UNO-1019

PXA 200MHZ, 64MBRAM, 2xLAN, 4xCOM Universal Network Controller

User Manual

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- 5. Write the RMA number visibly on the outside of the package and ship it prepaid to your dealer.

Declaration of Conformity

CE

This product has passed the CE test for environmental specifications when shielded cables are used for external wiring. We recommend the use of shielded cables. This kind of cable is available from Advantech. Please contact your local supplier for ordering information.

FCC Class A

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Technical Support and Assistance

- Step 1. Visit the Advantech web site at **www.advantech.com/support** where you can find the latest information about the product.
- Step 2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:

- Product name and serial number

- Description of your peripheral attachments

- Description of your software (operating system, version, application software, etc.)

- A complete description of the problem
- The exact wording of any error messages

Safety Instructions

- 1. Read these safety instructions carefully.
- 2. Keep this User's Manual for later reference.
- 3. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
- 4. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
- 5. Keep this equipment away from humidity.
- 6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage.
- 7. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.
- 8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
- 9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
- 10. All cautions and warnings on the equipment should be noted.
- 11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
- 12. Never pour any liquid into an opening. This may cause fire or electrical shock.
- 13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
- 14. If one of the following situations arises, get the equipment checked by service personnel:
- a. The power cord or plug is damaged.
- b. Liquid has penetrated into the equipment.
- c. The equipment has been exposed to moisture.
- d. The equipment does not work well, or you cannot get it to work according to the user's manual.
- e. The equipment has been dropped and damaged.
- f. The equipment has obvious signs of breakage.

- 15. DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -20° C (-4° F) OR ABOVE 60° C (140° F). THIS COULD DAM-AGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.
- 16. CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER, DISCARD USED BATTERIES ACCORD-ING TO THE MANUFACTURER'S INSTRUCTIONS.

The sound pressure level at the operator's position according to IEC 704-1:1982 is no more than 70 dB (A).

DISCLAIMER: This set of instructions is given according to IEC 704-1. Advantech disclaims all responsibility for the accuracy of any statements contained herein.

Safety Precaution - Static Electricity

Follow these simple precautions to protect yourself from harm and the products from damage.

- 1. To avoid electrical shock, always disconnect the power from your PC chassis before you work on it. Don't touch any components on the CPU card or other cards while the PC is on.
- 2. Disconnect power before making any configuration changes. The sudden rush of power as you connect a jumper or install a card may damage sensitive electronic components.

Contents

Chapter	1	Overview	2
•	1.1	Introduction	2
	1.2	Features	2
	1.3	Hardware Specifications	3
	1.4	Chassis Dimensions	5
		Figure 1.1:UNO-1019 Top View Dimensions	. 5
		Figure 1.2:UNO-1019 Side View Dimensions	. 5
		Figure 1.3:UNO-1019 Front View Dimensions	. 6
		Figure 1.4:UNO-1019 Bottom View Dimensions	. 6
Chapter	2	Installation	8
-	2.1	Overview	8
		Figure 2.1:UNO-1019 Overview	. 8
	2.2	LEDs	9
		Table 2.1:UNO-1019 LED Definitions	. 9
	2.3	Network Connections	9
	2.4	Serial Connections	0
		2.4.1 Serial Type Selection	10
		Figure 2.2:COM3 & COM4 Serial Selection	10
		2.4.2 Enable Mode	11
		2.4.3 Terminal Resistor	11
		Figure 2.3: COM3& 4 Terminal Resistors (JP8& 10).	11
	2.5	Power Connections	13
		Figure 2.4:Power Pin Assignments	13
	2.6	Digital Input/Output	4
		Figure 2.5: Digital I/O Pin Assignments	14
		Figure 2.6:Digital Input Connection (Dry Contact)	15
		Figure 2. /: Digital Input Connection (Wet Contact)	15
		Figure 2.8:Digital Output Connections (Wet Contact)	16
	2.7	CompactFlash	10
	2.8	Nounting	17
		2.0.1 Faller Mounting	17
		Figure 2.19: Attach UNO 1010 to the Well	10
		Pigure 2.10. Attach UNO-1019 to the wall	10
		2.6.2 DIN-Tall Mounting	19
		Figure 2.12:Installation to DIN-fall Step 1	19 20
		Figure 2.12.Installation to DIN -fall Step 2	20 51
~	-	Figure 2.13.Installation to DIN-rall Step 5	21
Chapter	3	Initial Setup 2	4
	3.1	Initial Procedure	24
Chapter	4	Advanced Applications 3	2
	4.1	Inserting a CompactFlash Card	32
	4.2	ActiveSync Connection	32

4.3	Remo	te Access Server Configuration	
4.4	Autor	un Configuration Note	51
4.5	Appli	cation Development Procedure	55
	4.5.1	Application Development Procedure	55
	4.5.2	Watchdog Timer	
	4.5.3	DIO, LED and Buzzer	
4.6	Savin	ng Your Settings	72
4.7	UNO	-1019 Network Administration User Guide .	72
	4.7.1	Network Administration	73
	4.7.2	File Server	
	4.7.3	FTP Server	85
	4.7.4	Telnet Server	
	4.7.5	Restart Network	

CHAPTER

Overview

This chapter gives background information on the UNO-1019. It shows you the UNO-1019 overview and specifications.

Sections include:

- Introduction
- Features
- Hardware Specifications
- Safety Precautions
- Chassis Dimensions

Chapter 1 Overview

1.1 Introduction

Advantech's UNO-1019 is a RISC-grade embedded platform that offers 2 LANs, 4 serial ports and 4 Digital Inputs and Outputs to fulfill user's I/O device expansion. For data storage, UNO-1019 also provides a CompactFlash for data storage.

UNO-1019 comes with a Windows CE.NET OS offering a pre-build image on board. Microsoft Windows CE is a compact, highly efficient, real-time operating system designed for embedded systems.

UNO-1019 could operate well under $0 \sim 70^{\circ}$ C, its small size and light weight could fit in industrial robust environment.

With these advantage, UNO-1019 is suitable for communication gateway for converting communication protocol, IO control and data storage.

UNO-1019 is a perfect embedded ready platform that can shorten your development time and offer a rich networking interface to fulfill your diverse requirements.

1.2 Features

- Intel XScale PXA-255 200 MHZ Processor
- 64 MB SDRAM on board, 16 MB Flash
- 2 RS-232, 2 RS-232/422/485 serial ports
- Dual 10/100 Mbps Ethernet
- 1 compact flash for data storage
- 4 channel Digital input and output
- 3 channel LED for user define
- Ready platform for WinCE.NET build in flash
- Included remote display for easy configuration
- Fanless design for reliable system
- Compact size and light weight
- $0 \sim 70^{\circ}$ C wide range operation
- DIN-rail and wall mounting
- Optional serial isolation protection

UNO-1019 User Manual

1.3 Hardware Specifications

General

 Certifications 	CE, FCC Class A
• Dimensions (W*H*D)	46 x 162 x 126 mm
• Enclosure	ABS+PC with solid mounting hardware
• Mounting	DIN35 rail, wall
Power Consumption	8.5W
Power Requirement	3 W (10 ~ 30 V _{DC})
• Weight	400g

System Hardware

• CPU	32 bit Intel XScale PXA255 200 MHz
• Memory	64 MB SDRAM
Indicators	Power, Serial (Tx,Rx), User Define (3 Led)
• Storage	Onboard 16 MB Flash memory
• SSD:	1 x internal type I/II CompactFlash slot
• Others	Real Time Clock, Watch Dog Timer

System Software

•	OS	WinCE .NET 4.2 (in flash memory)
•	Remote Display	uScope Remote Display

Communication

 Serial Ports 	2 × RS-232, 2 x RS-232/422/485 w/ DB9
	Automatic RS-485 data flow control
Serial Port Speed	RS-232: 300 ~ 115.2 kbps
	RS-422/485: $300 \sim 115.2 \text{ kbps}$
• LAN	2 x 10/100 Base-T RJ-45 ports

Digital I/O	
Digital In	2 Digital Input
	Dry Contact
	Logic level 0 : Open
	Logic level 1 : Close
	Wet Contect
	Logic level 0: +3V max
	Logic level 1: +10VDC to 30VDC
Digital Out	2 Digital Output
	Open Collect to 30V
	200mA max Load
	Power Dissipation 450mW

Environment

•	Operating	Temperature
---	-----------	-------------

- Storage Temperature
- Operating Humidity
- Storage Humidity

0 ~ 70° C (32° ~ 158° F) -20° ~ 80° C (-4° ~ 176° F) 20 ~ 95% (non-condensing) 0 ~ 95% (non-condensing)



Figure 1.1: UNO-1019 Top View Dimensions



Figure 1.2: UNO-1019 Side View Dimensions



Figure 1.3: UNO-1019 Front View Dimensions



Figure 1.4: UNO-1019 Bottom View Dimensions

UNO-1019 User Manual

CHAPTER CHAPTER

Installation

In this chapter, you will be given an overview of the UNO-1019 hardware installation procedures.

Sections include:

- Overview:
- LED
- Network Connections
- Serial Connections
- Power Connections
- Digital Input/Output
- CompactFlash
- Mounting

Chapter 2 Installation

2.1 Overview



Figure 2.1: UNO-1019 Overview

Item	Description	
1	Serial Port	
2	Networking port	
3	LED	
4	CompactFlash slot	
5	Power	
6	Digital input/output	

UNO-1019 User Manual

2.2 LEDs

LEDs to display the power, network, serial and programmable LED status are located on the front panel of UNO-1019, and each of them has its own specific meaning, as shown in the table below.

Table 2.1: UNO-1019 LED Definitions			
LED	Color	Status	Description
PWR	RED	On	System power is on
		Off	System power is off
D1~D3	Green	User programmable	
Serial TX	Yellow	On	Serial port is transmitting data
		Off	Serial port is not transmitting data
Serial RX	Green	On	Serial port is receiving data
		Off	Serial port is not receiving data
Networking	Green	On	Connected to network
Link		Off	Not connected to network
		Flash	Data is transmitting/receiving
Networking	Yellow	On	Link to 100 Mbps network
Speed		Off	Link to 10 Mbps network

2.3 Network Connections

UNO-1019 is equipped with 2 x 10/100 Mbps TX Ethernet ports. The Ethernet ports provide standard RJ-45 jack, and LED indicator on front panel shows link (green) and network speed (yellow).

