

PAC Machine Edition

Version 10.6.219

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Warnings and Caution Notes as Used in this Publication

WARNING

Warning notices are used in this publication to emphasize that hazardous voltages, currents, temperatures, or other conditions that could cause personal injury to exist in this equipment or may be associated with its use.

In situations where inattention could cause either personal injury or damage to equipment, a Warning notice is used.

CAUTION

Caution notices are used where equipment might be damaged if care is not taken.

Note: *Notes merely call attention to information that is especially significant to understanding and operating the equipment.*

These instructions do not purport to cover all details or variations in equipment, nor to provide for every possible contingency to be met during installation, operation, and maintenance. The information is supplied for informational purposes only, and Emerson makes no warranty as to the accuracy of the information included herein. Changes, modifications, and/or improvements to equipment and specifications are made periodically and these changes may or may not be reflected herein. It is understood that Emerson may make changes, modifications, or improvements to the equipment referenced herein or to the document itself at any time. This document is intended for trained personnel familiar with the Emerson products referenced herein.

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PAC Product Information

Product	Version
PAC Machine Edition A. ProPlus Development Suite B. Professional Development Suite C. Lite Development Suite D. Quick Panel CE Development Suite	10.6
View and Control	10.6

Revision History

Version	Date	Description
Version 10.6.219	Nov 2024	<ul style="list-style-type: none"> Added support for PACSystems™ Simulator, which allows users to test and validate logic for a PACSystems™ CPU without using controller hardware. Updated the Data Monitor with a feature-rich plotting tool Added support for GSDML 2.44 and 2.45 Added ability to configure UDT for Windows PC Target. Added enhancements for UDT descriptions
Version 10.5	Sept 2024	<ul style="list-style-type: none"> Added functionality to configure PACSystems™ VersaMax SafetyNet System. Multiple bug fixes.
Version 10.4.13	June 2024	Includes bug fixes related to member parameter configuration in the Process Blocks
Version 10.4	May 2024	<ul style="list-style-type: none"> Introduces the COMPUTE block, which allows users to execute multiple mathematical expressions in one instruction. COMPUTE BLOCK support is limited to LD. Improved support for GSDML 2.43 Updated EGD Management Tool (EMT) Introduces feature to indicate whether users are in Admin mode
Version 10.2. 9762	Sept 2023	Updated to address installation issues from previous versions. Resolved further issues from v10.2.
Version 10.2	June 2023	Updated to reflect the changes in PME v10.2 and View and Control v10.2.
Version 10.1.9647	Apr 2023	Updated for the release of PME v10.1.9647 and View and Control 10.1.9647. Resolved further problems from v10.1.
Version 10.1	Feb 2023	Updated for the release of PME v10.1, PPS v10.1, PCM v10.1, and View and Control v10.1.
Version 10.0	May 2022	Update to documentation to clarify CPE3XX support.
Version 10.0	Apr 2022	Initial Release

Release Notes

This release adds support for **PACSystems™ Simulator**, which allows PME users to test & validate logic for a PACSystems™ CPU without using controller hardware.

- The PACSystems™ Simulator software will automatically be installed if the *Logic Developer – PLC* feature is enabled when installing PME 10.6.
- If you previously installed a Beta Release of the PACSystems™ Simulator (e.g. using “PAC Simulator Setup 1.0.33_Beta.exe” or any other pre-release installer) please **completely uninstall that Beta** before installing PME 10.6 on that same system.
- Using the PACSystems Simulator from PME requires a PME Professional or ProPlus license.

The following Hardware Configuration Catalog Items have been incremented to the following version:

- IC695PNC001-Bxx: Version 6
- IC695PNC001: Version 7
- IC695CPE330: Version 16

Restrictions and Open Issues

Subject	ID Code	Description
Compute Block	DE12331	When replacing a block with the COMPUTE block in “Test-Edit” mode, the logic around the newly placed COMPUTE block may need to be modified to ensure the power flow through the rung remains intact.
Uploading From Previous Version	DE12450	When uploading a 10.2 (or PPS 10.3) project from a controller to PME 10.6 the project version will be set to 10.4 in the project settings. This has no impact on equality or functionality outside of what project version the uploaded project is saved as. The user is able to change the project version to 10.2 manually.
HWC Smart Build	DE9761	<p>The Smart Build option for hardware configuration (HWC Smart Build) in is not working correctly under some scenarios. It is recommended to keep this option disabled.</p> <p>In some instances when enabled, memory addresses mapped to input/output of an added module are not updating. Only after selecting the Clean Build Folders button and then re-downloading do the values come through.</p> <p>The reference addresses parameterized for the input/output data of a new module do not update after downloading to the controller. The user must disable this option or select to clean build folders before re-downloading to the controller. Then the user can see the values in those reference addresses change accordingly. This has been reproduced with DI/DO/AI modules both on local racks and remote racks (PROFINET).</p>

