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# **Introduction and Installation**

MOXA Device Manager (referred to in this manual as MDM) is an easy-to-use remote management tool for managing MOXA's ready-to-run embedded computers on a local area network (LAN). MOXA's embedded computers make excellent front-end computers for onsite data acquisition and industrial control applications, but they are often located at a remote site. MDM was designed to make it easy for system administrators to manage their remote embedded computers.

The following topics are covered in this chapter:

- **Overview**
- □ Installing the MDM Tool
- □ Installing an MDM Agent

### Overview

One of the key benefits of this tool is that management tasks, such as configuring network or serial ports, managing and/or transmitting text and binary files, and monitoring and controlling processes, can handled easily using a Windows-based user interface. In addition, MDM can be used to manage different models of embedded computer, and embedded computers that use different operating systems, all from a single computer. As long as the individual embedded computers are pre-installed with an MDM agent, they can be recognized and managed by the unified MDM tool from your PC. The following figure shows a sample management system addressed by this tool.



In addition to controlling heterogeneous computer systems, the traffic between the MDM tool and any of the MDM agents is encrypted. This feature protects data transmitted from the system.

To obtain the unified MDM tool and the associated MDM agent, please go to the download center on MOXA's website (<u>http://web4.moxa.com/support/download\_center.asp</u>). You need to download two installation files under "Driver and Software Downloads." The files are **MDM Tool** and an associated file named **MDM Agent-xxx** (the "xxx" represents the model of embedded computer you are using. )

### Installing the MDM Tool

The MDM tool is a Windows-based program that must be installed on a PC running Windows XP or Windows 2000. Use the following steps to install the software.

1. Download the MDM installation file, named **MDM.zip**, and save it to your PC's hard drive. Unzip this file to an empty folder, and then double click **setup.exe** to install the tool.

Ele Edit View Favorites Tools Help	
	-
🗿 Back 🔹 🜍 😁 🦻 Search 🜔 Folders 🛄 -	
Address 🛅 C:\Documents and Settings\bruce\Desktop\20061204_forMarketing	Go
File and Folder Tasks       Composition       DotNetFX       MOXA DeviceManager         Image: Marke a new Folder         Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder         Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder         Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder         Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder         Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder         Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder         Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder         Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder         Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder       Image: Marke a new Folder         Image: Marke a new Folder       Ima	
Other Places	

2. If the window shown below appears, click the Accept button to install .NET Framework 2.0.

For the followi	na components:		
.NET Frame	ework 2.0		
	ne following license ag i the agreement.	greement. Press the page down ke	ey to
MICROSOFT MICROSOFT MICROSOFT Microsoft Cor licenses this s Windows ope this supplement the software.	.NET FRAMEWORK WINDOWS INSTAL WINDOWS INSTAL poration (or based on supplement to you. If grating system softwar int. You may not use	LER 2.0 LER 3.1 where you live, one of its affiliates you are licensed to use Microsoft e (the "software"), you may use it if you do not have a license for of this supplement with each	)
 Do you acc		ne pending License Agreeme	
		min croso, in o inisidii you must acce	P
this agreemen	D.		

3. After installing **.NET Framework 2.0** (or if it is already installed), click **Next** to install the MDM tool.

🖗 MOXA Device Manager			
Welcome to the MOXA [ Wizard	Device Mana	ger Setup	
The installer will guide you through the str computer.	eps required to instal	I MOXA Device Mar	lager on your
WARNING: This computer program is pro Unauthorized duplication or distribution of or criminal penalties, and will be prosecut	f this program, or any	portion of it, may rea	sult in severe civil
	Cancel	< <u>B</u> ack	<u>N</u> ext >

4. Select an installation folder, click the Just me radio button, and then click Next.

MOXA Device Manager	
Select Installation Folder	
	•-
he installer will install MOXA Device Manager to the following	folder.
o install in this folder, click "Next". To install to a different fold	er, enter it below or click "Browse".
Folder:	
C:\Program Files\M0XA\Device Manager\	Browse
	<u>D</u> isk Cost
Install MOXA Device Manager for yourself, or for anyone wh	o uses this computer:
C Everyone	
Just me	
Cancel	
	<back next=""></back>

5. When the Installation Complete window opens, click Close.

🔀 MOXA Device Manager			
Installation Complete			
M0XA Device Manager has been succes Click "Close" to exit.	sfully installed.		
Please use Windows Update to check for	any critical update:	s to the .NET Frame	ework.
	Cancel	< <u>B</u> ack	Close

### Installing an MDM Agent

An MDM agent is a program that runs on a MOXA embedded computer. MOXA's embedded computers come in different models, and run different operating systems. For this reason, be sure to download the correct software for installing an MDM agent on your embedded computer. To obtain the unified MDM tool and the associated MDM agent, please go to the download center on MOXA's website (<u>http://web4.moxa.com/support/download\_center.asp</u>). You need to download two installation files under "Driver and Software Downloads." The files are **MDM Tool** and an associated file named **MDM Agent-xxx** (the "xxx" represents the model of embedded computer you are using).

