## Communication Drivers Installation manual

eng

## **Table of Contents**



	About the Book	.7
Part I	General information on the installation of drivers	
Chapter 1	General information concerning the Drivers At a Glance Installation The drivers and Unity Pro	11 12
Part II	Uni-Telway drivers	
Chapter 2	Serial port	17 18 20
Chapter 3	TSX SCP 114 card.         At a Glance         How to install the driver.         Driver configuration screens         Configuration of the Windows 98 operating system         Configuration of the Windows 2000\XP operating system         Configuration of Win NT operating system	27 28 30 32 33
Part III	FIP drivers	
Chapter 4	TSX FPP 20 card         At a Glance         How to install the driver         How to install the driver         Configuration of the Windows 98 operating system	37 38 40

	Configuration of the Windows 2000\XP operating system Configuration of the Windows NT operating system	
Chapter 5	<b>TSX FPC 10 ISA card</b> At a Glance         How to install the driver         Driver configuration screen for Windows NT         Driver configuration screen for Windows 98\2000\XP         Configuration of the operating system using the TSX FPC 10 card         How to select the hardware type for Windows 98         How to configure hardware parameters for Windows 2000\XP         How to configure hardware parameters for Windows 2000\XP         How to configure hardware parameters for Windows 2000\XP         How to adjust the ISA TSX FPC 10 card parameters	
Part IV	ETHWAY driver	
Chapter 6	Installation         At a Glance         How to install the driver for Windows 2000\XP         How to install the driver for Windows NT         Driver configuration tool	67 68 71
Part V	XIP driver on TCP/IP         At a Glance	
Chapter 7	Installation         At a Glance         How to install the driver         Driver configuration screen         How to configure the driver	77 78 80
Part VI	Drivers for Atrium Processors	
Chapter 8	ISAWAY driver for TPCX 57 processors	

	How to adjust the ISA TPCX 57 card parameters	108
Chapter 9	PCIWAY driver for TSX PCI 57 ••• processors         At a Glance         How to install the driver         Configuring the PCIWAY driver for windows 2000\XP         How to adjust the parameters of the TSX PCI 57 ••• card	111 112 114
Part VII	Modbus driver	
Chapter 10	Installation.         At a Glance .         How to install the driver.         Driver configuration screen .         Driver control screen .         Driver debug screen .         Information screen.	121 122 124 126 128
Part VIII	USB driver	
Chapter 11	Installation. At a Glance How to install the driver Configuration screens for Win 2000\XP State of the USB link	133 134 137
Part IX	Drivers manager	
Chapter 12	Functions	
Appendices	At a Glance	
Appendix A	The drivers of the TSX PCX 3030 cable         At a Glance         Installing the drivers of the TSX PCX 3030 cable         Configuration screens for drivers using the TSX PCX 3030 cable	149 150
Index		. 157

## About the Book



### At a Glance

**Document Scope** This document deals with the installation of communication drivers for Windows 98, Windows 2000/XP and Windows NT operating systems. These drivers are:

- Uni-Telway:
  - on the serial port,
  - with a TSXSCP114 card.
- Fip:
  - with a TSXFPC10 card,
  - with a TSXFPP20 card.
- Ethway,
- XIP on TCPIP,
- drivers for Atrium:
  - Isaway for the ISA bus,
  - PCIWAY for the PCI bus.
- Modbus,
- USB.

## Validity Note The data and illustrations found in this documentation are not binding. We reserve the right to modify our products in line with our policy of continuous product development.

The information in this document is subject to change without notice and should not be construed as a commitment by Schneider Electric.

#### Related Documents

Title of Documentation	Reference Number
X-Way Driver	TLX DI XIP M

Product Related Warnings	<ul> <li>Schneider Electric assumes no responsibility for any errors that may appear in this document. If you have any suggestions for improvements or amendments or have found errors in this publication, please notify us.</li> <li>No part of this document may be reproduced in any form or by any means, electroni or mechanical, including photocopying, without express written permission of Schneider Electric.</li> <li>All pertinent state, regional, and local safety regulations must be observed when installing and using this product.</li> <li>For reasons of safety and to ensure compliance with documented system data, onl the manufacturer should perform repairs to components.</li> <li>When controllers are used for applications with technical safety requirements, please follow the relevant instructions.</li> <li>Failure to observe this product related warning can result in injury or equipment damage.</li> </ul>	e C
User Comments	We welcome your comments about this document. You can reach us by e-mail at TECHCOMM@modicon.com	_
User Comments	,	at

## General information on the installation of drivers

At a Glance			
Subject of this Part	This part de CD ROM.	escribes the installation principle of the various drive	ers using the
What's in this	This part co	ontains the following chapters:	
Part?	Chapter	Chapter Name	Page
	1	General information concerning the Drivers	11

## General information concerning the Drivers

This chapter provides general information on th	e drivers.
This chapter contains the following topics:	
Торіс	Page
Installation	12
The drivers and Unity Pro	14
	This chapter contains the following topics:          Topic         Installation

Installation

At a Glance	It is gene procedur	erally possible to launch the installation of all the drivers using the same e.
Procedure	The follo CD ROM	wing procedure describes the installation principle of a driver using the l.
	Step	Description
	1	Insert the CD ROM in the CD ROM drive. <b>Result</b> : the <b>Install.htm</b> file launches automatically.
	2	Click on the link (in blue underlined text) that corresponds to the driver you wish to install.  Result: the Downloading files window appears.  Downloading a file
		You have chosen to download a file from this location. SETUP.EXE from D:\CD_Rom\Install.htm
		What do you wish to do with this file?
		Run this program from its current location
		C Save this program on the disk
		Always ask before opening this type of file
		OK Cancel <u>F</u> urther info.
	3	Choose Run this program from its current location.

Step	Description		
4	Then click on <b>OK</b> to confirm your choice. <b>Result</b> : the <b>Safety warning</b> window appears.		
	Security warning       Image: Security warning         Do you wish to install and run "SETUP.EXE from D:\ CDRom\UNITELWAY\Win2000-XP-Win 98-Me\disk1"?         Impossible to identify this editor for the following reasons:         The object to be verified is unknown to the supplier of reliability certificates.		
	Yes <u>No</u> <u>Eurther info</u> .		
5	Click on <b>Yes</b> to go ahead with the installation. <b>Result</b> : the installation setup of the chosen driver is run.		
6	Click on <b>Next</b> to go ahead with the installation.		
7	Configure the driver.		
8	Then click on <b>OK</b> to confirm the configuration.		
9	Restart your computer.		

### The drivers and Unity Pro

## PrecautionsTo ensure correct operation of the drivers using the Unity Pro software range you<br/>should install or reinstall the drivers using the CDROM version $\geq$ V2.0.<br/>Drivers that normally operate using the Unity Pro software range should also be<br/>installed using Windows XP or Windows 2000.

## **Uni-Telway drivers**

# II

At a Glance			
Subject of this Part	•	escribes how to install the drivers associate tion for Windows 98, Windows 2000\XP an	•
What's in this	This part co	ontains the following chapters:	
What's in this Part?	This part co	ontains the following chapters: Chapter Name	Page
		<b>5</b> 1	Page

## Serial port

## 

At a Glance		
Subject of this Chapter	This chapter describes installation of the Uni-Telway dr mode on the serial port with a remote device.	iver communicating in slave
	<ul><li>Driver installation consists of two steps:</li><li>installation of files on the station,</li><li>configuration of the driver.</li></ul>	
What's in this	This chapter contains the following topics:	
Chapter?	Торіс	Page
	How to install the driver	18
	Driver configuration screens	20
	How to configure the driver	24

## How to install the driver

#### At a Glance

Driver installation is a standard installation. It can be launched either:

- from the drivers' CD-ROM.
- or from disks if the station has no CD-ROM drive.

**Note:** The installation disks are created from the CD-ROM.

How to create a

Use the following procedure to create installation disks:

set of disks

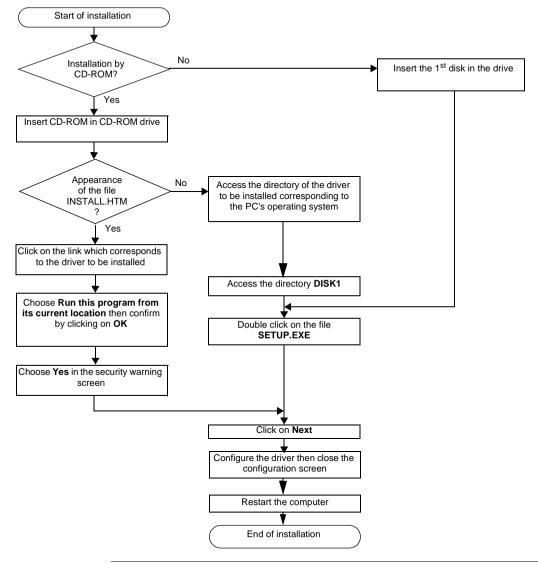
Step	Action
1	Use a station with a CD-ROM drive.
2	Insert the CD-ROM into the drive.
3	Access the directory of the driver to be copied onto disk.
4	Copy the contents of the <b>DISK1</b> directory onto a disk. Repeat this step for each <b>DISK</b> directory. <b>Note:</b> it is advisable to number the disks.

#### Preliminary Before installing the new driver, you must check that no other version of this driver operations exists on the station.

If a driver does exist, you must delete it before carrying out the new installation.

A previous version can be uninstalled using:

- Drivers Manager software,
- or the Control Panel -> Add/Remove Programs.



**How to install the** To install the driver, carry out the following procedure: **driver** 

## **Driver configuration screens**

At a Glance The configuration tool is used to link a driver configuration profile to a remote device that communicates with the station.

Illustration

The screen dedicated to the Uni-Telway driver looks like this:

	l	Uni-Telway Configuration	]
		Station List	
1	-	Target Station: [Default]	
2		Station ID     Remote     Password     Ph       ▶     [Default]     COM 1	
3 4	_	Add Modify Delete	6
5		OK Cancel Apply	7

#### Description

This table describes the different areas which make up the configuration screen:

Number	Element
1	This field is used to display the active profile.
2	This list is used to display the driver profile associated with each remote device.
3	These buttons are used to select the driver profile.
4	This button is used to add new profiles to the list.
5	This button is used to modify the profile of the driver selected from the list.
6	This button is used to remove a profile from the list.
7	This button is used to make the profile selected with the cursor active.

Uni-Telway
parameters

The parameters are presented in the following manner:

Parameters of the Station
Uni-Telway Link Parameters Advanced
Station ID
COM Port
Uni-telway Slaves address Base 1 : Number 3 :
Communication Modem
Hayes       Tel No.       Password
OK Cancel

The **Station ID** window is used to name the remote device associated with the driver configuration.

The COM Port window is used to select the communication port used.

The Uni-telway Slave Address window is used to enter:

- the standard slave address of the driver,
- the number of slave addresses used by the driver.

The **Modem Communication** window is useful when the local station is communicating via a modem. In this case, this window is used to enter:

- the HAYES string to be sent to the modem in order to initialize it,
- the call number of the remote device,
- the password to be sent to the remote device, if it has been configured with a list of callers with passwords (e.g. TSX MDM 10 card configured with passwords).

**Line parameters** The parameters are presented in the following manner:

Parameters of the Station	×
Uni-Telway Link Parameters Advanced	
Speed	
Auto-Adaptation Auto-Adaptation Auto-Adaptation Seconds	
Data Content       Parity       Stop Bits         7 bits       Odd       1 bit         8 bits       Without       2 bits         RTS/CTS Delay       1 : X 100 ms	
Default	
OK Cancel	

This tab is used to configure the parameters linked to transmission:

- Speed: transmission speed of between 300 and 115 200 bits/s,
- Auto-Adaptation: self-adaptation of speed (time during which the driver tries to connect at a given speed),
- Data: specifies the size of the data exchanged over the line,
- Parity: is used to set whether a parity bit is added or not, as well as its type,
- Stop Bits: is used to enter the number of stop bits used for communication,
- **RTS/CTS Delay**: enables the CTS signal to be used in the event of multidrop communication.

The Default button is used to reset all these parameters to their default value.

Advanced parameters

The parameters are presented in the following manner:

Parameters of the Station	×
Uni-Telway Link Parameters Advanced	
<b>-5</b> -	
Type of link	
O PC	
⊙ Uni-Telway	
Cother	
PCL No.	
TimeOut Link 1	
Force Virtual Com Port	
OK Cancel	

This tab is used to configure the line type:

- PC: uses the driver to connect to a series 7 PLC terminal port,
- Uni-Telway: default value, uses the driver to communicate in Uni-Telway,
- Num PLC: uses the driver to connect to NUM PLCs.
  - **RX/TX Delay**: by default set to -1; is used to extend the return time (if the station is too fast).
  - Link Timeout: by default set to -1; is used to set the maximum time for detecting the right transmission speed.
- Force Virtual Com Port: must be checked if the Unit-Telway driver uses a virtual communication port except for use with the TSX PCX 3030 cable.

