Panasonic®

Control Configurator MS Lib
User's Manual

Control Configurator MS Lib Ver. 1.1

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Please also refer to the safety and warranty notes in your PLC's manual.

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Important Symbols

One or more of the following symbols may be used in this manual:

Warning.
The warning triangle indicates especially important safety instructions. If they are not adhered to, the results could be:

- **fatal or critical injury and/or**

- **significant damage to instruments or their contents, e.g. data**

◆ NOTE

Contains important additional information.

◆ EXAMPLE

Contains an illustrative example of the previous text section.

◆ PROCEDURE

Indicates that a step-by-step procedure follows.

◆ REFERENCE

Indicates where you can find additional information on the subject at hand.

◆ CAUTION

Indicates that you should proceed with caution.

◆ KEYPOINTS

Summarizes key points in a concise manner.

◆ SHORTCUTS

Provides helpful keyboard shortcuts.

◆ EXPLANATION

Provides brief explanation of a function, e.g. why or when you should use it.

☞ next page

Indicates that the text will be continued on the next page.

The manual uses the following conventions to indicate elements from the user interface or the keyboard:

"Data Field"	Data field entries and option names are rendered in quotation marks.
[Button]	Buttons are indicated by square brackets.
<Key>	Keys are indicated by pointed brackets

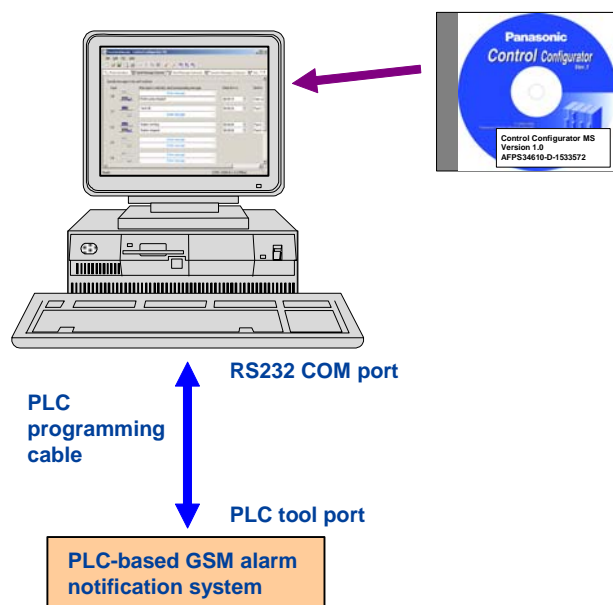# Table of Contents

Record of Changes

Chapter 1

Basic Information

1.1 What is Control Configurator MS Lib?

The configuration software Control Configurator MS Lib helps you to set up a GSM alarm notification system (GSM = **G**lobal **s**ystem for **m**obile communication).

You can download the parameters you have entered during the configuration to the PLC, for example, phone number, phone number priorities, messages to be sent, delay times, PIN, etc. When you need to change the PLC configuration, you can upload the data from the PLC and modify them.

RS232 COM port

PLC programming cable

PLC tool port

PLC-based GSM alarm notification system

NOTES

- **The Control Configurator MS Lib can only configure the GSM alarm notification system contained in the FPWIN Pro library NCL-CCMS-LIB.**

- **If you wish to use the Control Configurator MS Lib to download a configuration to the PLC or to upload the PLC configuration, the GSM alarm notification system needs to be stored in the PLC. For this purpose you need to install the library NCL-CCMS-LIB in your FPWIN Pro project, enter the POUs of the GSM alarm notification system in the task pool and download the project to the PLC.**

- **For further information on how to use the library NCL-CCMS-LIB please refer to the library's online help.**

1.2 Software Features

The software offers the following features:

Notification If Problems Occur

- Send messages if input is switched ON or OFF
  You can configure up to 8 or 28 inputs and send up to 16 or 56 messages for these inputs.

- Set time delay for inputs
  It is possible to filter input signals by defining how long an input signal has to be active before a message will be sent.

