PcVue 12 Release Notes

Last update :	27/04/2021
Revision :	1.0
Content :	This document contains information about changes in PcVue 12 Maintenance Releases. It includes information from version 12.0.8 to version 12.0.22.

PcVue *Solutions*

Content

1. Version 12.0.22 (12.0.22900)

1. Fixes

DBImport - Log suffix not correctly managed (SPR #68868, 68864, 68744) When using the DBImport for importing logged events, the Log suffix was not correctly managed, leading to incorrect import.	**Add-ons and Tools** Also in: 15.0.2
Fatal error with OPC Server interface (SPR #68813) Under some circumstances, a fatal error could occur when using the OPC Server interface, due to some resources not being released properly.	**Communication interfaces > OPC Server** Also in: 11.2.06099
Memory leak with array of strings (SPR #68954) A memory leak occurred when variables were mapped to an OPC DA item of type array of strings. The amount of leake memory depended on the size of the array.	**Data Acquisition > OPC Client**
Alarm timestamps not saved (SPR #69032) When an alarm was configured with the *Saved* property enabled, not all of its timestamps (*AlaOn, AlaAck, AlaOff*) were stored. Only the timestamp of its last state was recorded. These timestamps can be used in the Alarm viewer.	**General**
Unable to close mimics (SPR #69069) Under circumstances, it was not possible to close mimics when the *Cache* property was enabled.	**HMI**
Empty Alarm and Log viewers (SPR #68670) Alarm and Log viewers displayed in a mimic in TouchVue remained empty even when there were alarms and/or events to display. Displaying the same mimic in WebVue worked properly.	**TouchVue** Also in: 15.0.0

2. Enhancements

Instruction EMAIL - Support for UNC path for attached files (SPR #68852) When using the EMAIL instruction, it is now possible to reference attachment files by using UNC path (e.g. \\hostname\folder\file.txt).	**Scripting > SCADA Basic** Also in: 11.2.06099
Filtering HDS log list with Sql-like syntax (SPR #68855, 68823) It is now possible to use Sql-like syntax when filtering Log lists for a Log viewer with the SCADA Basic instruction *LOGDISPLAY* mode *FILTER*.	**Web Server Extensions > WebVue**

3. Other fixes & enhancements

2. Version 12.0.21 (12.0.21901)

1. Fixes

Timestamp type for IEC 104 Sectors (SPR #68569) It was not possible to configure the Timestamp type (UTC or Local) for IEC 104 Sectors modeled with the Application Architect.	**Configuration Environments > Application Architect** Also in: 15.0.2
Memory leak on modification of text extended attributes (SPR #68634) A memory leak occurred when writing text extended text attributes of a variable.	**General** Also in: 15.0.2
Virtual keypad for user animations (SPR #68669) The virtual keypad could not be used with some user animations (user name, signature ...).	**HMI > Animations** Also in: 15.0.2
Fatal error on web session opening (SPR #68602) A fatal error of the Web back end could occur when opening a web session if an alarm synthesis was defined and the corresponding variable was missing in the configuration.	**Web Server Extensions** Also in: 15.0.2
Trends not displayed (SPR #68698, 67972) Trends were not displayed when the style of invalid points was set to *Invisible*.	**Web Server Extensions > WebVue** Also in: 15.0.2
Incorrect text encoding (SPR #67999, 61478) Some cultures relying on non-latin characters were not correctly managed by the WebScheduler, leading to incorrect text display.	**WebScheduler** Also in: 15.0.2
Setting FirstDayOfWeek not taken into account (SPR #68462) The setting *FirstDayOfWeek* defined in the *web.config* file was not correctly taken into account. Starting from version 15, this setting can be set with the Web Deployment Console when deploying the WebScheduler.	**WebScheduler** Also in: 15.0.2

2. Enhancements

New BITMASK expression (SPR #68570) It is now possible to use the custom field BITMASK(x) in the advanced properties of OPC variables. The variable value is then the result of the logical bit AND operation between the OPC item value and the mask.	**Data Acquisition > OPC Client** Also in: 15.0.2

3. Security

Password displayed with virtual keypad (SPR #68668)

HMI
Also in: 15.0.2

When unlocking a user with the virtual keypad, the password was displayed in the input dialog instead of '*' characters.

3. Version 12.0.20 (12.0.20900)

1. Fixes

Masked alarm reappearing after passive server restart (SPR #68378) Under some circumstances, saved alarms were incorrectly reloaded when a passive server was restarting. Specifically, their saved *Masked* status could be corrupted and trigger reappearance or disappearance of such alarms upon a restart.	**Alarms** Also in: 15.0.1
OPC-XML server not correctly created (SPR #68568, 68486) OPC-XML servers were not correctly created if modeled with the Application Architect. The Url property was missing.	**Configuration Environments > Application Architect** Also in: 15.0.2
SG-OPC - Incorrect server after synchronization (SPR #68454) Under some circumstances, an incorrect server was set after an import synchronization. The issue occurred when multiples servers were configured and the selected server was different from the first one.	**Configuration Environments > Smart Generators** Also in: 15.0.1
Fatal error on passive server (SPR #68426) A fatal error could occur when stopping a passive server due to pending reports not deleted correctly.	**Data Acquisition > IEC 61850 Client** Also in: 15.0.1
Report groups disabled (SPR #68460) Under some circumstances, a report group was disabled after receiving a report that had the buffer overflow flag set.	**Data Acquisition > IEC 61850 Client** Also in: 15.0.1
Fatal error when writing an SNMP variable (SPR #68479) Under some circumstances, a fatal error could occur when writing an SNMP variable.	**Data Acquisition > SNMP Manager** Also in: 15.0.1
Memory leak on errors (SPR #68511) Under some circumstances, a memory leak could occur when facing connectivity issues with devices refreshed by polling. Some polled read requests were not correctly freed after errors.	**Data Acquisition > SNMP Manager** Also in: 15.0.1
HDS fatal error upon shutdown (SPR #68338) Under some circumstances, a fatal error of the HDS could occur upon project shutdown.	**General**
AD user login failure (SPR #68106) Active Directory users could not login after a restart of the computer and until it had reached the Domain controller at least once. From now on, group SIDs are managed in addition to user names and their associated groups.	**General > User management** Also in: 15.0.0

Fatal error upon HDS shutdown (SPR #66900)	**Historical data** Also in: 15.0.0, 11.2.06095
A fatal error could occur during shutdown when the HDS tried to record the exit invalid trend points. It only occurred when one of the trend had no previous record available in the database.	
HDS not stopping (SPR #68314)	**Historical data** Also in: 15.0.1
Under some circumstances, the HDS was not correctly stopped at project exit. The issue occurred after having added a new trend associated to a long update rate, and the project exit being triggered before the end of the first update period of the new trend.	
Fatal error when closing a mimic (SPR #67571)	**HMI** Also in: 15.0.0, 11.2.06094
Under some circumstances, a fatal could occur when closing a mimic. The issue occurred when trying to close a mimic while it is already being closed. For example, it could happen when mimic closure required the execution of a with VBA or SCADA Basic script taking some time to execute.	
Incorrect cursor value (SPR #68428)	**HMI > Trend viewer** Also in: 15.0.0
The cursor value displayed in the Trend viewer was incorrect for curves whose rank was over 8.	
Initial value of new variables not loaded (SPR #68578)	**Networking** Also in: 15.0.1
When updating a project version on a passive server, newly created variables (in this project version) were not correctly initialized with their initial value after a server switchover.	
Multiple active servers in a single active server association (SPR #68379)	**Networking** Also in: 15.0.1
In a single active server historical association, multiple servers could be active simultaneously when started at the same time or after a network failure.	
BeforeClose script not triggered (SPR #68418)	**Scripting > SCADA Basic** Also in: 15.0.0
The SCADA Basic function called upon closing a mimic was not correctly triggered when the mimic was closed via SCADA Basic. This fix applies to PcVue desktop only.	
Instruction FOPEN - Fatal error with unknown access mode (SPR #68097)	**Scripting > SCADA Basic** Also in: 15.0.1
A fatal error could occur when using the instruction FOPEN with an unexpected access mode argument.	
Instruction SVLOG - Last line missing in buffer (SPR #68234)	**Scripting > SCADA Basic** Also in: 15.0.0, 11.2.06097
When exporting data with the SCADA Basic instruction *SVLOG*, the last line was missing in the exported buffer.	
SVLOG function mode EXTRACT - Lines enclosed with double-quote (SPR #68234, 66631)	**Scripting > SCADA Basic** Also in: 15.0.0, 11.2.06091
Since version 11.2.06066, every lines returned by the instruction SVLOG mode EXTRACT were enclosed with double-quotes. This could cause compatibility issues with 3rd party software or scripts used to parse the exported files.	