## How to configure the driver

At a Glance	0	river installation, a default profile is proposed. This profile can be modified one created.	
How to create a	From the driver configuration screen.		
new profile	Step	Action	
	1	Click on the Add button. see Uni-Telway parameters, p. 21.	
	2	Enter station name.	
	3	Select COM port.	
	4	Define the driver slave address.	
	5	If the driver uses a modem to communicate, select the <b>Use modem</b> box and enter the different fields associated with it.	
	6	Select the Line parameters (See Line parameters, p. 22) tab.	
	7	Configure the transmission parameters according to the remote device (baud rate, parity, data bits, etc.).	
	8	If the driver requires specific configuration, click on the <b>Advanced</b> (See <i>Advanced parameters, p. 23</i> ) tab and configure the parameters according to the remote device.	
	9	Accept the configuration by clicking on <b>Ok</b> . <b>Result:</b> the new configuration appears in the list.	

profile	Step	Action
	1	Select a configuration profile from the list. <b>Result:</b> the cursor moves to the selected line.
	2	Click on the Modifier button; see Uni-Telway parameters, p. 21.
	3	Modify the parameters according to the remote device.
	4	Select the <b>Line parameters</b> (See <i>Line parameters, p. 22</i> ) tab and modify the transmission parameters according to the remote device (speed, parity, data, etc.).
	5	If the driver requires specific configuration, click on the <b>Advanced</b> (See <i>Advanced parameters, p. 23</i> ) tab and modify the parameters according to the remote device.
	6	Accept the configuration by clicking on <b>Ok</b> . <b>Result:</b> the new configuration appears in the list.
How to remove a profile		e driver configuration screen.
	Step	Action
	Step 1	
	Step 1	Action           Select a configuration profile from the list.           Result: the cursor moves to the selected line.
		Select a configuration profile from the list.
	1	Select a configuration profile from the list. <b>Result:</b> the cursor moves to the selected line.
	1	Select a configuration profile from the list.         Result: the cursor moves to the selected line.         Click on Delete.
	1	Select a configuration profile from the list.         Result: the cursor moves to the selected line.         Click on Delete.         Press the Yes button to confirm your choice.
How to activate a	1 2 3	Select a configuration profile from the list.         Result: the cursor moves to the selected line.         Click on Delete.         Press the Yes button to confirm your choice.
How to activate a profile	1 2 3	Select a configuration profile from the list. <b>Result:</b> the cursor moves to the selected line. Click on <b>Delete</b> . Press the <b>Yes</b> button to confirm your choice. <b>Result:</b> the configuration is removed from the list.
	1 2 3 From the	Select a configuration profile from the list.         Result: the cursor moves to the selected line.         Click on Delete.         Press the Yes button to confirm your choice.         Result: the configuration is removed from the list.         e driver configuration screen.         Action         Select a profile from the list.
	1 2 3 From the Step	Select a configuration profile from the list.         Result: the cursor moves to the selected line.         Click on Delete.         Press the Yes button to confirm your choice.         Result: the configuration is removed from the list.         e driver configuration screen.         Action

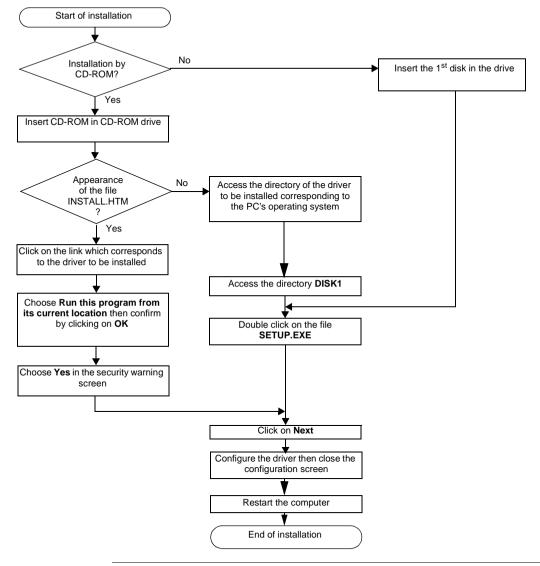
## TSX SCP 114 card

## 

At a Glance		
Subject of this Section	This chapter describes installation of the Uni-Telway driver commode via the PCMCIA TSX SCP 114 card with a remote devi	0
What's in this	<ul> <li>Driver installation consists of three steps:</li> <li>installation of files on the station,</li> <li>configuration of the driver</li> <li>configuration of the operating system to recognize the driver</li> </ul>	er.
Chapter?		Page
	How to install the driver	28
	Driver configuration screens	30
	Configuration of the Windows 98 operating system	32
	Configuration of the Windows 2000\XP operating system	33
	Configuration of Win NT operating system	34

## How to install the driver

At a Glance	<ul> <li>from the</li> </ul>	stallation is a standard installation. It can be launched either: ne drivers' CD-ROM, n disks if the station has no CD-ROM drive.
	Note: Th	ne installation disks are created from the CD-ROM.
How to create a set of disks	Use the f	ollowing procedure to create installation disks: Action
	1	Use a station which has a CD-ROM drive.
	2	Insert the CD-ROM into the drive.
	3	Access the directory of the driver to be copied onto disk.
	4	Copy the contents of the <b>DISK1</b> directory onto a disk. Repeat this step for each <b>DISK</b> directory.
		Note: it is advisable to number the disks.



**How to install the** To install the driver, carry out the following procedure: **driver** 

At a Glance	The configuration tool is used to configure the TSX SCP 114 card Uni-Telway dr	iver.
Illustration	The screen dedicated to the Uni-Telway driver looks like this:	

## **Driver configuration screens**

**Description** This table describes the different areas which make up the configuration screen:

Number	Element
1	This window is used to set the standard slave address (Ad0) used by the card.
2	This button is used to recognize the address.
3	This tab is used to access the configuration of transmission parameters.

**Line parameters** The parameters are presented in the following manner:

Station Parameters	×					
Uni-Telway Link Parameters						
Speed						
Delay Default 10 to ms						
Data Content     Parity     Stop Bits       ① 7 bits     ③ Even     ③ 1 bit       ③ 8 bits     ○ Odd     ○ 2 bits						
RTS/CTS Delay X 100 ms						
Cancel Default						
OK Cancel Apply						

This tab is used to configure the parameters linked to transmission:

- transmission speed of between 300 and 19,200 bits/s,
- Time-out,
- Number of data bits: specifies the size of the data exchanged over the line,
- parity: is used to set whether a parity bit is added or not, as well as its type,
- number of **Stop** bits: is used to enter the number of stop bits used for communication,
- **RTS/CTS** delay: enables the CTS signal to be used in the event of multidrop communication.

The **Default** button is used to reset all these parameters to their default value.

the operating system

### Configuration of the Windows 98 operating system

At a Glance After the driver installation and configuration phase, the operating system shall recognize the TSX SCP 114 card and its driver.

**Note:** So that the driver is loaded when the card is inserted, it is essential that the station is restarted to update the registry.

**How to configure** The following procedure describes how to configure the operating system:

Step	Action					
1	Install and configure the driver.					
2	Restart the station.					
3	Insert the PCMCIA card into its slot.					
	<b>Result:</b> The system automatically detects the card and the following window is displayed:					
	New device detected     Image: Comparison of the second seco					
	<u>Windows default driver</u> Driver supplied on hardware manufacturer <u>d</u> iskette <u>D</u> o not install a driver (Windows will not prompt you again) <u>S</u> elect from list of drivers					
	OK Cancel <u>H</u> elp					
4	Select the option Windows default driver.					
5	Confirm using the <b>Ok</b> button.					

## Configuration of the Windows 2000\XP operating system

At a Glance After the driver installation and configuration phase, the operating system shall recognize the TSX SCP 114 card and its driver. Note: When configuring the system, it is not necessary to restart the station. How to configure The following procedure describes how to configure the operating system: the operating Step Action system Install and configure the driver. 1 2 Insert the PCMCIA card into its slot. Result: The system automatically detects the card and loads the card driver.

## Configuration of Win NT operating system

At a Glance After the driver installation and configuration phase, the operating system shall recognize the TSX SCP 114 card and its driver.

**Note:** So that the driver is loaded when the card is inserted, it is essential that the station is restarted to update the registry.

**How to configure** The following procedure describes how to configure the operating system:

the operating system

Step	Action				
1	Install and configure the driver.				
2	Shutdown your machine.				
3	Insert the PCMCIA card into its slot.				
	Result:				
	The system automatically detects the card and loads the driver.				

Case in which the driver does not start One possibility is that the default **IRQ3** is busy, in which case another one must be used:

Follow the steps below to detect an available IRQ:

Step	Action			
1	In the taskbar, select "Start ->Run".			
2	enter the command "Winmsd"			
3	Select the tab "Resources", choose an available IRQ and confirm with OK.			
4	Edit the DSCP114.REG file and modify the value of "InterruptNumber"			
5	In the taskbar, select "Start ->Run", enter the command "DSCP114" and confirm.			
6	Restart your machine.			

## **FIP drivers**

# III

## At a Glance

Subject of this Part	This part describes how to install the drivers associated with FIP communication for Windows 98, Windows 2000\XP and Windows NT operating systems.					
What's in this Part?	This part co	ntains the following chapters:	Page			
	4	TSX FPP 20 card	37			
	5	TSX FPC 10 ISA card	45			
	L					

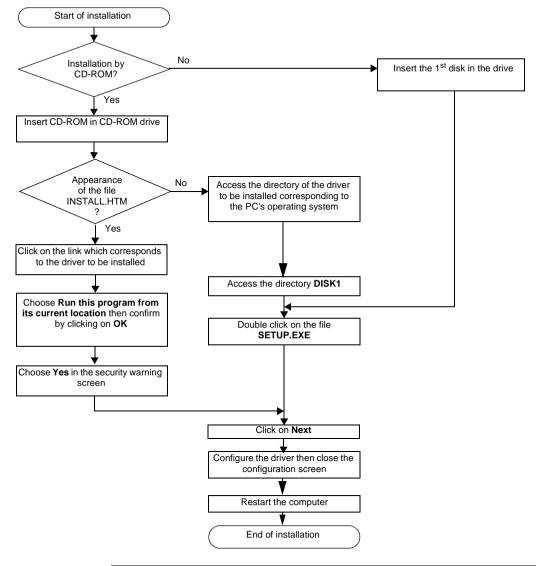
#### TSX FPP 20 card

# 

At a Glance			
Subject of this Chapter	This chapter describes installation of the driver used to communicate in Fipway\Fipio mode via the TSX FPP K200 connection kit with a remote device.		
	<ul> <li>Driver installation consists of three steps:</li> <li>installation of files on the station,</li> <li>configuration of the driver,</li> <li>configuration of the operating system to recognize the driver</li> </ul>		
What's in this	This chapter contains the following topics:		
Chapter?	Торіс	Page	
	How to install the driver	38	
	How to install the driver	40	
	Configuration of the Windows 98 operating system	41	
	Configuration of the Windows 2000\XP operating system	42	
	Configuration of the Windows NT operating system	43	

#### How to install the driver

At a Glance	<ul> <li>from the</li> </ul>	stallation is a standard installation. It can be launched either: ne drivers' CD-ROM, n disks if the station has no CD-ROM drive.
	Note: Th	ne installation disks are created from the CD-ROM.
How to create a set of disks		ollowing procedure to create installation disks:
	Step	Action
	1	Use a station which has a CD-ROM drive.
	2	Insert the CD-ROM into the drive.
	3	Access the directory of the driver to be copied onto disk.
	4	Copy the contents of the <b>DISK1</b> directory onto a disk. Repeat this step for each <b>DISK</b> directory.
		Note: it is advisable to number the disks.



**How to install the** To install the driver, carry out the following procedure: **driver** 

#### How to install the driver

At a Glance The configuration tool is used to configure the driver in Fipway or Fipio mode to use the TSX FPP 20 card.

Illustration

The screen dedicated to the card driver looks like this:

	TSXFPP20 Configuration	×
	Network Parameters	
	-5-	
1	 Network : 0	
2	 Station : 63	
3	 Network Type Fipway (World FIP)	
	O Fipio O Fipio (WORLD FIP)	
	OK Annuler Appliquer	

#### Description

This table describes the different areas which make up the configuration screen:

Number	Element
1	This field is used to set the network address.
2	This field is used to set the station address.
3	This window is used to select the type of Fipway or Fipio connection.

#### Configuration of the Windows 98 operating system

At a Glance After the driver installation and configuration phase, the operating system shall recognize the TSX FPP 20 card and its driver.

**Note:** So that the driver loads up when the card is inserted, it is essential that the station is restarted to allow Windows to update the registry.

 How to configure the operating system
 The following procedure describes how to configure the operating system:

 Step
 Action

Step	Action
1	Install and configure the driver.
2	Restart the station.
3	Insert the PCMCIA card into its slot.
	Result:         The system automatically detects the card and the following window is displayed:         New device detected       ? ×         Telemecanique-TSX SCP 114         Select which driver you want to install for your new hardware         .       Windows default driver         Driver supplied on hardware manufacturer diskette         De not install a driver (Windows will not prompt you again)
	Select from list of drivers       OK     Cancel
4	Select the option Windows default driver.
5	Confirm using the <b>Ok</b> button.

#### Configuration of the Windows 2000\XP operating system

At a Glance After the driver installation and configuration phase, the operating system shall recognize the TSX FPP 20 card and its driver. **Note:** When configuring the system, it is not necessary to restart the station. How to configure The following procedure describes how to configure the operating system: the operating Step Action system Install and configure the driver. 1 2 Insert the PCMCIA card into its slot. Result: The system automatically detects the card and loads the card driver.

#### Configuration of the Windows NT operating system

At a Glance After the driver installation and configuration phase, the operating system shall recognize the TSX FPP 20 card and its driver.

Note: When configuring the system, it is not necessary to restart the station.

How to configure The following procedure describes how to configure the operating system:

the operating system

-

Step	Action
1	Install and configure the driver.
2	Shutdown your machine.
3	Insert the PCMCIA card into its slot.
	Result:
	The system automatically detects the card and loads the driver.