2.4.1 Serial Type Selection

UNO-1019 provides 4 serial Com ports, COM1 & COM2 provide RS-232, and COM3 & COM4 provide RS-232/422/485. The default settings of COM3 & COM4 is RS-422/485, and the UNO-1019 could identify RS-422 or RS-485 automatically according to your wiring. If users want to change the serial type, the chassis can be opened and modified.



Figure 2.2: COM3 & COM4 Serial Selection

2.4.2 Enable Mode

You could set the Enable mode by using DIP switches (S10). If the switches are set to "Off", the driver automatically senses the direction of the data flow and switches the direction of transmission. No handshaking is necessary. If DIP switches are set to "On," the driver is always enabled, and always in high or low status. Please must select a mode before beginning RS-422 applications.

Default Setting is "Off"



Switch position	Description
On	RS-422 master
Off	RS-422 slave or RS-485 Automatic Direction Control

2.4.3 Terminal Resistor

You can install terminator resistors if necessary to match impedance. Each signal line (Tx+/Tx-/Rx+/Rx-/Data+/Data-). Especially in fields with electric noise, installing terminal resistors is helpful to stabilize communications. Make sure that both sides of the RS-422 or RS-485 communication ports are installed on BUS.

You could install jumpers on JP8 and JP10 to enable terminal resistor (1200hms) for RS-422 or RS-485 of COM3 and COM4. The detail jumper setting shows as following figure.





Figure 2.3: COM3& 4 Terminal Resistors (JP8& 10)

Refer to the figure and table below for COM1 & COM2 descriptions.



COM1 & COM2 Pin Assignments		
Pin	RS-232	
1	DCD	
2	RxD	
3	TxD	
4	DTR	
5	GND	
6	DSR	
7	RTS	
8	CTS	
9	RI	

Refer to the figure and table below for COM3 & COM4 descriptions.



COM3 & COM4 Pin Assignments						
Pin	RS-232	RS-422	RS-485			
1	DCD	TxD-	Data-			
2	RxD	TxD+	Data+			
3	TxD	RxD+	-			
4	DTR	RxD-	-			
5	GND	GND	GND			
6	DSR	-	-			
7	RTS	-	-			
8	CTS	-	-			
9	RI	-	-			

2.5 Power Connections

UNO-1019 supports $+10 \sim 30 \ V_{DC}$ power inputs. A detailed power pin image is shown below



Figure 2.4: Power Pin Assignments

2.6 Digital Input/Output

There are two digital inputs and outputs for UNO-1019.



Figure 2.5: Digital I/O Pin Assignments

You can refer to Figures 2.6 & 2.7 for the digital input connection.

UNO-1019 provides 2 ways to use digital inputs function, please refer below figure shows how to connect digital input function.





Figure 2.6: Digital Input Connection (Dry Contact)

Wet Contact



Figure 2.7: Digital Input Connection (Wet Contact)

UNO-1019 also provides digital outputs connection, please refer below figure shows how to connect digital output function. (The default DO status is high)



Figure 2.8: Digital Output Connections (Wet Contact)

2.7 CompactFlash

The procedure for installing a CompactFlash card into the UNO-1019 is detailed below, please follow these steps carefully

- 1. Make sure system power is off
- 2. Remove the power cord
- 3. Remove CompactFlash the card door on the top panel of UNO-1019
- 4. Plug a CompactFlash card into a CompactFlash card slot.

2.8 Mounting

UNO-1019 supports two different mounting methods: Panel & DIN-rail.

2.8.1 Panel Mounting

UNO-1019 can be wall mounted by using the included mounting kit.

First, use the screws included in the package to combine the UNO-1019 and metal mounting kit.



Figure 2.9: Combine the Metal Mounting Kit

Then, screw the whole device to the wall.



Figure 2.10: Attach UNO-1019 to the Wall

2.8.2 DIN-rail Mounting

You can also mount UNO-1019 on a standard DIN-rail by below steps. First, pull down the kit in the back of UNO-1019



Figure 2.11: Installation to DIN-rail Step 1

Then, hang the UNO-1019 to the DIN-rail with angle of inclination.



Figure 2.12: Installation to DIN -rail Step 2

Put the UNO-1019 at a right angle with the Din-rail. The grounding spring in the back should be flush with the aluminum rail. Then pull up the kit to wedge the UNO-1019 firmly into place.



Figure 2.13: Installation to DIN-rail Step 3

UNO-1019 User Manual



Initial Setup

This chapter shows how to initialize the UNO-1019, sections include:

Sections include:

- Initial Procedure
- Configure UNO-1019

Chapter 3 Initial Setup

3.1 Initial Procedure

The UNO-1019 offers an easy setup feature: it takes four easy steps for your initial setup before use. Take out the UNO-1019 from the package and follow the steps below for initial setup:

- 1. Connect all peripheral devices, such as RJ-45 connector of Ethernet connection, RS-232 (RJ-48 connector) and RS-485 connectors.
- 2. Connect the power cord to the UNO-1019 and plug the other end of the cord into the power outlet, and then UNO-1019 boots up immediately. (IP Default setting : LAN1 is 10.0.0.1, LAN2 is 10.0.0.2)
- 3. The UNO-1019 default IP is set as 10.0.0.1. Please set the IP of your host computer to be static IP : 10.0.0.XXX for connection with UNO-1019.
- 4. Using the uScope tool to re-configure the IP of UNO-1019 to meet your network configuration. The path of uScope Remote Display Tool in UNO-1019 CD is "\uScope Remote Display Tool\uScope.EXE ".

uScope Remote Display Tool

This tool works only with Ethernet connection. It requires that both the computer and the UNO-1019 have the same Subnet Mask. The default IP address for LAN1 is : 10.0.0.1 and the default Subnet mask is: 255.255.255.0. So you can set your computer IP address to 10.0.0.3 and set the Subnet mask to 255.255.255.0.



*actually you can set any IP address other than 10.0.0.1 and 10.0.0.2 from 10.0.0.3 to 10.0.0.255. If you connected you computer and UNO-1019 to a router, don't set your computer IP address the same as the Router's.

Connect UNO-1019 with your computer by using a **crossover** Ethernet cable. Or connect both UNO-1019 and your computer into a hub.

After UNO-1019 boot up, it will broadcast it's IP to the network. uScope Remote Display tool running on you computer will detect the UDP message that send out by UNO-1019 and show the device name and IP in it's device list. You can select and connect to the device (UNO-1019) in the list as you want.

Double Click the uScope icon in configuration computer:

📕 uScope Remote Disj	lay	
Last connected IP	172.18.3.75	Reset
		Connect Show List Exit

Click the "Show List" bottom :

C	Connectable Resources		
	IP Addr 172.18.3.75		Avail Y
		Connect	Cancel

Choose the connected device in the list :

Connectable Res		
IP Addr 172.18.3.75		Avail Y
	Connect	Cancel

After clicking "Connect" bottom, the configuration computer will connect with UNO-1019. The remote display screen will be as following :





Please go to the "Command Prompt" for network IP setting

CE Remote Window	
<u>File E</u> dit <u>H</u> elp	×
Pocket CMD v 4.20	^
	-
Start KCommand Prompt	🔕 🕹 12:19 AM [

User can use "ipchange" command for IP change setting in command prompt mode. Please type "ipchange /?" for command reference.



If LAN1 of UNO-1019 will be set as DHCP, the ipchange 1/1 will be used as set up command. If LAN2 of the UNO-1019 will be set as the specific IP address, the setting command and procedure should be as following :


Press "Enter", the remote display will show the following message.

```
CE Remote Window
                                                                                                                         <u>File Edit H</u>elp
                                                                                                                                    ×
Pocket CMD v 4.20
 > ipchange /?
 ******** IP Changing Utility *********
Advantech Automation Corp. 2006
Usage: ipchage paraml param2 param3 param4
param1: 1 or 0 (Enable/Disable DHCP)
param2: xxx.xxx.xxx (IP Adtress)
param3: xxx.xxx.xxx (Subnet Mask)
param4: /1 or /2 (Ethernet Adapter 1 or 2)
255.255.255.0 will be used if param3 is omitted.
           /1 will be used if param4 is omitted.
Example: ipchange 0 192.168.0.12 255.255.255.0 /2
\> ipchange 0 10.0.0.5 255.255.255.0 /2
New Network Settings of Adapter2:
DHCP: Disabled
IP Address: 10.0.0.5
Subnet Mask: 255.255.255.0
Saving Regitry...
Done
Note: New settings will take effect after reboot.
                                                                                                   🕹 🕹 🛞 12:21 AM 🛛 🙆 🇭
💦 Start 🛛 🎆 Command Prompt
```

Wait for the "Saving Registry Done" to make sure the IP change setting work is successfully done.

Power on the UNO-1019 module again to reboot the WinCE for new IP address implement.

Note: The uScope Remote Display tool is only used for the configuration work. It wasn't design to run a long time to be used as the remote monitoring tool.

UNO-1019 User Manual



Advanced Applications

This Chapter will provide detailed explanations of the UNO-1019's Advanced Applications

Sections include:

- Inserting a CompactFlash Card
- ActiveSync Connection
- Remote Access Configuration
- Autorun Configuration
- Application Development Procedure
- Saving Your Settings
- Network Administration User Guide

Chapter 4 Advanced Applications

4.1 Inserting a CompactFlash Card

The procedure for installing a CompactFlash card into the UNO-1019 is as follows, please follows these steps carefully.

- 1. Remove the power connector to power off the UNO-1019
- 2. Remove the CF slot cover.
- 3. Plug a CompactFlash card with user's OS and application program into a CompactFlash card slot on board.
- 4. Plug in the CD slot cover for protecting the CF card.
- 5. Connector the power connector to re-power on the UNO-1019
- Note: How to update the WinCE.NET 4.2 Image for UNO-1019? Please follow the above steps to plug in the CF card with image (the image file is put in the path:\UNO-1019\Image of UNO-1019 CD. please copy the image file from CD to CF card and please be noticed the format of the CF card must be FAT16) then wait for 5 minutes for rebooting the UNO-1019 with new image.

