

**PSS WIN-PRO V2.3.0**

**pilz**

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™ SD means Secure Digital

# PSS WIN-PRO

## 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.

## System requirements

Operating system:	Microsoft Windows 2000/XP/7/Vista
Processor:	Min. 1 GHz
RAM:	Min. 512 MB
Available hard drive space:	Approx. 700 MB
Graphics card:	Min. 1024 x 768 pixel resolution, 65536 colours
Interfaces:	Serial interface for downloading data to the programmable control system. If the programmable control system has an ETH-2 interface, data can also be downloaded via Ethernet.
To call up online help:	Browser, compatible with HTML 3.2. Recommended: Internet Explorer from Version 5.0, Netscape Navigator from Version 5.0.

## 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 2000 and Windows XP, users must have administrator rights.

#### Network installation

The software tool cannot be installed on a network drive.

#### Password

After installation the password is always "pss3000".

### Licensing

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

### Compatibility

#### Downward compatibility

PSS WIN-PRO is not downward compatible, i.e. projects created with a newer version of PSS WIN-PRO cannot be edited using an older version of PSS WIN-PRO.

### **OPC Configurator**

To download diagnostic configurations to a PVIS OPC Server you will need at least Version 1.1.0 of the OPC Configurator.

We recommend Version 1.5.0 of the OPC Configurator.

### **Known problems**

#### **Multiple access to projects**

Error messages may be triggered if several users access the same project simultaneously (e.g. if the project is stored on a data medium on the network), so this should be avoided.

#### **PSS SB 3006 series**

If you have used Version 1.0.0 or 1.0.2 of PSS WIN-PRO to create projects for a programmable control system from the PSS SB 3006 series, error messages will be displayed if the relevant programs are linked using PSS WIN-PRO from Version 1.1.0 onwards.

Remedy: Open the PSS Configurator and save the project's PSS configuration.

#### **Entering special characters**

When PSS WIN-PRO is running under a German operating system, the "Alt Gr" key that's used to enter special characters does not work.

Remedy: Copy the character into a different application and paste it into PSS WIN-PRO.

#### **Print preview**

The print out may differ slightly from the print preview.

#### **LD/FBD: Enter comment**

When a very long comment is pasted from the clipboard, the comment is not shown correctly. This error is rectified when the screen is refreshed.

#### **Keyboard shortcuts and hotkeys**

Keyboard shortcuts and hotkeys do not work when the numeric keypad is being used to enter data or if the menu bar is removed from the main window.

#### **Graphics cards from NVIDIA**

- ▶ "nView Desktop Manager" must be deactivated to ensure that PSS WIN-PRO runs correctly.
- ▶ PSS WIN-PRO may crash if you use an NVIDIA graphics card with a driver older than Version 61.82.

#### **SBP configurations with virtual I/O-Devices**

If you change an SBP configuration that contains virtual I/O-Devices, the following steps will need to be carried out for each PSS in the SBP configuration in order for the changes to take effect:

1. Deactivate the SBP interface in the PSS Configurator.
2. Link the FS program.
3. Activate the SBP interface.
4. Link the FS program.
5. Download the FS program to the PSS.

#### **Comments within the diagnostic table**

After the diagnostic configuration has been linked, it is possible that comments within the diagnostic table will no longer be displayed.

**Diagnostic configuration: Device names and Equip IDs of SafetyBUS p subscribers**

If the device names and Equip IDs of SafetyBUS p subscribers are changed in the SBp Configurator, a functional change of the SafetyBUS p configuration will be required at the same time to enable the new names/Equip IDs to be displayed on the PMImicro diag.

**Save the SafetyBUS p configuration**

The diagnostic images are not saved when the SafetyBUS p configuration is saved under a different name. (The images are only important if you are using PVIS ActiveX Control from Pilz for diagnostics or if you are accessing the images in the namespace of the PVIS OPC Server.)