Instruction WINDOW mode CLOSEALL - Mimics close failed (SPR #68639) The SCADA Basic instruction WINDOW mode CLOSEALL was not working properly in a web context. Some mimics could fail to close and remained open.	**Web Server Extensions > WebVue** Also in: 15.0.1
Trend viewer average value updated in historical mode (SPR #67633) In the Trend viewer legend, the average value of a paused/historical trend was incorrectly updated based on real-time values.	**Web Server Extensions > WebVue** Also in: 15.0.0
Access to previous user session (SPR #66317) Under some circumstances, a session reuse could occur.	**WebScheduler** Also in: 15.0.0

2. Critical fixes

Loss of variables (SPR #68541, 66899) Under some circumstances, session context and client context variables were lost when a Web user logged in. The issue only occurred if the compatibility setting *Auto-number internal identifiers* was disabled.	**Web Server Extensions > WebVue** Also in: 15.0.0

3. Enhancements

New interop property (SPR #68568, 68486) A new interop property is available for OPC-XML servers. It enables adding the http basic authentication header to all requests and is designed for OPC-XML servers that do not send the HTTP 401 error if the header is required.	**Data Acquisition > OPC Client** Also in: 15.0.2
Writing the same value (SPR #68416) Until this change, writing the same value to an internal variable was not triggering notifications in components such as the *SV Manager Toolkit* even if the global variable setting *Send write request even if the value to write is the same as the current value* was enabled. In such circumstances, it is now possible to send multiple times the same value and be notified accordingly, which is required by some on add-ons such as the KNX driver. It was working properly with I/O variables.	**Real time data** Also in: 15.0.0

4. Installation

Availability of the KNX add-on (SPR #68513) The KNX add-on, available since version 11.2, was not shipped with the installation package and had to be downloaded from the Technical Ressources web site. It is now part of the installation package.	**Data Acquisition > KNX** Also in: 15.0.0

Support for Microsoft SQL Server 2019	**Historical data**
Update of the readme file and the online help to reflect support for SQL Server 2019 which is effective since Maintenance Release 12.0.14.	Also in: 15.0.0

Timestamping server for Authenticode signature	**Installation**
Change of the timestamping server used for Authenticode signature of installation packages and binary files.	Also in: 15.0.0, 11.2.06098

The trust chain of the new timestamping server is attached to the following root certificate:

- Friendly name: DigiCert
- Serial number: 0ce7e0e517d846fe8fe560fc1bf03039
- Common name: DigiCert Assured ID Root CA
- Valid from : Friday, November 10, 2006 1:00:00 AM
- Valid to : Monday, November 10, 2031 1:00:00 AM

Make sure this certificate is in the list of trusted certificates.

5.   Security

Secret storage (SPR #68391)	**Data Acquisition > IEC 61850 Client**
The storage of the Authentication password for IEC 61850 devices is now protected and can include quotes.	Also in: 15.0.0

6.   Other fixes & enhancements

SPR #68450	Also in: 15.0.1
SPR #68498	Also in: 15.0.0
SPR #68268	Also in: 15.0.0, 11.2.06097

4. Version 12.0.19 (12.0.19900)

1. Fixes

Ethernet/IP Add-on - Handling of large arrays (SPR #68352) The Ethernet/IP add-on did not handle large arrays of DWord correctly. If the array was larger than 50 items, variables were always set to status NS (invalid).	**Add-ons and Tools** Also in: 15.0.0
Mimic design screen resolution no longer forced to 1440*900 (SPR #66529) Mimic generated with the Application Architect were always configured with the resolution 1440*900 for the property *Design screen resolution*. They are now using the active resolution at the time of the generation.	**Configuration Environments > Application Architect** Also in: 15.0.0
Fatal error when configuring a license renter station (SPR #67689, 67090) A fatal error of the Application Explorer occurred when modifying the configuration of a station to make it a license renter. The issue occurred if no license owner station was configured, or if the owner station had been previously deleted.	**Configuration Environments > Application Explorer** Also in: 15.0.0
Unable to start BRCB on a newly active server after switchover (SPR #68309) In a configuration containing several IEC 61850 networks managed by the same server association, the server switchover was not correctly processed for all produced networks. Some networks remained active on the passive server, meaning that URCB/BRCB were not stopped, and thus forbade the newly active server to start them.	**Data Acquisition > IEC 61850 Client** Also in: 15.0.0
Incorrect quality if range dependent on other variables (SPR #67969) Under some circumstance, the quality of register variables could be incorrect. The issue only occurred with OPC variables, when the variable range was defined by dependency to other variables.	**Data Acquisition > OPC Client** Also in: 15.0.0
OPC-XML - Data types handling caused a fatal error (SPR #67622) Under some circumstances, a fatal error could occur when processing data received from an OPC-XML server. The issue only occurred for data of type *long*, *uint*, *ushort*, *ulong*, if they were not already converted on the OPC server side.	**Data Acquisition > OPC Client** Also in: 15.0.0
OPC-XML - Fatal error with a disconnected server (SPR #65755) A fatal error occurred when a *GetStatus()* request was sent to a disconnected server.	**Data Acquisition > OPC Client** Also in: 15.0.0
Fatal error on exit (SPR #66105) A fatal error occurred upon exit when using frames of type Info or Command not set to the maximum size.	**Data Acquisition > Other built-in drivers** Also in: 15.0.0, 11.2.06088

Host name resolved even when communication not started (SPR #66228) Resolution of the hostname of an SNMP device was executed even when the device was not started. Hostname resolution is now executed only when data acquisition is started for the device.	**Data Acquisition > SNMP Manager** Also in: 15.0.0, 11.2.06084
Fatal error with .ico file in B directory (SPR #67904) A fatal error could occur when opening the Image selector on a library containing a .ico file. It was due to an improper handling of the thumbnails for this type of files.	**HMI** Also in: 15.0.0
Incorrect display if Print format includes tabs (SPR #67841) Alarm viewer columns were incorrectly filled when the *Print format* was empty or set with tabulation characters.	**HMI > Alarm viewer** Also in: 15.0.0
Virtual keypad - Validate text input with key Enter (SPR #66378, 65503) Text input could not be validated by pressing the hardware keyboard key *Enter* (if any). The input could only be validated with the *OK* button of the Virtual keypad.	**HMI > Animations** Also in: 15.0.0
Blinking effect (SPR #65506) Fix of a blinking effect on the map control when a marker position was updated.	**HMI > Map control** Also in: 15.0.0
Fatal error on text color modification (SPR #67988) A fatal error could occur when editing the text color of a Text marker.	**HMI > Map control** Also in: 15.0.0
Textbox control not initialized with variable content (SPR #67452) The Textbox control was not correctly initialized with the value of a variable when used in a mimic with a branch.	**HMI > Textbox control** Also in: 15.0.0
Trends not displayed correctly on large screens (SPR #68081) Curves were not rendered properly if the Trend Viewer was larger than 3200 pixels.	**HMI > Trend viewer** Also in: 15.0.0, 11.2.06095
OPC watchdog treatment not fully executed (SPR #66922) Under some circumstances, watchdog treatment on OPC variables was not working properly and only part of the variables were set to NS WD on watchdog failure.	**Real time data** Also in: 15.0.0, 11.2.06091
Instruction EXPORT_LOG mode GETSTATISTIC - Sort order argument ignored (SPR #68221, 68211) The argument *StatSortOrder* was not correctly taken into account when using the instruction *EXPORT_LOG* mode *GETSTATISTIC*. No error was returned when passing an inappropriate value, and with a correct value, it was not taken into account and sorting was not effective.	**Scripting > SCADA Basic** Also in: 15.0.0
Instruction VARIABLE, mode ASSOCIATEDLABEL - Incorrect return value (SPR #67675) The label name was returned instead of the label current value when the instruction VARIABLE mode ASSOCIATEDLABEL was called for a variable of type Bit.	**Scripting > SCADA Basic** Also in: 15.0.0

Fatal error on the Web back end (SPR #67721)	**Web Server Extensions**
Under some circumstances, a fatal error could occur on a Web back end server, due a trace message with an incorrect format. The issue could only occur when the *Mimic Details* trace level was activated in the Web back end configuration.	
Alarm viewer sorting not working with checkbox selection (SPR #68143)	**Web Server Extensions > WebVue**
In WebVue, sorting was incorrectly done on the adjacent column when the *Line selection mode* was set to *By checkbox*.	Also in: 15.0.0
Tooltip displayed for hidden buttons (SPR #68024, 67993)	**Web Server Extensions > WebVue**
The tooltip was displayed on graphic objects, even if it was hidden due to a Visibility animation.	Also in: 15.0.0
Web client no longer refreshed (SPR #68066, 67305)	**Web Server Extensions > WebVue**
Under some circumstances, when using popup mimics, WebVue was no longer refreshed and was disconnected after a while.	Also in: 15.0.0

2. Enhancements

OPC-XML - Support for Http Basic Authentication (SPR #67279, 67278, 65932)	**Data Acquisition > OPC Client**
The OPC-XML driver now supports Http Basic Authentication.	Also in: 15.0.0
Driver XBUS-IP-MASTER - Handling of connection termination (SPR #66310)	**Data Acquisition > Other built-in drivers**
In order to improve interop with some devices, it is now possible to select if a connection shall be terminated using the TCP RST_ACK or FIN_ACK flag.	Also in: 15.0.0, 11.2.06085