- 1. The MDM agent is stored in a zip file called **MDMAgent-xxx.zip**. Download the file to your PC, and unzip it to extract the file **MDMAgent.exe**.
- 2. Log on to your embedded computer. For Linux models, create the directory **/home/MDM**. For WinCE models, create the directory **\norflash**.
- 3. Upload the agent program, MDMAgent.exe, to the directory you just created.

# **2** MDM Operation

Before using the MDM tool on your PC to manage embedded computers, you must run the MDM agent on the embedded computers that you want to manage.

Log on to your embedded computer over a Telnet client or a serial console client, and then run the MDM agent program by typing the following command at the prompt:

> *MDMAgent.exe* 

Note: For Linux models, MDMAgent.exe will be set as a daemon after running the agent for the first time. This means that some scripts will be added to the **rc.local** file (usually located in the **/etc/rc.c** directory) to cause MDMAgent.exe to launch automatically. You can remove these scripts if you do not want MDMAgent.exe to launch automatically.

Because different embedded computers may be running different operating systems, the MDM agent programs may provide different sets of management operations. For example, the MDM agent for the UC-7110-LX does not support user management. However, other embedded computers allow the administrator to create users and user groups.

In this chapter, we describe how to use the MDM tool, provided that the target embedded computer is a WinCE computer, such as UC-7420-CE. Differences in operation that result from the differences between embedded computer models will be pointed out in the explanations.

The following topics are covered in this chapter:

- □ Launching the MDM Tool
- **Uploading Files to Multiple Computers**
- **Upgrading the Firmware**
- **Logging in to the MDM Agent**
- □ Managing a Computer
- □ Managing the System Time and RTC Time
- □ Managing and Transferring Files
  - Dual-panel File Manager
  - Running a Program on the Embedded Computer
  - Configuring a Program to Launch on Bootup
- □ Managing Users and User Groups
  - Adding or Deleting a User Group
  - Changing a User's Username and Password
- □ Assigning Auto Launch Programs
- Monitoring Processes
- □ Monitoring and Controlling Services
- □ Configuring Networking Settings
- **Configuring Serial Ports**

### Launching the MDM Tool

To launch the MDM Tool on your PC, click Start  $\rightarrow$  All Programs  $\rightarrow$  MOXA Device Manager  $\rightarrow$  MOXA Device Manager.



The MDM interface window is divided into three panels as shown below.

Device Search	Device	Model	Firmware Version	OS	MAC Address	Host Name
Device Management	192.168.27.22	DA-662-CE	V1.1.1.1	Windows CE 5.0	00:90:E8:00:D0:B1	DA_662_16_CE
192.168.27.22 192.168.27.118	192.168.27.118	UC-7420-CE	V1.2.5.3	Windows CE 5.0	00:90:E8:0D:42:9F	UC7420CE
- 192.168.27.155	192.168.27.155	UC-7420-CE	V1.2.5.3	Windows CE 5.0	00:90:E8:0C:07:E8	UC7420CE
	5				đ	
	Туре	Date/Tim		Device	М	Aessage
	Type Info	2006-36-2	1 14:12:39	(Local Host)	M	tarted
	Type Info Info	2006-36-2 2006-36-2	11 14:12:39 11 14:12:43	(Local Host) 192.168.27.15	M St 56 ne	tarted ew device detected
	Type Info Info Info Info	2006-36-2 2006-36-2 2006-36-2	11 14:12:39 11 14:12:43 11 14:12:43	(Local Host) 192.168.27.16 MATS	56 ne	tarted ew device detected ew device detected
	Type       Info       Info       Info       Info       Info       Info	2006-36-2 2006-36-2 2006-36-2 2006-36-2	11 14:12:39 11 14:12:43 11 14:12:43 11 14:12:43	(Local Host) 192.168.27.15 MATS 192.168.27.11	56 ne 18 ne	tarted ew device detected ew device detected ew device detected
	Type       Info       Info       Info       Info       Info       Info       Info       Info	2006-36-2 2006-36-2 2006-36-2 2006-36-2	11 14:12:39 11 14:12:43 11 14:12:43	(Local Host) 192.168.27.16 MATS	56 ne 18 ne	tarted ew device detected ew device detected
	Type       Info       Info       Info       Info       Info       Info	2006-36-2 2006-36-2 2006-36-2 2006-36-2 2006-36-2	11 14:12:39 11 14:12:43 11 14:12:43 11 14:12:43	(Local Host) 192.168.27.15 MATS 192.168.27.11	56 ne 18 ne 18 ne	tarted ew device detected ew device detected ew device detected
	Type       Info       Info       Info       Info       Info       Info       Info       Info	2006-36-2 2006-36-2 2006-36-2 2006-36-2 2006-36-2 2006-36-2	11 14:12:39 11 14:12:43 11 14:12:43 11 14:12:43 11 14:12:45 11 14:12:45	(Local Host) 192.168.27.19 MATS 192.168.27.11 MATS	M 56 ne 18 ne 55 ne	tarted ew device detected ew device detected ew device detected ew device detected

