

General

This document contains important information, which must be noted. This document also contains details of the changes made in the software tool from one version to the next.

This product includes code licensed from RSA Security, Inc. Some portions licensed from IBM are available at <http://oss.software.ibm.com/icu4j/>.

System requirements

Operating system:	Windows XP/Server 2003/Vista (32 Bit)/7 (32 Bit, 64 Bit)
Processor:	Min. 1 GHz
RAM:	Min. 1,024 MB
Hard disk:	20 GB; min. 15 GB of available disk space
Graphics card:	Support for Super VGA graphics

The operating systems Windows 98 and Windows ME are no longer supported from Version 4.0.0.

The operating system Windows NT is no longer supported from Version 5.2.0.

The operating system Windows 2000 is no longer supported from version 8.1.1.

Important information

Installation

Access rights

Write access to the installation directory is required in order to install and start the software tool.

To install under Windows XP, Windows Server 2003, Windows Vista and Windows 7, users must have administrator rights.

You need access to "HKEY_LOCAL_MACHINE Registry key".

General

Close programs

Please close all open programs on your PC before installing the software tool.

Network installation

The software tool cannot be installed on a network drive.

Do not remove the DVD

Do not remove the DVD from the drive during the installation process.

Licensing

Where licences are subject to a time restriction, do not put back the system clock or your licence will be rendered invalid.

An existing licence is not valid for version 8.0.0. Enter your new licence after the first start of PNOZmulti Configurator.

Printing

- ▶ The new print functionality requires a suitable program for displaying PDF files
- ▶ This program must support the display in a Browser. This option may have to be selected in the program menu.
- ▶ If more than one program for displaying PDF files is installed on the system, the program must be defined as a standard that supports the display in a browser.
- ▶ Foxit Reader is not supported for displaying the print reports.

Connections

The maximum permitted number of connections between elements are 253.

General

Known problems

Workspace

Elements may be displayed incorrectly when the screen resolution is higher than 1280 x 1024.

Open the assignment list in a spreadsheet application such as Excel, for example:

If the first character in a line is an operand, for example =, +, then Excel interprets the content of the cell as a value of a formula. You have to convert the characters to text.

In Excel, proceed as follows:

1. Highlight the columns concerned.
2. Select "Data" -> "Text to Columns...".
3. Keep the default settings in the first two steps.
4. In step 3, select "Column data format" -> "Text".
5. Click "Finish".

When characters are UTF-8-coded, you have to import and edit the assignment list in the spreadsheet application with UTF-8 code.

If you fail to do so, you will not be able to open the assignment list in the PNOZmulti.

In Excel, proceed as follows:

1. Create a new workbook.
2. Highlight the cell A1.
3. Select "Data" -> "External Data" -> "Import Text File".
4. Select "UTF-8" coding, and "Comma" as the separator.

Chip card readers with COM port

The operating system Windows 7 does not support chip card readers with COM port.

64 Bit operating system

Under 64 Bit operating systems temporary interruptions of the connection can occur with the PNOZmulti Mini base units.

General

Communication with the base unit

The PNOZmulti base unit must be connected directly to the configuration PC for communication. Remote access (remote desktop connection) to the connected PC is not possible when communicating with the PNOZmulti base unit.

Executing 2 instances of the PNOZmulti Configurators

We recommend that you do not drag macros from one instance of the PNOZmulti Configurator into the other.

Online connection to base unit PNOZmulti Mini under Windows 7

Under Windows 7, the online connection may drop out on the base units PNOZmulti Mini.

In this case, re-establish the connection.

Message during communication with the PNOZmulti

When communicating with the PNOZmulti, the following message may appear: "No communication with PNOZmulti. The interface is already used."

In this case, proceed as follows:

- ▶ Switch off the supply voltage on the base unit.
- ▶ Remove and replace the chip card
- ▶ Switch the supply voltage on the unit back on and re-establish the connection

Changes in Version 8.1.1

This version is available in the following languages:

- ▶ German
- ▶ English
- ▶ French
- ▶ Spanish
- ▶ Italian
- ▶ Japanese
- ▶ Chinese

Changes in Version 8.1.0

This version is available in the following languages:

- ▶ German
- ▶ English

New functions

New expansion modules PNOZmulti Mini

Fieldbus modules for connection to the base units PNOZ mm0.1p and PNOZ mm0.2p are supported.

