Topic:
Matrox Board, Replacing

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Solution Report

Symptoms/Condition:

Need to replace a Matrox Board.

Additional Solution Reports Required: VX3000, Power Cycling.

Solution:

Tools Required:
- Ground strap (the Matrox Boards are very sensitive)
- #2 Philips screwdriver.
- 1-New Matrox Board

To replace an old Matrox Board with a new one, follow the hardware and software steps below:

1. Power System down (VX3000), and remove cover from the controller (***See Solution Report - Topic: VX3000, Power Cycling***).

2. Ground yourself to the chassis of the controller (using the ground strap).

NOTE: The computer should be plugged in, but powered off.

3. Disconnect all cable connections from the Matrox Board you are replacing (MATROX IM_LC #2 or MATROX IM_LC #1, see Figure 1), and then remove its mounting screw.

4. Remove the Matrox Board by pulling it straight out of its slot.

5. Remove the "New Matrox Board" from its package, and insert it into the same slot you removed the old board from.

CAUTION: Make sure you are still grounded to chassis of controller, because the Matrox Boards are very sensitive! Also, be sure the board is seated properly.

6. Replace the mounting screw and all of the cable connections as previously removed.

7. Replace the cover to controller.

8. Then Power "on" the system and boot up in UNIX. Make sure both Matrox Boards are detected by the controller by either watching the output during bootup or by looking in the **/usr/adm/messages** file for the bolded lines below (i.e., "**%IM-Ser...**"):

```
$ tail    -50 /usr/adm/messages
Fri  Jun 17  13:57:14

                                    UNIX is a registered trademark of U
                    Laboratories, Inc. in the U.S.A and other countries.
                   Copyright (C) 1976-1990 UNIX System Laboratories, Inc.
                       Copyright (C) 1980-1989 Microsoft Corporation
                   Copyright (C) 1988-1993 The Santa Cruz Operation, Inc.
                         Copyright (C) 1988-1990 SecureWare, Inc.
                                   All Rights Reserved

                   SCO UNIX System V/386 Release 3.2v4.2 Operating Syster
                    kernel id 93/04/28 on i80486 Serial Number: 2BC002916

D E device address    vector  dma
Fri Jun 17 13:57:14
     comment

%fpu    -               13      -         type=80387
F0 F1 F2 F3 F4 %serial  0x03F8-0x03FF    4          -   unit=0 type=Stand
%serial                 0x02F8 - 0x02FF 3 -          unit=1 type=Standard
F5 F6 %floppy  0x03F2-0x03F7    6        2         unit=0 type=135ds18
F7 F8 F9 %console  -            -        -         unit=vga type=0 12 scre
F10 F11 F12 %eisarom  -         -        -         eisa (1.3.0)
F13 F14 %smc/wdn  0x0300-0x031F          9         - type=8013EPC   addr=
%IM-Ser     -         -          -       I_LIN_AIN_LOW,   flag-a
%IM-Ser-              -          -       I_LIN_AOUT_LOW,  flag -a -2
G H0 H1 H2 H3 H4 H5 H6 %disk     0x01F0-0x01F7  14   -     type=W0 unit=0
H7 H8 H9 H10 H11 H12 H13 I0 I1 I2 I3 I4 I5 I6 I7 I8 mem: total = 16000k,
J K L M Autoboot from rootdev = 1/40, swapdev = 1/41, pipedev = 1/40, du
nswap = 61440, swplo = 0, Hz = 100
kernel: i/o bufs = 600k
$
```

If both Matrox Boards are seen, the two lines with "**%IM-Ser**" will be written to the screen (standard output) and to the **/usr/adm/messages** file. In this case, go to the next step (9).

If the new Matrox Board is not seen by the system, only one or none lines with "**%IM-Ser**" will be found. In this case, you must start over from step 1.

9. Then verify that both the **imlc.cal** and **imlc2.cal** file settings are correct. Below are their default file settings:

Board #1 setup (**imlc.cal**):

$ more /files/vexcel/cal/imlc.cal

```
# setup for aspen (I_LOUT_AIN_LOW) (no -a, no -2)
# setup for vxb1  (I_LIN_AIN_LOW)  (-a, no -2)
# setup for 2bd   (I_LIN_AOUT_LOW) (-a, -2)
#
# now either IM_LC or IM_640
IM_LC
# now either L_OUT (for LMAPSWAPOUT (no -a) or L_IN (-a)
L_IN
#now either A_OUT (Adapt2 out) or A_IN (adapt2 in)
A_IN
# now the default v6im_print_level
0
# end
$
```

Board #2 setup (**imlc2.cal**):

$ more /files/vexcel/cal/imlc2.cal

```
# setup for aspen (I_LOUT_AIN_LOW) (no -a, no -2)
# setup for vxb1  (I_LIN_AIN_LOW)  (-a, no -2)
# setup for 2bd   (I_LIN_AOUT_LOW) (-a, -2)
#
# now either IM_LC or IM_640
IM_LC
# now either L_OUT (for LMAPSWAPOUT (no -a) or L_IN (-a)
L_IN
#now either A_OUT (Adapt2 out) or A_IN (adapt2 in)
A_OUT
# now the default v6im_print_level
0
# end
$
```

NOTE: If your system was temporarily set up to use only one Matrox Board, verify that the line which starts with "**V6_MATROX2:**" in the Master Name File (i.e., **/files/vexcel/cal/rc#_vxb#**) is uncommented. This is done by removing the "#" symbol from the beginning of the line, as shown below:

Before:

```
#V6_MATROX2:              /files/vexcel/cal/imlc2.cal
```

After:

```
V6_MATROX2:               /files/vexcel/cal/imlc2.cal
```

10. Finally, start **vxscan** and verify proper operation