#### Left Panel

The left panel shows a list of MDM agents and computers that were located by the MDM tool. The

list is updated automatically every 3 minutes as MDM agents are connected to or disconnected from the local area network. You may also search at any time by clicking on the **Device Search** bar.

#### **Upper Right Panel**

The panel in the upper right part of the window lists basic information of the connected computers. Each row gives the ID, model, firmware version, MAC address, and host name of one of the embedded computers. The host name column can be edited to give a brief description of the computer.

#### Lower Right Panel

The panel in the lower right part of the window is an event viewer. It records important events that the tool has handled. Events could include system start, shutdown, connect, disconnect, etc. The information is stored in a log file named MoxaDeviceManager.xml, which is located in the installation directory (by default, the installation directory is **c:\Program Files\MOXA Device Manager**). Note that the log file is limited to 50,000 records (about 10 MB).

### Uploading Files to Multiple Computers

This feature is useful for uploading a program or a configuration file to computers *of the same model* that are connected to the local area network.

1. In the upper right panel select one or more computers of the same model listed under **Device Management**. Computers are selected by clicking in the box to the left of the IP address to checkmark the box. Right-click on any of these computers and select **Upload File**.

	1	Device	Madel	Einenvene Mensier	OS	MARC Addungs	Heat Name
		Device	Model	Firmware Version	Concerna.	MAC Address	Host Name
Device Manageme		192.168.27.1	Contrast Contrast of Contrast Contrast	V1.2.5.3	Windows CE 5.0	00:90:E8:0C:0F:D7	UC7408CE
192.168.27.15		8.27.1	56 DA-661-CE	V1.1.1.1	Windows CE 5.0	00:90:E8:00:D0:01	DA_661_16_CE
3	Upgrade Firmware						
		<		107			1
		К	Date/Tim		Device		Vessage
		< Type Info			Device (Local Host)		Vessage Started
		and the second se	2006-01-0	e		s	
		<ol> <li>Info</li> </ol>	2006-01-0	e 04/19:12:50	(Local Host)	54 r	Started
		<ul><li>Info</li><li>Info</li></ul>	2006-01-0 2006-06-0 2006-06-0	e 04 19:12:50 04 19:12:00	(Local Host) 192.168.27.15	54 r 55 r	Started new device detected
		<ol> <li>Info</li> <li>Info</li> <li>Info</li> <li>Info</li> </ol>	2006-01-0 2006-06-0 2006-06-0 2006-06-0	ie 04:19:12:50 04:19:12:00 04:19:12:00	(Local Host) 192.168.27.10 192.168.27.10	54 r 55 r 54 d	Started new device detected new device detected
		<ul><li>Info</li><li>Info</li><li>Info</li><li>Error</li></ul>	2006-01-0 2006-06-0 2006-06-0 2006-06-0 2006-08-0	e 04 19:12:50 04 19:12:00 04 19:12:00 04 19:12:33	(Local Host) 192.168.27.15 192.168.27.15 192.168.27.15	54 r 55 r 54 c 54 r	Started new device detected new device detected disconnected
		<ul> <li>Info</li> <li>Info</li> <li>Info</li> <li>Error</li> <li>Info</li> </ul>	2006-01-0 2006-06-0 2006-06-0 2006-06-0 2006-08-0 2006-08-0	e 14 19:12:50 04 19:12:00 04 19:12:00 04 19:12:00 04 19:12:03 14 19:12:00	(Local Host) 192.168.27.18 192.168.27.18 192.168.27.18 192.168.27.18	54 r 55 r 54 d 54 r 54 s 54 s	Started new device detected new device detected disconnected new device detected