4.2 ActiveSync Connection

- Using a null-modem cable connect UNO-1019 COM1 with one of COM port on your computer
- Install Microsoft ActiveSync software on your computer and make the serial port you want connect with UNO-1019 available for ActiveSync (see ActiveSync help for details).
- Note: UNO-1019 will use 115200 as it default BaudRate for the ActiveSync connection. If your ActiveSync program never accept a connection at this BaudRate before, you' might get a timeout. Since it needs to scan from low to high BaudRate, if that takes too long, UNO-1019 will stop trying connect to your computer. So, its better to use another CE device which has a display to connect to you Desktop through ActiveSync at 19200 BaudRate first. Thus ActiveSync on your desktop PC will remember this Baud Rate, and next time when UNO-1019 try to connect to it at this Baud Rate, it'll connect easily.

ActiveSync Connection

The tool is used for the application program on-line programming/debug requirement. User has to install the Microsoft ActiveSync program in configuration computer first. For the detail operating procedure of ActiveSync, please follow the steps by steps operating guide.

Step 1 : Setting Up ActiveSync in a Configuration Computer

- 1. Insert UNO-1019 CD into the configuration computer.
- 2. Install UNO-1019 Software Development Kit for eVC++ from below path: \UNO-1019\SDK
- 3. Install Microsoft ActiveSync 4.1 from below path: \ActiveSync
- 4. Please connect the ActiveSync cable (Null Modem cable, Advantech part no. : 1703093000) to COM1 of UNO-1019 and the COM port of configuration computer for ActiveSync communication.

Step 2 : Connect the UNO-1019 via DiagAnywhere through Ethernet. Step 3 : Configure COM1 of UNO-1019

Press Start of task bar of window system and select "Settings" / "Net-work and Dial-up Connections".



1. Click the icon "Make New Connection"



Select the connection type: Direct Connection, then press Next

Ele Edit View Advanced X I TO	NO 1
s. \$	4
Connection Make New Connection Type a name for the connection: My Connection My Connection Select the connection type: Dial-Up Connection Dial-Up Connection Virtual Private Network (PPTP) Virtual Private Network (L2TP) PPP over Ethernet [PPPoE] < Back Next >	₹

2. Choose the COM port of UNO-1019.

Device 🛛
My Connection
Select a device:
Serial Port on COM1:
Serial Port on COM1:
Serial Port on COM2:
TCP/IP Settings Security Settings
< <u>B</u> ack Finish

3. Press Start / Settings / Control Panel, and then "PC Connection".

CE Remot	te Window							
<u>File View</u>							₩?	×
Ö	1		8	8	-	٢		
Certificates	Date/Time	Dialing	Display	Internet Options	Keyboard	Mouse	Network and Dial-up Co	
<u>8</u> 2	6	242	31	-	2	0	30	
Owner	Password	PC Connection	RAS Server	Regional Settings	Remove Programs	Storage Manager	System	
Start 0	Control Donal						A 1. 2.44 AM	103

4. Click Change button to choose your network communication. In this example, change the network to "**My Connection**".



Step 4 : Setting Up the Communication Environment of the Host

1. Double click the icon ActiveSync.



2. Select File/Connection Settings

Microsoft ActiveS	ync 🔤 🔀
<u>F</u> ile <u>V</u> iew <u>T</u> ools <u>H</u> e	lp
<u>S</u> ynchronize Stop	xplore Options
<u>M</u> obile Device <u>Explore</u> <u>D</u> elete Partnership	, <u>ps</u>
<u>G</u> et Connected <u>C</u> onnection Settings	
Close miomation rype	- Status

3. Configure the connection settings as below.

Connect	tion Settings 💦 🔀	<				
Click Get Connected to connect your mobile device to thi computer.						
	Status: Waiting for device to connect Get Connected					
R Allo	w serial cable or infrared connection to this COM port					
	DM1					
Stat	tus: COM port is not available					
	w USB connection with this desktop computer.					
Stat	tus: Not Supported					
Allo serv	w <u>n</u> etwork (Ethernet) and Remote Access Service (RAS) ver connection with this desktop computer.					
Stat	tus: Network is available					
_ Statu:	s icon					
⊽ S	ihow status jeon in Taskbar.					
	OK Cancel Help					

4. After you configure the connection setting, it will show the below dialog window when you press Get Connected



Note: Don't click Next button at this time.

5. Press Start/ Run of UNO-1019; enter the \windows\repllog.exe in the command line of and press OK button



UNO-1019 User Manual



6. Now, press the Next button in the "Get Connected" dialog in the host. It will build the connection between UNO-1019 and host.

Get Connected	×
Checking COM Ports Please wait while Setup locates your mobile device.	ζŤ.
Progress	
Looking for a mobile device Checking on COM Port 1	
< Back Next > Cance	Help

7. If the connection between UNO-1019 and the host has been established, you will see below message in UNO-1019.

<u>F</u> ile ⊻iew	•						?	×
Ċ,	P			8	9	1	Ċ	
Certificates	Date/Time	Device Management	Dialing	Display	Input Panel	Keyboard	Mouse	
	<u> </u>	8		4	31	-	2	
Network and Dial-up Co	Owner	Password	PC Connection	Power	RAS Server	Regional Settings	Remove Programs	
0	Con	nected to My	Connectio	n				
Storage Manager	Styl	Connect	ed					
		Hide this	s message:	H	ide			
				Disco	onnect			
🌮 Start 👟	Network Cor	nnecti 📴 O	ontrol Panel				🕹 🍠 9:59 PM	10

8. If the connection between UNO-1019 and the host has been established, you will see below message in the host.



Select No, then press Next button.

After the New partnership setting, it will show the below dialog window in the host.

😌 Microsoft ActiveSync	_ 🗆 🗵
<u>F</u> ile ⊻iew <u>T</u> ools <u>H</u> elp	
Sync Stop Details Explore Options	
Guest	
Connected	
Information Type Status	

9. Press Explore button in Microsoft ActiveSync window, it will pop up the Mobile Device window to display the file resources and information of UNO-1019 as below:

For example, if you click the icon "My Documents", you will see the content of storage in UNO-1019.

🚺 Mobile Device	
檔案(F) 編輯(E) 核視(Y) 我的最愛(A) 工具(I) 説明(Ⅱ)	
〜上−頁・⇒、□ ③捜尋 □資料夾 ③記錄 喧 喧 × ∞ 囲・	
網址① 🚺 Mobile Device	∂移至
Mobile Device My Computer Excel Viewer Image Viewer Inhox Inhome 講選擇項目來檢親它的說明。 My Computer Excel Viewer Image Viewer Inhox Image Viewer 講選擇項目來檢親它的說明。 My Documents PDF Viewer PowerPoint Viewer PowerPoint Viewer PowerPoint Viewer Word Viewer Word Viewer Word Viewer Not Viewer PowerPoint Viewer	
11 object(s)	1.

Begin Transferring Files from the PC to UNO-1019



Double click "My Computer" in "Mobile Device" for file translation.



4.3 Remote Access Server Configuration

UNO-1019 provides "Remote Access Services" which offers the possibilities for remote network and user to have TCP/IP access local mail servers, access to database, web servers or other Intranet services.

The following description introduces how to set the dial-up and dial-in configuration.

Dial-up Configuration

1. Press start of task bar of window system and select "Settings" / "Networking and Dial-up Connections"



2. Double click "Make New Connection", then a dialog window will pop out. Select Dial-Up Connection and press Next >.





3. Setup the device according to the specification of the modem and press Next >.

🐕 CE Remo	te Window	
CE Remover File Edit Make New Connection	te Window View Advanced	► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ►
	Hayes Compatible on COM1: Hayes Compatible on COM1: Computer TCP/IP Settings Security Settings < Back Next >	
Start 💽	Network Connections	3→ 12:37 AM

Enter the telephone number in the "Phone Number" window. Press Finish button to complete the dial-up configuration.

🔀 CE Remote Window		
<u>File Edit V</u> iew <i>i</i>	Adva <u>n</u> ced 🗙 📔 🖬 🖬 🔚	N? ×
Make New Connection	Phone Number Wy Connection Country/region code: 1 Area code: 425 Phone number: 4125678 Force long distance Force local < gack	
🌄 Start 🛛 🕲 Network (Ionnections	🚱 🕹 12:38 AM [

4. Press start of task bar of window system and select "Setting" ‡ "Networking and Dial-up connections". Double click the new connection that you made previously (it is RAS Connection in this case), and it will pop out the "Dial-Up Connection" dialog window. Enter your user name / password, then press Dial Properties.

📸 CE Remote Window			
<u>File Edit View Advance</u>	ed 🗙 📓 🖬 🖬		№ ? ×
S	1		
Make New My DM Connection Connection	9CE1		
Dial-Up Connec	tion		
🛃 мус	Connection		
User Name:	liweilee	Phone: 9,4125678	
Password:	*****	Dial from: Work	
Domain:	<u> </u>	Dial Properties	
	Save password	<u>Connect</u> Cancel	
💐 Start 🛛 🔍 Network Connecti	ons		2:40 AM 🞯

ile <u>E</u> dit	View Advanced 🗙 📄 🗔 🗔	k ?
500	\$1 \$1	
ake New	Les Les	
nnection	Connection	
	Dialing Properties	
	When dialing from: Work Mew Remove	
	Local settings are:	
	The local area code is: 425 Dialing Patterns	
	The local country/region code is: 1	
	Dial using: 💽 Tone 🔵 Pulse	
	Disable call waiting by dialing:	

5. Press Dialing Patterns button in the Dialing Properties window. Edit the dialing pattern for each type of call to change how the phone is dialed.