3. Other fixes & enhancements

SPR #65348, 68261	Also in: 15.0.0

5. Version 12.0.18 (12.0.18900)

1. Fixes

Event OnSelectionChanged improperly triggered in Combo-box (SPR #68123) The event *OnSelectionChanged* was improperly triggered in the Combo-box control when navigating in the dropdown list using the keypad. It is now only triggered upon validation of the new item selection.	**HMI > Form controls** Also in: 15.0.0
Animation not triggered (SPR #67697) When a symbol was part of a group, its animations were not correctly triggered on mouse-click.	**Web Server Extensions > WebVue** Also in: 15.0.0
Hidden control zone (SPR #68024) Control zone highlight was not properly hidden when the control zone itself was hidden because it belonged to a hidden group or symbol.	**Web Server Extensions > WebVue**
Trend viewer toggle button show/hide (SPR #67701) The toggle button to show/hide curves (in the legend) was not working properly when trends were dynamically set via SCADA Basic instruction *TREND* mode *SETVAR*.	**Web Server Extensions > WebVue** Also in: 15.0.0

2. Enhancements

Replication Manager - Purging previous steps before a new replication (SPR #65618) When an earlier replication failed to complete, remaining steps were still pending and stored in a dedicated table so that they can be processed later on. This feature had side effects in case one did not want the pending steps to be executed. It is now possible to purge this table of pending steps before executing a new replication, by using the Database Manager tool or by using the /P command line argument: • /P=1 to purge the table, • /P=0 to keep previous steps (default).	**Add-ons and Tools** Also in: 15.0.0, 11.2.06093, 11.1.06120

6. Version 12.0.17 (12.0.17900)

1. Fixes

Fatal error at startup (SPR #68005) Under some circumstances, a fatal error could occur at network startup on projects with a large number of BACnet devices among which some are disconnected.	**Data Acquisition > BACnet Client** Also in: 15.0.0

Impossible to restore communication despite time-out errors (SPR #67881)
 	
Under some circumstances, the communication with some TCP/IP devices could not be restored despite multiple time-out errors. The issue was due to the PLC not responding to requests while the underlying socket was still in an Ok state.
From now on, after a period of 180 sec in time-out error, it is possible to force a close of the socket, which is then re-opened at the next retry.
 	
To activate this behavior, the following keys must be added in the file C\EqtConf.ini:
 	
`[TCPIP]`
`EnableCloseOnConsecutiveTimeOut = 1`
`MaxConsecutiveTimeOutInSec = 180`
	Data Acquisition > Other built-in drivers
	Also in: 15.0.0, 11.2.06097

Web component not correctly deployed on older operating systems (SPR #67994) The Web components were not correctly deployed by the WDC on operating systems using IIS 7.5 or lower, which include Windows 7, Windows Server 2008 and Windows Server 2008 R2. This was due to the use of the *applicationInitialization* element in the IIS configuration (only supported from IIS 8.0 onward).	**Deployment tools > Web Deployment Console** Also in: 15.0.0
Function Keys configuration lost (SPR #68051) Since version 12.0.16, *Functions Keys* configuration was lost after restarting a project.	**General**
Associated actions and context mimic not accessible (SPR #67797) Under some circumstances, associated actions and context mimic were not accessible from a log or alarm viewer. The issue only occurred when the mimic was opened via a SCADA Basic script executed at startup.	**HMI** Also in: 15.0.0, 11.2.06094
Fatal error on symbol edition (SPR #67832) Under some circumstances, a fatal error could occur when modifying symbol sub-objects via the Graphic Explorer.	**HMI** Also in: 15.0.0
Opening a mimic containing the Grid Control (SPR #67930) When using the Grid Control with the Variable Tracking mode activated, the height of each row was unnecessarily stored in the mimic (or symbol) file. It was leading to an unusual long time to open the mimic, and could lead to a fatal error in some cases (due to timeout errors).	**HMI > Grid control** Also in: 15.0.0, 11.2.06095

VBA event KeyPressed not triggered (SPR #68045) The VBA event *KeyPressed* of the Grid Control was not triggered when pressing an arrow key if the key was associated to a *Function Key* action.	**HMI > Grid control** Also in: 15.0.0
Trends not displayed upon request to the archives (SPR #66731) Under some circumstances, trends could disappear and no longer be displayed when requesting historical data. The issue occurred when a real time value (for one of the displayed variables) was received while processing the historical data.	**HMI > Trend viewer** Also in: 15.0.0, 11.2.06095
Instruction KEY mode ADDPROG and ADDPROGS - Failure with key code greater than 26 The SCADA Basic instruction *KEY* with modes *ADDPROG* and *ADDPROGS* failed when the key code was greater than 26.	**Scripting > SCADA Basic** Also in: 15.0.0
Memory leak when changing a threshold on a passive server (SPR #68034) Under some circumstances, a memory leak could occur when executing the instruction *VARIABLE* mode *THRESHOLD_SETVALUE* on a passive server.	**Scripting > SCADA Basic** Also in: 15.0.0, 11.2.06095
Could not filter alarms with level 0 only (SPR #67821) It was not possible to filter real time alarms with level 0 only (*minLevel=0* and *maxLevel=0*). With such requests, the *maxLevel* parameter was automatically set to 29. This issue only affected web components with alarm filtering capabilities (WebVue, Web Services Toolkit and TouchVue).	**Web Server Extensions** Also in: 15.0.0
Fatal error on browse request by a web client (SPR #67983) Under some circumstances, a fatal error could occur when the configuration of a variable was modified while a browse request was being processed for a web client.	**Web Server Extensions** Also in: 15.0.0
Fatal error when closing a web session Under some circumstances, a fatal error could occur when closing a web client session. The issue could be reproduced if an *Alarm Syntheses* was configured with the option *Take the applied Population into account,* and if the value of an extended attribute was changed while closing the web session.	**Web Server Extensions** Also in: 15.0.0

2. Enhancements

Support for double spontaneous transmissions (SPR #68078) Support for double transmission of information objects with cause of transmission spontaneous. It can be configured in the advanced properties of IEC 104 points.	**Communication interfaces > IEC 60870-5-104 Outstation** Also in: 15.0.0
Support of signed float 32 bits format (SPR #68105) New format *Signed float 32 bits (swapped word)* is now available for built-in drivers.	**Data Acquisition > Other built-in drivers** Also in: 15.0.0

Support for extended function keys	**General**
	Also in: 15.0.0
The list of fixes & enhancements includes:	

- Support of F13 to F16 function keys, Back Space and Tab keys,
- Support of the Alt key as a modifier,
- Error and Log messages reworked.

Instruction TRACE mode FILE - Message max length (SPR #67950)	**Scripting > SCADA Basic**
	Also in: 15.0.0
The instruction *TRACE* mode *FILE* can now handle a message of up to 2047 characters (was 80).	

3.   Installation

Documentation update	**General >**
	Documentation
The product documentation has been updated:	

- Online help in Chinese - Now at the level of version 12,
- Online help in Russian - Now at the level of version 11.2.

4.   Security

Vulnerabilities in the Web back end modules	**Web Server Extensions**
	Also in: 15.0.0, 11.2.06097
The following vulnerabilities are fixed. They affect the interface between the Web & Mobile back end and the web services hosted in Microsoft IIS:	

- A Remote Code Execution vulnerability due to the unsafe deserialization of messages received on the interface - Affects all versions since 8.10.
- A Denial Of Service vulnerability due to the ability for a non-authorized user to modify information used to validate messages sent by legitimate web clients - Only affects version 12.0.
- An information exposure vulnerability allowing a non-authorized user to access session data of legitimate users - Only affects version 12.0.

See our Security alert page and Security Bulletin 2020-1 for more information.

5.   Other fixes & enhancements

SPR #67223, 67986	Also in: 15.0.0

7. Version 12.0.16 (12.0.16900)

1. Fixes

Incorrect value and boundaries for System.Localhost.Session.Type (SPR #67957) The variable *System.Localhost.Session.Type* had an incorrect low boundary, 0 instead of -1, and was wrongly set to -1 where the value should have been 104 when a client was connected using the Web Services Toolkit. The same fix applies to the values returned by the SCADA Basic instruction SESSION mode GETTYPE.	**Audit** Also in: 15.0.0
SNMP trap not sent (SPR #67679) When configuring multiple traps with the same generic format, only the last trap was sent.	**Communication interfaces > SNMP Agent** Also in: 15.0.0
Support for OID and Value in Generic Trap (SPR #67126) Generic traps were not supporting OID and Value parameters properly. They now behaves as described in the online help.	**Communication interfaces > SNMP Agent** Also in: 15.0.0, 11.2.06092
Import failed due to expressions (SPR #67558, 67545, 67276, 66885) When importing expressions via a Smart Generator or the Application Architect, expressions configured with a result variable that was not produced locally were only partly loaded and did not behave as expected at runtime.	**Configuration Environments** Also in: 15.0.0
Upgrade **Alarm synthesis default property value** (SPR #67799, 66701) The default value of the property *Take the applied population into account* of Alarm Syntheses items is False since version 11.2 Release. This new default value was mistakenly not applied to Alarm syntheses created with the Application Architect. It is now applied. This change may introduce a behavior change in the way alarm syntheses are calculated in some projects. Please refer to the Known issues section for more information.	**Configuration Environments > Application Architect** Also in: 15.0.0, 11.2.06094
Fatal error when editing a property defined by expression (SPR #67450) Under some circumstances, a fatal error could occur when opening the expression editor for defining a property. The issue occurred when the operating system was set for the Hebrew character set. Other non-English languages were potentially impacted also (reproduced with French charset).	**Configuration Environments > Application Architect** Also in: 15.0.0
Fatal error upon copy of a variable or trend (SPR #66986) Under some circumstances, a fatal error could occur when copying a variable or a trend.	**Configuration Environments > Application Explorer** Also in: 15.0.0, 11.2.06094