**Compare**

In rare cases, the F7 and F8 keys do not work during a comparison. If this is the case, close the comparison window and start the comparison again or use the appropriate buttons in the toolbar.

**Import translations**

If you import a project that was created using PSS SW PG and then immediately perform an export for the translations, an invalid error message will be displayed when the translations are imported. Please ignore this message.

**Download Ethernet configuration**

If the Ethernet configuration is downloaded to the PSS twice in succession, the Ethernet Configurator may crash.

**Import/export blocks in ASCII format**

If blocks are to be imported into a project in ASCII format and approved blocks are called up from within these blocks, the approved blocks must be imported first so that the blocks' CRC sum is not changed.

**Projects and blocks created using PSS SW PG**

- ▶ If PSS WIN-PRO is used to download to the PSS a project which was originally created using PSS SW PG, Version < 5.5, the PSS may register an error of error class 24, "Set addressing error".
- ▶ When you compare blocks which were originally created using PSS SW PG, differences between the blocks may be detected, although these differences are not visible. The differences are within the blocks' internal code. The internal code has no effect on the way the blocks are executed on the PSS.

**Chinese Windows XP**

PSS WIN-PRO may crash when switching between the programming languages.

**Print and print preview in the SafetyBUS p Configurator**

The SafetyBUS p Configurator may crash when printing and in the print preview.

**Switching off the PSS**

If the connection between the PC and PSS has been established via a TCP/IP connection (e.g. Ethernet) and the PSS is switched off while an online function is running (e.g. dynamic program display), it will no longer be possible to establish a connection to the PSS.

Remedy: Close PSS WIN-PRO and restart it.

## Changes in Version 2.3.0

This version is available in the following languages:

- ▶ German
- ▶ English
- ▶ French
- ▶ Spanish
- ▶ Italian

### New functions

#### **Diagnostic configuration: Event without remedy**

In the PSS WIN-PRO default settings it is now possible to configure whether a remedial action is to be added automatically when an event is created. (8115)

### Optimisations

#### **Diagnostic configuration: Deactivating events**

The setting for whether an event is deactivated is now saved and is no longer lost. (8086)

#### **SafetyBUS p: Configuration of PSSu systems**

The user is now informed if changes to the PSSu configuration cannot be saved. (6515)

#### **Availability of PSS WIN-PRO**

Some of the reasons for PSS WIN-PRO crashing occasionally have been rectified, for example:

- ▶ When creating a new data block (9966)
- ▶ When building the project (9782)

#### **Importing blocks in ASCII format**

When importing blocks in ASCII format, PSS WIN-PRO no longer crashes if the file does not have a check sum. (10590)

#### **Installing on Japanese Windows 7**

It is now possible to install PSS WIN-PRO on the Japanese version of the Windows 7 operating system. (10264, 10792)

## Changes in Version 2.2.1

This version is available in the following languages:

- ▶ German
- ▶ English
- ▶ French
- ▶ Spanish
- ▶ Italian

### Optimisations

#### **Cross-reference list**

When operands, constants or blocks are entered into the cross-reference list that are not available in the project, the user now has the option to cancel the search. (10168)

## Changes in Version 2.2.0

This version is available in the following languages:

- ▶ German
- ▶ English
- ▶ French
- ▶ Spanish
- ▶ Italian

### New functions

#### Warning when closing a project

A warning is now displayed when a project is closed that has not yet been built. (8482)

#### Warning when an incorrect password is entered

If an incorrect password is entered, the message is now displayed in a message window. (8483)

#### Warning when SBp configuration file (\*.sbc) is missing

If the SBp Configurator is opened although the SBp configuration file (\*.sbc) is missing, the message is now displayed in a message window. (8484)

### Optimisations

#### Opening and importing blocks

Various issues that caused PSS WIN-PRO to crash when opening or importing blocks have been rectified. (7921, 8556, 8640, 9736)

#### Cross reference list

Various issues that caused PSS WIN-PRO to crash when editing the cross reference list (e.g. sorting, using keyboard shortcuts) have been rectified. (8172, 8622, 9461)

#### PSS Configurator

The PSS Configurator no longer crashes when changing the PSS type or version. (8516, 8534)

## Changes in Version 2.1.0

This version is available in the following languages:

- ▶ German
- ▶ English
- ▶ French
- ▶ Spanish
- ▶ Italian

### New functions

#### Device's diagnostic configuration for FS operating system version 73

This version of PSS WIN-PRO contains the event messages for FS operating system version 73.

