and DIP Switch Settings

The light shaded blocks are assigned to other devices in the example; the dark shaded one is assigned to the DMX card. Your setup will be different.