Buffered AI and AO values not recorded (SPR #66941, 66834, 66297) The buffered values for AI and AO objects of a DNP3 device were not correctly recorded in the archives when they were associated to trends. These values are read when connecting to the device at startup or upon reconnection.	**Data Acquisition > DNP3 Client** Also in: 15.0.0
Driver IpOpenWebNet - Support for extension modules (SPR #67702) The SCS extension modules were incorrectly updated when a new measurement was received for a single Lighting Point.	**Data Acquisition > Other built-in drivers** Also in: 15.0.0
Fatal error when exporting with limited amount of exported records (SPR #67739) A fatal error could occur when performing an export having the advanced property "*Statistics output.Limit exported records*" activated, even if the actual number of records was lower than this limit.	**Data Export**
Fatal error at project startup (SPR #67652) Under some circumstances, a fatal error could occur at project startup due a conflict in accessing pending event logs (event logs waiting to be recorded).	**Historical data** Also in: 15.0.0, 11.2.06094
Upgrade **Potential memory leak in Networking with mixed PcVue versions** (SPR #67867) Under some circumstances, while migrating a project, a memory leak occurred on a data acquisition server if it ran a version greater than or equal to 11.2.6086 and communicating with a client station running with version 12.0.15 or lower. The leak occurred at each restart of a client station, and its size was proportional to the number of variable subscriptions sent by the client station to the server station (250 bytes per subscription - typically a leak of 2.5 MB for 10 000 variables at each restart of a client station).	**Networking** Also in: 11.2.06094
Instruction KEY modes ADDPROG, ADDCLK and ADDSTD - Existing key not replaced (SPR #67955) When creating a new function key action with the SCADA Basic instruction KEY modes ADDPROG, ADDCLK or ADDSTD, an existing definition of the key combination was not replaced by the new one, leading to the execution of both actions when triggered. As described in the help, any existing definition of a temporary key is now replaced, and the instruction returns an error if the existing key is permanent (configured) and cannot be replaced by script at runtime.	**Scripting > SCADA Basic** Also in: 15.0.0
Improper disconnection Without a user action causing a request to the web server, the user was forcibly disconnected after the session time-out (default 1 mn). It could happen when configuring multiple schedules before saving them at once. A keep-alive request is now sent every 10 sec to make sure the connection is maintained.	**WebScheduler** Also in: 15.0.0

2.   Critical fixes

Several fixes in the IEC 61850 client driver (SPR #67463)	**Data Acquisition > IEC 61850 Client** Also in: 15.0.0, 11.2.06094

Fixes are related to the handling of communication object stop/start and includes:

- Fix of a fatal error that occurred when changing the configuration of several variables linked to IEC 61850 report or dataset. The issue could be reproduced when doing an Application Architect synchronization with IEC 61850 devices connected and communicating actively.
- Variable updates could be frozen for 1 minute upon redundant data acquisition server switch from active to passive.
- Failure to reconnect to URCB or BRCB upon redundant data acquisition server switch from active to passive.

3.   Enhancements

Sampling period greater than the export period (SPR #67469)	**Data Export** Also in: 15.0.0

It is now possible to have a sampling period equal or greater than the export period. This change allows using the export feature to generate a single sampled value snapshot.

Positioning of markers (SPR #67820)	**HMI > Map control** Also in: 15.0.0

It is now possible to select at design time how markers of type Symbol shall be anchored on the map:

- Centered,
- Anchor point,
- Top-left corner,
- Top-right corner,
- Bottom-left corner,
- Bottom-right corner.

New method to log messages (SPR #67826)	**Scripting > VBA** Also in: 15.0.0

A new method *LogInformation* is available in VBA on the *Project* object. It can be used to send log messages to the Event Viewer.

```
ThisProject.LogInformation LogLevel,LogMsg
```
Where *LogLevel* can take value 1, 2 or 3, and LogMsg is the message to be logged (string)

- 1 = Information,
- 2 = Warning,
- 3 = Error.

Show/hide columns	**WebScheduler** Also in: 15.0.0

It is now possible to hide the columns *Is Standard Week Empty* and *Is Exception Period Active*. By doing so, the time to load the list of timetables is greatly reduced.
The setting to add to the WebScheduler web.config file is the following:
```
<setting name="HideSpecialColumns" serializeAs="String">
  <value>True</value>
</setting>
```

4. Performance

Image caching (SPR #66155)

Web Server Extensions > WebVue

Also in: 15.0.0

Images loaded in mimics and symbols were not cached by the web browser, thus they were loaded every time the mimic was opened.
The setting to add to the GraphicalData web.config file is the following - Value in seconds, default to 0 (expiration controlled by the web browser) :

```
<setting name="CacheMaxAge" serializeAs="String">
  <value>0</value>
</setting>
```

There is no need for customization to take advantage of the default value.

5. Other fixes & enhancements

SPR #67486

Also in: 15.0.0

8. Version 12.0.15 (12.0.15900)

1. Fixes

Driver SAIA - Equipment not correctly initialized (SPR #67443) At startup, some devices were not correctly initialized and connection could not be established. Startup of devices is now serialized to enforce a proper initialization.	**Data Acquisition > Other built-in drivers** Also in: 15.0.0, 11.2.06093
Fatal error on frame modification (SPR #66627) A fatal error could occur when modifying a frame while the communication was starting.	**Data Acquisition > Other built-in drivers** Also in: 15.0.0
Fatal error with redundant servers (SPR #67440) Under some circumstances, a fatal error could occur due to trap handling in redundant server set-up.	**Data Acquisition > SNMP Manager** Also in: 15.0.0, 11.2.06093
Populations not correctly applied to HDS log lists (SPR #66699) Under some circumstances, populations were not correctly applied to HDS log lists in Log Viewer, leading to an empty display. The issue occurred when multiple criteria were applied to the same attribute.	**Historical data** Also in: 15.0.0
Context mimic with variables attributes (SPR #67261) Since version 12.0, it was possible to open a context mimic from a graphic object animated with a variable attribute such as #_Q, #_T or TATTx#. Such mimics only support a context based on a variable value.	**HMI** Also in: 15.0.0
Fatal error when opening mimics in binary format (SPR #66783) Under some circumstances, a fatal error could occur when opening a mimic due to some objects being loaded twice.	**HMI** Also in: 15.0.0
Graphical interface frozen (SPR #67045) Under some circumstances, the graphical interface could freeze due to the use of AVI or GIF objects in mimics. The loading and display of these objects is now optimized to avoid an overconsumption of CPU resources.	**HMI** Also in: 15.0.0
Residual objects displayed with large preview (SPR #67062) Some residual objects were displayed in images and symbols selectors when using large preview.	**HMI** Also in: 15.0.0
Error message displayed when opening a map (SPR #66956) Under some circumstances, an error message could be raised when displaying a map at project startup, due to execution synchronization issues.	**HMI > Map control** Also in: 15.0.0, 11.2.06093
Incorrect position of a symbol in design mode (SPR #67570) In design mode, a symbol at an absolute position was incorrectly anchored in the Map Control.	**HMI > Map control** Also in: 15.0.0

Instruction SQL_COMMAND mode READBUFFERCELL - Empty cells were ignored (SPR #67266)	**Scripting > SCADA Basic** Also in: 15.0.0
String cells having a NULL value were ignored and skipped when using the instruction SQL_COMMAND with the mode READBUFFERCELL. They are now interpreted as empty strings.	
Several fixes & enhancements to TouchVue (SPR #67297, 66946, 66697, 66640, 65853, 65370) The list of fixes & enhancements includes: • Under some circumstances, mimics could freeze, • Under some circumstances, users could not logout nor login, • Some variable commands were not correctly triggered when embedded in object groups, symbols or mimic tab, • Incorrect error messages were displayed after unsubscribing a variable.	**TouchVue** Also in: 15.0.0
Instruction TREND mode SETVAR - Variable description not updated (SPR #66637) In a WebVue context, the variable description was not updated in the legend when the curve was modified with the SCADA Basic instruction TREND mode SETVAR.	**Web Server Extensions > WebVue** Also in: 15.0.0

2.   Critical fixes

Unable to restart serial communication (SPR #67037) Since version 12, it was no longer possible to restart a serial communication after stopping it. The application had to be restarted to correctly reinitialize the COM port.	**Data Acquisition > Other built-in drivers** Also in: 15.0.0

3.   Performance

GDI object leak (SPR #67251) A memory leak occurred when opening a mimic containing Form controls (Combo-box, List-box, Option-list, Tree view). One GDI object was lost for each control using a custom font.	**HMI > Form controls** Also in: 15.0.0
Degraded response time (SPR #67120) Since version 12.0 Initial Release, general performances when requesting Web Services were degraded up to 50 folds (100 read requests within 50 seconds instead of 1 seconds). This fix restores performances to a level similar to version 11.2.	**Web Server Extensions > Web Services Toolkit** Also in: 15.0.0

4.   Security

Access to another web session (SPR #66644)

Under some particular circumstances, a web client was able to access the session of another web client, leading to potential information disclosure and privilege elevation. This was due to the reuse of a previously closed session Id, but with an access token not yet expired.