## Changes in Version 2.0.0

This version is available in the following languages:

- ▶ German
- ▶ English
- ▶ French
- ▶ Spanish
- ▶ Italian

## New functions

### Microsoft Windows 7 and Vista

PSS WIN-PRO can now also run under Windows 7 and Windows Vista.

### Cross reference list in the information window

The cross reference list is now displayed in the information window. As a result, the codes for entries in the cross reference list can be displayed consecutively, without having to call up the cross reference list again.

## Optimisations

### Diagnostics with OPC Server

The event messages are displayed correctly, even if a project contains diagnostic types with the same name. (7695)

### Outcommented PBs

PSS WIN-PRO no longer crashes if an outcommented PB is reactivated, in which 2 Byte constants (KY) are used. (7006)

### Save project as

If a project is to be saved under another name and the project contains an unsaved block, the user is asked if he wishes to save the changes to the block. PSS WIN-PRO no longer crashes if the user cancels saving the changed block. (7813)

### SafetyBUS p: SafetyBUS p configuration in online mode

Unconnected devices are now displayed in red. (6974)

### SafetyBUS p: Changing the address range

- ▶ After changing the address range, "SafetyBUS p 0" or "SafetyBUS p 1" is now displayed correctly in the PSS Configurator. (5358)
- ▶ If the address range is changed after a project has been assigned to a control system in the SBp configuration, the SafetyBUS p Configurator no longer crashes. (2042)

### SafetyBUS p: Device properties window

if the SafetyBUS p configuration was previously saved, despite errors, the device properties are now still displayed correctly. (6717)

### SafetyBUS p: Error stack display

If the error stack is to be displayed for a device that is not even connected, the error message F-25, 25 is no longer entered intermittently in the error stack. (6307)

### Installation

An installation can no longer take place if an instance of PSS WIN-PRO is running. (6779)



**Deleting segments from PBs**

PSS WIN-PRO no longer crashes when deleting segments from PBs. (3802)

**Importing blocks in ASCII format**

After importing blocks in ASCII format, the display no longer shows that blocks are missing, when they are present. (7028)

**Cross reference list**

The cross references for blocks are now displayed correctly. (6520)

**Block comparison**

When blocks are compared, "Date and Time" are now displayed correctly. (6262)

## Changes in Version 1.11.0

This version is available in the following languages:

- ▶ German
- ▶ English
- ▶ French
- ▶ Spanish
- ▶ Italian

### New functions

**Message suppression on PSSu supply voltage modules**

For each supply voltage module it is possible to configure whether the message should be suppressed if the infeed to the module's periphery supply is missing. The setting can be made separately for the error stack (error stack in PSS WIN-PRO, in the SafetyBUS p Configurator and in the PSSuniversal Startup Tool; event list, e.g. in the PVIS ActiveX Control or PMImicro diag) and ST fieldbus (diagnostic information on the ST fieldbus; status bit in the ST-PII).

PSS WIN-PRO supports this setting, which is available from Version 1.9.0 of the PSSuniversal Configurator. The setting must also be supported by the head module's firmware version.

## Changes in Version 1.10.0

This version is available in the following languages:

- ▶ German
- ▶ English

### New functions

**Online rights**

The execution of online functions (e.g. start PSS, download program) can be regulated by assigning online rights. There are two pre-defined users (administrator and guest), whose online rights cannot be modified. Users can define online rights for two additional users (user 1 and user 2). The administrator, user 1 and user 2 have to enter a password before executing online functions.