2. Choose a file to upload from the popup window.

Choose a File t	o Upload				? 🛛
Look in:	🚞 Device Ma	nager	~	G 🦻 🖻 🛄 •	
My Recent Documents Desktop My Documents	MOXA.Syste MOXA.Syste MOXA.Syste MOXA.Syste MOXA.Syste MOXA.Syste MOXA.Syste MOXA.Syste	el.dll	MOX E Moxa SHEL	A. Systems. Util. dll A. Systems. Util. Log aDeviceManager L32. dll	iging.dll
My Computer	<				>
My Network	File name: Files of type:	MOXA.Systems.Det	viceManager	~	Open Cancel

3. Input the path name of the directory to which the file will be copied. Note that the directory must exist on each of the embedded computers that were selected above in Step 1.Click **OK** to start the upload.

File Name: C:\\	Program Files\M
Note: please mai	e sure that target path exists on all
Target Pat	
	OK Cancel

### **Upgrading the Firmware**

Multiple computers can be upgraded at the same time, but the computers must be of the same model. The computers will be restarted after the upgrade process is completed.

1. In the upper left **Device Management** panel, select one or several computers of the same model by clicking on the check boxes to the left of the IP address. Right-click on any of these computers and select **upgrade firmware**.

	]	Device	Model	Firmware Version	OS	MAC Address	Host Name	
🔲 Device Managemen		192.168.27.155	UC-7408-CE	V1.2.5.3	Windows CE 5.0	00:90:E8:0C:0F:D7	UC7408CE	
- 192.168.27.155 192.168.27.156		8.27.156	DA-661-CE	V1.1.1.1	Windows CE 5.0	00:90:E8:00:D0:01	DA_661_16_CE	
102.100.21.100	Upgrade Firmware							
		<					1	
		< Type	Date/Time		Device	N	) Aessage	
			Date/Time 2006-01-04		Device (Local Host)		Vessage Xtarted	
		Туре		19:12:50		s	and the second	
		Type Info	2006-01-04	: 19:12:50 19:12:00	(Local Host)	54 ni	Started	
		Type Type Info Info	2006-01-04 2006-06-04	19:12:50 19:12:00 19:12:00	(Local Host) 192.168.27.15	54 ni 55 ni	Started ew device detected	
		Type Info Info Info Info	2006-01-04 2006-06-04 2006-06-04	: 19:12:50 19:12:00 19:12:00 19:12:00 19:12:33	(Local Host) 192.168.27.10 192.168.27.10	54 ni 55 ni 56 ni 54 di	itarted ew device detected ew device detected	
		Type Type Info Info Info Info Error	2006-01-04 2006-06-04 2006-06-04 2006-06-04	19:12:50 19:12:00 19:12:00 19:12:00 19:12:03 19:12:00	(Local Host) 192.168.27.15 192.168.27.15 192.168.27.15	54 ni 55 ni 54 di 54 ni	Started ew device detected ew device detected isconnected	
		Type Info Info Info Error Info Info	2006-01-04 2006-06-04 2006-06-04 2006-06-04 2006-08-04	19:12:50 19:12:00 19:12:00 19:12:03 19:12:00 19:12:00	(Local Host) 192.168.27.12 192.168.27.12 192.168.27.12 192.168.27.12	54 n 55 n 54 di 54 n 54 s 54 s	tarted ew device detected ew device detected isconnected ew device detected	
		Type Type Info Info Info Error Info Info Info Info	2006-01-04 2006-06-04 2006-06-04 2006-06-04 2006-08-04 2006-08-04 2006-08-04	19:12:50 19:12:00 19:12:00 19:12:33 19:12:00 19:12:10 19:12:17	(Local Host) 192.168.27.18 192.168.27.18 192.168.27.18 192.168.27.18 192.168.27.18 (Local Host)	54 m 35 m 54 di 54 s 55 s 54 s 54 s 54 s	tarted ew device detected ew device detected isconnected ew device detected shutdown	