Web Server Extensions
Also in: 15.0.0

9. Version 12.0.14 (12.0.14900)

1. Fixes

Invalid OPC variables after switchover (SPR #66837, 66655) Under some circumstances, variables mapped to OPC items could remain invalid after a data acquisition server switchover if errors occurred during the switchover. The issue affected: • Versions 11.2.06781 to 11.2.06793, • All releases of 12.0 up to 12.0.14.	**Data Acquisition > OPC Client** Also in: 15.0.0, 11.2.06092
File & Folder filter for Project version not correctly saved (SPR #68848, 66794) Under some circumstances, the file selection configured in the central project management was not correctly saved. The issue could occur in particular when selecting the *All files in project directory* checkbox at the project root level.	**General > Version management** Also in: 15.0.0, 11.2.06099
Incorrect filtered list of alarms in Alarm viewer (SPR #67009) Under some circumstances, the alarms displayed in an Alarm viewer did not match the expected filter. It could occur if a filter was applied using VBA while quickly opening and closing mimics.	**HMI > Alarm viewer** Also in: 15.0.0, 11.2.06091
Fatal error with a variable name used in a tooltip (SPR #67020) A fatal error occurred when a variable with a name longer than 80 characters was used in a tooltip.	**HMI > Animations** Also in: 15.0.0
Fatal error when opening a web client (SPR #67012) Under some circumstances, a fatal error of the web back end station could occur when running a WebVue client. This issue was due a synchronization issue with the server.	**Web Server Extensions > WebVue** Also in: 15.0.0

2. Enhancements

New substitution characters for timestamp formatting - 12-hour clock (SPR #67015) New substitution characters are available in the Alarm viewer, the Log viewer and the Trend viewer for timestamp formatting based on 12-hour clock representation: • #H: Hours from 1 through 12 (as opposed to #h for 00 through 23), • #p: AM/PM designator. In additional, only for the Alarm viewer, #H and #p support the suffix *AlaOn*, *AlaAck* and *AlaOff*.	**HMI** Also in: 15.0.0

10. Version 12.0.13 (12.0.13900)

1. Fixes

IEC 104 variables not refreshed (SPR #66723) Under some circumstances, some IEC 104 variables could not be refreshed at startup or on server switchover.	**Data Acquisition > IEC 60870-5 Client**
ActiveX controls based on .Net loaded twice (SPR #66858) ActiveX controls based on .Net components were loaded twice.	**HMI** Also in: 15.0.0
Fatal error with symbol containing a Trend viewer (SPR #66968) A fatal error occurred when manipulating a symbol containing a Trend viewer with the option *Save runtime properties* activated.	**HMI** Also in: 15.0.0
Unable to edit symbol from the Graphic Explorer (SPR #66665) Under some circumstances, it was not possible to edit a symbol directly from the Graphic Explorer. The issue occurred when the anchor point of a symbol was invalid.	**HMI** Also in: 15.0.0
Images not stretched (SPR #66947, 65941) The option *Stretch image* was not taken into account when rendering images used in *Images* animations (e.g.: *Image on Bit*).	**Web Server Extensions > WebVue** Also in: 15.0.0
Incorrect colors in Trend viewer (SPR #66754) Under some circumstances, color of traces were incorrect in a Trend viewer. The issue occurred when a trend historical request was executed while another one was still in progress.	**Web Server Extensions > WebVue** Also in: 15.0.0

2. Critical fixes

Emergency purge not executed (SPR #67005) Since version 12.0, the emergency purge was no longer executed properly. In addition, if no scheduled purge was configured, the issue could lead to potential storage issues and changes no longer recorded.	**Historical data** Also in: 15.0.0
Empty result when Population applied to an HDS log list (SPR #66699) Since version 12.0 release, when a population was applied to an HDS log list, no result was returned nor displayed.	**Historical data**

3. Enhancements

Default mode of On text animations (SPR #66983)	**HMI > Animations**
	Also in: 15.0.0

On text animations now use the *Variable mode* by default (was using *Value mode*).

4. Security

Access to the online help and potential security policy infringement (SPR #66776, 65910)	**General**
	Also in: 15.0.0, 11.2.06091

Under some circumstances, access to the online help was possible before completion of project startup.

It could occur in particular by pressing the F1 key from one of the message box opened to indicate that network access issues prevent access to the version management central folder. Access to the file system was therefore possible before user authentication, which could be against the security policy on some systems.

11. Version 12.0.12 (12.0.12900)

1. Fixes

Code page displayed in string values (SPR #66842) When the code page was different from UTF-8, string values were prefixed with the applied code page (UCS-2, DBCS...).	**Data Acquisition > BACnet Client** Also in: 15.0.0
Time-out on variable initialization (SPR #66803) Under some circumstances, a time-out could occur when initializing DNP3 variables.	**Data Acquisition > DNP3 Client** Also in: 15.0.0
Fatal error when exiting the VCR mode (SPR #66773) Under some circumstances, a fatal error could occur when exiting PcVue if running in VCR mode and while playing records.	**Historical data > VCR** Also in: 15.0.0
Fatal error when loading the content file of a tree view (SPR #66779) A fatal error occurred when updating the content of a tree-view control by loading a content file defined by a variable link. The initial loading worked properly, the issue occurred when loading another file including items with animations.	**HMI > Form controls** Also in: 15.0.0, 11.2.06091
Trend viewer runtime configuration lost (SPR #66736) The runtime configuration of Trend viewer was not correctly saved with branched mimics.	**HMI > Trend viewer** Also in: 15.0.0
Trend viewer runtime properties lost (SPR #66648) The runtime properties of Trend viewer was lost when a curve's label contained a comma.	**HMI > Trend viewer** Also in: 15.0.0, 11.2.06090
Instruction CIMWAY mode READFRAME - Fatal error when read request failed (SPR #66607) A fatal error could occur when a read request triggered by the instruction CIMWAY mode READFRAME failed.	**Scripting > SCADA Basic** Also in: 15.0.0
Alarm viewer with first column empty (SPR #66855, 59115) A fatal error of the web back end occurred when displaying a mimic in WebVue if it contained an alarm viewer with the first column configured to be empty.	**Web Server Extensions > WebVue** Also in: 15.0.0
Blinking colors not working in animation (SPR #66679) Blinking colors were not correctly supported in an animation when changing from blinking to fixed color.	**Web Server Extensions > WebVue** Also in: 15.0.0
Blinking colors with indexed colors (SPR #66091) Blinking colors were not properly displayed on text objects when using indexed colors.	**Web Server Extensions > WebVue** Also in: 15.0.0

Fatal error with included mimics (SPR #66854) A fatal error occurred when an included mimic was opened with a Link open animation when the parent mimic was named explicitly (instead of using the * character).	**Web Server Extensions > WebVue** Also in: 15.0.0
Object flickering with translation animation (SPR #66725) In WebVue, graphic objects were flickering when configured with a translation animation and rendered partly outside of the visible window.	**Web Server Extensions > WebVue** Also in: 15.0.0
SCADA Basic script not executed on mimic opening (SPR #66785, 66340) SCADA Basic script on mimic opening were not executed in WebVue when the mimic was containing an empty Trend viewer.	**Web Server Extensions > WebVue** Also in: 15.0.0
Send and Link animations not available on transparent graphic objects (SPR #66577, 66327) Send and Link animations were not executed when configured on an object with invisible border and background. The control zone was not active nor displayed.	**Web Server Extensions > WebVue** Also in: 15.0.0
Translation animation with improper control zone (SPR #66230) Graphic objects configured with a translation animation were always highlighted with a control zone even if the cursor mode was not activated on the animation.	**Web Server Extensions > WebVue** Also in: 15.0.0
Trends not set with SCADA Basic instruction (SPR #66340) Opening a mimic and defining trends with the SCADA Basic instruction SETVAR in the same script was not working properly.	**Web Server Extensions > WebVue** Also in: 15.0.0

2. Critical fixes

Polling stopped after 25 days (SPR #66766) The cyclic polling mechanisms used by the IEC 61850 data acquisition driver stopped working properly after a period of 25 days. It was necessary to restart the application to recover a correct behavior. The affected mechanisms were the following: • Polling of Datagroup (all versions affected), • Polling of DataSet (all versions affected), • Polling of watchdog (all versions affected), • Cyclic attempt to reconnect a disconnected device (all versions affected), • Cyclic re-synch GI for reports (affected since version 11.2), • Cyclic attempt to reconnect disconnected reports (affected since version 11.2).	**Data Acquisition > IEC 61850 Client** Also in: 15.0.0, 11.2.06090

3. Enhancements

OPC-XML - Support for arrays (SPR #66898) When using OPC-XML, it was not possible to map a variable on a specific index of an array of items (string, boolean, I4, UI4...). This feature was already available with the OPC-DA client.	**Data Acquisition > OPC Client** Also in: 15.0.0

4. Performance

Filtering based on populations (SPR #66703, 66695) Since version 12 Initial Release, runtime performances related to population filters were degraded due to a regression. Applying a population filter could take several minutes to be fully performed. It is now almost instantaneous.	**Real time data** Also in: 15.0.0