- Send messages to up to 4 phone numbers
  Depending on your mobile phone service provider you can send messages also to a fax or email address.

- Multiple recipients
  You can send one message to one or more phones at the same time.

- Use acknowledgement for messages
  If a sent message is not acknowledged by a reply to the alarm notification system within a defined period of time, you can have the system send the message to other phones.

- Station name included in every message

- Watch account on prepaid cards

Remote Control

- Switch up to 8 or 28 outputs ON or OFF by sending one message

- When an output has been switched, you can switch the output back with a time delay.

- You can define the initial state of the outputs. You can make the PLC remember the state of outputs if a power failure occurs.

- Check whether the PLC has acted correctly on a message by defining a confirmation message to be sent as a reply with the current output status.

- Check the current status of the alarm notification system by sending a message to request the status from the system. The alarm notification system replies with a message containing the current status of the inputs and outputs and any currently active alarm messages to the phone which has sent the status request.

Remote Maintenance

- Change phone numbers by sending a message to the alarm notification system

- Assign a different pool to a phone number by sending a message to the alarm notification system

- Define confirmation messages for the PLC to send when it has acted correctly on received messages.

- Send a message to switch the alarm notification system into a state that allows remote configuration.

Other Features

- Data input is checked for validity
- Diagnostic functions inform you about the state of the alarm notification system
- Load a project from a file/Save a project to a file
- Upload/Download a project from/to the programmable logic controller (PLC)
- Print and preview a project
- Available in several languages

1.3 Mobile Communication Requirements

In order for the alarm notification system to work reliably, the following requirements must be met.

1.3.1 Which Mobile Phone Service Providers Are Supported?

The alarm notification system can be used in all countries with a GSM mobile communication network. Depending on the GSM terminal used, the remote monitoring systems works with a network with GSM900 MHz and/or GSM1800 MHz.

1.3.2 Which SIM Cards Can Be Used?

In order to be able to send messages with a mobile phone you need SIM card (**S**ubscriber **I**dentification **M**odule) authorization. To obtain a SIM card, you need a contract with a mobile phone service provider, e.g. at a mobile phone shop The activated SIM card is inserted in the GSM terminal. The SIM card provides the GSM terminal with a phone number and authorizes the access to the mobile communication network.

Types of SIM Cards

Card type	Properties
Prepaid card	Prepaid cards offer the advantage that there is no contract and no monthly fee. With a prepaid card, you pay in advance for the communication service. This is different for contract phones, where you receive a monthly bill charging you for phone calls made and messages sent.
	The disadvantage of prepaid cards is that the PLC cannot send any more messages if the credit on the card has been used up and you have not added new credit to the SIM card. This is why you need to watch the account on the prepaid card. Another disadvantage is that the prepaid card may expire after a certain time (depends on the mobile phone service provider). To stop the card from expiring, you need to add new credit to the SIM card in regular intervals.
SIM card with a contract	As a rule, SIM cards with contracts are more expensive than prepaid cards due to the basic monthly fee. However, since you are billed afterwards for all calls made, it cannot happen that messages are not sent (as can happen with prepaid cards when their credit has been used up).

1.3.3 Hardware Requirements

Panasonic Products

The GSM alarm notification system of the FPWIN Pro library NCL-CCMS-LIB can be used with all Panasonic PLCs with a free programmable RS232 interface.

In addition to the PLC you usually need a 24V DC power supply, a PLC programming cable, and a cable for connecting the PLC's COM port with the GSM terminal.

◆ REFERENCE

For further information on how to connect the PLC port to a GSM terminal please refer to the online help of the library NCL-CCMS-LIB.

Third-Party Products

- GSM terminal: for example Siemens TC35i, TC35, MC35, or Wavecom WMOD2, Fastrack, or SAGEM TAINY GMOD-T1

- Power supply cable for the GSM terminal

- Antenna for the GSM terminal

- SIM card

For further information on the hardware requirements for installing the software on your PC, please refer to "System Requirements and Installation" (see page 9).