Note: Country/Region Code, please enter "E" or "e" Area Code, please enter "F" or "f" Number, please enter "G" or "g"

🛃 CE Remo	te Window	
<u>E</u> ile <u>E</u> dit	View Advanced 🗙 🗃 🖬 🖬	№? ×
Make New Connection	My DM9CE1 Connection	
	Dialing Patterns Poilong Patterns Edit the dialing pattern for each type of call to change how the phone is dialed. Remove Local se For Long Distance calls dial: Thet [9,1FG For International calls dial: Is D (E,e = Country/Region Code; F,f = Area Code; G,g = Number)	
🎝 Start	Network Connections	::41 AM 🞯

6. Double click My Connection and press Connection button to build a PPP connection.



Dial-in Configuration

1. Press start of task bar of window system and select "Setting" / "Control Panel".



CF Remo	te Window							
<u>File V</u> iew							N?	×
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Certificates	Date/Time	Dialing	Display	Internet Options	Keyboard	Mouse	Network and Dial-up Co	
<u>8</u> 2	1	222		2	- 100	0	S	
Owner	Password	PC Connection	RAS Server	Regional Settings	Remove Programs	Storage Manager	System	
🎝 Start 🗗	Control Pane	el				4	🗙 🕹 12:44 AM	0

2. Double click the RAS Server icon from Control Panel.

3. Select the "General" tab under "Advantech RAS Server Configuration". Select "Enable RAS", "Use Static IP Address" and enter a specified IP in Static IP Address blank.

CE Re	mote Window							
<u>File ⊻</u> i	ew						<u></u> *?	×
Ö	P	The second secon	1	9	1	Ċ		
Certificate	es Date/Time	Dialing	Display	Internet Options	Keyboard	Mouse	Network and Dial-up Co	
00	8 <mark>8</mark>	-		-	A%	an		
Gwnei	[]	eral Input Lir	ies Logon Sec i P Addresses Address:	Users Users [192.168.254.	1	<u>Apply</u>	Jysen	
🛃 Start	Control Panel	A	dvantech RAS	Server		<	🔕 🕹 12:45 AM	0

4. Select the "Input Lines" tab under "Advantech RAS Server Configuration". Click Add button to setup the input line according to the available RAS device.

🔀 CE Remo	te Window						
<u>Eile V</u> iew	r	AN.					№? ×
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Certificates	Date/Time	Dialing	Display	Internet Options	Keyboard	Mouse	Network and Dial-up Co
Owner	Passw	itech RAS	Server con	Jan Bouration	44	OK X	System
		Available Hayes Co Hayes Co L2TP Line PPPoE Line RAS VPN L RAS VPN L Discon	RAS Device mpatible on COI opatible on COI o e o ine 0 ine 1 ine 2 ine 2 ine 2 over 1dle Second	25 M1: M1: ds: [300	Add Cancel	Apply:	
ಶ Start 🛛 🕞	Control Panel	A	dvantech RAS	Server			😪 🕹 12:55 AM 🔯

5. Select the "Logon Security" tab under "Advantech RAS Server Configuration". Select security protocol if necessary.

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<u>File V</u> ie	W						₩?	×
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Certificate:	s Date/Time	Dialing	Display	Internet Options	Keyboard	Mouse	Network and Dial-up Co	
9	P-	-\$		-	21	2	. 😡	
Owner	Passw Gen En E	eral] Input Lir abled Protocols 2 Unencrypte 2 MD-5 Challe 2 Microsoft C 2 Microsoft C	Logon Sec s ed Password (P4 enge-Handshak HAP (M5-CHAP) HAP Version 2 (QK	AP) e Authentication) MS_CHAP v2)	n Protocol (CHAP	-MDS)	System	
🌄 Start	Control Panel	Ac	dvantech RAS	Server			😪 📥 12:56 AM	

6. Select the "Logon Security" tab under "Advantech RAS Server Configuration". Add a new account for remote access services.

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<u>File View</u>	<i>i</i>						₩?	×
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Certificates	Date/Time	Dialing	Display	Internet Options	Keyboard	Mouse	Network and Dial-up Co	
<u>8</u>	P	_\$	R 1	-	2%	2	. 😡	
Owner	Passw		l. c	a Usors			System	
	Gene	arai Input Lir	nes Logon Sec					
	Gu	est	User Name:	liweilee		Add		
			Password:	****		elete		
			OK OK		_			
					<u> </u>			
					ancel	Apply		
🛃 Start 🛛 🕞	Control Panel	A	dvantech RAS	Server			🕅 🕹 12:57 AM	

7. After all settings are completed, press Apply button and then it will pop up the RasConfig dialog window. Press Yes button to save registry setting to storage card.

🛃 CE Ren	10te Window							
Eile Vie	W					10	k ?	×
Ö	P		8	2	1	C		
Certificate	s Date/Time	Dialing	Display	Internet Options	Keyboard	Mouse	Network and Dial-up Co	
QQ	P			_	4	- an		
Owner	Gen	eral Input Lii Enable RA3 Use Static Static If	IP Addresses	[192.168.254.	1	Δρρίν	J	
🂦 Start	Control Panel	A	dvantech RAS	Server			🕲 🕹 12:45 AM	0

RAS configuration procedure is completed and you can access UNO-1019 via remote device.

4.4 Autorun Configuration Note

This document introduces how to execute applications automatically when you boot UNO-1019 up.

Autorun Configuration Procedure

1. Execute the "UNO Configuration Utility"



2. Go to the "Misc" page in UNO Configuration Utility.

📸 CE Remote Wind	low					
My Computer						
Recycle Bin	Configuration U	Jtility (Version	1.1)	Y		
1	General	Network	Watchdog	Misc		
2	System			4 000		
Internet	US Image Ver	sion: CE, NE I	420 V1.13 BU	la UU2		
	CPU Type:	Intel(R)	PXA255			
200	CPU Tempera	ture: N/A				
Remote Deskton	Disk & Memo	ry				
	Total	In	Use	Free		
	DRAM 35.66	3 KB 5L 54 KB 4,3	13 KB 348 KB	5,270 KB 31,316 KB		
			K Can	cel 🎄	naly	
	<u></u>				PP0	
deskton						
COSKOP						
	uration Utility				& 4	🗕 1:02 AM 🔀

📽 CE Remote Win	dow	
My Computer	Configuration Utility (Version 1.1)	
Internet Explorer Remote Desktop	General Network Watchdog Misc CF Disk Reboot Reboot Startup Programs Registry Program Path: Add Delete View View Web & Ftp Servers Yeb Server Root: Ftp Server root: [windows\www\wwwpub\ Temp\	
🐉 Start Config	OK Cancel Apply	1:04 AM 🞯

3. Click on the "Program Path" bottom for selecting the program for Auto-Run setting..

🔀 CE Remote Wind	low	
My		
Recycle Bin	Configuration Utility (Version 1.1)	
-	General Network Watchdog Misc	
2	CF Disk Reboot Machine CF Disk Name: FLASH	
Explorer	Startup Programs Registry	
22	Program Path: <u>Add Delete</u> <u>Save</u>	
Remote	∑iew	
Desktop	Web & Ftp Servers	
	Transformet Brenet	
	OK Cancel Apply	
🀉 Start 🛛 Config	uration Utility	🔕 🕹 1:04 AM 🔀



Please choose the program then press "OK".

Δ	Click on	the	"Add"	hottom	to set	the	nrogram	for	$\Delta u t_0 R_1$	in action	
4.	CHCK OII	uic	Auu	Douom	to set	uic	program	101	Auto-Ru	in action	•

📽 CE Remote Wind	ow				
My Computer					
Recycle Bin	Configuration U	Itility (Version	1.1)	ок 🔯	
18	General	Network	Watchdog	Misc	
	CF Disk			Reboot Machine	
Internet	CF Disk Name:	FLASH	*	Reboot	
Explorer	Startup Prog	rams		Registry	
200	Program Path:	Add	Delete	Save	
Pomoto	\Windows\cer	notepad.exe	~	View	
Remote Desktop	Web & Ftp S Web Server Re \windows\ww	ervers pot: w\www.pub\	Ftp Server rc	oot:	
				cel Apply	
🐉 Start 🛛 Configu	ration Utility				🔕 🕹 1:18 AM 🔯

🗱 CE Remote Wind	ow	
My Computer		
1		
Recycle Bin	Configuration Utility (Version 1.1) 🛛 🕅 🔀	
Internet Explorer	General Network Watchdog Misc	
	CF Disk CF Disk Name: FLASH Reboot Reboot	
	Startup Information	
23 Permote	Windo Startup.ini was created under \FLASH\Startup	
Desktop	Web & rep servers	
	web server kool: Ftp server root: [windows]www]wwwoub) [Temp]	
	Humanstunutunubert Humbt	
	OK Cancel Apply	
🂦 Start 🛛 Configu	aration Utility	🕽 🕹 1:19 AM 🔀

The UNO Configuration Utility will add the selected program in Auto-Run requirement. Please press "OK" to finish the configuration.

4.5 Application Development Procedure

UNO-1019 provides Software Development Kit (SDK) and a built-in runtime library; you can use your existing windows-based programming skills to develop applications easily and rapidly through those tools. This document introduces how to develop custom application step by step.

4.5.1 Application Development Procedure

- Install Microsoft eMbedded Visual C++ V4.00 with Service Pack 2 The Microsoft eMbedded Visual C++ tool is a desktop development environment for creating applications and system components for Windows CE .NET-powered devices. This version features new capabilities such as C++ exception handling, Run Time Type Information (RTTI), and a plethora of new debugger functionalities. Before you begin to develop your application, you must install Microsoft eMbedded Visual C++ first.
- 2. Insert UNO-1019 CD into the CD-ROM in the host PC.
- Install UNO-1019 Software Development Kit for eMbedded Visual C++ from below path: \UNO-1019\SDK
- 4. Install Microsoft ActiveSync 4.1 from below path: \ActiveSync
- Build the connection between the host and UNO-1019 via Active-Sync. Further information about ActiveSync, please refer to "ActiveSync Connection".
- 6. Execute eMbedded Visual C++.
- 7. Select "File" ‡ "New" to open a new project. Select your project type in the left blank of window and enter the new project name / location in the right side of window. Please note that CPU type must select Win32 (WCE ARMV4I).

