

Appendix C: MCUpdate Program

Introduction

MCUpdate is a Windows 95/98 based utility program designed to upload the MX⁴ firmware from a PC Windows environment into the MX⁴ unit. This document will guide you to install and run the MCUpdate program to update your MX⁴ with a new release of firmware.

The MCUpdate kit contains the following parts:

- 1 Floppy Diskette containing MCUpdate, setup programs and HEX file
- 1 DB9 to RJ11 Serial port adapter
- 1 4-wire Telephone cord

Installation

MCUpdate is designed to run on an industry standard PC, with a DB9 serial COM connector, running Windows 95 or Windows 98.

Installing MCUpdate program

1. Insert the MCUpdate diskette into the floppy drive.
2. Run the setup.exe program on the diskette and follow the step by step instruction to complete the MCUpdate program installation. The setup will install the program and file in C:\Program Files\MCUPDATE.

Connecting PC to MX⁴

1. Plug the DB9 to RJ11 Serial port adapter to your PC's DB9 serial port

If your PC has only a DB25 serial port, you need to convert it to DB9 using a standard DB25 to DB9 adapter available from your local PC store.

2. Plug one end of 4-wire telephone cord to the RJ11 port on the adapter, and plug the other end to the MX⁴ RJ11 admin port. (Figure 37)

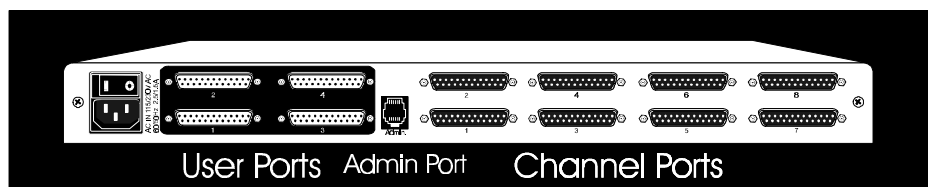


Figure 37 MX⁴ Back Panel and Admin Port

MCUpdate Operations

Planning before running MCUpdate

☞ Please read this section carefully and plan ahead before you proceed. The MCUpdate program **MUST RUN TO COMPLETION**. If it fails to complete the update procedure, the MX⁴ unit may become totally non-functional. If you have any questions on this regard, please contact Raritan Tech Support for assistance.

1. The MX⁴ unit must be running normally. Observe the LCD display, which will have a circulating Raritan message on the first line and scrolling user messages on the second line.
2. If the MX⁴ is currently running a version of firmware prior to ver. 2.0, MCUpdate will reset all configurations to default. You must login as an administrator and **MANUALLY COPY** the current configurations in the attached OSUI menu blanks so that you can **re-configure the system after the upgrade?** Firmware version release levels can be checked from the *Help Menu*, when logged in as an administrator.
3. If you have a 2-tier MX⁴ system, you need to upgrade only the base unit. However, if you want to make full use of all features, you should upgrade the second tier units to as well. You don't need to perform step 2 for second tier units, unless you have local users on those second tier units.
4. When MCUpdate is executing, the MX⁴ will suspend all operations to perform the firmware update. It is advisable to log off all users of the MX⁴ system before running the MCUpdate, but not necessary.

Running MCUpdate

Begin from the Windows Start menu; select MCUpdate from the Programs menu. Select MCUpdate to begin the MCUpdate program. (Figure 38)

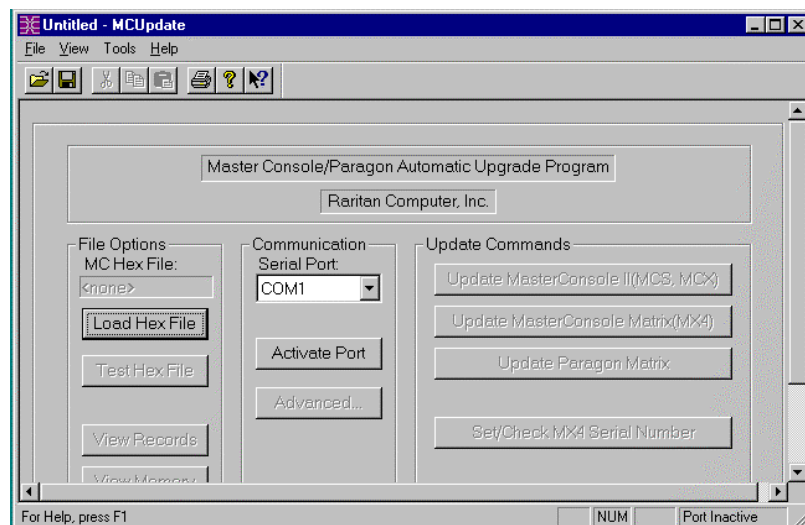


Figure 38 Running MCUpdate Program

Loading firmware file

Load the MX⁴ firmware into the MCUpdate program memory. In the File Options section of the MCUpdate window click the button labeled *Load Hex File*. (Figure 39) In the pop up file Open dialog window, select MX4-*nnn*.hex, where *nnn* is a version number, then click the *Open* button.