1.4 Abbreviations

In this documentation, the following abbreviations are used:

Abbreviation	Meaning
GSM	Global system for mobile communication
PIN	Personal identification number
SIM	Subscriber identification module
SMS	Short message service
PLC	Programmable logic controller

Chapter 2

Installation

2.1 Hardware Requirements for the PC

Before you install Control Configurator MS, check whether the PC meets the following requirements:

- 80486 processor or better

- at least 64MB RAM

- S-VGA graphic adapter (800 x 600 pixels) or better

- hard disk, CD ROM drive

- at least 20MB free disk space

- free serial port (RS232)

Operation System Requirements

Win 98, ME, NT 4.0, 2000, XP

2.2 Software Installation

For the standard installation please proceed as follows:

PROCEDURE

1. **Insert the installation CD for the FPWIN Pro library NCL-CCMS-LIB in the CD ROM drive of your computer**

2. **Select "Execute" from the Windows start menu and enter `D:\Control Configurator MS Lib 1.exe` in the text box.**

    In this example, D: is the letter for the CD ROM drive.

3. **Choose [OK] and follow the instructions on the screen**

Alternatively, you can execute the software directly from the installation CD. In the Windows file manager select the CD ROM drive and double-click the file "**Control Configurator MS Lib 1.exe**".
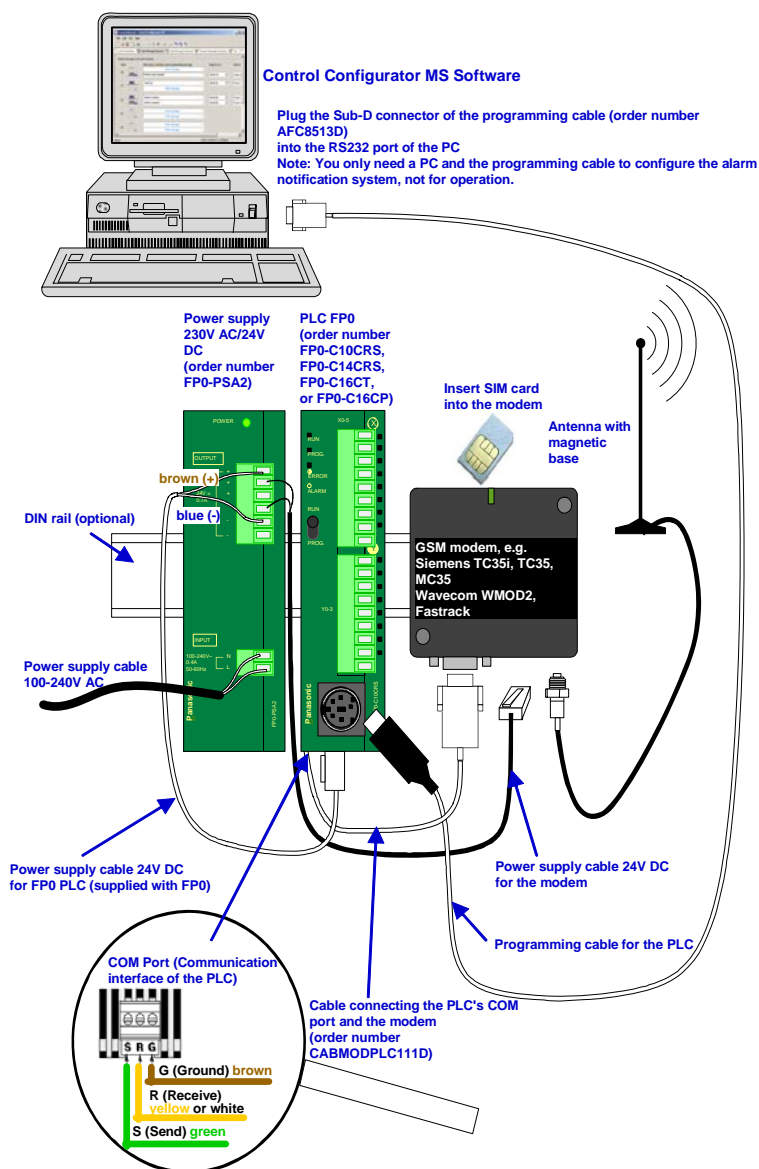
2.3 Hardware Installation

The correct installation is shown in the figure below.

