

UltraMatrix program revision history

Program version MX22D 05/08/03

Fix miscellaneous minor issues in serial emulation

Caps lock and shift keys from one KVM station could affect those on another KVM station. VT100 cursor identification sometimes answered incorrectly. Mostly was affecting HPUX serial ports. This is now all working correctly with no reported problems.

Program version MX22 06/28/02

Improve serial emulation capabilities

Add VT102/VT220/ANSI color commands to improve serial emulation capabilities. Includes full support for VI and pseudo-graphical displays such as Smit (RS6000), Sam (HP), and Linuxconfig (Linux). Changes 8-page/two-color scroll buffer to 4-page/8-color scroll buffer. Requires ICK-O52R OSD chipset upgrade. [More.](#)

Add serial break

Now you can send a serial break which can be used on Sun/Unix/Linux to go to the boot prompt. To send the break, press and release the left-control key and then press and release the pause/break key.

Miscellaneous serial emulation modifications

- * Change clear screen from F12 to ctrl and F12 (press ctrl, press F12, release both) to protect against accidental clear and allow F12 key to be used.
- * Add clear scroll buffer function which uses shift and F12 (press shift, press F12, release both, this was previously undocumented and not working right).
- * Fix serial emulation shift and ctrl actions not working right, KVM would affect another computer not connected to KVM on same card.

Add missing serial international key

The key to the right of the left shift key which is present on European keyboards and not on US keyboards was not sending any serial characters (usually < and >, but varies by country). This now sends the correct characters. Note that it has been reported that when connecting to Sun computers that the international characters do not show up. This is due to mis-configuration of the Sun computer. You must enable ISO-8859-1 character support on the Sun computer. You must also change the OSD language from the configuration menu to match the keyboard you are using, either English, French, German, Spanish, Italian, or Portuguese.

Protect PCs from power key

The ctrl-del function added in rev MX21B can down computers with no warning. We have added an OSD pop-up box which prevents accidental entry of the ctrl-del key. Now when you hit ctrl-del (press and release ctrl, press and release del) an OSD message pops up which says "Power on/off" and a yes/no box to allow or abort.

Add support for deriving USB Sun language from switch

USB cable revision UC17 and previous were specific to each country for Sun computers. USB cable revision UC19 and later derive its Sun international language setting from the Sun keyboard language setting on

the Configure System page. In order for this to work, MXP21D firmware or later must be installed. otherwise the US language setting will be used.

Add alternate page up and page down keys

Certain small keyboards that are intended to mount in a rack are missing the traditional page up and page down keys and require you to use those on the numeric keypad. These keys may be needed in the OSD to scroll through computers for switching and for other configuration purposes. You can now also use the PgUp and PgDn keys on the numeric keypad instead.

Fix Num lock disables Ctrl + gray key commands

The Sun and power emulation keys ctrl + Home/End/Page Up/ Page Down/Delete added in rev MX21B would only work when NumLock was off. Now the state of NumLock is ignored for these commands.

Program version MX21B 11/12/2001

Add support for serial emulation

Integrated VT100 terminal emulation support to connect to serial devices. [More.](#)

Make OSD multi-lingual

Allow language change on OSD between English, French, German, Spanish, Italian, and Portuguese.

Add PC keyboard to Sun emulation commands

Allows you to send the keys that are present on a Sun keyboard from a PC keyboard, such as the Stop, Again, and other keys on the left side of the Sun keyboard. [More.](#)

Improve Asian keyboard support

Add full support for all combinations and emulations of PC, Sun, and USB Japanese and Korean keys.

Improve PC to Sun mouse movement

The sample rate has been increased from 20 samples/sec. to 40 samples/sec which makes smoother mouse movement. This also corrects incorrect operation of devices connected to the mouse port such as extenders or other KVM switches which did not respond to the mouse sample rate. This includes older firmware version of the Crystal View and other Rose KVM switches such as the Vista series.

Add support for Compaq insight remote board

This fixes the remote mouse not working on this hardware product.

Increase maximum logout timer interval

The setting for the logout timer on the configure profile page is a number from 0 to 9999. Any value beyond 1092 minutes (18.2 hours) was rounded down to 1092 minutes The maximum value is now 9999 minutes (6 days, 22 hours, and 39 minutes).

Change OSD cosmetic issues of incorrect configuration values

You can now no longer enter 0 for scan time. PC keyboard repeat rates other than 1-31 char/sec, and fadeout times greater than 255 are ignored instead of wrapped. Group, profile, and user name entry won't allow more than 8 characters.