New input element

Input element "safety mat" is now supported also for PNOZmulti Mini.

Loop formation (LOOP)

It is now possible to form loops by configuring virtual LOOP inputs and outputs.

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Changes in Version 8.0.0

This version is available in the following languages:

- ▶ German
- ▶ English

New functions

Macros

There are now 2 types of macros:

▶ **As before: Templates**

This type of macro is supported since Version 7.0.0 of PNOZmulti Configurator:

A template simply serves as a model. Sections of the user program that are defined as templates are reused by inserting them into the user program as copies, which can then be edited independently.

▶ **New: Macro elements**

This macro type is new:

- A macro element combines the defined section of the user program (macro program) into one element. When reused, it is inserted into the user program as an element.
- Changes to the macro program will affect all places in the project in which a macro is used.
- The macro program can be created, edited and displayed in the Macro Editor.
- You can search for macro elements in the project.
- A report can be created for macro elements.

Assignment List

- ▶ Improved performance when opening the assignment list

Changes in Version 7.2.1

This version is available in the following languages:

- ▶ German
- ▶ English
- ▶ French
- ▶ Spanish
- ▶ Italian
- ▶ Japanese
- ▶ Chinese

Changes in Version 7.2.0

New functions

New base unit

A new base unit is supported:

- ▶ PNOZ mm0.2p

Base Unit Mini PNOZ mm0.2p

The base unit PNOZ mm0.2p contains the same functions as the PNOZ mm0.1p.

It also contains an integrated interface for connecting two PNOZmulti base units

New speed monitors

Three new speed monitors are supported:

- ▶ PNOZ ms2p TTL
- ▶ PNOZ ms3p TTL
- ▶ PNOZ ms3p HTL

New expansion modules PNOZmulti Mini

Two new link modules for connection to the base units PNOZ mm0.1p and PNOZ mm0.2p are supported:

- ▶ **PNOZ mml1p**
This expansion module is used for safe connection of two PNOZmulti base units. It contains the same functions as the link module PNOZ ml1p.
- ▶ **PNOZ mml2p**
This expansion module is used for safe connection of decentralised input/output modules to a safety system PNOZmulti Mini. It contains the same functions as the link module PNOZ ml2p.

Logic Elements

New logic elements:

- ▶ EQU gate (equivalence)
- ▶ "Pulse edge evaluation" element

The inputs and outputs in the **AND**, **OR**, **XOR NODD** and **RS-Flipflop** gates can also now be negated.

Changes in Version 7.2.0

Other changes for the PNOZmulti Configurator

- ▶ Projects from write-protected directories can now be opened.
- ▶ USB driver is installed automatically on the current versions of the base units PNOZmulti Mini.
- ▶ The "Hardware Configuration" window appears automatically when the PNOZmulti Configurator is started.

Changes in Version 7.1.1

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Changes in Version 7.1.0

This version is available in the following languages:

- ▶ German
- ▶ English

New functions

Expanded functions for the base unit Mini PNOZ mm0p

▶ Display Messages

You can configure messages with your own texts. These can be linked to function and logic elements and shown on the base unit display.

▶ Configurable inputs/outputs

- The inputs/outputs IM0 – IM3, IM16 – IM19 can be configured as inputs or as outputs for standard functions.
- The outputs T0 – T3 can be configured as outputs for standard functions or as test pulses.

▶ Additional elements are supported

The following elements can now be configured for the base unit PNOZ mm0p:

- Forward/backward event counter
- XOR gate (2k+1)
- Inputs can now be activated negated.

New base units

New base units are supported:

- ▶ PNOZ mm0.1p
- ▶ PNOZ m0p ETH
- ▶ PNOZ m2p ETH
- ▶ PNOZ m3p ETH

Base Unit Mini PNOZ mm0.1p

The base unit PNOZ mm0.1p contains the same functions as the PNOZ mm0p.

Additional functions are included:

Changes in Version 7.1.0

▶ **Relay output modules PNOZsigma**

Relay output modules from the PNOZsigma range can be configured as expansion modules:

- PNOZ s7
- PNOZ s7.1
- PNOZ s7.2
- PNOZ s10
- PNOZ s11
- PNOZ s22

▶ **Communication Modules**

A serial or Ethernet communication module can be configured:

- PNOZ mmc1p ETH
- PNOZ mmc2p RS232

Virtual I/Os can also be configured (expandable to 128).