Case in which One possibility is that the default **IRQ3** is busy, in which case another one must be the driver does used: not start Follow the steps below to detect an available IRQ:

Step	Action
1	In the taskbar, select "Start ->Run".
2	enter the command "Winmsd"
3	Select the tab "Resources", choose an available IRQ and confirm with OK.
4	Edit the DSCP114.REG file and modify the value of "InterruptNumber"
5	In the taskbar, select "Start ->Run", enter the command "DFPP20" and confirm.
6	Restart your machine.

#### TSX FPC 10 ISA card

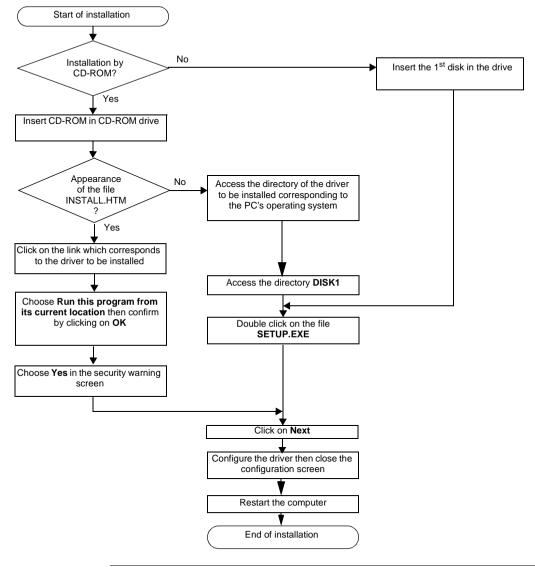
# 

At a Glance				
Subject of this Chapter	This chapter describes installation of the driver communicating in Fipway/Fipio mode via the ISA TSX FPC 10 card and a remote device.			
	<ul> <li>Driver installation consists of three steps:</li> <li>installation of files on the station,</li> <li>configuration of the driver,</li> <li>configuration of the operating system to recognize the driver.</li> </ul>			
What's in this	This chapter contains the following topics:			
Chapter?	Торіс	Page		
	How to install the driver	46		
	Driver configuration screen for Windows NT	48		
	Driver configuration screen for Windows 98\2000\XP	50		
	Configuration of the operating system using the TSX FPC 10 card	51		
	How to select the hardware type for Windows 98	52		
	How to select the hardware type for Windows 2000\XP	55		
	How to configure hardware parameters for Windows 98	58		
	How to configure hardware parameters for Windows 2000\XP	60		
	How to adjust the ISA TSX FPC 10 card parameters	63		

#### How to install the driver

At a Glance How to create a	<ul> <li>from th</li> <li>or from</li> </ul> Note: Th	atallation is a standard installation. It can be launched either: the drivers' CD-ROM, in disks if the station has no CD-ROM drive. The installation disks are created from the CD-ROM.			
set of disks		ollowing procedure to create installation disks:			
	Step	Action			
	1	Use a station which has a CD-ROM drive.			
	2	Insert the CD-ROM into the drive.			
	3	Access the directory of the driver to be copied onto disk.			
	4	Copy the contents of the <b>DISK1</b> directory onto a disk. Repeat this step for each <b>DISK</b> directory.			
		Note: it is advisable to number the disks.			
Preliminary operations	Before installing the new driver, you must check that there is no previous version of the station. If a driver does exist, you must delete it before carrying out the new installation. The previous version of the driver can be uninstalled using:				

- Drivers Manager software,
   or the Control Panel → Add/Remove Programs.



**How to install the** To install the driver, carry out the following procedure: **driver** 

#### Driver configuration screen for Windows NT

At a Glance The configuration tool is used to configure the driver in Fipway or Fipio mode to use a ISA TSX FPC 10 card.

**Illustration** The screen dedicated to the card driver looks like this:

📓 Dfpway - Configuration FIP F	PC SN	
Fipway address Fipway mode Network 0 Station 31 Fipio address Fipio Mode Fipio connection point	Driver instance	Save Read By default

#### Description

This table describes the different areas and buttons which make up the configuration screen:

Zone	Description
Fipway address	This area is used to define the network address of the station when the driver is configured in Fipway mode.
Fipio address	This area is used to define the connection point number when the driver is configured in Fipio mode.
Driver instance	This area is used to select the instance of the driver used (max. 2).
Save	Used to save the configuration of the driver that has just been entered.
Read	Used to read the configuration of the driver saved previously.
By default	Allows default automatic entry of the driver configuration.

### Advanced To access the advanced configuration screen use the commands configuration "File->Advanced Configuration". The following window is displayed:

Configuration FIP FPC	SN - Advan	ced		X
I/O address 210h	· Inter	rupt	Mode	ОК
DMA channel	$\neg \mid \circ$	IRQ 3	• On	Canad
• Channel 5		IRQ 5	◯ Off	Cancel
Ŭ		IRQ 10		By default
Channel 6		IRQ 11	PRUC 0	
Channel 7		IRQ 15	World FIP	
		ind to		

The following table describes the different areas and buttons in the window.

Zone	Description
I/O address	Used to choose the address in the storage area with which the driver can find the Fipway FPC10 module. This address must be included between 100h and 3F0h and be identical to the address configured in the module.
DMA channel	Used to select the DMA resource shared by the driver and the module. This information must be identical to that configured on the module.
Interrupt	Used to select the interrupt shared by the driver and the communication module. This information must be identical to that configured on the module.
Mode	Used to disable the driver by checking the "OFF" box. This is usually the case for the second instance of the driver. (FIP02).
WorldFip	Allows use of frames in WorldFip profile A format whose CRC calculation complies with the IECSC65C105 standard.
Cancel button	Used to return to the previous window.
By default button	Used to configure the different areas with default parameters.
OK button	Used to acknowledge the new configuration parameters.

#### Driver configuration screen for Windows 98\2000\XP

At a Glance The configuration tool is used to configure the driver in Fipway or Fipio mode to use a ISA TSX FPC 10 card.

Illustration

The screen dedicated to the card driver looks like this:

	TSXFPPC10 Configuration	×
	Network Parameters	_
	- <b>S</b> -	
1	 Network: 0	
2	 Station: 63	
3	 Network Type	
	O Fipio O Fipio (WORLD FIP)	
	OK Cancel Apply	

#### Description

This table describes the different areas which make up the configuration screen:

Number	Element
1	This field is used to set the network address.
2	This field is used to set the station address.
3	This window is used to select the type of Fipway or Fipio connection.

#### Configuration of the operating system using the TSX FPC 10 card

At a Glance After the driver installation and configuration phase, the operating system shall recognize the ISA TSX FPC 10 card and its driver.

Installation principles

As this card is not automatically recognized by the operating system, the following phases must be carried out:

Step	Action
1	<ul> <li>Select the hardware type:</li> <li>for Win 98 see How to select the hardware type for Windows 98, p. 52,</li> <li>for Win 2000/XP see How to select the hardware type for Windows 2000/XP, p. 55,</li> <li>for Win NT no operation is required.</li> </ul>
2	<ul> <li>Configure the parameters of the operating system to recognize the card:</li> <li>for Win 98 see How to configure hardware parameters for Windows 98, p. 58,</li> <li>for Win 2000/XP see How to configure hardware parameters for Windows 2000/XP, p. 60,</li> <li>for Win NT no operation is required.</li> </ul>
3	Switch off the PC.
4	<ul> <li>Adjust the card parameters (See How to adjust the ISA TSX FPC 10 card parameters, p. 63):</li> <li>the standard I/O address,</li> <li>the IRQ interrupt address.</li> </ul>
5	Connect the card to the ISA bus.
6	Turn the PC back on.
	Result: the driver is operational.

#### How to select the hardware type for Windows 98

Procedure

After having installed and configured the driver, carry out the following procedure to select the hardware type.

1       In the initial window which is displayed, click on Next.         Result         The following window appears:         Add new hardware Assistant         Vindows can now search for hardware that is incompatible with Plug-and-Play, or you can select the hardware from a list.         Windows detects a new hardware, it automatically determines the current parameters for the peripheral and correctly installs the pilot. It is therefore strongly recommended that you allow Windows to detect the new hardware.	Step	Action
Add new hardware Assistant       ? ×         Windows can now search for hardware that is incompatible with Plug-and-Play, or you can select the hardware from a list.         When Windows detects a new hardware, it automatically determines the current parameters for the peripheral and correctly installs the pilot. It is therefore strongly recommended that you allow Windows to detect the new	1	In the initial window which is displayed, click on <b>Next</b> .
Add new hardware Assistant       Image: Constraint of the cons		
Windows can now search for hardware that is incompatible with Plug-and-Play, or you can select the hardware from a list. When Windows detects a new hardware, it automatically determines the current parameters for the peripheral and correctly installs the pilot. It is therefore strongly recommended that you allow Windows to detect the new		I he following window appears:
incompatible with Plug-and-Play, or you can select the hardware from a list. When Windows detects a new hardware, it automatically determines the current parameters for the peripheral and correctly installs the pilot. It is therefore strongly recommended that you allow Windows to detect the new		Add new hardware Assistant
Do you wish for Windows to automatically detect any new hardware?         Yes (recommended)         • No, I wish to select the hardware from a list.		<ul> <li>incompatible with Plug-and-Play, or you can select the hardware from a list.</li> <li>When Windows detects a new hardware, it automatically determines the current parameters for the peripheral and correctly installs the pilot. It is therefore strongly recommended that you allow Windows to detect the new hardware.</li> <li>Do you wish for Windows to automatically detect any new hardware?</li> <li>Yes (recommended)</li> <li>No, T wish to select the hardware from a list.</li> </ul>

Step	Action
2	Answer <b>No</b> to the question <b>Do you want Windows to search for your new hardware?</b>
	Result The following window appears:
	Add new hardware Assistant
	Select the hardware type you wish to install. <u>Iypes of hardware:</u>
	Modem Mouse Multifunction adapter cards Multifunction adapter cards PCMCIA extension FPC10 Device Ports (COM & LPT) Printer SCSI Controllers
	<pre></pre>
3	Select FPC10 Device from the list then click on Next.
4	Select <b>FPC10 WDM Device</b> from the list then click on <b>Next</b> . <b>Result</b> The operating system suggests the hardware parameters that you must adjust on the card.
	Add new hardware Assistant
	Windows can install your hardware using the following parameters: Warning: your hardware cannot be configured for use with the resources listed. You may use the Peripherals Manager to adjust the parameters before restarting your computer. Click successively on the Start, Parameters, Control panel, System, and Peripherals Manager tabs. To modify the hardware parameters, consult the hardware documentation supplied.
	To continue installing the software needed by your hardware, click Next.
	Type of resource     Parameter     Print       Input/output range     0190-019F     Interrupt Request (IRQ)     10
	< <u>Previous:</u> Next> Cancel

Step	Action
5	Click on Next.
6	Answer No to the question Do you want to restart your computer now?
	Result The following window appears and the card is shown in the station's hardware
	configuration.       System Properties
	General Peripherals Manager Hardware Profiles Performance
	<ul> <li>Display peripherals by type Display peripherals by connection</li> <li>Computer</li> <li>CD-ROM</li> <li>CD-ROM</li> <li>CD-ROM</li> <li>CD-ROM</li> <li>Constant disk drives</li> <li>Constant disk controllers</li> <li>Constant disk controllers</li> <li>Screens</li> <li>Mouse</li> <li>Network cards</li> <li>FPC10 Device</li> <li>FPC10 WDM Device</li> <li>FPC10 WDM Device</li> <li>FPC10 WDM Device</li> <li>System peripherals</li> <li>System peripherals</li> <li>USB bus controllers</li> <li>Delete</li> <li>Print</li> </ul>
7	<ul> <li>Do you want to modify the parameters?</li> <li>If yes, go to the procedure: how to modify hardware parameters (See How to configure hardware parameters for Windows 98, p. 58),</li> <li>If no, click on Ok then restart the station with the card.</li> </ul>

#### How to select the hardware type for Windows 2000\XP

Procedure

After having installed and configured the driver, carry out the following procedure to select the hardware type.

Step	Action
1	In the initial window which is displayed, click on <b>Next</b> .
	Result
	The following window appears:
	Add/Delete new hardware Assistant
	Select a task for the hardware What task do you wish to perform on the hardware?
	Select the task you wish to perform for your hardware, then click on next.
	<ul> <li>Add/Troubleshoot a peripheral Choose this option to add a new peripheral to your computer or if you have difficulty operating an existing peripheral.</li> </ul>
	<ul> <li>Uninstall/Disconnect a peripheral Choose this option to uninstall a peripheral or to prepare your computer for the disconnection of a peripheral.</li> </ul>
	< Previous Next> Cancel

Step	Action
2	Select the option Add/Troubleshoot a peripheral then click Next.
	Result
	The following window appears:           Add/Delete new hardware Assistant
	Selecting a hardware peripheral What hardware peripheral do you wish to troubleshoot?
	The following hardware is already installed on your computer. If you encounter difficulty with one of these peripherals, select the peripheral and click Next.
	If you try to add a peripheral and it doesn't appear below, select Add a new peripheral, then click Next. Peripherals
	Add a new peripheral COMPAQ 171 FS Disk drive COMPAQ CRD-8320B COMPAQ CRD-8320B COMPAQ CRD-8320B COMPAQ Laboration of a sumply
	ES1869 Control Interface (WDM)
	< Previous Next> Cancel
3	Select the option Add a new peripheral then click Next.
4	Answer No to the question Do you want Windows to search for your ne hardware?