2. When the Upgrade Firmware message box pops up, click Yes to continue upgrading.



3. Choose the firmware file to upload from the upload window, and then click **Open**.

Choose the Fire	mware to Uplo	ad				? 🛛
Look in:	🖙 Local Disk (I	D:)	~	00	10	•
My Recent Documents	Documents ar Program Files WINDOWS UNDOWS UNDOWS UC7408CE_V	_Crack				
My Documents						
My Computer						
	File name:	UC7408CE_V1253			~	Open
My Network	Files of type:				~	Cancel

4. While the firmware is being upgraded, a popup window will show the progress of the upgrade process. Do not shut down the MDM tool before the upgrade process is completed, since doing so could damage the computer. The following figure illustrates upgrading the firmware for the UC-7420-CE embedded computer.



5. When the upgrade process is finished, the system will reboot automatically. The following figure illustrates upgrading the firmware for the UC-7420-CE embedded computer.



### Logging in to the MDM Agent

For embedded computers such as the WinCE series and UC-7400-LX that control access right, you will need to log in to the MDM agent to manage it. Note that the user name and password that you use to log in to the MDM agent are the same as the Telnet user name and password.

On the MDM user interface, double click on a computer listed in the top left panel under **Device Management**. When the login window pops up, input the **User name** and **Password** and then click **OK**.



Note that after 3 incorrect logins, the connection between the MDM agent and the MDM tool will be lost, and the IP address of the MDM agent will disappear from the device list. A new connection will be re-established automatically within 3 minutes, at which time the IP address of the agent will reappear in the device list. To regain the connection immediately, click on the **Device Search** bar to initiate another search.

### Managing a Computer

After logging in to the embedded computer from the MDM login window, the "device manager" interface window of the selected computer will appear. The top menu bar includes a **START** button and a **Panel** button. The bottom menu bar displays three information blocks—**memory usage**, **disk usage**, and **system time**. The information is refreshed every minute.

If you need to manage another computer, click on the **Panel** button to return to the main panel.



### Managing the System Time and RTC Time

1. To manage the system time and RTC time, double click the **clock** area in the bottom right of the device manager interface window.



- 2. Modify the values in the "System Time" area, and click **Apply** to update the system time of the computer.
  - > Click **Refresh** to query the current system time.
  - > Click **Refresh** in the "RTC Time" area to query the current RTC time.
  - > Click Sync RTC Time to synchronize the RTC time with the system time of the computer.

Date/Time Setup		×
System Time - Date/Time	2/12/2006 💌 5:30:58 PM 🗘	
CRTC Time	Refresh Apply	
Date/Time	2/12/2006 💌 9:31:04 AM 🗘	
	Refresh	
	Sync RTC Time Close	

### Managing and Transferring Files

### **Dual-panel File Manager**

To mange and/or transfer files, click **START** in the top menu bar and select **File Management** to open the dual-panel file manager window.



The left panel is a file manager for your PC. The right panel is a file manager for the embedded computer. To transfer files between the PC and embedded computer, simply drag the file from one file manager pane to the other. For example, to transfer a file from the PC to the embedded computer, drag the file from the left pane to the right pane.

#### **MDM Operation**

	🔯 File Manager						
	Name	Size	Modified	Name	Size	Modified	
	Control Pane bruce's Docu Shared Docu 3½ Floppy (A Local Disk (C DVD-RW Driv	 ) :.)		Wy Docum Network NORFlash Program Fi Temp Windows		2003/01/01 04:00 1998/01/01 04:00 1998/01/01 04:00 2003/01/01 04:00 2003/01/01 04:00 2003/01/01 04:00	
PC file display the lef		]				are di	dded uter files splayed in ght panel
	<			× <			5

### Running a Program on the Embedded Computer

Take the following steps to run a program on the embedded computer

1. Right click on the name of the program name in the right panel of the dual-panel file manager, and then select the **Run Program...** option.