▶ **PVIS is supported**

PVIS expanded diagnostics can be used.

Base units PNOZ m0p ETH, PNOZ m2p ETH, PNOZ m3p ETH

The base unit PNOZ m0p, PNOZ m2p and PNOZ m3p is now also available as a version with Ethernet interface. The overall Ethernet function corresponds to that of the PNOZ m1p ETH.

Enhanced Ethernet functions

- ▶ The device Ethernet connection (connection on the base unit) and the project Ethernet connection (saved within the project) can now be configured separately.
- ▶ Device information is now displayed in the print report.
- ▶ Users working on password level 3 can now establish an online connection to an Ethernet base unit and change the Ethernet connection settings.
- ▶ The list of connections now contains the IP addresses of the last 5 base units to which an online connection has been established.
- ▶ There is a setting to show the device ID in the connection name in the list of connections.

Two-hand button element expanded

An input to deactivate two-hand monitoring can now be configured.

Changes in Version 7.1.0

Configurable cable length for PNOZ ml1p

When configuring the link module PNOZ ml1p, the cable length can now be configured in the "link module status" element (≤ 100 m or >100 (max. 1000 m))

Expanded print report function

You can now display your own logo on the front page.

Configurator can be used without administrator rights

Even users without administrator rights can now use the PNOZmulti Configurator (administrator access is still required for installation!).

Changes in Version 7.0.1

This version is available in the following languages:

- ▶ German
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- ▶ Chinese

Changes in Version 7.0.0

New functions

New expansion module for connecting decentralised inputs/outputs

A new connection module for connecting decentralised inputs/outputs is supported:

- ▶ PNOZ ml2p
 - Decentralised inputs can be configured in the input elements.
 - Up to 8 decentralised inputs per link module can be configured.
 - Decentralised standard outputs, 24 V outputs or test pulse outputs can be configured.

Expanded number of virtual inputs and outputs

The number of virtual inputs and outputs which are transmitted via the integrated interfaces and the fieldbus inputs and outputs can now be expanded from 24 to 128.

Macros

- ▶ One or several logic elements can be defined as macros and inserted elsewhere into the workspace. The logic elements included in the macro are inserted into the workspace and they can be edited.
- ▶ You can export and import macros.
- ▶ Macros can be reused in various projects.

Muting element expanded

- ▶ The output parameter *Muting active* (to display the muting status) can now be activated or deactivated during the configuration of the muting element.
- ▶ The input parameters of a muting element can now also be connected to logic elements.

Exclusive OR operation

- ▶ new logic element EXCLUSIVE OR (2k+1)
- ▶ For the logic element EXCLUSIVE OR (=1) you can now configure up to 5 inputs.

Activate inputs expanded

Inputs that are activated via the input cells, can now be negated.

Changes in Version 7.0.0

Forward/backward event counter

The current counter status is now displayed on the element.

Workspace

- ▶ new window for hardware configuration
- ▶ Modules receive a default equipment ID when they are inserted.
- ▶ In the options you can select whether the module tree in the **Hardware configuration** window should be arranged to the right or to the left of the workspace.
- ▶ new elements list and bar for the macro library
- ▶ Bar can be shown and hidden
- ▶ enhanced display of connection lines
- ▶ Elements can now be selected by double-clicking a cell in the workspace.
- ▶ The possible connections are highlighted when connecting elements.
- ▶ new display for limiting connections in the status window

Print report *workspace* expanded

- ▶ Display for negation was updated.
- ▶ enhanced display of connection lines

Driver

The USB driver for the base unit PNOZ mm0p is now automatically installed.

Changes in Version 6.4.0

New functions

New base unit

A new base unit is supported:

- ▶ PNOZ m1p ETH.

Base unit PNOZ m1p ETH with 2 Ethernet interfaces

- ▶ The project and the diagnostic data are downloaded via Ethernet
- ▶ Ethernet base units can be configured
- ▶ The Ethernet connection can be configured
- ▶ The network can be scanned for Ethernet base units
- ▶ Possible to identify a base unit which has established an Ethernet connection.

New speed monitor

A new speed monitor is supported:

- ▶ PNOZ ms2p HTL
A frequency of up to 200000 Hz can be configured.