Step	Action
5	Click on Next. Result The following window appears: Add/Delete new hardware Assistant Hardware type Which hardware type do you wish to install? Select the hardware type you wish to install. Hardware types: PCX57 Device PCX57 Device Port (COM & LPT) Printers Sound, video and game controllers Systems peripherals Tape drives FPC10 Device FPC10 Device
	< Previous Next > Cancel
6	Select FPC10 Device from the list then click on Next.
7	Select <b>FPC10 WDM Device</b> from the list then click on <b>Next</b> . <b>Result</b> : an information window appears.
8	A window informs the user that the hardware parameters of the card must be entered by the user. Click on OK and go to the next procedure: how to configure hardware parameters (See <i>How to configure hardware parameters for Windows 2000WP, p. 60</i> ).

#### How to configure hardware parameters for Windows 98

**Procedure** When you want to modify the hardware parameters, carry out the following procedure.

Step	Action
1	Click on <b>Properties</b> .
	Result The following window appears:
	Properties of the peripheral PCX57 WDM
	General Pilot Resources
	Peripheral PCX57 WDM
	Use automatic parameters  Parameters based on: Standard configuration 0
	Type of resource     Parameter       Input/output range     01A0-001AF       Interrupt Request (IRQ)     10
	Modify the parameters
	No conflict.
	OK Cancel
2	Uncheck the box Use automatic settings.
3	Select Input/Output Range from the list.

Step	Action
4	Click on Change settings.
	Result
	The following window appears:
	Modify input/output range
	Enter the input/output range you wish to define for this peripheral.
	You can either enter a specific range and the closest valid range will be automatically selected, or select a range using the indicator arrows.
	Value: 01A0-01AF
	other peripherals. No peripherals in conflict.
	OK Cancel
5	From the Value list, select the non-conflicting address range.
	Note: note the values because they must be coded onto the ISA card.
6	Confirm with <b>OK</b> .
7	Carry out steps 5 to 8 selecting Interrupt Request from the list.
8	Confirm with <b>Ok</b> then restart the station with the card connected.

#### How to configure hardware parameters for Windows 2000\XP

**Procedure** After having selected the hardware type, carry out the following procedure to configure the parameters.

Step	Action
1	Click on the <b>Resources</b> button.
2	Click on Manual Configuration.
	Result The following window appears:
	Add new hardware Assistant Properties
	Resources         FPC10 WDM Device         Resource parameters:         Type of Resource       Parameter         Input/output range       ?         Interrupt Request (IRQ) ?         Parameters based on:       Standard configuration 0000         Image: Standard configuration 0000         Image: Standard configuration 0000
	List of peripherals in conflict: Modify the parameters No conflict. OK Cancel
3	Uncheck the box Use automatic settings.
4	Select Input/Output Range from the list.

Step	Action
5	Click on Change settings.
	Result The following window appears:
	Modify input/output range
	Enter the input/output range you wish to define for this peripheral. You can either enter a specific range and the closest valid range will be automatically selected, or select a range using the upper or lower indicator arrows. This resource is assigned to the following child peripherals: Value: 0210-021F Information concerning conflicts The parameter you have chosen is not in conflict with other peripherals. No peripherals in conflict OK Cancel
6	From the Value list, select the non-conflicting address range.
	Note: note the values because they must be coded onto the ISA card.
7	Confirm with <b>OK</b> .
	Result: a confirmation window appears.
8	Confirm with Yes.
9	Carry out steps 4 to 8 selecting Interrupt Request from the list.

Step	Action			
10	Accept the configuration with <b>OK</b> .			
	Result			
	The following window appears:			
	Add / Remove Hardware Wizard			
	End of Add/Delete hardware Assistant			
	The following hardware has been installed: FPC10 WDM Device			
	Check the documentation of your hardware to know whether you should configure the new hardware manually. To operate the hardware you must restart the computer.			
	To display or modify the resources for this peripheral, click Resources.			
	To close the Assistant, click on Finish.			
	<back cancel<="" finish="" td=""></back>			
11	Click on <b>Finish</b> to confirm hardware configuration.			

#### How to adjust the ISA TSX FPC 10 card parameters

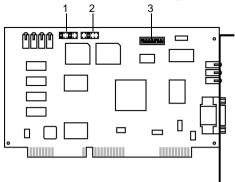
#### At a Glance

Before installing the TSX FPC 10 card, you must adjust the following parameters:

- the standard I/O address,
- the IRQ interrupt address.

Illustration

This card comprises the following elements:



#### Numbers and elements

The following table describes the different parameters to be adjusted:

Number	Element
1	Jumpers (SW1) are used to select the DMA channel (Direct Access Memory) (no object).
2	A jumper (SW2) is used to select the IRQ (Interrupt Request) level.
3	The micro-switches (SW3) are used to select the standard address of the card in the I/O space.

#### **Procedure** To adjust the parameters, proceed in the following manner:

Step	Action
1	Set the IRQ interrupt jumper to comply with the address provided by the windows 98 (See How to configure hardware parameters for Windows 98, p. 58) or 2000/XP (See How to configure hardware parameters for Windows 2000\XP, p. 60) operating systems.
2	Code the standard I/O address provided by the operating system windows 98 (See How to configure hardware parameters for Windows 98, p. 58) or 2000/XP (See How to configure hardware parameters for Windows 2000/XP, p. 60) with the micro-switches.

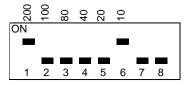
The interrupt address provided by the system is 10:

Example of IRQ selection

e	5	10	11	15	IRQ	
С			0			
С	0	0	0	0	0	

Note: The jumper must not be set in the IRQ position.

Example of standard address selection The standard address provided by the system is equal to 210 in hexadecimal:



#### **ETHWAY driver**

# IV

At a Glance			
Subject of this Part	•	escribes how to install the drivers associated with ETHWAY tion for Windows 2000\XP and Windows NT operating syste	
What's in this	This part co	ntains the following chapters:	
Part?	Chapter	Chapter Name	Page
	6	Installation	67

#### Installation

## 

Subject of this Chapter	<ul> <li>This driver is used to communicate via an Ethernet card protocol. Driver installation consists of two main steps:</li> <li>installation of files on the station,</li> <li>configuration of the driver.</li> </ul>	using the ETHWAY
	-	
What's in this	This chapter contains the following topics:	
What's in this Chapter?	This chapter contains the following topics:	Page
		<b>Page</b> 68
	Торіс	

#### How to install the driver for Windows 2000\XP

At a Glance

The ETHWAY protocol is installed from:

- from the drivers' CD-ROM,
- or from disks if the station has no CD-ROM drive.

Note: The installation disks are created from the CD-ROM.

How to create a set of disks

Use the following procedure to create installation disks:

Step	Action
1	Use a station which has a CD-ROM drive.
2	Insert the CD-ROM into the drive.
3	Access the directory of the driver to be copied onto disk.
4	Copy the contents of the <b>DISK1</b> directory onto a disk. Repeat step for each <b>DISK</b> directory.
	Note: it is advisable to number the disks.

How to install the driver		VAY driver is installed in accordance with the following procedure:
	Step	Action
	1	Insert the CD-ROM or the first disk.
	2	Access the Control Panel in Windows.
	3	Double-click on the Network connections and Remote access icon.
	4	Select the icon Local connection then by right-clicking select the command Properties.  Result The following window appears:  Cocal Area Connection Properties  General Connect using:  General Connect using:  Configure The selected components are used by this connection:  Configure The selected components are used by this connection:  Configure The selected components are used by this connection:  Image: Client for Microsoft Networks  File and printer Sharing for Microsoft Networks  Install Uninstall Properties Description Enables you to access the resources on a Microsoft network.
		Display an icon in the Task bar once connected OK Cancel
	5	Click on the Install button.

Step	Action
6	In the <b>Select Network Component Type</b> window, select the type <b>Protocol</b> then click on <b>Add</b> .
	Result The following window appears:
	Selection of network protocol         Click on the network protocol you wish to install and then click on OK. If you have an installation disk for this component, click on the Disk supplied.         Manufacturers:       Network protocol:         Microsoft       Network supervisor pilot         DLC Protocol       NetBE UI Protocol         NetBE UI Protocol       Transport Protocol compatible with NWLink IPX/OSI-LAN Protocol         Disk supplied       Disk supplied
7	Click on Have Disk.
8	Select the access path of the files to be installed from the CD-ROM or the disk using the <b>Browse</b> button.
9	Click on <b>Ok</b> .
10	In this window select the ETHWAY Protocol then click on OK.
11	Select the ETHWAY protocol then click on Properties.
12	In the configuration screen (See <i>Driver configuration tool, p. 73</i> ), configure the protocol then click on <b>OK</b> .
13	Complete the installation by clicking on <b>OK</b> .

#### How to install the driver for Windows NT

At a Glance

The ETHWAY protocol is installed from:

- from the drivers' CD-ROM,
- or from disks if the station has no CD-ROM drive.

Note: The installation disks are created from the CD-ROM.

How to create a set of disks

Use the following procedure to create installation disks:

Step	Action
1	Use a station which has a CD-ROM drive.
2	Insert the CD-ROM into the drive.
3	Access the directory of the driver to be copied onto disk.
4	Copy the contents of the <b>DISK1</b> directory onto a disk. Repeat step for each <b>DISK</b> directory.
	Note: it is advisable to number the disks.

How to install the driver	The ETHWAY driver is installed in accordance with the following procedure:	
	Step	Action
	1	Insert the CD-ROM or the first disk.
	2	Access the Control Panel in Windows.
	3	Launch the Networks icon.
	4	Select the Protocols tab and click on Add.
	5	In the protocol selection window click on Have Disk
	6	Confirm your choice of diskette or CD-ROM and then choose <b>ETHWAY</b> <b>Protocol</b> . The driver files are copied onto the PC.
	7	Select the <b>Links</b> tab and check the link of the ETHWAY protocol with the Ethernet card(s) installed on the PC. ETHWAY can be linked selectively to 1 or 2 Ethernet cards.
	8	Return to the Protocols tab, select ETHWAY Protocol and click on Properties.
	9	Enter the ETHWAY Network-Station address in the <b>Network</b> and <b>Station</b> fields. If 2 Ethernet cards are installed on the PC, repeat this operation for each entry in the <b>Adapter name</b> list.
	10	Confirm the ETHWAY parameters, the <b>network</b> window, then restart the machine.

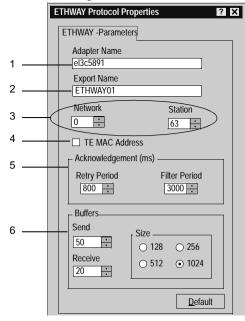
#### **How to install the** The ETHWAY driver is installed in accordance with the following procedure:

### **Driver configuration tool**

At a Glance The configuration tool is used to configure the Ethernet card to communicate according to the ETHWAY protocol.

Illustration

The card configuration screen looks like this:



Description	This table	e describes the different areas which make up the configuration screen:
	Number	Element
	1	This field is used to select the Ethernet card (useful if there are several Ethernet cards). This field cannot be modified under Windows 2000\XP.
	2	This field is used to select the ETHWAY driver instance. This field cannot be modified under Windows 2000\XP.
	3	These windows are used to define the address {Network.Station} of the Ethernet card used.
	4	This box is used to replace the Ethernet card's MAC address with the SCHNEIDER MAC address (00 80 F4 Network Station).
	5	<ul> <li>This window is used to configure the reception acknowledgment by defining:</li> <li>the retransmission period between two frames if the remote device is not responding,</li> <li>the storage time of a frame originating from the remote device (useful for loaded networks).</li> <li>Note: in general, storage time is three times the retransmission period.</li> </ul>
	6	This window is used to configure the transmission and reception buffer size in

bytes.

## XIP driver on TCP/IP

# V

At a Glance			
Subject of this Part		scribes how to install the drivers associated with X-W or Windows 98, Windows 2000\XP and Windows NT	,
What's in this		installation of this driver is the same on all operating	systems installed.
Part?	Chapter	ntains the following chapters: Chapter Name	Page
	7	Installation	77

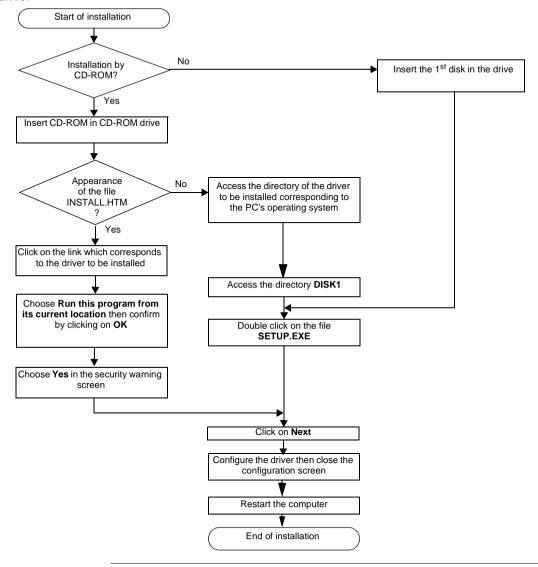
## Installation

# 

At a Glance		
Subject of this Chapter	This driver is used to communicate via an Ethernet card using on TCP/IP.	the X-Way protocol
	<ul><li>This chapter describes driver installation, which consists of two</li><li>installation of files on the station,</li><li>configuration of the driver.</li></ul>	o steps:
What's in this	This chapter contains the following topics:	
Chapter?	Торіс	Page
	How to install the driver	78
	Driver configuration screen	80
	How to configure the driver	82

### How to install the driver

### At a Glance Driver installation is a standard installation. It can be launched either: • from the drivers' CD-ROM. • or from disks if the station has no CD-ROM drive. **Note:** The installation disks are created from the CD-ROM. How to create a Use the following procedure to create installation disks: set of disks Step Action 1 Use a station which has a CD-ROM drive. 2 Insert the CD-ROM into the drive. 3 Access the directory of the driver to be copied onto disk. 4 Copy the contents of the **DISK1** directory onto a disk. Repeat this step for each DISK directory. Note: it is advisable to number the disks.