PAC Machine Edition

Functional Compatibility

Subject	Description
CPE200 Series compatibility	CPE200 Series modules require PME 10.x. They cannot be used with PME 9.8 or lower.
Module Type Package (MTP) Object support	MTP requires PME 10.x. It cannot be used with PME 9.8 and lower.
Non-Supported Operating Systems	<ul style="list-style-type: none"> • Microsoft® Windows® XP • Microsoft® Windows® Server 2003 • Microsoft® Windows® Server 2008 • Microsoft® Windows® 7 • Microsoft® Windows® 8
Supported Operating Systems	<ul style="list-style-type: none"> • Microsoft® Windows® 10 (22H2) • Microsoft® Windows® 10 IoT Enterprise (21H2) • Microsoft® Windows® 11 (22H2) • Microsoft® Windows® Server 2016 (1607)¹ • Microsoft® Windows® Server 2019 (1809) • Microsoft® Windows® Server 2022 (21H2)
Supported Virtual Machines	<ul style="list-style-type: none"> • VMWare Workstation (type 2) • VMWare ESXi (type 1)
Supported Anti-Virus Systems	<ul style="list-style-type: none"> • Norton Deluxe • McAfee Plus • Bitdefender Total Security • Trend Micro Maximum • CrowdStrike • Windows Defender

¹ PAC Machine Edition is supported on Microsoft® Windows® Server 2016, but PACSystems Simulator is not.

Problems Resolved by this Release

PAC Machine Edition 10.6 fixes the following defects:

Resolved Problem	Defect Code	Resolution
Major Code 67: PME v10.1 crashes after long period of time connected to a PLC with error message 'Unknown controller type - Major Code = 67'	DE9859 DE9906 DE10004 DE11190 DE12027 DE12219	<p>Fixed the memory leak that happened when PME/PPS users select "Target" from the ribbon bar and kept it open.</p> <p>Versions earlier than 10.6.x will be affected by this condition. The user will experience the memory leak when the Target Ribbon Bar is selected and left open. It typically takes several hours for the leak to affect the software and can manifest in a few ways:</p> <ul style="list-style-type: none"> • Major Code 67 error • Software crashes • Software lockup <p>Action Recommended: Upgrade to version 10.6.x or later when possible. If you cannot upgrade, avoid or minimize time on the "Target" ribbon bar, or use the "Minimize the Ribbon" feature on the ribbon bar. Always maintain current backups of your projects.</p>
Array indexes with array indexes wont compile	DE8173	The 0th element of an array was incorrectly marked as the array head in the compiler (ex: Array1[Array2[0]]). PME now correctly differentiates between the 0th element of the second array and the first array's array head.
PROFINET Reference Variables CPE400	DE10046	PME normally couples the HWC and Logic when using PNIO_DEV_COMM in logic. However, when the reference address is to a embedded PNC, PME was not coupling the HWC and Logic which causes the reference address to read an invalid value. This has been corrected in the 10.6 release.
Variable count continues to increase after each upload	DE10133 DE10118	Addressed memory mismanagement causing variable count to increase when variable list is initialized
PME Exported Variable List Chinese/Slovenian Characters Display Abnormal in Excel	DE10688 DE11893	Adjusted the way PME handles strings used for Variable Descriptions to ensure when descriptions are written to a CSV file the characters are consistent.
UDT String variables not populating initial values correctly	DE11070	String variables with odd lengths in non-discrete memory caused inconsistencies in equality. This has been resolved so that when the user sets the project version as the same as the project version that was downloaded to the controller, equality will be maintained.
PME v9.8 project corruption after modification with PME v10.2	DE11145	Projects saved as PME 9.8 are able to be opened in the latest SIM and modified without PME 9.8 crashing.
Verify Equality Cuts Result List Off Above 251 Lines	DE11166	The number of lines allowed in a tab by default has been increased from 250 to 2000.
Show Values Online for ST Blocks is being applied to commented out sections	DE11171	PME now identifies the symbol for comments in the ST editor and refrains from displaying online values for the commented out variables.