New	<u>? ×</u>
Files Projects Workspaces	
■WCE Application ■WCE ATL COM AppWizard ■WCE Dynamic-Link Library ■WCE MFC ActiveX ControlWizard ■WCE MFC AppWizard (III) ■WCE MFC AppWizard (exe) ■WCE Static Library	Project name: test Logation: C:\TEMP\test
	CEUs: VWin32 (WCE ARMV4) VWin32 (WCE ARMV4I) VWin32 (WCE ARMV4I) VWin32 (WCE MIPS16) VWin32 (WCE MIPS16) VWin32 (WCE MIPS11] VWin32 (WCE MIPS11_FP)
	OK Cancel

8. Select "UNO-1019" in the main window of Visual C++ .



9. After you complete above configuration procedure, you can start to develop your application. Press "Build"/ "Build xxx.exe" to compile your program to .exe file and download it to UNO-1019.

😥 test - Microsoft eMbedded Visual C++	
File Edit View Insert Project Build Tools Window Help	
CTestApp	Карр 💽 🔍 👻 🔛 🗊
test VINO1019	All Release VUNO1019 Device
Batch Byild	
Workspace 'test': 1 p	
E Test files Start Debug	
Update Remote Output File(s)	
Execute test.exe Ctrl+F5	
test.rc Set Active Configuration	
LestDlg.cpp Configurations	
Resource Files	
☐ ReadMe.txt	
■: Cla ﷺ Re ■ Fil	
×	
	-
$ \qquad \qquad$	
Builds the project	

10. If you want to execute your program, press "Build" / "Execute xxx.exe" and then the program will be executed in UNO-1019.

4.5.2 Watchdog Timer

There is a built-in watchdog timer in UNO-1019. Users can utilize the WDT driver with standard WIN32 API to implement the watchdog function in their applications. To use the watchdog driver, firstly user must open it via the name, "WDT1:", then use DeviceIOControl function to access the watchdog hardware. The introduction below includes the definition of DeviceIOControl and its parameters as well as an example.

How to Use the Control Code

There are 6 control codes for the operation codes in the WDT driver.

1. IOCTL _WDT_ENABLE:

Enable the Watchdog timer on your application. By default, if the Watchdog timer is enabled, the WDT driver will automatically reload the timeout counter after a specified period and your application does not need to trigger the strobe periodically for masking the timeout, unless use IOCTL_WDT_REBOOT to stop this automatic strobe triggering.

lpInBuffer : unused.

nInBufferSize: unused.

lpOutBuffer: unused.

nOutBufferSize: unused.

2. IOCTL _WDT_DISABLE:

Disable the Watchdog time on your application. lpInBuffer : unsed. nInBufferSize: unused.

lpOutBuffer: unused.

nOutBufferSize: unused.

3. IOCTL_WDT_STROBE:

Trigger strobe signal to reload watchdog timeout counter. If your application uses IOCTL_WDT_ENABLE to enable the Watchdog first and then sends IOCTL_WDT_REBOOT to the WDT driver, your application must trigger the Watchdog once during the Watchdog timer period. If your application has not triggered at the specified period, the device will reboot automatically.

lpInBuffer: unused.

nInBufferSize: unused.

lpOutBuffer: unused.

nOutBufferSize: unused.

4. IOCTL_WDT_GETTIMEOUT:

Get the Watchdog timeout value.

lpInBuffer: unused.

nInBufferSize: unused.

lpOutBuffer: The DWORD pointer to your Watchdog timeout setting. The Watchdog timeout setting is just a number. 0 means 2 seconds, 1 means 5 seconds, 2 means 10 seconds, 3 means 15 seconds, 4 means 30 seconds, 5 means 45 seconds, 6 means 60 seconds, 7 means 120 seconds, 8 means 300 seconds, 9 means 600 seconds, 10 means 900 seconds, others means the maximum 1140 seconds. The default setting is 5 seconds.

nOutBufferSize: unused.

5. IOCTL_WDT_SETTIMEOUT:

Set the Watchdog timeout value.

lpInBuffer : The DWORD pointer to your Watchdog timeout setting. The Watchdog timeout setting is just a number. 0 means 2 seconds, 1 means 5 seconds, 2 means 10 seconds, 3 means 15 seconds, 4 means 30 seconds, 5 means 45 seconds, 6 means 60 seconds, 7 means 120 seconds, 8 means 300 seconds, 9 means 600 seconds, 10 means 900 seconds, others means the maximum 1140 seconds. The default setting is 5 seconds.

nInBufferSize:.unused.

lpOutBuffer: unused.

nOutBufferSize: unused.

6. IOCTL_WDT_REBOOT:

If you want your application to trigger the Watchdog by itself, please use IOCTL_WDT_REBOOT to notify the WDT driver. Otherwise, the WDT will trigger itself automatically.

lpInBuffer :unused.

nInBufferSize: unused.

lpOutBuffer: unused.

nOutBufferSize: unused.

DeviceIOControl

This function sends a control code directly to a specified device driver, causing the corresponding device to perform the specified operation.

BOOL DeviceIoControl(HANDLE hDevice, DWORD dwIoControlCode, LPVOID lpInBuffer, DWORD nInBufferSize, LPVOID lpOutBuffer, DWORD nOutBufferSize, LPDWORD lpBytesReturned, LPOVERLAPPED lpOverlapped);

Parameters:

. hDevice

[in] Handle to the device that is to perform the operation. Call the Create-File function to obtain a device handle.

. dwIoControlCode

[in] Specifies the control code for the operation. This value identifies the specific operation to be performed and the type of device on which the operation is to be performed. No specific values are defined for the dwIo-ControlCode parameter. However, the writer of a custom device driver can define IOCTL_XXXX control codes, per the CTL_CODE macro. These control codes can then be advertised, and an application can use these control codes with DeviceIoControl to perform driver specific functions.

. lpInBuffer

[in] Long pointer to a buffer that contains the data required to perform the operation. This parameter can be NULL if the dwIoControlCode parameter specifies an operation that does not require input data.

. nInBufferSize

[in] Size, in bytes, of the buffer pointed to by lpInBuffer.

. lpOutBuffer

UNO-1019 User Manual

[out] Long pointer to a buffer that receives the output data for the operation. This parameter can be NULL if the dwIoControlCode parameter specifies an operation that does not produce output data.

. nOutBufferSize

[in] Size, in bytes, of the buffer pointed to by lpOutBuffer.

. lpBytesReturned

[out] Long pointer to a variable that receives the size, in bytes, of the data stored into the buffer pointed to by lpOutBuffer. The lpBytesReturned parameter cannot be NULL. Even when an operation produces no output data, and lpOutBuffer can be NULL, the DeviceIoControl function makes use of the variable pointed to bylpBytesReturned. After such an operation, the value of the variable is without meaning.

. lpOverlapped

[in] Ignored; set to NULL.

. Return Values

Nonzero indicates success. Zero indicates failure. To get extended error information, call GetLastError.

Examples

#define IOCTL_WDT_ENABLE CTL_CODE(FILE_DEVICE_UNKNOWN, 0x900, METHOD_BUFFERED, FILE_ANY_ACCESS) #define IOCTL_WDT_DISABLE CTL_CODE(FILE_DEVICE_UNKNOWN, 0x901, METHOD_BUFFERED, FILE_ANY_ACCESS) #define IOCTL_WDT_STROBE CTL_CODE(FILE_DEVICE_UNKNOWN, 0x902, METHOD_BUFFERED, FILE_ANY_ACCESS) #define IOCTL_WDT_GET_TIMEOUT CTL_CODE(FILE_DEVICE_UNKNOWN, 0x903, METHOD_BUFFERED, FILE_ANY_ACCESS) #define IOCTL_WDT_SET_TIMEOUT CTL_CODE(FILE_DEVICE_UNKNOWN, 0x904, METHOD_BUFFERED, FILE_ANY_ACCESS)

#define IOCTL_WDT_REBOOT CTL_CODE(FILE_DEVICE_UNKNOWN, 0x905, METHOD_BUFFERED, FILE_ANY_ACCESS)

HANDLE m_hWDT=NULL; TCHAR szClassName[60];

```
// assign the WDT driver name
wsprintf(szClassName, TEXT("WDT1:"));
// Open the WDT driver
m_hWDT = CreateFile(szClassName,
GENERIC_READ|GENERIC_WRITE, 0, NULL, OPEN_EXISTING,
FILE_ATTRIBUTE_NORMAL, NULL);
if ( m_hWDT == INVALID_HANDLE_VALUE ) {
DebugMsg(CString("WDT driver fail"));
return;
}
```

DWORD dwTemp; DWORD nIndex=2;

// Set the Watchdog Timer as 10 seconds. Number 2 means 10 seconds. DeviceIoControl(m_hWDT, IOCTL_WDT_SET_TIMEOUT, &nIndex, sizeof(nIndex), NULL, 0, &dwTemp, NULL);

// Enable the Watchdog timer

```
DeviceIoControl(m_hWDT, IOCTL_WDT_ENABLE, NULL, 0, NULL, 0, &dwTemp, NULL);
```

// Activate timeout reboot

DeviceIoControl(m_hWDT, IOCTL_WDT_REBOOT, NULL, 0, NULL, 0, &dwTemp, NULL);

```
While (1) {
// do your job here.
Sleep(8000);
DeviceIoControl(m_hWDT, IOCTL_WDT_STROBE, NULL,0, NULL,
0, &dwTemp, NULL);
}
```

DeviceIoControl(m_hWDT, IOCTL_WDT_DISABLE, NULL, , NULL, 0, &dwTemp, NULL);

CloseHandle(m_hWDT);

4.5.3 DIO, LED and Buzzer

UNO-1019 has 2 DI(Digital Input), 2 DO(Digital Output), 3 LED and a Buzzer. Users can access these resources via the built-in Advantech IO Service driver named "ADV1:".The follows are the descriptions and examples of the usable DeviceIoControl codes in this driver:

How to Use the Control Code

There are 11 control codes for the operation codes in DIO, LED, and Buzzer (driver).

1. ADV_IOCTL_READ_DI:

Read the Digital Input value.

lpInBuffer : unsed.

nInBufferSize: unused.

lpOutBuffer: The BYTE pointer to the current DI value. BIT0 indicates DI_0 state; BIT1 indicates DI_1 state.

nOutBufferSize: User provided output buffer size.