**How to install the** To install the driver, carry out the following procedure: **driver** 

### Driver configuration screen

At a Glance The configuration tool is used to link a driver configuration profile to a remote device that communicates with the station.

Illustration

The screen dedicated to the XIP driver looks like this:

1 _	Configuration Xip Test Help	
2 _	Profile        XIP01        X-Way address:     1 - 1	3
4 _	New connection       Station:       station1-2       X-Way address:       1	
5 _	IP address:         84 - 0 - 1 - 2           Installed connections	
	station2-*         002. *         084.000.001.002           station1-3         001.003         084.000.001.003           station PLC         000.001         139.160.065.100	6
	Save	
7 _	Ready	

### Description

This table describes the different areas which make up the configuration screen:

Number	Element
1	All software functions can be accessed using this menu bar:
	Configuration : creation or deletion of a profile
	• Xip : start, stop or reinitialize the driver
	• Test : test request transmissions with options
	Aide : information on the software
2	The profile used by the driver is selected from this list.
3	The X-Way address of the station is configured from this window.
4	The new connections with remote devices associated with the driver are set from this window.
5	Existing connections with remote devices can be viewed via this list.
6	Connections can be added, removed or redefined with these buttons.
7	This status bar is an operating indicator (driver stopped or started) with a comment zone.

### How to configure the driver

During driver installation, a default configuration profile is proposed. You are able to At a Glance modify this profile or create a new one.

> **Note:** If all the network connections are in use or if there are none on the station. a profile cannot be created.

How to create a new profile

From the driver configuration screen,

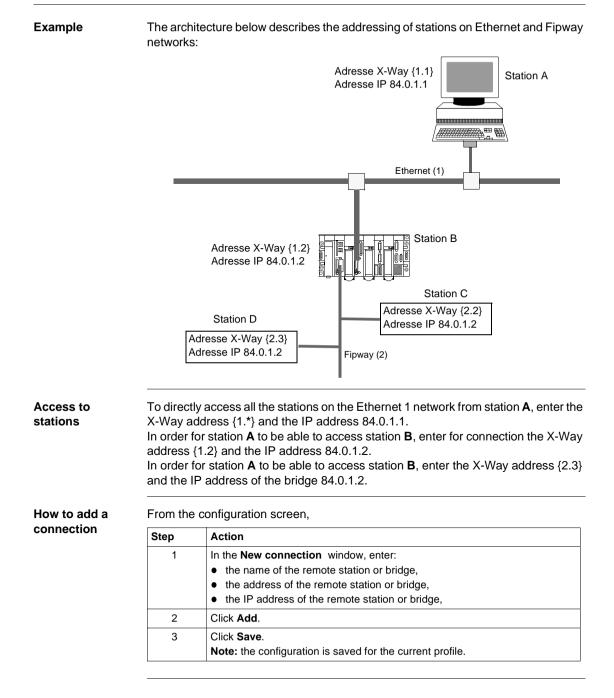


Step	Action
1	Select the menu Configuration $\rightarrow$ Create a profile. Result The following window appears: Creation of a new XIP profile XIP XIP XIP/IP OK XIP Cancel
2	From the <b>TCP/IP</b> drop-down menu, select the TCP/IP connection to the network.
3	Click Ok.

From the driver configuration screen, How to remove a

profile

Step	Action
1	Select the menu Configuration $\rightarrow$ Create a profile.
2	From the drop-down menu, select the profile to be removed.
3	Confirm deletion with <b>Ok</b> .



How to remove a	From the configuration screen,			
connection	Step	Action		
	1	In the <b>Connections installed</b> window, select the name of the remote station to be removed.		
	2	Click Delete.		
	3	Click Save.		
		Note: the configuration is saved for the current profile.		
How to modify a connection	Step	Action		
	1	In the <b>Installed Connections</b> window, select the name of the remote station to be modified.		
	2	<ul> <li>In the New connection window, modify:</li> <li>the name of the remote station or bridge,</li> <li>the address of the remote station or bridge,</li> <li>the IP address of the remote station or bridge,</li> </ul>		
	3	Click Update.		

XIP Instances	Once installed, configure the XIP driver and reboot the computer. All XIP profile instances are initialized.
	Englande VID worfde sourflewerd a company of the stress surgery in the test have

4

Click Save.

For each XIP profile configured a corresponding icon appears in the task bar.

Note: the configuration is saved for the current profile.

### **Drivers for Atrium Processors**

# VI

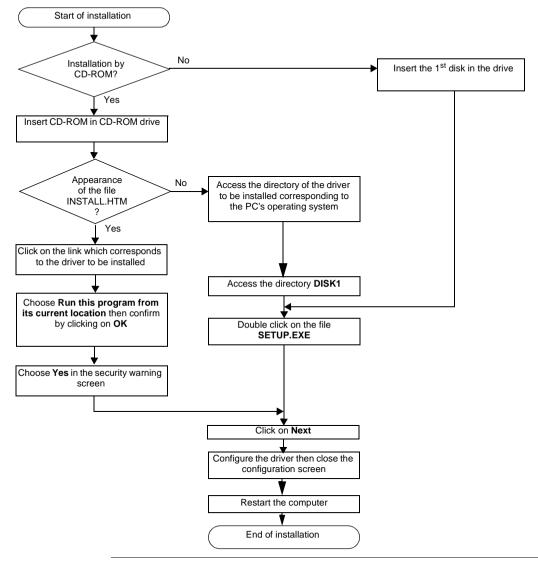
#### At a Glance Subject of this This part describes how to install the drivers associated with the TPCX 57 and TSX PCI 57 processors for operating systems. Part These drivers are: • the ISAWAY driver for the TPCX 57 processors, • the PCIWAY driver for the TSX PCI 57 processors. What's in this This part contains the following chapters: Part? Chapter **Chapter Name** Page 8 ISAWAY driver for TPCX 57 processors 87 9 PCIWAY driver for TSX PCI 57 ••• processors 111

## ISAWAY driver for TPCX 57 processors

t a Glance		
ubject of this hapter	This driver makes it possible to use the TPCX 57 processor o	n the ISA bus.
•	Driver installation consists of two steps:	
	<ul> <li>installation of files on the station,</li> </ul>	
	<ul> <li>configuration of the operating system so that it is recognize</li> </ul>	ed.
What's in this Chapter?	This chapter contains the following topics:	Page
	How to install the driver	88
	Configuration of the ISAWAY driver for Windows NT	90
	Configuration of ISAWAY driver for Windows 98\2000\XP	95
	Configuration of the operating system	96
	How to select the hardware type for Windows 98	97
	How to select the hardware type for Windows 2000\XP	100
	How to configure hardware parameters for Windows 98	103
	How to configure hardware parameters for Windows 2000\XP	105

### How to install the driver

At a Glance	<ul><li>from tl</li><li>or from</li></ul>	stallation is a standard installation. It can be launched either: ne drivers' CD-ROM, n disks if the station has no CD-ROM drive. ne installation disks are created from the CD-ROM.
How to create a	Use the f	ollowing procedure to create installation disks:
set of disks	Step	Action
	1	Use a station which has a CD-ROM drive.
	2	Insert the CD-ROM into the drive.
	3	Access the directory of the driver to be copied onto disk.
	4	Copy the contents of the <b>DISK1</b> directory onto a disk. Repeat this step for each <b>DISK</b> directory. <b>Note:</b> it is advisable to number the disks.
Preliminary operations	Windows If a driver A previou • Driver	stalling the new driver, you must check that there is no previous version of NT4 on the station. If does exist, you must delete it before carrying out the new installation. The version can be uninstalled using: The Manager software, Control Panel $\rightarrow$ Add/Remove Programs.



**How to install the** To install the driver, carry out the following procedure: **driver** 

### Configuration of the ISAWAY driver for Windows NT

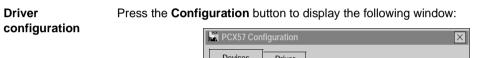
Access to the configuration tool

The configuration tool can be accessed from the taskbar "Start->Programs-> Schneider Electric->Drivers Manager ".

Select the tab **"PCX57 Driver"** to display the following window:

DRIVERS Manager PCX57 Driver Driver PCX57 ISAW Copyright © 1997-1 Status driver 1: Nor		XIP	P Driver	4 Driver MODE	MODBU: BUS Test	S SERIAL Driver XWAY Test
Driver PCX57 ISAM Copyright © 1997-1	VAY V1.4 IE05				BUS Test	XWAY Test
Copyright © 1997-1		omation	S.A.	РСХ	]	
Status driver 2: Non Setting Up						

This window shows information on the version and STATUS of the driver installed.



The table below describes the different commands in the tab "Devices" :

Button	Action
Add	Allows a T PCX 57 processor card with default parameters (IRQ =10, base address I/O=H'220', timer=500ms, buffer size=256 bytes) to be added to the PC. The maximum number of cards is 2.
Remove	Allows a selected T PCX 57 processor card to be deleted.
Properties	Allows the properties of a processor card to be defined, see: <i>Properties, p.</i> 93.
Apply	Allows configuration parameters to be applied; the tool saves the parameters, then reinitializes the driver.
Cancel	Allows the user to exit without acknowledging the modified parameters.
ОК	Allows the user to exit while acknowledging the modified parameters.

-	
	PCX57 Configuration
	Devices Driver
	Driver Information Manufacturer: Schneider Automation Version: V1.4 IE05 Current Files: DISAWAY Driver Status The driver is stopped
	OK Cancel Apply
This window displa	ys general information on the driver

Click the tab **"Driver"** to display the following window:

### Properties

Press the **Properties** button to display the following window:

[2] PCX57 Config	uration X
Hardware Da	atagram
	I/O Base 0x0220
Timer	(ms) 500
	IRQ Level IRQ3 IRQ5 IRQ10 IRQ11 IRQ15
	Default
ОК	Cancel

The table below describes the different areas:

Area	Description
I/O Base	This is the address of the PCX57 card in hexadecimal, which should correspond to the address configured on the processor card
Timer(ms)	Represents the watchdog refreshment period, which is updated by the driver.
Default	Displays the default configuration of the card (IRQ=10, I/O Base=H'220', Timer=500ms).
Cancel	Cancels a modification, and returns to the previous screen.
ОК	Validates the configuration; the parameters displayed are stored and the previous screen is displayed.

[2] PCX57 Configuration	<
Hardware Datagram	
r Input/Output Buffers	
input cuput Sunois	
Size (bytes) 256 Bytes	
Default	
OK Cancel	

Click the **Datagram** tab to display the following window:

The table below describes the different areas:

Area	Description
Input/Output buffer	Allows the size of the buffers for the interface between the PCX57 card and the driver to be configured. The size may be set at between 160 and 256 bytes.
Default	Allows default selection of the card (256 bytes)
Cancel	Cancels a modification, and returns to the previous screen.
ок	Validates the configuration; the parameters displayed are stored and the previous screen is displayed.

### Configuration of ISAWAY driver for Windows 98\2000\XP

At a G	lance
--------	-------

The management tool tab is as follows:

Management properties	s of XWAY drivers			×
DRIVERS Manager	XIP Driver	UNITEL	WAY Driver	
PCX57 Driver	PC10 Driver FP	P20 Driver	XWayTest	1
_ PCX57 Driver				
PCX57 Driver V1.1 I Copyright © 1998-19		nation S.A		
Driver 1 state: Non	operational [1] PC	X57 Properti	ies	
Driver 2 state: Non operational [2] PCX57 Properties				
F PCX57 Device Manag	er			
Hardware Wizard	Use Hardware W remove a PCX57		or	
Device Manager	Use Device Mana modify the hardw of PCX57 cards.	iger to are configur	ation	
·	ОК			

**Elements** The **Properties** button is used to access the driver configuration screen for card 1 and card 2 respectively.

The **Hardware Wizard** button is used to add or remove an ISA TSX FPC 10 card using the Add/Remove Hardware Wizard.

Note: a maximum of two cards can be connected.

The **Device Manager** button activates the **System Properties** window and is used to view or modify the card hardware parameters.

### Configuration of the operating system

At a Glance After the driver installation and configuration phase, the operating system shall recognize the TPCX 57 card and its driver.

Installation principles

As this card is not automatically recognized by the operating system, the following phases must be carried out:

Step	Action
1	<ul> <li>Select the hardware type:</li> <li>for Windows 98 see How to select the hardware type for Windows 98, p. 97,</li> <li>for Windows 2000 see How to select the hardware type for Windows 2000\XP, p. 100,</li> <li>for Windows NT no operation is required.</li> </ul>
2	<ul> <li>Configure the parameters of the operating system to recognize the card:</li> <li>for Windows 98 see How to configure hardware parameters for Windows 98, p. 103,</li> <li>for Windows 2000 see How to configure hardware parameters for Windows 2000\XP, p. 105,</li> <li>for Windows NT no operation is required.</li> </ul>
3	Switch off the station.
4	<ul> <li>Adjust the card parameters: See How to adjust the ISA TPCX 57 card parameters, p. 108.</li> <li>the standard I/O address,</li> <li>the IRQ interrupt address.</li> </ul>
5	Connect the card to the ISA bus.
6	Turn the station back on.
	Result: the driver is operational.

### How to select the hardware type for Windows 98

Procedure

After having installed and configured the driver, carry out the following procedure to select the hardware type.