☞ ♦ NOTE

For correct wiring, please refer to the installation guide for the other components such as the GSM terminal and the antenna with magnetic base.

Control Configurator MS Software

Plug the Sub-D connector of the programming cable (order number AFC8513D)
into the RS232 port of the PC
Note: You only need a PC and the programming cable to configure the alarm notification system, not for operation.

Power supply 230V AC/24V DC (order number FP0-PSA2)

PLC FP0 (order number FP0-C10CRS, FP0-C14CRS, FP0-C16CT, or FP0-C16CP)

Insert SIM card into the modem

Antenna with magnetic base

brown (+)

blue (-)

DIN rail (optional)

GSM modem, e.g. Siemens TC35i, TC35, MC35 Wavecom WMOD2, Fastrack

Power supply cable 100-240V AC

Power supply cable 24V DC for FP0 PLC (supplied with FP0)

Power supply cable 24V DC for the modem

Programming cable for the PLC

COM Port (Communication interface of the PLC)

Cable connecting the PLC's COM port and the modem (order number CABMODPLC111D)

G (Ground) brown

R (Receive) yellow or white

S (Send) green

Chapter 3

Use Control Configurator MS Lib

3.1 Create Project

Use **Project** → **New** or to display the start page (see page 20) for creating a new project.

3.2 Upload Project from the PLC

Choose **PLC** → **Upload Project** or [icon]. First you need to connect the PLC as described in hardware installation (see page 12) and supply the PLC with power. The connection with the PLC uses the communication parameters you have defined and uploads the project from the PLC to Control Configurator MS.

☞ ♦ NOTES ══════════════════════════════════

- **The Control Configurator MS Lib can only configure the GSM alarm notification system contained in the FPWIN Pro library NCL-CCMS-LIB.**

- **If you wish to use the Control Configurator MS Lib to download a configuration to the PLC or to upload the PLC configuration, the GSM alarm notification system needs to be stored in the PLC. For this purpose you need to install the library NCL-CCMS-LIB in your FPWIN Pro project, enter the POUs of the GSM alarm notification system in the task pool and download the project to the PLC.**

- **For further information on how to use the library NCL-CCMS-LIB please refer to the library's online help.**

- **For technical reasons, the PLC must be in RUN mode during the upload procedure. If the PLC is in PROG mode, it is automatically switched to RUN mode until the project has been uploaded; then it returns to PROG mode. However, during the short time when the configuration is uploaded and the PLC is in RUN mode, the program will be processed.**

3.3 Download Project to PLC

Choose **PLC → Download Project** or . First you need to connect the PLC as described in hardware installation (see page 12) and supply the PLC with power. The connection with the PLC uses the communication parameters you have defined and Control Configurator MS downloads the project to the PLC.

 NOTES

- **The Control Configurator MS Lib can only configure the GSM alarm notification system contained in the FPWIN Pro library NCL-CCMS-LIB.**

- **If you wish to use the Control Configurator MS Lib to download a configuration to the PLC or to upload the PLC configuration, the GSM alarm notification system needs to be stored in the PLC. For this purpose you need to install the library NCL-CCMS-LIB in your FPWIN Pro project, enter the POUs of the GSM alarm notification system in the task pool and download the project to the PLC.**

- **For further information on how to use the library NCL-CCMS-LIB please refer to the library's online help.**

- **When you download a project to the PLC, the "Waiting for acknowledgement message" flag will be reset.**

- **For technical reasons, the PLC must be in RUN mode during the download procedure. If the PLC is in PROG mode, it is automatically switched to RUN mode. After the project has been downloaded, the PLC remains in RUN mode.**
Please remember that the PLC processes the program in RUN mode.