192.168.2	7.155 Device	Manager					
START						Panel	
😂 File Manag							_ B 🗙
100			Temp				
Name	Size	Modified	Name	Size	Modified		
Control Pa bruce's Do Shared Do 3% Floppy Local Disk	cu cu (A:) (C:)		Cap_nozor	ni.t. <u>4 KB</u> Download Rename Delete New Folder Run Program Set to Auto Laur	2006/12/13 12:26 2/13 12:00		

2. Input the arguments for the program in the **Run Program** window and then click **OK**.

nArm.exe	"	
<u></u>	_	
OK		Cancel
	OK	OK

3. The output for the program will appear in a popup window, as shown below.

🔚 The Output of Program(s)	
COM50, Key=Drivers\BuiltIn\Serial,Name=\$device\COM50,bus=\$bus\BuiltIn_0_19_0	~
NWF1:, Key=,Name=\$device\NWF1,bus=\$bus\NWF1	
NDS0:, Key=Drivers\BuiltIn\NDIS,Name=\$device\NDS0,bus=\$bus\BuiltIn_0_1_0	
PIO1:, Key=Drivers\BuiltIn\GPIO,Name=\$device\PIO1,bus=\$bus\BuiltIn_0_16_0	
COM2:, Key=Drivers\BuiltIn\Serial2,Name=\$device\COM2,bus=\$bus\BuiltIn_0_20_0	
IPD0:, Key=TCPIP\IPDevice,Name=\$device\IPD0,bus=\$bus\IPD0	
TCP0:, Key=TCPIP\TCPDevice,Name=\$device\TCP0,bus=\$bus\TCP0	
RDR0: , Key= Name=\$device\RDR0,bus=\$bus\RDR0	
UIO1:, Key=Drivers\BuiltIn\NDISUIO,Name=\$device\UIO1,bus=\$bus\BuiltIn_0_4_0	
ARS1:, Key=Drivers\BuiltIn\autoras,Name=\$device\ARS1,bus=\$bus\BuiltIn 0 3 0	
ZCF1:, Key=Drivers\BuiltIn\ZeroConfig,Name=\$device\ZCF1,bus=\$bus\BuiltIn 0 5 0	
WLS1:, Key=Drivers\BuiltIn\WLS\/C,Name=\$device\WLS1,bus=\$bus\BuiltIn 0 6 0	
_PC1:, Key=,Name=\$device\LPC1,bus=\$bus\LPC1	
VBT1:, Key=Drivers\BuiltIn\Netbios,Name=\$device\NBT1,bus=\$bus\BuiltIn 0 12 0	
COM10, Key=Drivers\BuiltIn\PCI\Instance\MU8608,Name=\$device\COM10,bus=\$bus\PCI_0_2_0	
COM9: , Key=Drivers\BuiltIn\PCI\Instance\MU8607,Name=\$device\COM9,bus=\$bus\PCI_0_2_0	
COM8: , Key=Drivers\BuiltIn\PCI\Instance\MU8606,Name=\$device\COM8,bus=\$bus\PCI_0_2_0	
COM7: , Key=Drivers\BuiltIn\PCI\Instance\MU8605,Name=\$device\COM7,bus=\$bus\PCI 0 2 0	
COM6: , Key=Drivers\BuiltIn\PCI\Instance\MU8604,Name=\$device\COM6,bus=\$bus\PCI 0 2 0	
COM5: , Key=Drivers\BuiltIn\PCI\Instance\MU8603,Name=\$device\COM5,bus=\$bus\PCI_0_2_0	
COM4:, Key=Drivers\BuiltIn\PCl\Instance\MU8602,Name=\$device\COM4,bus=\$bus\PCI_0_2_0	
COM3:, Key=Drivers\BuiltIn\PCI\Instance\MU8601,Name=\$device\COM3,bus=\$bus\PCI 0 2 0	
HCD1:, Key=Drivers\BuiltIn\PCI\Instance\UHCl2,Name=\$device\HCD1,bus=\$bus\PCI 0 0 1	
HCD2:, Key=Drivers\BuiltIn\PCI\Instance\UHCI1,Name=\$device\HCD2,bus=\$bus\PCI 0 0 0	
HCD3:, Key=Drivers/BuiltIn/PCI/Instance/ehci1,Name=\$device/HCD3,bus=\$bus/PCI 0 0 2	
VOR1: Key=Drivers\BuiltIn\NOREMD Name=\$device\NOR1 hus=\$hus\BuiltIn 0.15.0	
Clear	Close

### Configuring a Program to Launch on Bootup

Follow these steps to configure a program to launch when the embedded computer boots up.

1. To configure a program to run automatically when the system boots up, right click on the program name in the right panel of the dual-panel file manager, and then select **Set to Auto Launch...**.

