

SIMATIC NET

**Product Information /
FAQ (Frequently Asked Questions)**

C79000-Z8974-C062-05

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CP 1613

Classification of Safety-Related Notices

This document contains notices which you should observe to ensure your own personal safety, as well as to protect the product and connected equipment. These notices are highlighted in the manual by a warning triangle and are marked as follows according to the level of danger:



Danger

indicates that death or severe personal injury **will** result if proper precautions are not taken.



Warning

indicates that death or severe personal injury **can** result if proper precautions are not taken.



Caution

with warning triangle indicates that minor personal injury can result if proper precautions are not taken.

Caution

without warning triangle indicates that damage to property can result if proper precautions are not taken.

Notice

indicates that an undesirable result or status can occur if the relevant notice is ignored.

Note

highlights important information on the product, using the product, or part of the documentation that is of particular importance and that will be of benefit to the user.

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Disclaimer

We have checked the contents of this manual for agreement with the hardware and software described. Since deviations cannot be precluded entirely, we cannot guarantee full agreement. However, the data in this manual are reviewed regularly and any necessary corrections included in subsequent editions. Suggestions for improvement are welcomed.

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Technical data subject to change.

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Safety Instructions Regarding your Product

Before you use the product described here, read the safety instructions below thoroughly.

Qualified Personnel

Only qualified personnel should be allowed to install and work on this equipment . Qualified persons are defined as persons who are authorized to commission, to ground, and to tag circuits, equipment, and systems in accordance with established safety practices and standards.

Correct Usage of Hardware Products

Please note the following regarding the correct usage of hardware products:

Caution

This device and its components may only be used for the applications described in the catalog or the technical description, and only in connection with devices or components from other manufacturers which have been approved or recommended by Siemens.

This product can only function correctly and safely if it is transported, stored, set up, and installed correctly, and operated and maintained as recommended.

Before you use the supplied sample programs or programs you have written yourself, make certain that no injury to persons nor damage to equipment can result in your plant or process.

EU Directive: Do not start up until you have established that the machine on which you intend to run this component complies with the directive 89/392/EEC.

Correct Usage of Software Products

Note the following regarding the correct usage of software products:

Caution

This software may only be used for the applications described in the catalog or the technical description, and only in connection with devices or software products from other manufacturers which have been approved or recommended by Siemens.

Before you use the supplied sample programs or programs you have written yourself, make certain that no injury to persons nor damage to equipment can result in your plant or process.

Prior to Startup

Before putting the product into operation, note the following warning:

Caution

Prior to startup you must observe the instructions in the relevant documentation. For ordering data of the documentation please refer to the catalogs or contact your local SIEMENS representative.

Introduction

Overview

This document contains information about the product CP 1613.

Notice

Read this product information / FAQ (frequently asked questions) thoroughly before installing the CP 1613 communications processor.

Contents

1	Questions on Installation under Windows NT	20
2	Questions on Access Control.....	22
3	Other Questions	24

1 Questions on Installation under Windows NT

1. Entry missing in "Bindings" —

What do I have to do when the "Siemens CP1613 NDIS Adapter" is entered in "Network Adapters" in the Control Panel after installation but is not entered in "Bindings"?

The entry in "Bindings" (taskbar **Start → Settings → Control Panel → Network → Bindings**) was not made because you selected "Bindings".

Remedy

If the CP 1613 is not entered in "Bindings", follow the steps outlined below to correct the installation:

Step	Action
1	Uninstall the CP 1613.
2	Install the CP 1613 again after booting your computer. Caution Under no circumstances open the "Bindings" tab before you exit the "Network" dialog box (taskbar Start → Settings → Control Panel → Network).

2. Avoiding incorrect installation —

How do I avoid problems if I want to install another communications processor in addition to the CP 1613?

When you install the **second network adapter** in Windows NT, the following situation can arise:

If you select the "Bindings" tab (**Start → Settings → Control Panel → Network → Bindings**) when setting the network parameters after installing the **second network adapter**, and then set the TCP/IP address in the "Protocols" tab and then exit the "Network"

"Dr. Watson" sometimes displays the following error message:

rundll32.exe Application Error

The installation of the CP 1613 is now incorrect.

To avoid the problem

Exit "Network" **immediately** after installation.

When you close the dialog box, you will be prompted to enter a TCP/IP address.

3. The computer no longer boots after installation — What should I do if the computer no longer boots after installing a CP 1613 along with an ISA module?

In some computers there is sometimes a resource conflict involving the interrupts (IRQ) when the PCI IRQs in the BIOS are set to "Auto Select". The computer either does not boot at all or the drivers are not started.

Remedy

Assign free interrupts to the PCI IRQs in the BIOS.

4. Installation of a CP 1613 and other network adapters — What do I need to know?

When you install the drivers of a 3COM PCI network adapter 3C905 for example, their network monitor "Smartagent" is also installed..

If you install a CP 1613 as well, not only all the previously installed protocols but also the "Smartagent" is bound to the CP 1613.

Deactivate this entry, since the CP 1613 does not support this network monitor. Follow the steps outlined in the table below.