5. Security

Automatic logout not effective in WebVue (SPR #66653) The automatic logout was not completely effective in WebVue. After the inactivity timeout elapsed, it was indicated that the session ended but refreshing the page (with F5 or Refresh button) was opening it again without entering credentials.	**Web Server Extensions > WebVue** Also in: 15.0.0

6. Other fixes & enhancements

SPR #66811, 66857	Also in: 15.0.0

12. Version 12.0.11 (12.0.11900)

1.   New features

Support for included mimics and popups (SPR #66242) Included mimics and popups are now supported in WebVue. It was a known issue since 12.0.7 (Initial Release).	**Web Server Extensions > WebVue** Also in: 15.0.0
Support of iPad OS 13 WebVue now supports the Safari web browser shipped with iPad OS 13.	**Web Server Extensions > WebVue** Also in: 15.0.0

2.   Fixes

Fatal error when displaying libraries of mimics or symbols thumbnails (SPR #66499, 66480) A fatal error of the Library Explorer, the Application Explorer or the Application Architect occurred when changing the displayed library of mimics and/or symbols if in thumbnails display mode.	**Configuration Environments** Also in: 15.0.0, 11.2.06088
Fatal error when creating a variable (SPR #66630) Under some circumstances, a fatal error could occur when creating a variable. The issue occurred when a branch segment of the variable was used in another branch previously deleted (e.g. B1.B2 and B2.B3).	**Configuration Environments > Application Explorer** Also in: 15.0.0
Fatal error upon modification of Equipment configuration (SPR #66627) Under some circumstances, a fatal error could occur when modifying the configuration of an Equipment or a Frame while Communication was starting.	**Data Acquisition > Other built-in drivers**
#x substitution with free archive units The substitution #x (timestamp quality) did not work properly when used to record logged events on free archive units.	**Historical data** Also in: 15.0.0, 11.2.06087
Associated labels not correctly displayed with mismatching label type (SPR #66371) Under some circumstances, the displayed associated label was incorrect. The issue occurred when the compatibility setting *Allow use of mismatched associated label type* was enabled, with a variable of type alarm configured with a *Bit Associated Label*.	**HMI > Animations** Also in: 15.0.0
Background image position (SPR #66458) Background image settings were not correctly interpreted in the Chart Control, leading to an incorrect positioning of the image.	**HMI > Chart control** Also in: 15.0.0

Font not properly initialized (SPR #66411)	**HMI > Graphics**
	Also in: 15.0.0, 11.2.06087
Under some circumstances, when using the ASCII format, text fonts were not properly initialized. Consequently, the text graphic item failed to load and display.	
Send Bit animation - Mode Handled and Pulse reworked (SPR #66459, 66439, 66334)	**Web Server Extensions > WebVue**
	Also in: 15.0.0
The *Send Bit* animation has been reworked, in particular the modes *Handled* and *Pulse*:	
• With *Handled* mode, the bit value was not reverted when the mimic lost focus, • *Pulse* mode was executed only when the HMI option *Mimic.Animations.Send bit.Handled & Pulse execution* was set to *Standard*.	
Time filter wrongly disabled in the Log viewer (SPR #66606)	**Web Server Extensions > WebVue**
	Also in: 15.0.0
The Time filter in the Log viewer was incorrectly disabled if the access to filtering options was disabled.	

3. Critical fixes

Session context not taken into account in RealTimeData service (SPR #66609, 66410)	**Web Server Extensions > Web Services Toolkit**
	Also in: 15.0.0
Session context was not correctly managed in the *RealTimeData* service of the WST. As an example, the USER variable was returning the name of the user logged on the back end hosting the services (if any) instead of the name of the user authenticated as part of the WST session.	

4. Enhancements

Allow write commands when equipment is in error (SPR #66436)	**Data Acquisition > Other built-in drivers**
	Also in: 15.0.0
Prior to this modification, write commands were not sent when the equipment was seen in error. In particular, they were not executed on valid write-only frames when another frame had a status error.	
Now, writes commands are sent based on the frame status instead of the device status.	
Ability to disable file opening after data export (SPR #65359)	**Data Export**
	Also in: 15.0.0
From now on, when the user does not have the desktop rights, the Data Export Wizard of the Trend Viewer and the Grid Control no longer asks the user if he/she wants to open the generated file, a simple information is displayed, thus preventing the access to the file system.	
Small font size in Send Text animation (SPR #66342, 66038)	**Web Server Extensions > WebVue**
	Also in: 15.0.0
When a Send Text animation was configured with direct input, the font size for displaying and typing the text were different.	

Support of SCADA Basic modes INSERT and REMOVE for CHECKLIST, COMBOBOX, LISTBOX and OPTIONLIST instructions (SPR #66028) The SCADA Basic modes *INSERT* and *REMOVE* of the instructions *CHECKLIST*, *COMBOBOX*, *LISTBOX* and *OPTIONLIST* are now supported in WebVue.	**Web Server Extensions > WebVue** Also in: 15.0.0
BACnet exception handling (SPR #66582) Handling of Exception Schedule has been reworked to improve interop with devices that do not clear obsolete exception entries themselves.	**WebScheduler** Also in: 15.0.0, 11.2.06089, 11.1.06123, 11.0.06101

5.   Other fixes & enhancements

SPR #66192	Also in: 15.0.0

13. Version 12.0.10 (12.0.10900)

1. Fixes

Missing warning if PcVue is not running (SPR #66092) No warning was displayed when launching a configuration tool (including the Application Explorer, Application Architect and Smart Generators) while the PcVue main process (Sv32.exe) was not running. It was a regression affecting version 12.0 Initial and Maintenance Releases.	**Configuration Environments** Also in: 15.0.0
Smart Generator for Wago - Incorrect mapping (SPR #66348, 65717) The last variable of a frame was incorrectly mapped if the last available index in the frame did not fit the size of the data point to map. The issue occurred in particular when the last data point to map was of type REAL.	**Configuration Environments > Smart Generators** Also in: 15.0.0, 11.2.06087
Fatal error at startup (SPR #66066, 66017) A fatal error occurred at startup of the Web Deployment Console if the computer name had been changed at the operating system level. This was a known issue since 12.0.7 (Initial Release).	**Deployment tools > Web Deployment Console** Also in: 15.0.0
Issue when changing the binding (SPR #65998, 65964) When changing the binding of a web site, the Registry service endpoint was not properly re-configured, preventing the web site from being operational. The workaround was to delete and recreate the web site or to modify the WDC configuration file manually. It was a known issue since 12.0.7 (Initial Release).	**Deployment tools > Web Deployment Console** Also in: 15.0.0
Failed to import multiple events (SPR #66361, 66158) Importing multiple events on variable at once failed if the last part of their name was identical. The issue could be reproduced when generating multiple instances of a template comprising an event with the Application Architect.	**Development kits > XML Generic Import Toolkit** Also in: 15.0.0, 11.2.06086
Could not load or generate log reports (SPR #66341, 62750) It was not possible to load or generate log reports from a station using a server license. This change also fixes an issue related to user rights for log reports (as defined in the Window tab of a user profile).	**Historical data** Also in: 15.0.0, 11.2.06086
Instruction WINDOW mode IS_OPEN - Handling of the '*' (SPR #66337) Using the value '*' for the branch argument when calling the instruction WINDOW mode IS_OPEN no longer worked. This issue was a regression introduced in version 11.2.06048.	**Scripting > SCADA Basic** Also in: 15.0.0, 11.2.06086

Issue with long string literals (SPR #66255) Using a string literal with a size longer than 80 characters generated a memory overrun that could lead to a PcVue fatal error.	**Scripting > SCADA Basic** Also in: 15.0.0, 11.2.06086
Calendar dialog box not modal (SPR #66099) The calendar dialog box of the Trend viewer could be improperly hidden behind the mimic. It is now managed correctly as a modal dialog.	**Web Server Extensions > WebVue** Also in: 15.0.0
Incorrect behavior of the send register animation (SPR #66236) If a user double-clicked on a send register animation (instead of a single click), WebVue improperly opened an empty confirmation dialog box that the user could not close.	**Web Server Extensions > WebVue** Also in: 15.0.0
Lost control zones (SPR #66209) Control zones were lost on polygons after executing them once.	**Web Server Extensions > WebVue** Also in: 15.0.0

2. Critical fixes

Fix an issue with Windows updates causing a fatal error at startup

This change fixes an issue introduced by a series of Windows Updates rolled out by Microsoft in August 2019 that caused a fatal error at startup of PcVue and FrontVue.