192.168.27	.155 - Device I	Manager					
START						Panel	
😂 File Manage							_ 7 🗙
100			Temp				
Name	Size	Modified	Name	Size	Modified		
Control Par bruce's Doc Shared Doc 3% Floppy Cocal Disk	:u :u (A:) (C:)		Spoole	mi.t. <u>4 kB</u> Download Rename Delete New Folder Run Program Set to Auto Laun	2006/12/13 12:26 2/13 12:00		

2. Input the arguments for the program in the **Set to Auto Launch** window, and then click **OK** to add the program to the auto launch list.

🔜 Set to Auto Launch	
File Name: \NORFlash\FB	RunArm.exe
Arguments:	
	OK Cancel

**NOTE** We recommend adding the MDM agent program to the auto launch list. Doing so will make it easier to control large numbers of embedded computers, and embedded computers that are located at remote locations.

### Managing Users and User Groups

### Adding or Deleting a User Group

MDM gives administrators the ability to manage users and user groups.

1. Click **START** on the top menu bar and select **Controls**  $\rightarrow$  **User Management**.

<b>I</b> 19	2.168.27.155 Dev	ice M	anage	20					
S	TART							Panel	
	File Management								
1	Controls	•	<u>.</u>	User Management					
6	Programs	×	1	Auto Launch					
龜	Networking								
展	Serial Port								
Q	System								
O	Reboot Device								

2. When the **User Management** interface window opens, click on the **administrators** tab. To create a new group, type the name of the group in the **New Group** input box, and then click the **Add** button. Click **Delete** to delete an existing user group.

📓 User Manag	ement				
Users in a group group before ad			service ass	ociated with th	e group. Add a new
administrators	ftpd	telnetd			
admin					
New Group:			Add	Delete	
					Refresh Close

### Changing a User's Username and Password

Follow these steps to change a user's username and password.

1. To change the password of a user, right click on the user and select **Change Password** from the menu of commands.

User Manage Users in a group		cooce the	conico accor	vioted with the	e group. Add a new
group before ad			Service assoc	ateo with the	e group. Add a new
administrators	ftpd	telnetd			
- admin					
		Add User			
		Delete User			
		Change Pas	sword		
-			16		
New Group:			Add	Delete	
					Refresh Close

2. Type in the Old Password and New Password and then click OK.

Ar Change Passwo	ord	×
Old Password		
New Password	Cancel	

### **Assigning Auto Launch Programs**

1. To assign auto launch programs, click **START** on the top menu bar and select **Controls**  $\rightarrow$  **Auto Launch**.

START	-			Panel
🛛 🛛 File N	lanagement			
Contr	ols	•	User Management	
🔒 Progr	ams	• <b>M</b>	Auto Launch	
Netwo	orking			
📕 Seriai	Port			
Syste.	m			
Rebo	ot Device			

2. In the **Auto Launch List** window, click on a program and then click the up and down arrows as needed to change the launch sequence of the programs in the auto launch list. Click **Apply** to activate the new list.

🌃 Auto Launch List	
Program ce_neci.exe \norflash\appserver.exe	Arguments
	Edit Delete

- To delete a program from the list, select the program and then click **Delete** in the lower right corner.
- > To edit a program's argument list, select the program and then click **Edit** in the lower right corner, and then edit the list of arguments in the popup window.

### **Monitoring Processes**

1. Click **START** on the top menu bar and select **Programs** → **Processes** to open the **Process Manager**.



2. The **Process Manager** lists the applications that are currently running. To stop an application, click on the application name to highlight it, and then click the **Kill** button in the lower right corner of the window.

💵 Process Mana	ger		
Name	ID	Status	
appserver.EXE	1203314646	Running	
ce neci.exe	2277793830	Running	
CMD.EXE	3351101682	Running	
device.exe	3891970794	Running	
filesys.exe	2818477066	Running	
gwes.exe	2816330070	Running	
NK.EXE	134213634	Running	
services.exe	668368030	Running	
			Kill Close

### **Monitoring and Controlling Services**

1. Click **START** on the top menu bar and select **Programs** → **Services** to open the **Service Manager**.



#### **MDM Operation**

#### MOXA Device Manager User's Guide

2. The **Service Manager** lists the status (Running or Stopped) of all services installed on the embedded computer. To start an application, click on the application name to highlight it, and then click the **Start** button in the lower right corner of the window. To stop an application, click on the application name to highlight it, and then click the **Stop** button in the lower right corner of the window.