Step	Description
1	Navigate to the "Bindings" dialog box (taskbar Start → Settings → Control Panel → Network → Bindings).
2	In the list box "Show bindings for:", select "All adapters".
3	Display all the protocols of the "Siemens CP1613 NDIS Adapters" in the list box below. Reaction The entry "3COM dRMON Smartagent PC Software" appears for example.
4	Click the "Disable" button.

2 Questions on Access Control

1. Administrator Rights —

Which rights are required under Windows?

To install products, you require Administrator rights (you must belong to the local group "Administrators"). This is not necessary for operation.

2. Without Administrator Rights —

What can I do without administrator rights?

Without administrator rights, you can run the applications for the various protocols (S7, TF, or SEND/RECEIVE).

3. With Administrator Rights —

What can I do with administrator rights?

You require administrator rights to install the software and to start and stop drivers. This means that you can only execute the operations of the "Set PG/PC Interface" configuration program or the "Configuration Console" that require a restart when you have administrator rights.

If you do not have administrator privileges, an error message is displayed.

You must reboot or log on with administrator rights. For more information on this topic, refer to your Windows documentation.

4. NTFS File System —

What must I remember when using the NTFS file system?

If you use the NTFS file system of Windows NT, 2000, or XP, user-specific rights can be assigned for each individual file.

To run some functions, files must be accessed and the required result is only achieved when the user of the function has adequate rights to access the file and folder.

If, for example, you do not have write permission for the folder in which you want to save a database, you will not be able to save a database in that folder. A trace functions only when you have write permission for the trace file. The same applies to other log files that can be created by diagnostic tools.

5. Permissions for the Registry —

Which rights are necessary for the Windows Registry?

The user requires permission to read entries under the key "HKEY_LOCAL_MACHINE\SOFTWARE\Siemens".

Modifications by the configuration tools are only permitted when the user also has write permission for the subkey "SINEC" and its subkeys.

In the default setting, all users are permitted who have read and write permissions for the keys under "HKEY_LOCAL_MACHINE\SOFTWARE\Siemens".

3 Other Questions

1. The driver for the CP 1613 does not start up after turning the computer off and on again. —

What is the reason and what can I do?

When a computer has to be restarted, a reproducible restart is only possible when all volatile information was actually deleted prior to turning off.

Some computers simply change to standby mode when the operating system is closed down and some information is retained.

To ensure a **reproducible restart** on the computer with new data from non-volatile memory, follow the steps below:

Step	Action
1	Close down your operating system. Reaction The computer changes to the standby mode.
2	Turn off the power to your computer for at least one minute. Reaction All superfluous volatile data is cleared.
3	Turn on the power to your computer again and boot it again.

2. Ping Function —

Why does the CP 1613 not respond?

You enter a "ping" for a CP 1613 **installed in your own computer**, and the CP does not respond.

Answer

This function is not implemented.

Only CPs outside the local system can be addressed with "Ping".

3. When communicating with an OSM V1.0, the CP 1613 sporadically sends bad frames — What causes these transmission errors?

Explanation

The bad frames (truncated frames, CRC errors etc.) occur when the **OSM V1.0 is set to full duplex mode** and the duplex mode of the **CP 1613 is set to autonegotiation**. Since the OSM V1.0 does not support autonegotiation, its ports are set permanently to half or full duplex using DIP switches. Its data transfer rate is also set internally to 10 Mbps.

Each DTE (here the CP 1613) operating with autonegotiation that connects with a partner (here the OSM V1.0) that does not support autonegotiation automatically assumes that the partner will operate in half duplex at 10 Mbps. If the partner is, however, operating in full duplex mode, these transmission problems occur.

Summary:

If the OSM V1.0 is used with a CP 1613, only the following settings are allowed:

- The OSM V1.0 is set to half duplex.
The CP 1613 can operate either with autonegotiation or be set to half duplex (setting made in the "Set PG/PC Interface" menu or "Configuration Console"). Setting the full duplex mode on the CP 1613 is then not permitted!
- The OSM V1.0 is set to full duplex.
The CP 1613 must then be set to full duplex mode.
Autonegotiation or half duplex are then not permitted on the CP 1613!

In both cases, it is also not permitted to set the transmission rate on the CP 1613 to 100 Mbps.

OSM V1.0 Duplex Mode	CP 1613 Duplex Mode	CP 1613 Data Transmission Rate
Half duplex	<ul style="list-style-type: none"> • Autonegotiation or • half duplex set (full duplex must not be set) 	<ul style="list-style-type: none"> • Autonegotiation or • set to 10 Mbps (must not be set to 100 Mbps)
Full duplex	Full duplex must be set (Autonegotiation or half duplex must not be set)	

The OSM V2.0, in contrast to the OSM V1.0, does support autonegotiation and the problem outlined above does not occur.

4. Plugging in different connecting cables (TP, ITP or AUI) —

What do I need to remember when plugging in different connecting cables?

If you set everything to "Automatic" in the network parameters in the "Set PG/PC Interface" configuration program or "Configuration Console", the card automatically adapts to the attached network.

Only one network cable per CP 1613 may be plugged in at any one time.