Online rights can be assigned for programmable safety systems with a version  $\geq 4.2$  (FS operating system version  $\geq 71$ ).

Detailed information on the subject of "Online rights" can be found in PSS WIN-PRO's online help.

### **Start two instances of PSS WIN-PRO**

It is possible to start two instances of PSS WIN-PRO, so that contents can be copied between two projects. The first instance provides all the functions. The second instance is limited to the offline functions. The second instance cannot communicate with a PSS.

### **Common allocation table for FS and ST project section**

Within the project you can now either work with a common allocation table for the FS and ST project section or with separate allocation tables.

### **Comparison**

When comparing blocks, the time and date on which the blocks were last saved is now also displayed.

### **Keyboard shortcuts**

The available keyboard shortcuts are now described in the online help under "Managing the software" -> Keyboard shortcuts".

## **Optimisations**

### **Cursor position when returning to a window**

When you switch between various windows in PSS WIN-PRO, the cursor no longer jumps to the first line when returning to a window, but to the last line to be edited.

### **Copy and paste**

PSS WIN-PRO no longer crashes if you copy and paste into a line containing a block call.

### **Import block in ASCII format**

After importing and renaming a block in ASCII format, the block no longer disappears from the Project Manager.

### **"<", ">", "=>" in comments**

When the characters "<", ">" and "=>" are used in comments, they are no longer changed to "&lt;", "&gt;" and "&=>".

### **Find and replace block type and block number**

It is now possible to successfully search by block type and block number, e.g. "FB002".

## **Changes in Version 1.9.1**

This version is available in the following languages:

- ▶ German
- ▶ English
- ▶ French
- ▶ Spanish
- ▶ Italian

## Changes in Version 1.9.0

### New functions

#### Diagnostic types for safety devices (FB)

Users can now create their own diagnostic types for safety devices which are controlled via function blocks, provided the function block has an SSNR and enters an error data word in DB015, DB016 or DB017.

#### New settings for the PMI m107 diag

The following additional settings can now be made in the PMImicro Configurator:

- ▶ Show delete information
- ▶ Display mode
- ▶ Max. number of entries in the event list

Prerequisite: PMI m107 diag has a firmware version  $\geq 1.4.0$

#### Show allocations

When a block (FB, OB, PB, SB) is open, the allocations of the operands used within the block can be displayed. It is now possible to display all the block's allocations or the allocations from the current segment (IL) or active network (FBD and LD).

#### New keyboard shortcuts and icons

The following functions now have keyboard shortcuts and icons on the toolbar:

- ▶ Open allocation table (Ctrl + Shift + A)
- ▶ Show cross reference list (Ctrl + Shift + C)
- ▶ Start/stop variable display (Ctrl + Alt + F11)

### Optimisations

#### Save as

- ▶ The blocks' CRC sums are no longer changed when a project is saved under a new name and/or in a new location.
- ▶ The PSS configuration is also now saved.

#### TCP/IP connection management

It is now also possible to create and change TCP/IP connections when there is no project open.

#### Save variable table in online mode

PSS WIN-PRO no longer freezes when the variable table is saved while controlling/forcing variables.

#### Show variables

Individual ASCII characters are displayed correctly in the variable table.

#### Pre-assignment of data words

If data words are pre-assigned with values during programming, these values are correctly downloaded to the PSS even if the data block contains fewer than 5 data words.

#### SBp configuration data block

If DB250 is configured as the SBp configuration data block, DB251 is now correctly set up as the PIO overrun data block.

**Show cross references**

The cross references for a timer are now shown correctly.

**Diagnostic table**

If a new project is created, the diagnostic table is now empty.

**Save block**

PSS WIN-PRO no longer freezes when saving a block.

## Changes in Version 1.8.2

### New functions

**New programmable control system**

The following PSS can be configured

- ▶ PSS 3075-3 NR

**Operate PSS without battery**

On the "Basic Settings" tab in the PSS Configurator it is possible to configure whether the PSS is to be operated with or without a battery. Operating the PSS without a battery will result in restrictions, see online help.