Operating Mode Selector Switch

A delay time (0 ... 3000 ms) can now be entered when the operating mode selector switch function element is configured. .

Forward/Backward Event Counter

With this new logic element the counter can be

- ▶ incremented, i.e. the counter status is increased by 1 until a configured value is reached, or
- ▶ decremented, i.e. the counter status is decreased by 1 until the counter status = 0.

PVIS muting element

New diagnostic element, which can be used to suppress PVIS messages from specific elements.

Groupdiagnostic message

New diagnostic element, with which you can configure up to 5 different diagnostic bits.

Changes in Version 6.4.0

Language switching

If you change the user language in the **Options** menu, the PNOZmulti Configurator will be automatically restarted and the current project reopened.

Changes in Version 6.3.0

New functions

New base unit

A new base unit is supported:

- ▶ PNOZ mm0p.

Base Unit Mini PNOZ mm0p

- ▶ 20 inputs and 4 safe semiconductor outputs can be configured.
- ▶ The semiconductor outputs on the PNOZ mm0p can be configured as safe semiconductor outputs with advanced fault detection.
- ▶ No expansion modules can be connected
- ▶ Project is downloaded via a USB port

Importing the hardware and assignment list

- ▶ There is a new option when importing an assignment list: "Read-only project". If this option is selected, the imported XML data cannot be modified.

Please note that this function is only available in the English and German versions.

Changes in Version 6.2.0

New functions

New base unit

A new base unit for burner management is supported:

- ▶ PNOZ m3p.

Base Unit Burner Management PNOZ m3p

- ▶ 6 different burner types can be controlled and monitored.
- ▶ Configuration is made via a wizard in PNOZmulti Configurator. The last page of the configuration wizard includes:
 - an overview of the configuration
 - the steps that are performed with this configuration
 - the set states of the inputs and/or states of the outputs during the corresponding steps.
- ▶ supports 3 diagnostic types

Print

- ▶ A PDF file is created to display a print report. Adobe reader is used to do this.
- ▶ The print preview is improved. There are more navigation and settings options available now.
- ▶ It is possible to insert a logo which will be shown in the header on all the pages of the print report.
- ▶ When printing, 2 title pages are issued where the project properties are described.
- ▶ In a hardware report the hardware modules are displayed now.

Enhanced display of connection lines

The algorithm for displaying the connection lines has been improved.

Project languages

Project texts can be exported, translated and reimported. Project texts are:

- ▶ Location descriptions for the input and output elements,
- ▶ user text,
- ▶ page names,
- ▶ page user text that can be entered on each page of the project,
- ▶ equipment identifiers can be translated (in the Tools/Activate options menu).

Changes in Version 6.2.0

Expanded maximum number of characters

- ▶ a maximum of 32 characters for hardware equipment IDs
- ▶ a maximum of 23 characters for element equipment IDs
- ▶ a maximum of 40 characters for diagnostic unit names

Workspace

When drawing a connection to an input or output, a tooltip for the corresponding input or output is displayed.

Find

New option to find test pulses in the project

Icons

- ▶ Updated icons on toolbar
- ▶ Updated icons in the "Select Base Unit and Expansion Modules" window
- ▶ Updated icon to display activated PVIS events

Error stack

Refresh button added to update the error stack.

Changes in Version 6.1.0

New functions

New speed monitors

Two new speed monitors are supported:

- ▶ PNOZ ms3p
- ▶ PNOZ ms4p

Speed monitor PNOZ ms3p

The speed monitor PNOZ ms3p has the same functions as the speed monitor PNOZ ms2p, but it includes expanded diagnostics and more error stack information. Also, an input can be configured to deactivate speed monitoring. All the outputs are set to the signal status "0" as soon as the deactivation input has the signal status "1".

Speed monitor PNOZ ms4p

The speed monitor PNOZ ms4p has the same functions as the speed monitor PNOZ ms3p. However, only one axis can be configured and it is possible to configure up to 16 speeds. There are different diagnostic Bits from those in PNOZ ms3p.

As in PNOZ ms3p, a deactivation input can be configured.

Project languages

Changed or new diagnostic configuration texts will be added to an existing text table. The original Pilz texts from the current version can be restored in PNOZmulti Configurator from the Project Language Manager.