At the time of writing, the list of suspected Windows Updates is the following:

Windows update	Release date	Applies to
KB4512508 (OS Build 18362.295) version 1903	August 13th, 2019	Windows 10
KB4511553 (OS Build 17763.678) version 1809, and Windows Server 2019	August 13th, 2019	Windows 10
KB4512534 (OS Build 17763.720) version 1809, and Windows Server 2019	August 17th, 2019	Windows 10
KB4512501 (OS Build 17134.950) version 1803	August 13th, 2019	Windows 10
KB4512509 (OS Build 17134.984) version 1803	August 19th, 2019	Windows 10
KB4512516 (OS Build 16299.1331) version 1709	August 13th, 2019	Windows 10
KB4512494 (OS Build 16299.1365) version 1709	August 16th, 2019	Windows 10
KB4512507 (OS Build 15063.1988) version 1703	August 13th, 2019	Windows 10
KB4512474 (OS Build 15063.2021) version 1703	August 17th, 2019	Windows 10
KB4512517 (OS Build 14393.3144) version 1607, and Windows Server 2016	August 13th, 2019	Windows 10
KB4512495 (OS Build 14393.3181) version 1607, and Windows Server 2016	August 17th, 2019	Windows 10
KB4512497 (OS Build 10240.18305) version 1507 (RTM)	August 13th, 2019	Windows 10
KB4517276 (OS Build 10240.18308) version 1507 (RTM)	August 17th, 2019	Windows 10
KB4512488 (Monthly Rollup) Windows 8.1, and Windows Server 2012 R2	August 13th, 2019	
KB4512478 (Preview of Monthly Rollup) and Windows Server 2012 R2	August 17th, 2019	Windows 8.1,
KB4512518 (Monthly Rollup) Windows Server 2012	August 13th, 2019	
KB4512512 (Preview of Monthly Rollup) 2012	August 17th, 2019	Windows Server
KB4512506 (Monthly Rollup) Windows 7 SP1, and Windows Server 2008 R2 SP1	August 13th, 2019	
KB4512514 (Preview of Monthly Rollup) and Windows Server 2008 R2 SP1	August 17th, 2019	Windows 7 SP1,
KB4512476 (Monthly Rollup) Windows Server 2008 SP2	August 13th, 2019	
KB4512499 (Preview of Monthly Rollup) 2008 SP2	August 17th, 2019	Windows Server

The issue affected versions 10.0, 11.0, 11.1, 11.2 and 12.0.
Earlier releases of these PcVue and FrontVue versions cannot be used if any of these Windows Updates is installed.

General
Also in: 11.2.06087, 11.1.06122, 11.0.06100, 10.0SP2_Update

3. Other fixes & enhancements

SPR #66009, 66150	Also in: 15.0.0

14. Version 12.0.9 (12.0.09900)

1.   Fixes

BACnet helpers frozen Under some circumstances, BACnet helpers and the Application Explorer could freeze after having selected a BACnet variable which object-type is defined by its numeric Id.	**Configuration Environments > Application Explorer** Also in: 15.0.0, 11.2.06078
Memory leak with Trend Logs (SPR #66205) A significant memory leak occurred when retrieving Trend Logs.	**Data Acquisition > BACnet Client** Also in: 15.0.0, 11.2.06084
Fatal error with image and symbol selectors (SPR #66005) It was possible to try to insert an image or a symbol using the corresponding selector even if no mimic was open, causing a fatal error.	**HMI** Also in: 15.0.0
Mimic incorrectly resized and positioned when switching to Design mode (SPR #66196) Under some circumstances, when switching a mimic from runtime to design mode, its size and position were incorrectly recalculated due to screen resolution adaptation.	**HMI** Also in: 15.0.0
Instruction LOGDISPLAY mode FILTER - Fatal error with multiple INC clauses (SPR #66217) A fatal error occurred when using a filter having multiple INC clauses and using the % wildcard. e.g.: =(#A1 INC %Domain%) && (#A2 INC %Nature%)	**Scripting > SCADA Basic** Also in: 15.0.0
Misleading message displayed (SPR #66068) When a web back end endpoint was configured but the corresponding feature was not installed, a misleading message was displayed at startup: "*No configuration found for the backend. Use web deployment console to deploy*" instead of indicating that the feature was not installed.	**Web Server Extensions** Also in: 15.0.0
Incorrect blinking color on alarms (SPR #66111) Under some circumstances, the blinking color of graphical items remained even after a status change of the alarm, typically after its acknowledgment.	**Web Server Extensions > WebVue** Also in: 15.0.0
Web client frozen after closing foreground mimic (SPR #66179) Under some circumstances, the web client could freeze after closing a foreground mimic when another foreground or modal mimic was opened.	**Web Server Extensions > WebVue** Also in: 15.0.0
Web client frozen with modal mimic in background (SPR #66037) Under some circumstances, after opening a mimic from a modal mimic, the web client could freeze due to the modal mimic being moved to background and no longer being accessible.	**Web Server Extensions > WebVue** Also in: 15.0.0

Zoom actions not working in the Trend Viewer (SPR #66048) Under some circumstances, the zoom actions of the Trend Viewer were not working properly.	**Web Server Extensions > WebVue** Also in: 15.0.0

2. Critical fixes

Upgrade **Upgrade of HDS table schema** (SPR #66166)	**Historical data**

With version 12, the length of Log list names can be up to 100 characters long (was 12). This change affects the schema of HDS log tables (column *LogList*).

The change in table schema is done automatically at startup if the size of the database is less than 10 Gb.
If the size is higher, the traces ask you to run the migration script.

The issue is that the migration script, as supplied with the installation package 12.0.7 and 12.0.8, was wrongly altering the column *EvtTitle* instead of the column *LogList*, causing the archiving to no longer be effective after project startup.

If you have upgraded your HDS log tables with version 12.0.7 or 12.0.8, it is advised to apply the following changes manually:

- Alter the *LogList* column of Log tables to type it varchar(100),
- Alter the *EvtTitle* column of Log tables to type it varchar(255),
- Make sure the value of *DBVersion* is set to 4.

If you are upgrading your HDS log tables with version 12.0.9 or later, no specific action is required apart from running the migration script.

3. Other fixes & enhancements

SPR #66219, 66269	Also in: 15.0.0

15. Version 12.0.8 (12.0.08901)

1.   Fixes

Incorrect OPC values returned (SPR #66161) Under some circumstances, OPC items could not be read correctly by OPC clients, in particular when requesting a group containing invalid or unknown items.	**Communication interfaces > OPC Server** Also in: 15.0.0, 11.2.06083
Reports not processed in case of large datasets (SPR #66118) Reports were not handled properly when associated to a dataset with more than 150 members. The fix is validated with up to 1000 dataset members associated to a Report Control Block.	**Data Acquisition > IEC 61850 Client** Also in: 15.0.0
VBA form issue with the map control (SPR #65854) Under some circumstances, when a VBA form was open on top of a map control, it could happen that mouse events were trapped by the map control, thus preventing correct user interaction in the VBA form.	**HMI > Map control** Also in: 15.0.0, 11.2.06082
Fatal error when importing variables Under some circumstances, when the auto-number internal identifiers (variable tagname) setting was not activated, a fatal error could occur when importing variables with the SCADA Basic instruction VARIABLE modes IMPORTFILE or IMPORTBUFFER.	**Scripting > SCADA Basic** Also in: 15.0.0, 11.2.06081

16. Known Issues

Audit counter mean values are inaccurate (SPR #65251) Calculation of mean values is wrong for audit counters (error every 27 hours).	**Audit** 12.0.7 Also in: 15.0.0
Lost instances (SPR #67013) Under some circumstances, all instances are lost. Investigations indicate that this may be caused by the deletion of the root node. While the investigations continue to uncover and fix the source of the issue, changes have been made to mitigate and prevent the root node deletion. Specific diagnostic traces have been added to indicate that an attempt to delete the root node occurs. In addition, a specific backup (in addition to the rolling backup files) is now performed to ensure that instances configuration will not be lost. These changes are in effect starting with the Maintenance Release 12.0.13. If you run an earlier release of version 12, and notice that the instances root node is not displayed in the Instances tab of the Application Architect, you have probably ran into the issue and the instances are lost. In such situation, stop PcVue and recover a valid instances configuration from the rolling backup files located the *C\Templates\Back* folder. Do not restart PcVue multiple times before you recover your configuration as it exposes you to losing the useful rolling backup.	**Configuration Environments > Application Architect** 12.0.13 Also in: 15.0.0

Upgrade **Potential behavior change for alarm syntheses** (SPR #67799, 66701, 60594) Starting with version 11.2 Release, by default, new alarm synthesis items created with the Application Explorer or the XML Generic Import do not take the population filter into account. This change was not introduced for alarm syntheses created with the Application Architect, leading to the following potential issues if your project includes populations and alarm syntheses created based on templates and instances with the Application Architect: • If you have migrated or are migrating a project from version 11.1 or earlier to version 11.2 or later, you should check with the Application Explorer that alarm syntheses are configured to fit your requirements (take into account or ignore population). If configuration does not fit, reverse the value of the 'Take population filter into account' using the Application Architect and proceed with a full synchronization. • Do the same verification and configuration changes if your project was once migrated to 11.2 (earlier than 11.2.06094), and is now being migrated to 11.2.06094 or later. • Do the same verification and configuration changes if your project was once migrated to 12 (earlier than 12.0.16), and is now being migrated to 12.0.16 or later. • In all cases, pay particular attention to alarm syntheses created with version 11.2 and 12, as it is likely that the population filter property is not applied as it used to be with earlier versions. You are not impacted by this issue if you do not use population filtering in your project, or if alarm syntheses are not created based on application modeling with the Application Architect.	**Configuration Environments > Application Architect** 12.0.16 Also in: 15.0.0, 11.2.06094
Supported operating systems for the KNX Add-on The KNX add-on is only supported on the following operating systems, with the exclusion of any virtual environment: • Windows 7 SP1 (x64), • Windows Server 2008 R2 SP1 (x64).	**Data Acquisition > KNX** 12.0.7 Also in: 15.0.0, 11.2.05001
Supported operating systems for the LNS data acquisition driver The LNS data acquisition driver is only supported on the following operating systems: • Windows 7 SP1 (x64), • Windows 8.1 (x64), • Windows Server 2008 R2 SP1 (x64), • Windows Server 2012 (x64).	**Data Acquisition > LNS** 12.0.7 Also in: 15.0.0, 11.2.05001
Xbus-IP-Master - Handling of connection termination (SPR #66310) Some devices require connection termination using the TCP FIN_ACK flag instead of the usual RST_ACK. In the case, receiving the TCP RST_ACK caused the device to reboot. In order to improve interop with such devices, a change was implemented to make it possible to configure if a connection shall be terminated using the TCP RST_ACK or FIN_ACK flag. [Changed in versions 11.2.06085, 12.0.19 and 15.0].	**Data Acquisition > Other built-in drivers** 12.0.7