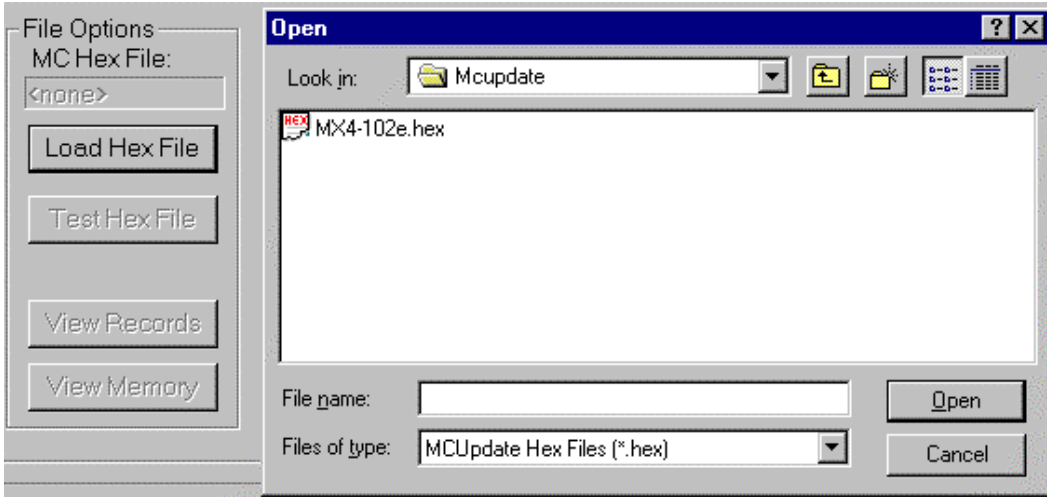


Figure 39 File Options Section

After the firmware is loaded into memory, you can click the button labeled *Test Hex File* to verify the content. This is an optional step.

Activate the PC Communication port

You must identify the PC serial port used to communicate with the MX⁴ unit. From the Communication section of the MCUpdate window, select the COM port you installed the DB9 to RJ11 adapter. (Default COM1) Then click the button labeled *Activate Port*. (Figure 40)



Figure 40 Communication Section

Update MX⁴

MCUpdate will upload the firmware into the MX⁴ unit, replacing the older version stored in a flash memory chip. In the Update Commands Section (Figure 41), as a test procedure, click the button labeled *Set/Check MX4 Serial Number* to validate that MCUpdate and the MX⁴ unit are communicating properly. This test will retrieve the serial number of your MX⁴ unit and display it. Click *OK* to end the communications test.

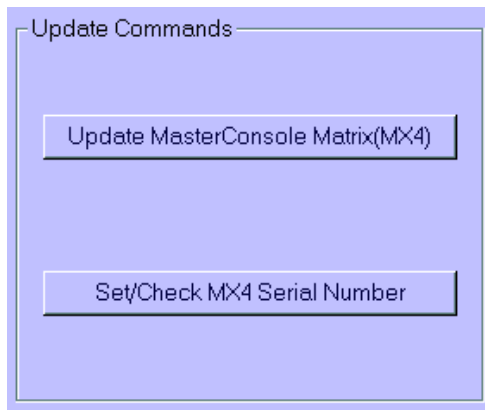


Figure 41 Update Commands Section

You are now ready to upload the new firmware file. Click the button labeled *Update MasterConsole Matrix (MX4)*. The serial number will be displayed. Click *OK* to continue. It will take about 2 minutes to complete this step. Make sure there are no interruptions of power and avoid performing any activities on the PC or MX⁴ unit during the MCUpdate upload. MCUpdate will display the progress of firmware transfer, record by record, page by page, and block by block. There are total of 8 blocks, 64 pages in each block, and 16 records in each page.

Upon completion, the MX⁴ will reset and restart itself. Close the MCUpdate program window on your PC.

If the version of firmware you replaced was prior to version 2.0, you must manually reload the system and user configurations that were copied prior to the MCUpdate program being executed. Refer to Planning before running MCUpdate step2.

Congratulation! You have done it. Enjoy the new features of the new MX⁴ Release.

Attachments

MX⁴ OSUI Menu Forms

```

      System Configuration
MX4 ID: _____
Security
  Timeout:___ Logout___ Min
  Access Mode: _____
  V-Share Mode: _____
  Allow Blank Password:___

Login Blank: ___ ___ Minutes
Login Help Mode: _____
Ct Sync:   1:  2:  3:  4:
          Help Messages
          Status Line

```

```

      Channel Configuration Menu
MC:_____ Page 1/ 2
Ch.ID   Name           Sec  Scn
-----
01      _____  ___  ___
02      _____  ___  ___
03      _____  ___  ___
04      _____  ___  ___
05      _____  ___  ___
06      _____  ___  ___
07      _____  ___  ___
08      _____  ___  ___
-----
          Help Messages
          Status Line

```