3.4 Working with Projects and the RS232 Port

You find a detailed description of the project options and the communication parameters in the online help. The online help contains information on topics such as:

- Create project
- Open project
- Save project
- Print project
- Check project
- Upload project from the PLC
- Download project to PLC
- Communication parameters
- Change the language setting of the user interface

3.5 Help

Clicking Help in the menu bar will initiate the display of the software help functions.

3.5.1 Contents

With **Help → Contents** you initiate the display of the help contents described in the online help.

PROCEDURE

1. **Help → Contents**
2. **Click topic in the navigation pane**

    An explanation or a further selection will be displayed. Click the button [Locate] in the tool bar of the help window to synchronize the explanation window with the navigation pane.

    Use [Add] to enter frequently used help topics to the "Favorites" page.

3.5.2 What's This?

Select **Help → What's This?** and point the mouse to an input or text field in the software (the

mouse cursor changes to   ). The software displays the corresponding help topic.

3.5.3 Search for Help on

With **Help → Search** you can search for terms and contents in the help system. You can either key in or click the term in the selection list.

3.5.4 About Control Configurator MS

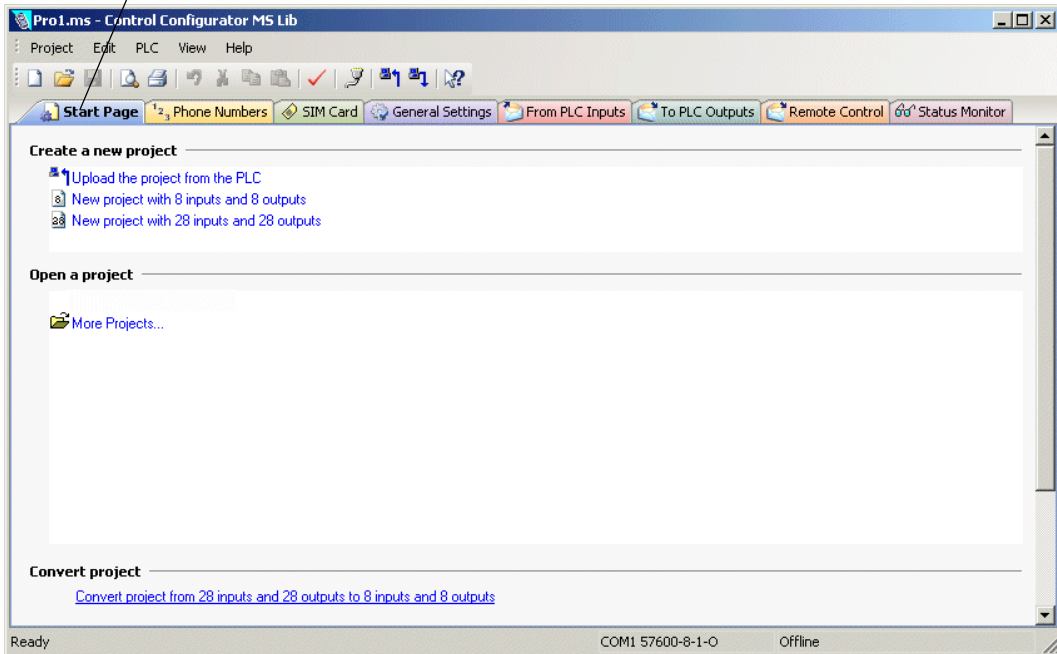Use **Help → About Control Configurator MS** to display information about the version and the copyright.

Chapter 4

Index Card Settings

4.1 Index Cards and Tabs

Select an index card by clicking the tab at the top.

Tab of the index card

Activate index card with the tab

For information on the available settings on the different index cards, please refer to the online help and search for the index card.

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Record of Changes

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