2. ADV_IOCTL_WRITE_DO:

Write value out the Digital Output.

lpInBuffer : The BYTE pointer to the DO value that is requesting to write out. BIT0 indicates DO_0 state; BIT1 indicates DO_1 state.

nInBufferSize: User provided input buffer size.

lpOutBuffer: unsed.

nOutBufferSize: unsed.

3. ADV_IOCTL_READ_DO:

Read the written Digital Output value.

lpInBuffer : unsed.

nInBufferSize: unsed.

lpOutBuffer: The BYTE pointer to the current DO value. BIT0 indicates DO_0 state; BIT1 indicates DO_1 state.

nOutBufferSize: User provided input buffer size.

4. ADV_IOCTL_TURN_ON_LED1:

Turn LED1 on. lpInBuffer :unused. nInBufferSize: unused. lpOutBuffer: unused. nOutBufferSize: unused.

5. ADV_IOCTL_TURN_OFF_LED1:

Turn LED1 off. lpInBuffer :unused. nInBufferSize: unused. lpOutBuffer: unused. nOutBufferSize: unused.
6. ADV_IOCTL_TURN_ON_LED2:

Turn LED2 on. lpInBuffer :unused. nInBufferSize: unused. lpOutBuffer: unused. nOutBufferSize: unused.

7. ADV_IOCTL_TURN_OFF_LED2: Turn LED2 off. lpInBuffer :unused. nInBufferSize: unused. lpOutBuffer: unused. nOutBufferSize: unused.

8. ADV_IOCTL_TURN_ON_LED3:

Turn LED3 on. lpInBuffer :unused. nInBufferSize: unused. lpOutBuffer: unused. nOutBufferSize: unused.

9. ADV_IOCTL_TURN_OFF_LED3:

Turn LED3 off. lpInBuffer :unused. nInBufferSize: unused. lpOutBuffer: unused. nOutBufferSize: unused.

10. IOCTL_PLAY_BUZZER:

Make the buzzer start beeping. lpInBuffer : The DWORD pointer to the number of mini-seconds to play. nInBufferSize: User provided input buffer size. lpOutBuffer: unsed. nOutBufferSize: unsed.

11. IOCTL_STOP_BUZZER:

Stop the buzzer that is playing. lpInBuffer :unused. nInBufferSize: unused. lpOutBuffer: unused. nOutBufferSize: unused.

DeviceIOControl

This function sends a control code directly to a specified device driver, causing the corresponding device to perform the specified operation.

BOOL DeviceIoControl(HANDLE hDevice, DWORD dwIoControlCode, LPVOID lpInBuffer, DWORD nInBufferSize, LPVOID lpOutBuffer, DWORD nOutBufferSize, LPDWORD lpBytesReturned, LPOVERLAPPED lpOverlapped);

Parameters:

. hDevice

[in] Handle to the device that is to perform the operation. Call the Create-File function to obtain a device handle.

. dwIoControlCode

[in] Specifies the control code for the operation. This value identifies the specific operation to be performed and the type of device on which the operation is to be performed. No specific values are defined for the dwIo-ControlCode parameter. However, the writer of a custom device driver can define IOCTL_XXXX control codes, per the CTL_CODE macro. These control codes can then be advertised, and an application

can use these control codes with DeviceIoControl to perform driver specific functions.

. lpInBuffer

[in] Long pointer to a buffer that contains the data required to perform the operation. This parameter can be NULL if the dwIoControlCode parameter specifies an operation that does not require input data.

. nInBufferSize

[in] Size, in bytes, of the buffer pointed to by lpInBuffer.

. lpOutBuffer

[out] Long pointer to a buffer that receives the output data for the operation. This parameter can be NULL if the dwIoControlCode parameter specifies an operation that does not produce output data.

. nOutBufferSize

[in] Size, in bytes, of the buffer pointed to by lpOutBuffer.

. lpBytesReturned

[out] Long pointer to a variable that receives the size, in bytes, of the data stored into the buffer pointed to by lpOutBuffer. The lpBytesReturned parameter cannot be NULL. Even when an operation produces no output data, and lpOutBuffer can be NULL, the DeviceIoControl function makes use of the variable pointed to bylpBytesReturned. After such an operation, the value of the variable is without meaning.

. lpOverlapped

[in] Ignored; set to NULL.

. Return Values

Nonzero indicates success. Zero indicates failure. To get extended error information, call GetLastError.

Examples

#define ADV_IOCTL_READ_DI CTL_CODE(FILE_DEVICE_UNKNOWN, 0x900, METHOD_BUFFERED, FILE_ANY_ACCESS) #define ADV_IOCTL_READ_DO CTL_CODE(FILE_DEVICE_UNKNOWN, 0x902, METHOD_BUFFERED, FILE_ANY_ACCESS) #define ADV_IOCTL_WRITE_DO CTL_CODE(FILE_DEVICE_UNKNOWN, 0x904, METHOD_BUFFERED, FILE_ANY_ACCESS)

#define ADV IOCTL TURN ON LED1 CTL CODE(FILE DEVICE UNKNOWN, 0x930, METHOD BUFFERED, FILE_ANY_ACCESS) #define ADV IOCTL TURN OFF LED1 CTL CODE(FILE DEVICE UNKNOWN, 0x931, METHOD BUFFERED, FILE ANY ACCESS) #define ADV IOCTL TURN_ON_LED2 CTL CODE(FILE DEVICE UNKNOWN, 0x932, METHOD BUFFERED, FILE ANY ACCESS) #define ADV IOCTL TURN OFF LED2 CTL CODE(FILE DEVICE UNKNOWN, 0x933, METHOD BUFFERED, FILE ANY ACCESS) #define ADV IOCTL TURN ON LED3 CTL CODE(FILE DEVICE UNKNOWN, 0x934, METHOD BUFFERED, FILE ANY ACCESS) #define ADV IOCTL TURN OFF LED3 CTL CODE(FILE DEVICE UNKNOWN, 0x935, METHOD BUFFERED, FILE ANY ACCESS) #define IOCTL PLAY BUZZER

UNO-1019 User Manual

CTL_CODE(FILE_DEVICE_UNKNOWN, 0x950, METHOD_BUFFERED, FILE_ANY_ACCESS) #define IOCTL_STOP_BUZZER CTL_CODE(FILE_DEVICE_UNKNOWN, 0x951, METHOD_BUFFERED, FILE_ANY_ACCESS)

HANDLE hDev; DWORD i, dwGot, dwNumReturned;

// LED & IO Test Program.

hDev = CreateFile(_T("ADV1:"), // Pointer to the name of the port

GENERIC_READ | GENERIC_WRITE, //Access (read-write) mode

0,	// Share mode
NULL,	// Pointer to the security attribute
OPEN_EXISTING,	// How to open the serial port
0,	// Port attributes
NULL);	// Handle to port with attribute

```
if (!hDev)
{
    printf("Can't load ADV1 driver properly!\r\n");
    return 0;
}
for(i=0; i<20; i++)
{
    if( i & 0x01 )</pre>
```

{

```
dwGot = 0x01; // set Dout 0 high
    dwGot = 0x02: // set Dout 1 high
    printf("Set Dout 0 high, Set Dout 1 high ...\r\n");
  }
  else
  ł
    dwGot &= \sim 0x01; // set Dout 0 low
    dwGot &= \sim 0x02; // set Dout 1 low
    printf("Set Dout 0 low, Set Dout 1 low ...\r\n");
  }
  if( !DeviceIoControl (hDev, ADV IOCTL WRITE DO, &dwGot, 4,
NULL, 0, &dwNumReturned, NULL))
  {
    printf("ADV IOCTL WRITE DO failed! exit.\r\n");
    break:
  }
  if( !DeviceIoControl (hDev, ADV IOCTL READ DI, NULL, 0,
&dwGot, 4, &dwNumReturned, NULL))
  ł
    printf("ADV IOCTL READ DI failed! exit.\r\n");
    break:
  }
  if( dwGot & 0x01 )
  ł
    DeviceIoControl(hDev, ADV IOCTL TURN ON LED1, NULL,
0, NULL, 0, NULL, NULL);
  }
  else
  ł
```

```
DeviceIoControl(hDev, ADV_IOCTL_TURN_OFF_LED1, NULL,
0, NULL, 0, NULL, NULL);
}
if( dwGot & 0x02 )
{
DeviceIoControl(hDev, ADV_IOCTL_TURN_ON_LED2, NULL,
0, NULL, 0, NULL, NULL);
}
else
{
DeviceIoControl(hDev, ADV_IOCTL_TURN_OFF_LED2, NULL,
0, NULL, 0, NULL, NULL);
}
Sleep(1000);
}
```

```
CloseHandle(hDev);
```

4.6 Saving Your Settings

Once you made changes for UNO-1019, you may need run RegSave.exe to save Windows CE system Registry to CF card or on-board flash disk to keep your settings. See Registry Saving section for detail.

Registry Saving

Running RegSave.exe to save system Registry to CF card or on-board Flash. you can specify command line parameter for RegSave.exe shown as below:

RegSave [-f] [-s] [-fs]

- [-f] : Save Registry to Flash and CF card
- [-s]: RegSave will not display any message despite whether the action is succeeded or not.

[-fs]: combination of [-f] and [-s]

If you're running RegSave.exe without parameter, it will only save Registry to CF card and it will display message to notify you whether the Registry has been successfully saved.

4.7 UNO-1019 Network Administration User Guide

Advantech's UNO-1019 series is a built-in Windows CE solution offering a pre-configured image with optimized onboard device drivers. WinCE is a compact, high-efficient and hard real-time operating system that is designed for embedded systems without HDD limitation.

UNO-1019 remote administration is a powerful function, which allow users connect to filed-site UNO-1019 by standard browser and configure UNO-1019's network and system settings remotely.

UNO-1019 remote administration includes two major functions; network administration and system administration.

Network administrationWith UNO-1019 well-configured, user can connect to local network or public network (Internet).