Resolved Problem	Defect Code	Resolution
PME Help and GFK-2571V PNIO DevComm Text and Example Need to be Fixed	DE11875	Updated PME help and documentation to properly describe the ENO output in the FBD version of PNIO_DEV_COMM.
Address Overlap when converting from variable mode to standard addressing	DE12066	PME now automatically assigns a new status address to PNC's that are newly enabled to ensure there is no overlap.
PNC fails to request Siemens PNS Device by name using DCP	DE12092	Adjusted the PROFINET binary generation to correctly allocate the proper size for subslots on certain PNS device GSDMLs that were being generated with an incorrect number of subslots.
PME 10.5 Error 9663 when validating old project	DE12168	Fixed Error 9563 being thrown when ladder logic includes 3 horizontal branching wire paths on the same rung.
ME 10.5 fails to validate 90-70 project	DE12169 DE12170 DE12202 DE12258 DE12342 DE12311	Adjusted the way we open projects to differentiate the project version we are loading versus the project version targeted by PME. (The targeted version is defined by the Machine Edition option in Machine Edition/Preferences/Default Project Version).
EGD Exchange Name Missing on Upload	DE12187	In legacy controllers, EGD names are not downloaded. When uploading EGD from a legacy controller we now name the consumed and produced variables "ConsExchxx" and "ProdExchxx" accordingly (where the xx is a number incremented for every new exchange uploaded).
Logic Equality Lost from 9.8SIM12 to 10.5 With Correctly Defined Project Version	DE12197	When opening a project in a previous version, we check to see if PROFINET device binaries are the same as the "GOLD" version of that PME release. If not, we redo the validation of the PROFINET LAN to see if the binaries are the same as the latest SIM. If the second run finds the Config is EQ, then equality is never lost.
Install Issue - Variable Search in Active Target not displaying results	DE12220	Fixed issue where PME was unable to detect certain tab IDs.
Call (drag and drop) for parameterized or UDFBs fails	DE12221	Fixed PME being unable to drag/drop from the toolchest.
PME crash while project close	DE12324	When PME removes PROFINET devices on project close, we ensure that the device catalog is checked to see if the device has already been removed.
Getting Error code 9681 on a CPL410	DE12390	When upgrading a project to the latest version of PME, the CPL410 will by default have the 'Generate Nodeset' field set to 'Disabled'
Unhandled Exception when adding PROFINET Devices to a Disabled PNC	DE12395	When adding PROFINET devices to the disabled PNC on a controller, the user no longer sees the 'Unhandled Exception' pop-up.
Unable to drag/drop Coil/NCoil from Toolchest	DE12420	PME allows users to drag/drop all appropriate objects from the toolchest given the context (if the object is allowed on the specific target etc...)

Resolved Problem	Defect Code	Resolution
UDT variables names Changing after download	DE12171	In some cases, when users uploaded their project from a controller the case of variable names would change for UDTs. Now, case sensitivity is maintained through uploads.

New Features

PAC Machine Edition 10.6 adds the following new features:

New Features	Description
PACSystems™ Simulator	<p>Allows users to test & validate logic for a PACSystems™ CPU without using controller hardware.</p> <p>The following models are supported:</p> <ul style="list-style-type: none"> • RX3i IC695CPE302 / CPE305 / CPE310 / CPE330 • RX3i Rackless IC695CPE400 / CPL410 • RSTi-EP EPXCPE205 / CPE210 / CPE215 / CPE220 / CPE240 <p>In addition to the built-in blocks provided by each PACSystems™ CPU, the following libraries installed with PME 10.6 are supported:</p> <ul style="list-style-type: none"> • PAC Productivity Suite logic blocks (logic execution only) • MTP Objects (logic execution only)²
Updated Data Monitor	<p>Updated the Data Monitor to include additional features:</p> <ul style="list-style-type: none"> • Replaced the current Data Monitor with a feature-rich plotting tool • Added the ability to plot 16 variables for 12 hours • Can change the color, style, visibility, and size of plotted lines • Can add multiple Y-Axes and assign variables to the different axes • Chart configurations can be saved to a file and loaded from a file
UDT Description Enhancement	<p>The following changes have been made to the description field for UDT elements:</p> <ul style="list-style-type: none"> • When the user updates the description of a UDT, they are now prompted if they would like to update all existing instances of the UDT with the new description, instead of updating each UDT one by one. • A new option has been added to the Editors/General/Preferences page titled “Prefix Element Descriptions.” This option will prefix the description of a UDT element with the description of the parent element.