Action
In the initial window which is displayed, click on <b>Next</b> .  Result The following window appears:
Add new hardware Assistant
Windows can now search for hardware that is incompatible with Plug-and-Play, or you can select the hardware from a list.         When Windows detects a new hardware, it automatically determines the current parameters for the peripheral and correctly installs the pilot. It is therefore strongly recommended that you allow Windows to detect the new hardware.         Do you wish for Windows to automatically detect any new hardware?         Yes (recommended)         • No, I wish to select the hardware from a list.

Step	Action			
2	Answer No to the question Do you want Windows to search for your new hardware?			
	Result			
	The following window appears:			
	Add new hardware Assistant			
	Select the hardware type you wish to install.  Iypes of hardware:			
	Modem Mouse Multifunction adapter cards			
	<ul> <li>Other peripherals</li> <li>PCMCIA extension</li> <li>PCX57 Device</li> <li>Ports (COM &amp; LPT)</li> <li>Printer</li> </ul>			
	SCSI Controllers			
	< <u>P</u> revious: Next> Cancel			
3	Select PCX57 Device from the list then click on Next.			
4	Select PCX57 WDM Device from the list then click on Next.			
	<b>Result</b> The operating system suggests the hardware parameters that you must configure on the card.			
	Add new hardware Assistant			
	Windows can install your hardware using the following parameters: Warning: your hardware cannot be configured for use with the resources listed. You may use the Peripherals Manager to adjust the parameters before restarting your computer. Click successively on the Start, Parameters, Control panel, System, and Peripherals Manager tabs. To modify the hardware parameters, consult the hardware documentation supplied.			
	To continue installing the software needed by your hardware, click Next.			
	Type of resource     Parameter       Input/output range     0190-019F       Interrupt Request (IRQ)     10			
	< Previous: Next> Cancel			

Step	Action
5	Click on Next.
6	Answer No to the question Do you want to restart your computer now?
	Result The following window appears and the card is shown in the station's hardware configuration.
	General Peripherals Manager Hardware Profiles Performance
	Display peripherals by type Display peripherals by connection
	Computer     Ocb-ROM     Disk drives     Graphics cards     Disk controllers     Hard disk controllers     Keyboard     Screens     Nouse     Network cards     PC10 Device     POt57 WDM Device     Ports (COM & LPT)     System peripherals     USB bus controllers     USB bus controllers     USB bus controllers     VERTURE     Properties: Refresh Delete Print
	OK Cancel
7	<ul> <li>Do you want to modify the parameters?</li> <li>If yes, go to the procedure: how to modify hardware parameters (See <i>How to configure hardware parameters for Windows 98, p. 103</i>),</li> <li>If no, click on OK then restart the station with the card connected.</li> </ul>

### How to select the hardware type for Windows 2000\XP

**Procedure** After having installed and configured the driver, carry out the following procedure to select the hardware type.

Step	Action
1	In the initial window which is displayed, click on Next.
	Result The following window appears:
	Add/Delete new hardware Assistant
	Select a task for the hardware         Image: What task do you wish to perform on the hardware?
	Select the task you wish to perform for your hardware, then click on next.
	<ul> <li>Add/Troubleshoot a peripheral Choose this option to add a new peripheral to your computer or if you have difficulty operating an existing peripheral.</li> </ul>
	<ul> <li>Uninstall/Disconnect a peripheral Choose this option to uninstall a peripheral or to prepare your computer for the disconnection of a peripheral.</li> </ul>
	< Previous Next> Cancel

tep	Action	
2	Select the option Add/Troubleshoot a peripheral then click Next.	
	Result	
	The following window appears:	
	Add/Delete new hardware Assistant	
	Selecting a hardware peripheral What hardware peripheral do you wish to troubleshoot?	
	The following hardware is already installed on your computer. If you encounter difficulty with one of these peripherals, select the peripheral and click Next.	
	If you try to add a peripheral and it doesn't appear below, select Add a new peripheral, then click Next.	
	Peripherals         Add a new peripheral         Image: COMPAQ 171 FS         Image: Disk drive         Image: COMPAQ CRD-8320B         Image: WDC AC36400L         Image: Compage: Comp	
	Previous Next> Cancel	
3	Select the option Add a new peripheral. Then click on Next.	
4	Answer No to the question Do you want Windows to search for you hardware?	

Step	Action
5	Click on Next.
	Result
	The following window appears:
	Add/Delete new hardware Assistant
	Hardware type Which hardware type do you wish to install?
	Select the hardware type you wish to install.
	Hardware types: PCX57 Device Port (COM & LPT) Printers SCSI and RAID controllers Sound, video and game controllers Systems peripherals Tape drives FPC10 Device 
6	Select PCX57 Device from the list then click on Next.
7	Select PCX57 WDM Device from the list then click on Next.
8	Go to the next procedure: how to configure hardware parameters (See How to configure hardware parameters for Windows 2000\XP, p. 105).

### How to configure hardware parameters for Windows 98

Procedure Whe

When you want to modify the hardware parameters, carry out the following procedure.

Step	Action
1	Click on <b>Properties</b> .
	Result The following window appears:
	PCX57 WDM Device Properties
	General Driver Resources
	PCX57 WDM Device
	□ Use automatic settings         Settings based on:       Basic configuration 0
	Resource type     Setting       Input/Output Range     01A0-001AF       Interrupt Request     10
	Conflicting device list: No conflicts.
	OK Cancel
2	Uncheck the box Use automatic settings.
3	Select Input/Output Range from the list.

Step	Action		
4	Click on Change Settings.		
	Result		
	The following window appears:		
	To modify Input/Output Range		
	Enter the Input/Output range that you wish to configure for this device.		
	You can either enter a specific range and the closest valid range will be automatically selected, or select a range using the arrow keys.		
	Value:       01A0-001AF         ✓       ✓         Conflict information       ✓         The setting you have chosen does not conflict with any other devices.       No devices are conflicting.         No devices are conflicting.       ✓         OK       Cancel		
5	From the Value list, select the non-conflicting address range.		
	Note: note the values because they must be coded onto the ISA card.		
6	Confirm using the <b>Ok</b> button.		
7	Carry out steps 5 to 8 selecting Interrupt Request from the list.		
8	Confirm with <b>OK</b> then restart the station with the card connected.		

### How to configure hardware parameters for Windows 2000\XP

Procedure

After having selected the hardware type, carry out the following procedure to configure the parameters.

Step	Action		
1	Click on the Resources button.		
2	Click on Manual Configuration.		
	Result The following window appears:		
	Add new hardware Assistant Properties		
	Resources         PCX57 WDM Device         Resource parameters:         Type of Resource       Parameter         Input/output range       ?         Input/output range       ?         Interrupt Request (IRO)       ?         Parameters based on:       Standard configuration 0000         Use the automatic parameters		
	List of peripherals in conflict: Modify the parameters		
	No conflict.		
3	Uncheck the box Use automatic settings.		
4	Select Input/Output Range from the list.		

Step	Action
5	Click on Change settings.
	Result
	The following window appears:
	Modify input/output range
	Enter the input/output range you wish to define for this peripheral. You can either enter a specific range and the closest valid range will be automatically selected, or select a range using the upper or lower indicator arrows.
	This resource is assigned to the following child peripherals:
	Value: 0250-025F
	Information concerning conflicts The parameter you have chosen is not in conflict with other peripherals. No peripherals in conflict
	OK Cancel
6	From the Value list, select the non-conflicting address range.
	Note: note the values because they must be coded onto the ISA card.
7	Confirm with <b>OK</b> .
	Result: a confirmation window appears.
8	Confirm with Yes.
9	Carry out steps 4 to 8 selecting Interrupt Request from the list.

Step	Action
10	Accept the configuration with <b>OK</b> .
	Result
	The following window appears:
	Add / Remove Hardware Wizard
	End of Add/Delete hardware Assistant
	The following hardware has been installed: FPCX57 WDM Device
	Check the documentation of your hardware to know whether you should configure the new hardware manually. To operate the hardware you must restart the computer.
	To display or modify the resources for this peripheral, click Resources.
	To close the Assistant, click on Finish.
11	<back cancel<="" finish="" td=""></back>
	Click on <b>Finish</b> to confirm hardware configuration.

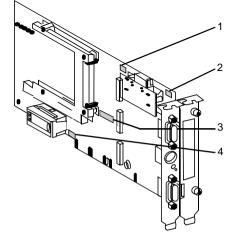
### How to adjust the ISA TPCX 57 card parameters

### At a Glance

Before installing the TPCX 57 card, you must adjust the following parameters:

- the rack number and the processor position,
- the standard I/O address,
- the IRQ interrupt address.

**Illustration** This card comprises the following elements:



Numbers and	The followi	ng table describes the different parameters to be adjusted:
elements	Number	Element
	4	The pressession real position can be ended with the micro ewitch.

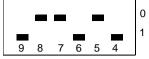
Number	Element
1	The processor's rack position can be coded with the micro-switches.
2	The address of the rack which contains the processor can be coded with the micro-switches.
3	The standard address of the processor can be coded on the ISA bus with the micro-switches.
4	The IRQ (Interrupt Request) level can be coded with the micro-switches.

#### Procedure

To adjust the parameters, proceed in the following manner:

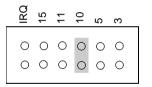
Step	Action           Code the number of the rack which contains the processor.	
1		
2	Code the processor position.	
3	Code the standard I/O address provided by the operating system with the micro-switches.	
4	Code the interrupt level provided by the operating system with the micro- switches.	

Example of standard address selection The standard address provided by the system is equal to 250 in hexadecimal:



Example of IRQ selection

The interrupt address provided by the system is 10:



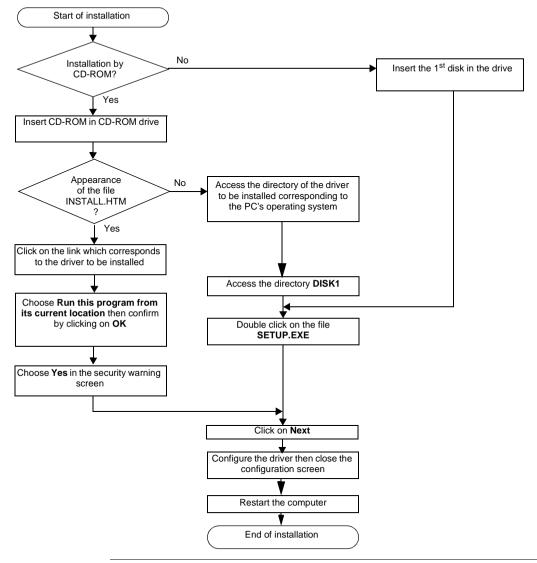
Note: The jumper must not be set in the IRQ position.

### PCIWAY driver for TSX PCI 57 ••• processors

Subject of this Chapter	This driver makes it possible to use TSX PCI 57 ••• processo	ors on the PCI bus
	Driver installation consists of two steps:	
	<ul> <li>installation of files on the station,</li> </ul>	
	<ul> <li>configuration of the operating system so that it is recogniz</li> </ul>	ed.
Vhat's in this		ed.
Vhat's in this Chapter?	configuration of the operating system so that it is recogniz	Page
	<ul> <li>configuration of the operating system so that it is recogniz</li> <li>This chapter contains the following topics:</li> </ul>	
	<ul> <li>configuration of the operating system so that it is recogniz</li> <li>This chapter contains the following topics:</li> <li>Topic</li> </ul>	Page

#### How to install the driver

At a Glance	<ul> <li>from the</li> </ul>	tallation is a standard installation. It can be launched either: ne drivers' CD-ROM, n disks if the station has no CD-ROM drive.
	Note: Th	he installation disks are created from the CD-ROM.
How to create a set of disks	Use the f	ollowing procedure to create installation disks:
Set of disks	Step	Action
	1	Use a station which has a CD-ROM drive.
	2	Insert the CD-ROM into the drive.
	3	Access the directory of the driver to be copied onto disk.
	4	Copy the contents of the <b>DISK1</b> directory onto a disk. Repeat this step for each <b>DISK</b> directory. <b>Note:</b> it is advisable to number the disks.
Preliminary operations	You must driver.	have administrator access rights for the machine in order to install the



**How to install the** To install the driver, carry out the following procedure: **driver** 

#### Configuring the PCIWAY driver for windows 2000\XP

Access to the configuration tool

The configuration tool can be accessed from the taskbar "Start->Programs-> Schneider Electric->Drivers Manager ".

Select the PCI 57 Driver tab to display the following window:

Properties Manag	gement of SCHN	EIDER driver	'S	X
PCX57 Driver	FPC10 Driver	XIP Driver	MODBUS Test	XWAY Test
DRIVERS Manag	ger PLC USB	Driver UNI	TELWAY Driver	PCI 57 Driver
Driver PCI 57			PCI	
Copyright © 2	2002 Schneider Au	tomation S.A.		
Status driver	1: Running	[1] PC	I Properties	
Status driver	2: Non operational	[2] PC	I Properties	
		01/	1	
		OK		

This window shows information on the version and STATUS of the driver installed.

#### Properties

Press the **PCI Properties** button to display the following window:

[1] PCI 57		×
Watchdog period:	500	ms
Input/Output Buffer Sizes:	256 🔻	Bytes
ОК	Cancel	

The table below describes the different areas:

Area	Description	
Input/Output Buffer Sizes	Allows the size of the buffers for the interface between the TSX PCI 57 card and the driver to be configured. The size may be set at between 160 and 256 bytes.	
Watchdog period	Represents the refresh period of the watchdog.	
Cancel	Cancels a modification, and returns to the previous screen.	
ок	Validates the configuration; the parameters displayed are stored and the previous screen is displayed.	