4.7.1 Network Administration

Following steps introduces how to connect the UNO-1019 by standard browser, and configure the field-site UNO-1019's network setting remotely.

1. Execute standard browser (for instance, Internet Explorer), and enter UNO-1019 (which you would like to connect)'s IP address as below,

IP address/networkadmin

Instance: 172.18.3.89/networkadmin

2. System will ask you to enter password when you login UNO-1019 first time.

🗿 Welcome to the ICS Admin Utility - Microsoft Internet Explorer	
檔案 (E) 編輯 (E) 檢視 (Y) 我的最爱 (A) 工具 (D) 說明 (E)	1
③ 上-頁 · ③ · ☑ ③ ⑤ /> 搜尋 ☆ 我的最爱 ④ ② ·	👌 🗹 · 🛄 🎎 🚳
網址 D) 🥘 http://172.18.3.89/NetworkAdmin/	🔽 🛃 移至 連結 🎽
msn ²¹ • 》 搜尋 • 🥒 醒目提示 🐰 選項 🔅	🗙 封鎖快顯視窗 (23) 🔹 🔛 Hotmail 📲 Messenger [2 我的 MSN
Home I Network I Features I Advanced I User Accounts	^
Welcome to the Windows CE networking configuration paget With this device properly configuration paget With this device properly configuration options before contract of the Internet Please carefully consider the following configuration options before contract Admin password setup Please set a password for your device. Choose something that is both easy to remander and is a somethics numbers, letters, and punctuation). The stername for your gateway is ADMIN. Enter new password Confirm new password Compatibility Mode	ed you can consect your local naing. itrong password (such as one that
Choose the level of compatibility and security required when configuring the device. Once this of be changed.	option is selected, it can never
The compatibility mode applies to whether climes will be able to configure the device, such as bein Network-dumin page. If does not affect that ability to use most of the device's features. For instant Sociarity Mode, Windows 95, Windows 98, Windows ME, and other operating systems will be a functionality.	ng allowed to access this or, even if you select Highest bible to use most of the device's
The compatibility mode you chose will also affect which clients can access files and/or printers sh Security Mode' will block Windows 95/96/ME from accessing password protected resources.	and from this device. Setting High
Highest Security Mode (Windows 2000, XP, and above)	•
The gateway will use a more secure protocol when authenticating client requests. This mode is no Windows 95, Windows 98, Windows ME, or browsers other than Internet Explorer.	ot supported by
D	~
2 元成	🤤 近端内部網路

Note: The default user name is ADMIN

 Connect to the UNO-1019 again, and the system will ask you to enter user name and password. After authorization, you will enter Windows CE networking setup page.

Enter Netv	vork Passwor	d	? ×
? >	Please type yo	ur user name and password.	
2	Site:	172.18.3.89	
	<u>U</u> ser Name	ADMIN	
	<u>P</u> assword	×	
	<u>D</u> omain		
	🔲 <u>S</u> ave this p	assword in your password list	
		OK Can	cel



Network Settings

Change IP information about the UNO-1019.

1. Change device name

Enter proper device name and press Submit button.

Please MUST change UNO-1019's device name at your first usage.

But after you change UNO-1019's device name, please don't ever change device name back to UNO-1019, it's not permitted for WinCE OS

Home	Network	Features	Advanced	User Accounts	
No Interface There are no	<mark>es Present</mark> : interfaces con	figured. Please	e use Advanced S	Settings.	
Device Nam Note: Setting	e the device nar	ne may take se	everal seconds.		
Device Name	UNO-1019		Submit		
IPV6 Config					
⊠Enable IPV	/6 Submit				

Note: When you change the device name, UNO-1019 will need some time to register to DNS (Domain Name Server) automatically. If you would like to search this UNO-1019 next time, you can search it by device name instead of IP address.

CX C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [版本 5.1.2600] <c> Copyright 1985-2001 Microsoft Corp.</c>
C:\Documents and Settings\Daniel.Hsu>ping uno1019v1
Pinging uno1019v1 [172.18.3.75] with 32 bytes of data:
Reply from 172.18.3.75: bytes=32 time=1ms TTL=128
Ping statistics for 172.18.3.75: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds: Minimum = 1ms, Maximum = 1ms, Average = 1ms
C:\Documents and Settings\Daniel.Hsu>_

Note: You also could find device name in WinCE's "setting" / "Control Panel" / "System" 's device name tag. You could see below picture for referrence.



IPV6

If you want to enable "IPV6", please check "Enable IPV6" and press Submit button.

System will ask you to restart UNO-1019, the UNO-1019 will support IPV6 after restarting.

```
🔽 CE Remote Window
 File Edit Help
 Pocket CMD v 4.20
\> ipconfig
Windows IP configuration
Ethernet adapter [DM9CE1]:
        IP Address ..... : 172.18.3.89
        Subnet Mask ..... : 255.255.255.0
        IP Address ...... : fe80::2d0:c9ff:feal:7834%5
Tunnel adapter []:
        Interface Number .. : 4
Tunnel adapter [6to4 Pseudo-Interface]:
        Interface Number .. : 3
Tunnel adapter [Automatic Tunneling Pseudo-Interface]:
        Interface Number .. : 2
        IP Address ...... : fe80::5efe:172.18.3.89%2
```

Advanced Setting

"Advanced setting" allows ports to be statically reserved and mapped.

System will list all of the adapters present on the UNO-1019. You can configure the adapter bindings as public, private, bridged, or default to simply bind it to TCP/IP.

Caution: Incorrect settings may render the UNO-1019 inoperable.



Network Adapter Configuration:

This is a list of all the adapters present on your system. You can configure the adapter bindings as public, private, bridged, or default to simply bind it to TCP/IP.

Use extreme caution - incorrect settings may render your device inoperable

Adapter(s)	Bindings			
DM9CE1	🔿 Public	○ Private	◯Bridged	💿 Default
DM9CETWO1	🔿 Public	O Private	◯Bridged	💿 Default

Submit

User Accounts

"User Accounts" function allows you to add, modify and delete user accounts on this UNO-1019. "ADMIN" is the only account allowed to manage account information

Note: The account we manage here is for network service such as File server ,FTP,Telnet and Web server, but NOT "ACCESS THIS ADMIN WEBPAGE"

1. Create a User Account

<1-A> Enter a user name in the "Create a new ..." field, and press Create.

<1-B> Enter a password, and press Create Account button.

檔案(F) 編輯(F) 檜韻(∀) 我的最爱(A)	T 且(T) 説明(H)				
③上一頁 • ② • [🖹 🖻 🏠 🔎	▶ 搜尋 🥎 我的最	y 🚱 🔗	· 🎍 🖬 · 🛄 🕻	1 3	
阁址① 🕘 http://172.18.3.89	/NetworkAdmin/mod	ify-user				
msn ³⁴ •	× \$	◎ 搜尋 🔹 🥒 醒目機	示 👬 選項	🔀 封鎖快顯視窗 (23)	🕶 Hotmail	🍇 Messenger
Home Networ	k Featur	es Advance	d I User	Accounts		
User Configuration	lect					
Create an account for G	Guest					
Create an account for Gu Logon Name Password	Guest					

<1-C> System will create a user account according to your information.

If you would like to change the password of this user account, please press Modify button behind the user name.

If you would like to delete the user account, please press Delete button behind the user name.

Home	Network	Features	Advanced	User Accounts	
User Mana:	ger Setup				
Configure user	information on th	is device.			
Logon Na	ime				
Guest	Modify	Delete			
P-1-12-12-12-12-12-12-12-12-12-12-12-12-1	Madifu				
ADMIN	Moully				

User Group Setup Configure which members are part of groups.

Group Name		
PowerUsers	Modify	Delete
PowerUsers	Modify	Delete
Create a new group.	Create	

Create a Group 2.

<2-A> Enter a group name in the "Create a new" field, and press Create.

Home	Network	Features	Advanced	1	User Accounts
lser Mana	ger Setup				
onfigure user	information on th	is device.			
Logon Na	me				
Guest	Modify	Delete			
ADMIN	Modify				
Create a new	user Create				
an a					
Jser Group	b Setup	rt of groups			
John Bar 6 White	n members are pa	rt or groups.			
Group Na	ime				
PowerUsers	Modify	Delete			
RasUsers	Modify	Delete			
Greate a new	eroup Create				

<2-B> If you want to choose which users are members of group, please press Modify button behind the group name.

Set the box next the user's name to have them be part of this group.

Home	Network	1	Features	Ē	Advanced	1	User Accounts
Group Conf Chose which us part of this grou	iguration ers are mem ıp.	bers of	group Pow	er Us	ers . Set the I	ox ne	ext to the user's name to have th
User Name		Mei	mber of į	grou	p?		
Guest		V					
ADMIN Submit							

<2-C> If you want to delete a group, please press Delete button behind the group name.

Features

Allows configuration of advanced gateway features. You can configure the File server, FTP server, Telnet server and Web Server Administration accordingly.

Home | Network | Features | Advanced | User Accounts

File Server

A configured file server will allow for sharing file on your private network <u>Click here to configure your file server</u>

FTP Server

A configured ftp server will allow for transmitting files to and from your gateway <u>Click here to configure your ftp server</u>

Telnet Server

A configured telnet server will allow you to telnet into your gateway <u>Click here to configure your telnet server</u>

Web Server Administration

Configure basic settings of your Web Server Click here to configure your web server

4.7.2 File Server

<A-1> Choose the folder in UNO-1019 you wish to share and then enter a share name then press "Submit".

Compatibility Notice This device has been configured to run in highest security mode. I clients.	It will not accept authenticated sessions from	m Windows 95/98/ME
Shared Folders		
Please choose the folder you wish to share and then enter a share :	name.	
Network		Submit
✓ \FLASH	FL	Submit
Application Data		Submit
□ \Recycled		Submit
□ \My Documents		Submit
□ \Program Files		Submit
□ \Temp		Submit
Windows		Submit

<A-2> Press "Modify" to set up share permissions, choose the account who will use file server function, then click "Allowed" then press "Modify".

Share Permissions

Please choose the share you wish to modify.