escription nsole Service delsec.dll P Service TPD.DLL DTIFY.DII tesvc.dll beserver.dll net Service netd.dll g.dll	Status Running Running Running Running Running Running Running Stopped
idsvc.dll P Service TPD.DLL DTIFY.DII iesvc.dll ibserver.dll net Service netd.dll	Running Running Running Running Running Running Running Running
P Service TPD.DLL DTIFY.DII iesvc.dII ibserver.dII net Service netd.dII	Running Running Running Running Running Running Running
TPD.DLL DTIFY.DII iesvc.dll ibserver.dll net Service netd.dll	Running Running Running Running Running Running
DTIFY.DII lesvc.dll lbserver.dll net Service netd.dll	Running Running Running Running Running
iesvc.dll ibserver.dll inet Service netd.dll	Running Running Running Running
net Service netd.dll	Running Running Running
netd.dll	Running Running
	Running
g. dll	
	Sta

### **Configuring Networking Settings**

1. Click START on the top menu bar and select Networking.



2. If your computer obtains IPs from a DHCP server, click the **DHCP Enabled** button. Otherwise, click the **Using Fixed IP** button and edit the **IP address**, **Submask**, and **Gateway** (if applicable). Click **Apply** to activate the new settings.

📽 Network Manag		
IXP425ETHNPE1	IXP425ETHNPE2	
	HCP Enabled	
IP A	ddress :	192.168.27.155
Sub	Mask :	255.255.255.0
Gate	eway :	
		Арріу
		Advanced Refresh Close

- 3. Click the Advanced... button to configure domain name servers.
- 4. In the **Networking Advanced Settings** popup window, select a network port to examine the domain name servers.

DNS			~
Domain Name S	erver List		
192.168.27.99 192.168.27.98			[
	Add	Delete App	

To add a server to the list, click Add....and then type the IP address of the server in the popup window. Click OK.

192.168.27.	97	

- To delete a server from the list, click the server's IP address to highlight it, and then click Delete.
- 5. Click **Apply** to activate the changes.

### **Configuring Serial Ports**

1. Click **START** on the top menu bar and select **Serial Port** to open the **Serial Port Manager** window.

ART	Panel
File Management	
Controls +	
Programs +	
Networking	
Serial Port	
System	
Reboot Device	

2. Click on one of the COM port numbers listed near the top of the window, and then modify the serial port settings, as needed. Click **Apply** to activate the configurations. Click **Refresh** to display the new configuration onscreen.

🥗 Serial Port Manage				
COM3 COM4 COM			COM9 COM10	
Optio	ns			
Ope	ration Mode : [	RS232	~	
	Baud Rate : [	9600	~	
	Data Bits :	8	~	
	Parity :	None	*	
	Stop Bits :	1	*	
	Control RTS/CTS	] XON/XOFF		
			Apply	
			Refres	h Close

# A Service Information

This appendix shows you how to contact MOXA for information about this and other products, and how to report problems.

The following topics are covered in this appendix.

- **MOXA Internet Services**
- **D** Problem Report Form
- **D** Product Return Procedure

### **MOXA Internet Services**

Customer satisfaction is our primary concern. To ensure that customers receive the full benefit of our products, MOXA Internet Services has been set up to provide technical support, driver updates, product information, and user's manual updates.

The following services are provided

E-mail for technical support.....support@moxa.com

Website for product information:

.....<u>http://www.moxa.com</u>

### **Problem Report Form**

### MOXA Embedded Computer Series

Customer name:		
Company:		
Tel:	Fax:	
Email:	Date:	

1. MOXA Product: \_\_\_\_\_

2. Serial Number: \_\_\_\_\_

**Problem Description:** Please describe the symptoms of the problem as clearly as possible, including any error messages you see. A clearly written description of the problem will allow us to reproduce the symptoms, and expedite the repair of your product.



### **Product Return Procedure**

For product repair, exchange, or refund, the customer must:

- Provide evidence of original purchase.
- Obtain a Product Return Agreement (PRA) from the sales representative or dealer.
- Fill out the Problem Report Form (PRF). Include as much detail as possible for a shorter product repair time.
- Carefully pack the product in an anti-static package, and send it, pre-paid, to the dealer. The PRA should be visible on the outside of the package, and include a description of the problem, along with the return address and telephone number of a technical contact.