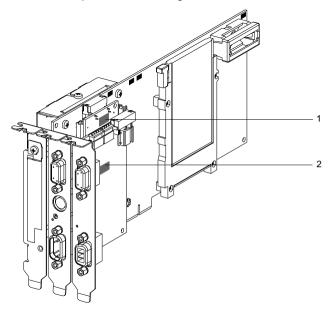
#### How to adjust the parameters of the TSX PCI 57 ••• card

#### At a Glance

Before installing the TSX PCI 57 ••• card, you must:

- install the PCI 57 driver,
- code the rack number on the X Bus,
- code the position of the processor in the rack.

**Illustration** This card comprises the following elements:



#### Numbers and elements

The following table describes the different parameters to be adjusted:

Number	Element
1	The address of the rack on the X Bus can be coded with the micro-switches.
2	The processor's rack position can be coded with the micro-switches.

#### Procedure

To adjust the parameters, proceed in the following manner:

Step	Action
1	Code the number of the rack on the X-BUS.
2	Code the position of the processor in the rack.

#### Modbus driver

### VII

# At a Glance Subject of this<br/>Part This part describes how to install the Modbus driver for the Windows 98,<br/>Windows 2000\XP and Windows NT operating systems. What's in this<br/>Part? This part contains the following chapters: Chapter Chapter Name Page 10 Installation 121

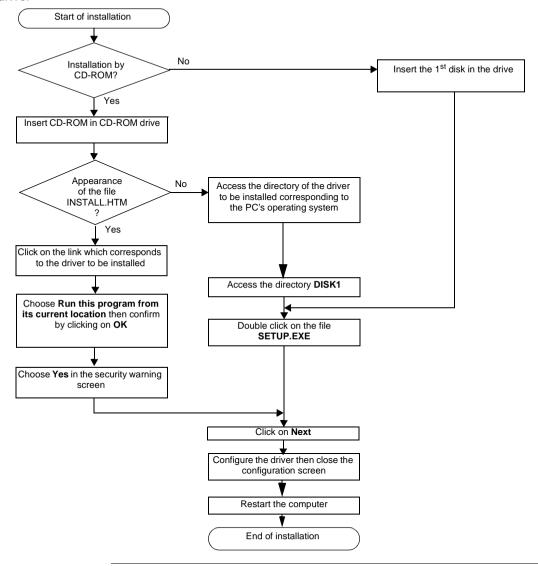
#### Installation

### 

Subject of this Chapter	<ul> <li>This chapter describes Modbus driver installation. This is broken down into two steps:</li> <li>installation of files on the station,</li> <li>configuration of the driver.</li> </ul>	installation procedure can be
What's in this	This chapter contains the following topics:	
Chapter?		Dama
Chapter?	Торіс	Page
Chapter?		<b>Page</b> 122
Chapter?	Торіс	
Chapter?	Topic       How to install the driver	122
Chapter?	Topic       How to install the driver       Driver configuration screen	122 124

#### How to install the driver

#### At a Glance Driver installation is a standard installation. It can be launched either: • from the drivers' CD-ROM. • or from disks if the station has no CD-ROM drive. **Note:** The installation disks are created from the CD-ROM. How to create a Use the following procedure to create installation disks: set of disks Step Action 1 Use a station which has a CD-ROM drive. 2 Insert the CD-ROM into the drive. 3 Access the directory of the driver to be copied onto disk. Copy the contents of the DISK1 directory onto a disk. Repeat this step for each 4 DISK directory. Note: it is advisable to number the disks.



**How to install the** To install the driver, carry out the following procedure: **driver** 

#### **Driver configuration screen**

At a Glance The configuration tool is not outside the driver, but constitutes an embedded graphic interface in the driver.

This graphic interface is accessible from the Windows workstation "Start ->Programs -> "Schneider Electric ->Drivers Manager->Modbus Serial Driver".

**Illustration** The configuration screen dedicated to the Modbus driver looks like this:

Modbus Driver - Mod	ibus01
Configuration Runtin	me Debug About
COM Port Baud Rate	COM 1 🔽 9600 🔽
Stop Bits 1 Bit 2 Bits Mode (Data Bits) RTU (8 bits) ASCII (7 bits)	Inter-Chart TimeOut
Apply Unc	lo Default
	Hide

#### Description

This table describes the different areas which make up the configuration screen:

Area	Element
Serial Port	<b>COM Port</b> : provides a choice for the communication port to be used, by default COM1. <b>Baud rate</b> : provides a choice for transmission speed between 300 and 19200 bits/second, by default 9600b/s.
Stop bits	Allows entry of the number of stop bits used for communication, by default 1 stop bit.
Parity	<ul> <li>Is used to set whether a parity bit is added or not, as well as its type, such as:</li> <li>Even , for even parity (default selection),</li> <li>Odd , for odd parity,</li> <li>None , for no parity bit</li> </ul>
Global TimeOut	Allows Reception Time-Out to be defined (in milliseconds) while the driver is waiting for the response from the polled Modbus slave.
Inter-Char TimeOut	Allows quiet time to be defined (in milliseconds), permitting detection of a Modbus end delimiter. If the <b>Automatic</b> box is checked, the value is automatically calculated according to speed (Baud Rate).
Mode (Data Bits)	<b>RTU</b> : the characters are coded on 8 bits in binary. This mode is the default mode. <b>ASCII</b> : the characters are coded on 7 bits in ASCII.
Apply button	Allows the configuration to be saved; the file <b>ModbusConf.ini</b> is created.
Undo button	Allows the latest modifications not to be acknowledged.
Default button	Allows parameters to be set for the different fields with default values.
Hide button	Allows configuration parameters to be acknowledged, and represents the window by an icon.

#### Modbus Instances

Once installed, configure the Modbus driver and reboot the computer. All Modbus instances are initialized.

For each Modbus instance configured a corresponding icon appears in the task bar.

#### **Driver control screen**

At a Glance This screen is used to view information concerning driver operation.

The refreshment period for this information is defined in a driver screen. See Driver debug screen, p. 128.

**Illustration** The control screen dedicated to the Modbus driver looks like this:

Configuration Runtime	Debug About
Communication —	
	Mode RTU
Connections	0
Frames Sent	0
Bytes Sent	0
Frames Received	0
Bytes Received	0
Number of Timeout	0
Checksum Errors	0
Reset	

#### Description

This table describes the different information concerning driver operation:

Element	Description
Mode	Displays the driver operating mode:
	RTU Mode,
	Mode ASCII.
Connections	Contains the number of clients using the driver
Frames Sent	Contains the number of frames sent since the last Reset.
Bytes Sent	Contains the number of bytes sent since the last Reset.
Frames Received	Contains the number of frames received since the last Reset.
Bytes Received	Contains the number of bytes received since the last Reset.
Number of TimeOut	Contains the number of Time-Outs reached; the value is defined in the
	"Global Delay" configuration screen.
Checksum Errors	Contains the number of checksum errors detected.
Reset	This button is used to reset the different counters in the control screen
	to 0.
Hide	This button allows the window to be represented as an icon.

#### Driver debug screen

At a Glance This screen is used to deactivate the saving of certain operations carried out by the communication driver in a trace file.

Illustration

The debug screen dedicated to the Modbus driver looks like this:

🖻 Modbus Driver - Modbus01 🛛 🛛 🛛		
Configuration Runtime Debug About		
Refresh Period		
D:\SNAPSHOTVIEWS\FPUI0 Browse Empty Full		
Start Log		
Thread Priority——— Low High		
Hide		

#### Description

This table describes the different areas which make up the debug screen:

Area	Description	
Refresh Period	Period Allows the screen refreshing period for the driver control screen to be defined within a range of 0s to 1s.	
Log File	<ul> <li>This area contains:</li> <li>the description of the path where the trace file has been saved,</li> <li>a bar graph showing the fill level of the trace file.</li> <li>a button to start or stop saving in the trace file.</li> </ul>	
Thread Priority	Adjusts the priority of the driver with regard to other tasks executed in Windows. The default setting is "Low" .	
Hide	This button allows the window to be represented as an icon.	

Illustration

#### Information screen

At a Glance This screen provides general information on the communication driver and on the operating system installed.

The screen dedicated to the Modbus driver looks like this:

🔄 Modbus Driver - Modbus01			
Configuration Runtime Debug About			
Modbus Driver Info			
With 32 Modbus Serial Driver			
Release Version 1.0 (IE02 - Build 6)			
Copyright <sup>®</sup> 2001-02 Schneider Automation			
- System Info			
WINDOWS NT V5.0 (Build 2195)			
Extended Info : Service Pack 2			
WINDOWS Sockets V1.1 (V2.2 detected)			
Hide			

#### Description

This table describes the different areas which make up the information screen:

Area	Element	
Modbus Driver Info	This area contains:	
	<ul> <li>the driver version,</li> </ul>	
	• the Schneider Electric Copyright.	
System Info	This area contains:	
	<ul> <li>the Windows operating system version,</li> </ul>	
	<ul> <li>additional information,</li> </ul>	
	• the Winsock interface version.	
Hide	This button allows the window to be represented as an icon.	

#### **USB** driver

## VIII

#### At a Glance

Subject of this Part	•		
What's in this	This part co	ntains the following chapters:	
Part?	Chapter	Chapter Name	Page
	11	Installation	133
		•	

#### Installation

### 11

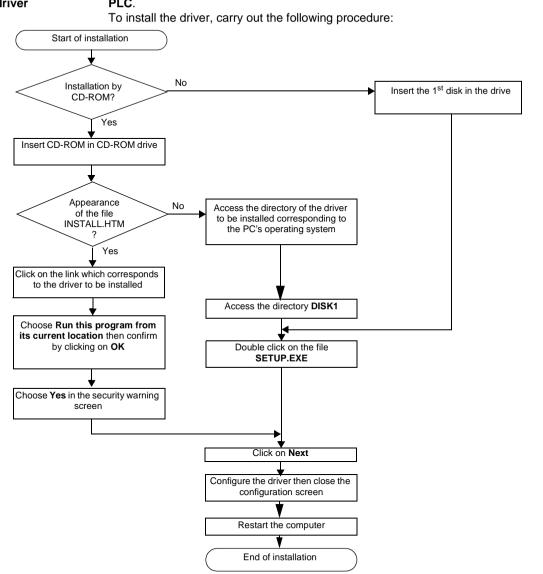
#### At a Glance Subject of this This chapter describes USB driver installation. This installation procedure can be Chapter broken down into two steps: • installation of files on the station, • configuration of the driver. What's in this This chapter contains the following topics: Chapter? Topic Page How to install the driver 134 Configuration screens for Win 2000\XP 137 State of the USB link 139

#### How to install the driver

#### At a Glance Driver installation is a standard installation. It can be launched either: • from the drivers' CD-ROM. • or from disks if the station has no CD-ROM drive. **Note:** The installation disks are created from the CD-ROM. How to create a Use the following procedure to create installation disks: set of disks Step Action 1 Use a station which has a CD-ROM drive. 2 Insert the CD-ROM into the drive. 3 Access the directory of the driver to be copied onto disk. Copy the contents of the **DISK1** directory onto a disk. Repeat this step for each 4 DISK directory. Note: it is advisable to number the disks.

Checks	When using Windows 2000\XP, you must check whether it is possible to install
	unsigned drivers on the station.
To do this, perform the following actions:	

Step	Action	
1	Right-click on My Computer and select "Properties".	
2	In the "System Properties" window, select the "Hardware" tab.	
3	Press "Driver Signing Options". The following window is displayed:	
	Pilot signature option       ?       ×         To ensure their authenticity, all files of the Windows 2000 CD-ROM are protected by a digital signature and automatically checked during the installation process.       When you install a new software, the following verification parameters will be used         Verification of file signatures       •       Ignore: installs all files, regardless of their signatures         •       Ignore: installs all files, regardless of their signatures       •         •       Verification of file signatures       •         •       Ignore: installs all files, regardless of their signatures       •         •       Warn: displays a warning message before installing an unsigned file       •         •       Forbid: prevents the installation of unsigned files         •       Administrator option       •         •       Define parameters as default parameters         OK       Cancel	
4	Select "Warn - Display", then confirm by clicking OK.	



How to install the<br/>driverBefore starting the installation, check that the USB cable is not connected to the<br/>PLC.

#### Configuration screens for Win 2000\XP

At a Glance After rebooting the PC you will have to configure the USB driver, the USB cable must be connected to the PLC, and then Windows will detect the PLC and install the driver.

Step	Action
1	The following screen will be displayed:           New Hardware Found           USB Device
2	Click on YES Digital Signature Not Found  The Microsoft digital signature affirms that software has been tested with Windows and that the software has not been altered since it was tested.  The software you are about to install does not contain a Microsoft digital signature. Therefore, there is no guarantee that this software works correctly with Windows.  PLC USB Device  If you want to search for Microsoft digitally signed software, visit the Windows Update Web site at http:// windowsupdate.microsoft.com to to see if one is available.  Do you want to continue the installation?
	Yes No More Info

Perform the following actions:

Step	Action
Step 3	An icon is displayed in the task bar. Double clicking on it when the USB link with the PLC is operational calls up the window.
	OK
	Clicking on <b>"Driver Manager "</b> launches the tool. Clicking on <b>"OK</b> " makes an icon appear in the task bar.