FL

Permissions for	Share FL	
danielhsu	 Allowed 	🔘 Denied
ADMIN	 Allowed 	🔘 Denied
Modify	Return To Features	Add User

<A-3> You could use browser to access device name and test file server function

Modify

😼 UNO1	019¥1 (u	no1019v1) - Microsoft	Internet E:	xplorer	
檔案①	編輯(E)	檢視♡	我的最愛(<u>A</u>)	工具(<u>T</u>)	説明(H)	
(] ±-	-頁 • () - 💋	🎾 🔎 搜尋	闷 資料	夾 🛄 •	
網址①	🜏 Wuno10	19v1				
Google	G-		開始	• 泛 🃎	🚰 🛨 🔄 Đ	⇒ ∑
網路	工作		۲	De F	J	
其他	位置		۲			

Note: If you want to use password to protect UNO file server, please key in your ADMIN password, chossing "PWD Enabled" and click "Submit", every time you access file server, UNO file sever will ask you a password of account to enable file accessing.

Disable ALL Passwords

If you disable passwords *ALL* shares (file and print) will be available to anyone on the network.

ADMIN Password:		
⊙ PWD Enabled ○ PWD Disabled	Submit]

網址(D) 🕘 Wuno1019v1					
Goo	gle G-		開始 🛛 🧭	۵ 🚱		84
	連線到 uno1019v1.	ADYANT	ECH.CORP	(? 🗙	
			T			
	正在連線到 uno1019	9v1				
	使用者名稱(U):	1			~	
	密碼(P):					
		🗌 記憶我	的密碼(<u>R</u>)			
			確定	取消		

Creating a Network Disk

Windows CE provides the command to enable remote network disk as a local disk.

<Command>

Usage:

```
net use [<local name of folder on UNO-1019>|*] [<remote name>] [/ user:<username>] [/d]
```

or

```
net view <computername> | /DOMAIN:<domainname>
```

<Description>

[/d] Disable network disk

<Instance>



1. Share the "temp folder" in the remote site (nb940902) to authorized users, and set the permissions (read/write).

<EX> Remote Windows PC: <Computer name> = nb940902 <Shared folder name> = temp <Authorized user name> = daniel.hsu

- 2. Execute the blow command by local UNO-1019's command prompt, and system will ask you to enter your user name, password and domainif you would like to save your user name and password as "default user", please check "Update Default Credentials".
- <EX> net use UNO1019V1\\nb940902\temp /user:daniel.hsu

Eile Edit Help	×
Bashat CND at 4 20	
<pre>> net use uno1019v1 \\nb940902\temp /user:daniel.hsu</pre>	^
Logon failed 🛛 🦳 🔀	
Resource: \\NB940902\TEMP	
User Name daniel.hsu	
Password ******	
Domain advantech	
Update Default Credentials	
Statut Command Depart Lance filed	

🗱 CE Remote Windo	wu
<u>F</u> ile <u>E</u> dit <u>H</u> elp	
Pocket CMD v 4.2) \> net use unol01 unol019vl success \>) 9vl \\nb940902\temp /user:daniel.hsu fully mapped to \\nb940902\temp

3. The remote network disk (Ex:\\nb940902\temp) will launch in the local UNO-1019's "Network" folder.

🗱 CE Remote Window	
<u>File E</u> dit <u>V</u> iew (📴 Favorites 🕴 💠 🔹 🔀 🛛
Address \Network	
Name	Size Type
问 uno1019v1	Folder

If you want to delete this folder on UNO-1019 , you could execute the command as below

<EX> net use UNO1019V1 \\nb940902\temp /user:daniel.hsu /d

4.7.3 FTP Server

The FTP server accepts ftp connections and allows the UNO-1019 to be configured remotely.

Basic Configuration

You can set following items in Basic Configuration field..

- Server Enabled- Will the FTP server accept incoming connections?
- *Require Authentication* Will the FTP server prompt for user name and password?
- *Allow Anonymous Users* Allow users without an account on the server to login to the server?
- *Allow Anonymous Uploads* Allow anonymous users to upload and change files?
- *Allow Anonymous User to Virtual Roots* Allow anonymous users to view and access files in virtual roots?
- *Default Directory* The default directory that anonymous FTP users will log in to.

FTP Server Configuration - Microsoft Intern	net Explorer
檔案 (E) 編輯 (E) 檢視 (Y) 我的最愛 (▲) 工具	具① 説明④
🔇 1-A - 🕥 - 💌 🗟 🏠 🔎) 搜尋 👷 我的最爱 🚱 🔗 - 嫨 📝 - 📜 鑬 🧏
網址 (1)) 🗃 http://172.18.3.89/NetworkAdmin/ftp	
msn ^N - 🔛 🔎	搜尋 🝷 🥜 醒目提示 🛛 从 遵項 💟 封鎖快騙視窗 (23) 🔹 🐸 Hotmail 🗳 Messenger [2 我的 MSN
Home I Network I Features I	Advanced I User Accounts
Ftp Server Configuration	
The ftp server accepts ftp connections and allows the d	levice to be configured remotely.
your gateway. The ftp server is intended for advanced	p Server. Should the tip server be miscontigured, a malicious user could gain complete control of the files on users only.
The Ftp server will be restarted after any changes to the	e the basic configuration or the virtual roots. That will terminate any Ftp connections currently active.
Basic Configuration	
	0.4
Server Enabled Will the ftp server accept incoming connections?	O Yes
will de repair de acceptilisenting conficcions?	© No
Require Authentication	⊙ Yes
Will the ftp server prompt for user name and passwor	ad? 🔿 No
Allow Anonymous Users	Yes
Allow users without an account on the server to login	to the server? O No
Allow Anonymous Unloads	O Yes
Allow anonymous users to upload and change files?	No No No
Allow Anonymous users to view and access files in w	10018 V 100 virtual work?
	W NO
The default directory that anonymous FTP users will 1	log in to

Logs

Use Logs section to control what information about the FTP transactions is logged.

🗿 FTP Server Configuration - Microsoft Internet Explorer		
稽案(图)编辑(图) 檢視(平) 我的最爱(A) 工具(D) 說明(B)		A.
🕒 上一頁 · 🕑 · 🖹 🗟 🏠 🔎 搜尋 🧙 我的最爱 🤗 🔗	1• 🍃 🗹 • 🛄 🇱 🦓	
#址 @ @ http://172.18.3.89/NetworkAdmin/ftp		✓ → 移至 連結 ※
msn ¹ • 🔽 🥥 搜尋 • 🥒 醒目提示 🐰 遵項	🔀 封鎖快顯視窗 (23) 🔹 🔤 Hotmail 🍓 Messenger [2 我的 MSN	
Default Directory The default directory that anonymous FTP users will log in to	(Têmp)	<u>^</u>
${\rm Logs}$ Use this section to control what information about the FTP transactions is ${\rm logged}$ to file		
Log Directory The directory to store the log file in	Windows	
Log Size The maximum size of the log file(in KiloBytes)	4	
Log Zones Check the information that you want written to the log Stituat	© Errors © Visils D'File Transfers □ FTP Commands © Diagnostic Information □ Details	3
FTP Users Use this section to control access to the FTP server for each user. To add new uses go to the You can configure a separate home directory for each user by appending the user's name to ho Denying read parmission to a user, denies complete access to the ftp server for that user.	Add Unes page. mediactory. Allow Allow Allow Hidden Read Write Virtual Files Allow the Allow the Poole Allow Allow	

FTP Users

Use FTP Users section to control access to the FTP server for each user. To add new user, please go to the "User Account" page.

You can configure a seprate home directory for each user by appending the user's name to home directory. Denying read permission to a user, denies complete access to the FTP server for that user.

Wein Section to a ware, denies copy for each were. To add new wees go to the Add Uses page. Wein Section to a ware, denies copies to the PIP Server for each were. To add new wees go to the Add Uses page. Wein Section to a ware, denies copies to the part of the prevent of the tart of tart of the tar	→ 移至 3	▼ 2 移至	▶ ▶ 移至
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IP Users e bits scripts to control access to the FTP server for each user. To add new usen go to the Add Unes page. on configure as spanse home discosy for each user by appending the user's name to home discosy. avging read permission to a user, dwains complete access to the ftp server for that user. Allow Allow Allow Allow Hidden iser Name Home Directory Blow for each user to your the ftp server for that user. Allow for each user to get the ftp server for that user. Allow Allow Allow Allow Allow Allow Allow Allow Allow Hidden Hidden <td< th=""><th></th><th></th><th></th></td<>			
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Virtual Roots

You can add/delete virtual roots to the FTP server. Virtual roots allow you map a physical directory to and directory with a different name.

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Virtual Roots Use this section to add/delete virt If the user has permissions to ser The virtual directory name canno include the backlash	al roots to the FIP server. Vi virtual roots, these roots will contain of the following char	rtual roots allow you to map a p appear as folders under the uses actes: \ / The directory path</th <th>physical directory to an dire 's home directory. 1 cannot contain any charac</th> <th>ectory with a ster from the p</th> <th>diffèrent nam mevious list :</th> <th>e. s well, but may</th> <th></th> <th></th>	physical directory to an dire 's home directory. 1 cannot contain any charac	ectory with a ster from the p	diffèrent nam mevious list :	e. s well, but may		
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4.7.4 Telnet Server

The telnet server accepts telnet connections and allows the UNO-1019 to be configured remotely.

Telnet Server Configuration

- Server Enabled- Will the telnet server accept incoming connections?
- Require Authentication- Will the telnet server prompt for user name and password?

Telnet Server Users

Choose which users can access the telnet server.

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elnet Server Configuration he telnet server accepts telnet connections ar lse extreme caution when configuring th ain complete control of your home sateway. Th	nd allows the device to be configu e telnet server . Should the te e telnet server is intended for ad	red remotely. net server be misconfi e vanced users only.	ured, a malicious user could	
Server Enabled Vill the tehet server accept incoming connecti	ons?	⊙ Yes		
lequire Authentication /ill the telnet server prompt for user name and Submit	password?	⊚Yes ⊙No		
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4.7.5 Restart Network

Restart for network change to take effect. To make the changes you have made take effect immediately, please press "Restart Networking" button, and then the home gateway networking services will be restart.