Program version MX19L 06/29/2001

Add 64 more users, groups, and profiles

Increase the number of users, groups, and profiles from 16 to 80. The additional items are accessed from the F12 configuration menu by using the page up and page down keys on the configure user, profile, and group pages.

Program version MX19A 10/30/2000

Fix serial mouse on E-series PC version

When two mice are accessing two PCs on the same card which use a serial mouse, the mouse movement on one PC would interfere with the other.

Program version MX19 8/29/2000

Fix flash upgrade incompatibilities

When adding support for the E-series, 8X, and 16X the differences between the various kernel and program versions caused a problem when upgrading the flash. The upper cards would hang up and each card would have to be flashed individually.

Program version MX18 5/25/2000

Add support for 8X and 16X

The UltraMatrix 8X and 16X are extensions of the original 4X model. The hardware has some differences which is auto-detected and handled appropriately. By using the same firmware for all models of the X-series and the E-series it allows future changes to be made more easily.

Modify configure KVM page

To show the 8X and the 16X bus jumper information, the page was reformatted to fit more information. The first column (ID) is the number of the card in the system 1-255. The second column (BUS) is the bus jumper setting 1-16. The login field has been removed and moved to the user field.

Before if login was required, the login field was set to yes and the user field was ignored. If login was not required the login field was set to no and the user field specified which user settings were assigned to the KVM.

Now, if login is required the user field is set to login. If login is not required, the user field is set to the user whose setting will be assigned to the KVM.

ID	Bus	KVM name	Resolution	Start	User
1	9	KVM Station 1	640x480@60	0	User 1
2	10	KVM Station 2	640x480@60	0	User 2
3	11	KVM Station 3	640x480@60	0	Login
4	12	KVM Station 4	640x480@60	0	Login

Name of keyboard-video-mouse station(KVM), up to 16 characters

Program version MX17 3/21/2000

Fix scan rate not working properly

The default scan rate of 5 seconds would work correctly. Other values would not always work correctly.

Fix color scheme not updated correctly

When the color scheme was changed from one setting to another the background color was not immediately changed. It would be updated correctly only upon leaving the screen. This was a very minor cosmetic problem.

Add support for E-series

The UltraMatrix E-series is available in many different models and also as a low-cost PC only version. The hardware has some differences which is auto-detected and handled appropriately. By using the same firmware for both the E-series and X-series it allows future changes to be made more easily.

Program version MX16A 9/06/1999

Fix sun mouse problem

When two or more Sun keyboards are accessing two Sun computers on the same card, the mouse movement on one Sun would interfere with the other.

Add Windows mouse recovery command

The control O command is used to recover a stuck mouse with Windows. This can occur by mis-configuring the computer as a PS/2 wheel mouse or regular PS/2 mouse. Normally booting of the computer configures the setting automatically, but if a computer is changed to another port or has manually been configured wrong you can lose the mouse. To recover the mouse a new command has been added to send a mouse reset command to the computer.

Formerly this function was present in the control R command. But this can cause the mouse on Unix machines such as RS/6000 or others to go out of sync. The computer's mouse reset command has been removed from the ctrl-R command and added to the ctrl-O command.

To enter the mouse recovery command, press and release the left control key, then the O (alphabetic, not zero) key. This command should only be used when the mouse has been lost on Windows. If a wheel mouse is used, this will also recover use of the wheel. You can also use this

command to change the current mouse driver from non-wheel to wheel without booting the computer.

UltraMatrix kernel revision history

Kernel version KX20 11/12/2001

Add support for serial emulation

The new serial emulation feature in program version MX21B required some minor changes to the kernel. There were also some minor timing changes on the flash load and OSD power on recognition routines.

Kernel version KX19B 05/05/2001

Modify reset to default function

Revise configuration reset to default function to support addition of 64 more groups, profiles, and users added in program version 19L.

Kernel version KX19 8/29/2000

Fix flash upgrade incompatibilities

When adding support for the E-series, 8X, and 16X the differences between the various kernel and program versions caused a problem when upgrading the flash. The upper cards would hang up and each card would have to be flashed individually.

Kernel version KX16 5/25/2000

Add support for 8X and 16X

The UltraMatrix 8X and 16X are extensions of the original 4X model. The hardware has some differences which is auto-detected and handled appropriately. By using the same firmware for all models of the X-series and the E-series it allows future changes to be made more easily.

Kernel version KX15 3/21/2000

Add support for E-series

The UltraMatrix E-series is available in many different models and also as a low-cost PC only version. The hardware has some differences which is auto-detected and handled appropriately. By using the same firmware for both the E-series and X-series it allows future changes to be made more easily.