#### State of the USB link

At a Glance

This window informs the user of the state of the driver:

Management Properties of SCHNEIDER drivers		
PCX57 Driver FPC10 Driver FPP20 Driver MODBUS Test XWayTest		
DRIVERS Manager PLC USB Driver UNITELWAY Driver SCP114 Driver		
Driver PLC USB V1.0 IE07		
USB		
Copyright © 2001-2002 Schneider Automation S.A.		
Virtual Port : COM8		
Status : Operating		
Remote IP : 90.0.01		
Local IP : 90.0.01		
Log File		
01/		
ОК		

#### Description:

Field	Description
Virtual Port	Name of the COM port used by the driver.
Line status	Contains <b>"In service</b> " data if the driver is operating, otherwise it contains <b>"Non operational"</b> data.
Remote IP\Local IP	IP addresses used by the PC and PLC to communicate.
Log File	Button allowing access to a *.log file containing connection/ disconnection events on the USB line.

#### Drivers manager

### IX

At a Glance						
Subject of this Part	•	escribes the <b>Drivers manager</b> tool that is used to config alled on Windows 98, Windows 2000\XP and Windows				
What's in this	This part contains the following chapters:					
Part?	Chapter	Chapter Name	Page			
	12	Functions	143			

#### **Functions**

### 12

#### Management of X-Way drivers

At a Glance The X-WAY drivers can be accessed using the Drivers Manager management tool. This is used to install, update, configure and test the different drivers in a centralized manner.

From the Start menu, go to "Start->Programs->Schneider Electric->Drivers Accessing the Drivers Manager". Management tool

The following window is displayed:

Management properties of SCHNEIDER drivers					
PCX57 Driver FPC10 Drive	er FPP	20 Driver	XIP Driver	MODBUS Test	XWay Test
DRIVERS Manager UNI		IITELWAY Driver		MODBUS SERIAL Driver	
DRIVERS Manager UNI Driver Manager V2.0 IE 10 Drivers There are 6 drivers installed Uni-Telway Install/update Uninstall this Driver		Windows Further inf Winso	nfo NY V4.0 (Bui ormation: Serv ock: Vay: V6. 0. 20.	vice Pack 5	
		OK			

**Drivers Manager** tab

This tab (window above) is used to:

- view the list of installed drivers,
- install or update a driver,
- delete a driver.

#### **X-Way Test tab** This tab is used to test the basic operation of an X-Way driver:

Management properties of SCHNEIDER drivers							
DRIVERS Manager UNITE		LWAY Driver		MODBUS SERIAL Driver		L Driver	
PCX57 Driver	FPC10 Dri	ver FPP2	20 Driver	XIP Dr	iver MO	DBUS Test	XWayTest
Driver Request Request:							
Name: Ur	ni-Telway	•	Тур		IRROR (3 b	ytes)	-
Driver n	Driver number: 1			Delay (ms) 3000			
Remote address: 0.254.0			Status: disconnected				
Local A	ddress:					Ľ	
Connect		Launch	Fur	ther inforr	nation	Concerni	ng
			OK				

The table below describes the different zones of the window:

Driver Group	
Field	Description
Name	Name of driver to be used for the test (Uni-Telway, FPC10, etc).
Driver number	Instance number of driver to be used for the test (usually 1).
Remote Address	X-Way remote station address in the format "network.station.gate". The address "0.254.0" is the default address (terminal port for example). For a network connection, (such as Fipway), the user must complete this field: "3.5.0" to address station 5 of network 3. Gate 0 corresponds to the system server gate of the station in question.
Local Address	Internal address used locally by the driver. The driver completes this field automatically for information purposes when the connection becomes effective.

Request Group	)
Field	Description
Request	Name of driver to be used for the test (Uni-Telway, FPC10).
Туре	Type of request. Different sizes of mirror requests are suggested, as well as reading the PLC %S6 system bit.
Delay	Wait timeout in ms for the response to the transmitted request (time out).
Status	Status of connection, " disconnected ", " connecting " or " connected ".

Command buttons		
Object	Description	
Connect	Opens an internal communication channel on the selected driver.	
Launch	Launch request transmission to the station defined in the <b>Remote</b> address field of the <b>Driver</b> group.	
Further information	Displays system information about the driver. This button is active in online mode only.	
Concerning	Displays X-Way Manager version and copyright details.	

**Modbus Test tab** This tab is used to test the basic operation of a Modbus driver:

Management properties	of SCHNEIDER drive	rs	X
SCP114 Driver	MODBUS S	SERIAL Driver	PCX57 Driver
DRIVERS Manage	r PLC US	B Driver	UNITELWAY Driver
FPC10 Driver	FPP20 Driver	MODBUS Test	t XWayTest
Link Parameters Protocol: USB Remote IP address: 90.0.0.1 Slave no.: 1 Master Path : DM 0 0 0 0 0			
Connec	t Laun	ch Conc	erning
	C	)K	

The table below describes the different zones of the window:

Link Parameters Group		
Field	Description	
Protocol	Name of protocol used (USB, TCP, Serial Modbus, Modbus Plus).	
Remote IP address	If TCP is being used, then the IP address or machine name is shown here	
Slave No.	If Serial Modbus protocol is being used, then the slave no. is shown here.	

Link Parameters Group		
Field	Description	
Master Path : DM	If Modbus Plus protocol is being used, then the station address is shown here.	

Request Group	
Field	Description
Request	
Status	Status of connection, "disconnected", " connecting " or "connected".

Command buttons	
Object	Description
Connect	Opens an internal communication channel on the selected driver.
Launch	Launch request transmission to the station defined in the <b>Remote IP</b> address field of the Link Parameters group.
Concerning	Displays X-Way Manager version and copyright details.

**Other tabs** The windows corresponding to these tabs are described in the description of the configuration for each driver:

- for the Uni-Telway driver tab:
  - if using a serial port see Driver configuration screens, p. 20,
  - if using a TSXSCP114 card see Driver configuration screens, p. 30,
- for the FPC10 driver tab see Driver configuration screen for Windows NT, p. 48,
- for the FPP20 driver tab see How to install the driver, p. 40,
- for the XIP Driver see Driver configuration screen, p. 80,
- for the PCX 57 Driver tab:
  - when using Windows NT see Configuration of the ISAWAY driver for Windows NT, p. 90,
  - when using Windows 98\2000\XP see Configuration of ISAWAY driver for Windows 98\2000\XP, p. 95,
- for the PCI 57 driver tab see *Configuring the PCIWAY driver for windows* 2000/XP, p. 114,
- for the USB Driver tab see State of the USB link, p. 139.

# Appendices



At a Glance			
Subject of this Part	-	scribes the installation and configuration of drivers 030 with windows 2000\XP. This cable is a USB/R	
What's in this	The append	lix contains the following chapters:	
Appendix?	Chapter	Chapter Name	Page
	A	The drivers of the TSX PCX 3030 cable	149
	<u> </u>		

# The drivers of the TSX PCX 3030 cable

At a Glance		
Subject of this Chapter	This Chapter describes the installation and configuration of driver TSX PCX 3030 with windows 2000\XP.	rs for the cable
Chapter		
What's in this	This chapter contains the following topics:	
·		Page
What's in this	This chapter contains the following topics:	<b>Page</b> 150

#### Installing the drivers of the TSX PCX 3030 cable

# At a GlanceThe TSX PCX 3030 cable is a USB/RS485 link converter. It enables a device to be<br/>connected to a PLC via the USB port using its terminal port.<br/>The cable is "plug in' play". When you connect the cable via the USB port,<br/>Windows 2000 or XP finds a new device and tries to install the corresponding driver.<br/>It is necessary to install two drivers:

- the USB bus driver,
- and the virtual serial port driver.

Installation	The following table describes the procedure to install both drivers required to use the TSX PCX 3030 cable.
Step	Action
1	Connect the cable to the USB port of your device. <b>Result</b> : Windows detects the new hardware and displays the assistant for installing the hardware driver.
2	Click on Next. Result: The following window is displayed:
	Hardware Assistant detected Installation of peripheral pilots: A peripheral pilot is a program that enables a hardware peripheral to be used by an operating system.
	The assistant will complete the installation of this peripheral:
	A peripheral pilot is a software program that enables the operation of a hardware peripheral. Windows requires pilot files for your new peripheral. Click on Next to find the pilot files and finish.
	What task do you wish the Assistant to carry out?
	<ul> <li>Find a pilot adapted to my peripheral (recommended)</li> <li>Display a list of known pilots for this peripheral, in order to choose a specific pilot.</li> </ul>
	< Previous Next > Cancel

Step	Action	
3	Choose the <b>Automatic driver search</b> option and click on <b>Next</b> . <b>Result</b> : The following window is displayed:	
	Hardware Assistant detected	
	Searching for pilot files           Where do you want Windows to search for the pilot files?	
	Search for pilot files for the following hardware peripheral:	
	Serial < - > USB	
	The Assistant is searching for adapted pilots in the pilot database on your computer, as well as in the location indicated by you above should you wish	
	To start the search, click on Next. If you carry out the search on a disk or CD-ROM drive, insert the disk or CD-ROM before clicking on Next.	
	Optional search locations:	
	Disk drive	
	Specific location	
	Microsoft Windows Update	
	< Previous Next > Cancel	
4	Before selecting the <b>CDROM drive</b> option, insert the CDROM Drivers in the CDROM drive.	
	Or if you have copied the content of the CD-ROM in a specific location, select the <b>Specific location</b> option and indicate the location of the driver.	
5	Click on Next.	
	Result: the bus driver has been found.	
6	Click on <b>Next</b> . <b>Result</b> : a window indicates that the installation has been successfully completed.	
7	Click on <b>Finish</b> . <b>Result</b> : a new window appears for installing the serial port driver.	
8	Click on Next. Result: the New hardware search assistant window appears.	
9	Choose the Automatic driver search option and click on Next.	
10	Before selecting the <b>CDROM drive</b> option, insert the CDROM Drivers in the CDROM drive.	
	Or if you have copied the content of the CD-ROM in a specific location, select the <b>Specific location</b>	
	option and indicate the location of the driver.	
11	Click on <b>Next</b> . <b>Result</b> : the bus driver has been found.	

Step	Action
12	Click on Next. Result: a window indicates that the installation has been successfully completed.
13	Click on Finish. Result: installation of the drivers is completed.

#### Configuration screens for drivers using the TSX PCX 3030 cable.

At a Glance Once the drivers of the TSX PCX 3030 cable are installed, you must select the cable with the drivers that can use it. The compatible drivers are:

- Uni-Telway driver, version  $\geq$  V1.5,
- Modbus driver, version  $\geq$  V1.1.

Uni-Telway<br/>driverThe following table describes the procedure for declaring the cable with a<br/>Uni-Telway driver.

Step	Action	
1	From the Drivers Manager, select the Uni-Telway Driver tab.	
2	Click on the Configuration button.	
3	Click on the Edit button. Result: the Station parameters window appears Parameters of the Station	
	Uni-Telway       Link Parameters       Advanced         Station ID       ID       ID         [Default]       ID       ID         COM Port       COM 3 (TSXPCX3030 Cable)       ID         Uni-telway Slave address       ID       ID         Base       1       Number       ID         Communication Modem       ID       ID       ID         Modem Used       Hayes       ID       ID         Tel No.       ID       ID       ID         OK       Cancel       ID       ID	
4	Select from the <b>Com Port</b> zone, the communication port associated with the cable. For example <b>COM3 (TSXPCX3030 Cable)</b> .	

**Modbus Driver** The following table describes the procedure for declaring the cable with a Modbus driver.

Step	Action
1	From the Drivers Manager, select the Modbus Serial Driver tab.
2	Click on the <b>Configuration</b> button. <b>Result</b> : the Modbus Driver window appears
	Modbus Driver - Modbus01     Setting Up   Runtime   Debug   Apply     Undo     Default     Image: Apply     Image: Apply
3	Select from the <b>Serial Port</b> zone, the communication port associated with the cable. For example <b>COM3 (TSXPCX3030 Cable)</b> .



# Index

### D

Drivers Management Management of X-Way drivers, 143

# Ε

Ethway Configuration, 73 Installation for Win 2000XP, 68 Installation for Win NT, 71

# F

FIP with TSXFPC10 card Adjustment of card parameters, 63 Configuration of hardware for Win 2000XP. 60 Configuration of hardware for Win 98, 58 Configuration screen, 48 Installation, 46 Selection of hardware for Win 2000XP. 55 Selection of hardware for Win 98, 52 FIP with TSXFPP20 card Configuration of Win 2000XP, 42 Configuration of Win 98, 41 Configuration of Win NT, 43 Installation, 38, 40 FIP withTSXFPC10 card Win 98/2000/NT configuration, 51

#### G

General Drivers, 11

#### 

ISAWAY Adjustment of ISA card parameters, 108 Configuration, 90 Configuration for Win 2000XP, 105 Configuration for Win 98, 103 Installation, 88 Selection of hardware for Win 2000XP, 100 Selection of hardware for Win 98, 97 Win 98/2000/NT configuration, 96

#### Μ

Modbus Configuration screen, 124 Control screen, 126 Debug screen, 128 Information screen, 130 Installation, 122

#### Ρ

PCIWAY Adjustment of PCI card parameters, 116 Configuration, 114 Installation, 112

# Т

TSX PCX 3030 Configuration screens, 154 Installation, 150

# U

Uni-Telway on Serial port Configuration screens, 20 How to configure the driver, 24 Installation, 18 Uni-Telway on TSXSCP114 Configuration of Win 2000XP, 33 Configuration of Win NT, 34 Configuration screens, 30 Installation, 28 Win 98 configuration, 32 USB Configuration for Win 2000XP, 137 Installation, 134 State of the link, 139

# Х

XIP Configuration, 82 Configuration screen, 80 Installation, 78