² Using MTP objects requires a PME ProPlus license.

View and Control

Functional Compatibility

Subject	Description
Non-Supported Operating Systems	<ul style="list-style-type: none"> • Microsoft® Windows® XP • Microsoft® Windows® Server 2003 • Microsoft® Windows® Server 2008 • Microsoft® Windows® 7 • Microsoft® Windows® 8
Supported Operating Systems	<ul style="list-style-type: none"> • Microsoft® Windows® 10 (22H2) • Microsoft® Windows® 10 IoT Enterprise (21H2) • Microsoft® Windows® 11 (22H2) • Microsoft® Windows® Server 2016 (1607) • Microsoft® Windows® Server 2019 (1809) • Microsoft® Windows® Server 2022 (21H2)
Java installation for WebView	<p>The default installation of Java has been removed from PME. To use WebView, users need to manually install Java from the below path.</p> <p>Go to PME installation location , go to the path \fxView\WebTemplates\JavaPlugin and install "jre-6u30-windows-i586-s.exe" or download this specific version from internet and install.</p>
WebView support on View and Control	<p>WebView will continue to be supported until IE 10.0, To make it work on Microsoft Edge, you can change the browser settings to open in Internet Explorer mode, as there are restrictions in the Java version that supports Webview in PME.</p>

Problems Resolved by this Release

PAC View and Control 10.6 fixed the following defects:

Resolved Problem	Defect Code	Resolution
QP communication issue when downloading from 10.2	DE12024	The QP and QP View and Control runtime communication issue have been resolved.
Incorrect time on Alarm Display Tool	DE12111	Alarm tool time is updated based on time zone adjustments in View Runtime.
Interactive Tools "Combo" and "List" are showing unreadable bright yellow color and not readable while others are showing red.	DE12164	The warning's default color code has been modified from "Bright Yellow" to "Golden Yellow" to make it readable.
The "Help" button just opens an Edge Browser and doesn't open any help pages in PME 10.4.13 Animation Properties page of QP+ graphics screen.	DE12248	Shell execution has been corrected to open help pages in the PME help window.

New Features

PAC View and Control 10.6 makes various improvements on the following:

New Features	Description
Support for User-defined Data Types (UDTs) in Windows PC Target	Added ability to configure UDT for Windows PC Target. A UDT is a User-defined Data Type. After defining a UDT, you can create variables of that data type and use them in HMI application.

Dropped Features

PAC View and Control 10.6 dropped the following:

Dropped Features	Description
N/A	N/A

Related Documents

For additional information about PAC Machine Edition and PAC Products, refer to the following publications:

<i>PAC Change Management for Machine Edition – Getting Started</i>	GFK-1779
<i>PAC Machine Edition – View and PC Control – Getting Started Guide</i>	GFK-1868
<i>PAC Machine Edition - Logic Developer – PLC – Getting Started Guide</i>	GFK-1918
<i>Entitlement and License Manager User Manual</i>	GFK-3104
<i>Emerson Legacy Licensing Guide</i>	GFK-3107
<i>PAC Productivity Suite Configuration Guide</i>	GFK-3134
<i>PAC Productivity Suite Installation, Operation, and Maintenance Manual</i>	GFK-3136
<i>PAC Productivity Suite Application Setup and Configuration Guide</i>	GFK-3137
<i>PAC Change Management IPI</i>	GFK-3258
<i>PAC System Requirements</i>	GFK-3245
<i>PAC License Server Administrator User Manual</i>	GFK-3247
<i>PAC Productivity Suite IPI</i>	GFK-3259
<i>PACSystems Simulator IPI</i>	GFK-3300

Additional Support




For support and information, visit Emerson's support link located at the end of this document. The files for this manual and other related documentation are available there. Additional region- and language-specific websites and telephone numbers are found there as well.

Contact Information and Support

Questions? We are here to help.

Before starting a case or making a call, try searching our Knowledge Base on the Customer Center website—it might have the answer you need right away.

If you have a question, try the following:

Search our Knowledge Base	Open a Support Ticket	Register for a Customer Account
 pacsystems.co/knowledge	 pacsystems.co/support	 pacsystems.co/signup

Other Helpful Links

Customer Center Home Page	Commercial Website	Contact Information
 pacsystems.co/customercenter	 pacsystems.co/commercial	 pacsystems.co/contactus

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