Prerequisite: PSS with FS operating system version  $\geq 70$

### Optimisations

**PSSuniversal systems in the SBp Configurator**

The settings for PSSuniversal systems are now displayed in the SBp Configurator (offline mode, highlight unit and select "Settings" in the "Configure" menu).

## Changes in Version 1.8.1

### New functions

**Italian**

PSS WIN-PRO now supports German, English, French, Spanish and Italian.

**Find and replace**

In the search you can now distinguish between upper and lower case characters and use regular expressions.

**New programmable control system**

The following PSS can be configured:

- ▶ PSS SB 3006-3 ETH-2 DN-S
- ▶ PSS SB2 3006-3 ETH-2 DN-S

### Optimisations

**Dynamic program display**

- ▶ Values are displayed correctly even when the block is scrolled.
- ▶ When "Dynamic program display across once segment" is started, the values are displayed for the segment containing the cursor. If this segment is not in the window's visible range, the values for the first visible segment are displayed.

### **SafetyBUS p Configurator**

- ▶ Sections A and B of the bridge are visible when a PSS SB BRIDGE is inserted into the bus structure.
- ▶ On PSS with SafetyBUS p 0 and SafetyBUS p 1, the error stack from SafetyBUS p 1 is now also displayed correctly.
- ▶ The SafetyBUS p Configurator no longer seems to freeze when SafetyBUS p contains two 2nd generation PSS. However, when there is a heavy bus load, communication between the SafetyBUS p Configurator and a 2nd generation PSS may take a little time.
- ▶ The PSS status is displayed correctly (Red = STOP, Green = RUN) when I/O-Groups are started in the SafetyBUS p Configurator.

### **Show cross references**

When searching for cross references for constants, the cross reference list now only shows the constants within the desired range.

### **Import FBs**

All imported FBs are now displayed in the Project Manager and the Program Structure.

### **Upload ST blocks**

The PG interface is no longer switched to Ethernet when ST blocks are uploaded.

### **Find and replace**

The search operation now also includes SB input and output parameters.

## **Changes in Version 1.8.0**

### **New functions**

#### **Remanent data blocks in the FS section**

PSS WIN-PRO supports the creation of remanent data blocks. In contrast to the data in the read/write DBs, data in the remanent DBs is retained when the FS user program is started. Remanent DBs can be used, for example, if the user program is to establish certain values during commissioning and, after commissioning, these values are to be used each time the PSS is started.

Requirement: PSS with FS operating system version  $\geq 65$

#### **Deactivate events in the diagnostic configuration**

Events can be excluded from the display

- ▶ for copies of a Pilz pre-defined "Safety device" diagnostic type
- ▶ for instances  $\geq [1]$
- ▶ for instance [0] of a copied diagnostic type
- ▶ for "Bit" diagnostic types
- ▶ for "Word" diagnostic types

Prerequisite: PVIS OPC Server, Version  $\geq 1.4.0$

#### **Change the SB number in the diagnostic configuration**

It is now possible to enter the number of the standard function block to which the copy of a "Safety device" diagnostic type belongs. The number is displayed in the event list at the end of the event message.

**New programmable control system**

The following PSS can be configured:

- ▶ PSS SB 3047-3 ETH-2 CANopen
- ▶ PSS SB 3075-3 ETH-2 CANopen

**Cross reference list**

It's now also possible to display cross references for constants (KY, KC, KH, KM, KF, KB).

**Save online information**

A file can be saved with online information. The online information summarises all the information required by Pilz Customer Services to help you in the event of an error.

**Help for Pilz standard function blocks**

A description can be displayed for each Pilz SB and all the operating system calls from SB254 and SB255. (Right-click on the SB in the Project Manager and select "Help with block".)

Requirement: Acrobat Reader ≥ Version 8.0 must be installed on your PC.



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