[Fixed] Issue when changing the binding (SPR #65998, 65964) When changing the binding of a web site (from hostname to IP or IP to FQDN for example) and re-deploying, the Registry service end-point is not properly re-configured, preventing the web site from being operational. The workaround is to delete and recreate the web site or to modify the WDC configuration file manually. [Fixed in 12.0.10]	**Deployment tools > Web Deployment Console** 12.0.7
[Fixed] WDC will not start after changing the computer name (SPR #66066, 66017) Because the WDC checks that the IIS configuration it holds matches the computer where it is run, if the computer name of an IIS Web server is changed after a deployment with the WDC, then the WDC will fail to start again. [Edit: Fixed in 12.0.10]	**Deployment tools > Web Deployment Console** 12.0.7
Upgrade **[Fixed] Upgrade of HDS table schema** With version 12, the length of Log list names can be up to 100 characters long (was 12). This change affects the schema of HDS log tables (column *LogList*). The change in table schema is done automatically at startup if the size of the database is less than 10 Gb. If the size is higher, the traces ask you to run the migration script. The issue is that the migration script, as supplied with the installation package 12.0.7 and 12.0.8, was wrongly altering the column *EvtTitle* instead of the column *LogList*, causing the archiving to no longer be effective after project startup. If you have upgraded your HDS log tables with version 12.0.7 or 12.0.8, it is advised to apply the following changes manually: • Alter the *LogList* column of Log tables to type it varchar(100), • Alter the *EvtTitle* column of Log tables to type it varchar(255), • Make sure the value of *DBVersion* is set to 4. [Edit: Fixed in 12.0.9] If you are upgrading your HDS log tables with version 12.0.9 or later, no specific action is required apart from running the migration script.	**Historical data** 12.0.7
SQL filtering on HMI variables (SPR #65903) When using the Grid control in variable tracking mode, the Sql syntax cannot be used to filter HMI variables.	**HMI > Grid control** 12.0.7 Also in: 15.0.0

[Fixed] Potential memory leak in Networking with mixed PcVue versions (SPR #67867) Under some circumstances, while migrating a project, a memory leak occurs on a data acquisition server if it runs a version greater than or equal to 11.2.6086 and communicates with a client station running with version 12.0.15 or lower. The leak occurs at each restart of a client station, and its size is proportional to the number of variable subscriptions sent by the client station to the server station (250 bytes per subscription - typically a leak of 2.5 MB for 10 000 variables at each restart of a client station). [Edit: Fixed in 11.2.06094 - The leak is fixed whatever version 12 build is running on the client station] [Edit: Fixed in 12.0.16 - The leak is fixed whatever version 11.2 build is running on the serve station]	**Networking** 12.0.16 Also in: 11.2.06094
BeforeClose script not triggered (SPR #68418) Since version 12.0.7, the SCADA Basic function called upon closing a mimic was not correctly triggered when the mimic was closed via SCADA Basic. [Edit: Fixed in 12.0.20 for PcVue desktop] A fix for WebVue is planned for a later release.	**Scripting > SCADA Basic** 12.0.20 Also in: 15.0.0
Issue with host name resolution on Android (SPR #65724) Android versions earlier than 5.1 are known to be affected by a bug related to host name resolution. When using DHCP, the issue prevents from using a host name other than a Fully Qualified Domain Name even if the host name is properly registered in a local DNS and the DNS server automatically updates itself to reflect DHCP leases. The issue is that Android devices do not use the DNS search path provided by DHCP. Please refer to the Google Issue Tracker for more information: https://issuetracker.google.com/issues/36916949	**Web Server Extensions** 12.0.7 Also in: 15.0.0
[Fixed by Apple] Issue in the Trend viewer with the Safari browser (SPR #65731) With the Safari Web browser, the hexadecimal code of colors is displayed instead of the actual colors in the Trend viewer's legend. The fix is available in Safari 12.1 shipped with iOS 12.2 and macOS 10.14.4. It is also available for macOS 10.13.6 and 10.12.6. (Added support for <input type="color">)	**Web Server Extensions > WebVue** 12.0.7
[Fixed] Limited support for included mimics and popups Support for included mimics and popups in WebVue is still limited compared to the behavior of the desktop client. [Edit: Fixed in 12.0.11]	**Web Server Extensions > WebVue** 12.0.7
Drag handling with Firefox (SPR #68507) If a position animation with *Cursor mode* enabled is used on an image, the user needs to click twice in Firefox to perform the action.	**Web Server Extensions > WebVue** 12.0.7 Also in: 15.0.0
Known limitation related to hiding control zone highlighting (SPR #68507) At the time of writing, hiding the control zone highlighting (according to the HMI option) is only implemented for rectangle shapes.	**Web Server Extensions > WebVue** 12.0.7 Also in: 15.0.0

Known limitation related to the animation Send register in Step mode	**Web Server Extensions > WebVue**
The '+' and '-' buttons are not rendered in WebVue when using the *Send register* animation with the *Step mode* enabled.	12.0.7 Also in: 15.0.0
Restrictions related to web browsers (SPR #68507)	**Web Server Extensions > WebVue**
Each web browser can come with its own restrictions, in particular when security is at stake. Below is a list of known behaviors, specific to one or the other web browser available on the market at the time of writing. These restrictions may be cleared and others appear depending on web browser updates and their publisher's strategy. • Safari on iOS - When the Safari web browser is closed without logging out from WebVue, WebVue is re-open by default the next time the user opens Safari, but the user will not be able to successfully login, and will be stuck on the WebVue loading page. This is due to the Safari snapshot of the last visited page where Safari display the web page without actually requesting the web server. The solution is to go to the address bar and click the Go button, or ask Safari to reload the page. • Google Chrome - The password manager of Chrome does not store credentials if the connection to the web server is insecure. As a consequence, if you do not have a proper certificate on the web server, users will not be able to use the Chrome password manager to store their credentials. • Microsoft Edge - Edge in versions prior to 79 (Jan 2020) does not store the session cookie when using the local computer as a web server with a binding on the hostname at the IIS level. As a consequence, you cannot successfully log in, and can see a warning message indicating that the version of the client is not compatible with the server. The solution is to add .local to the computer host name when setting up the web site binding with the Web Deployment Console (for example, https://mycomputername.local instead of https://mycomputername).	12.0.7 Also in: 15.0.0
SCADA Basic scripting of form controls (SPR #65938) When scripting form controls in SCADA Basic in a WebVue context, the GET modes such as GETSELECTEDINDEX, GETTEXT... do not return the correct value if the currently selected item was selected either via the keyboard or another script (with a mode such as SETSELECTEDINDEX). These GET modes work properly if the selection was done via mouse-click or a tap (on a touch device).	**Web Server Extensions > WebVue** 12.0.7 Also in: 15.0.0
Support for WebFont requires manual installation on Windows 7 SP1 (IIS 7.5) (SPR #65847) If the Web Server runs IIS 7.5 - a Windows 7 desktop or Windows 2008 R2 server computer - the default font (Times New Roman) is used instead of the Roboto Web Font for texts inside pre-defined WebVue pages and mimic tittles. Texts used in animations within mimics and symbols are not affected. This issue is due to the lack of pre-configured support for WebFont in IIS 7.5. The solution is to install the MIME type handler for .woff files manually using the IIS manager. This issue may be fixed in a later version of the Web Deployment Console.	**Web Server Extensions > WebVue** 12.0.7 Also in: 15.0.0

Upgrade WebScheduler migration issue (SPR #68507)

In order to fit with Microsoft Windows default privileges for the IIS_IUSRS group, the configuration files of the ScheduleData service are now stored in the folder ScheduleData\AppData on the IIS Web server.
These files, namely ScheduleDataAccess.xml and SchedulesAccess.dat, used to be stored in the folder ScheduleData\config.

Upon migrating a project to PcVue 12.0, it is advised to move the files manually to avoid losing customization of any piece of configuration. The manual copy shall take place after installation and deployment of the WebScheduler (using the WDC).

WebScheduler
12.0.7
Also in: 15.0.0

PcVue Solutions

PcVue 12 Release Notes

ISO 9001 and ISO 14001 certified