PcVue
Release Notes

PcVue 12 Release Notes

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Content of the document :   This document contains information about changes in PcVue 12 Maintenance Releases. It includes information from version 12.0.8 to version 12.0.18.

See the Readme file for summary information about new features and system requirements.

Note to readers:

SPR or Software Problem Report refers not only to problems, but also to improvements requested by customers and partners. Only new features and major evolutions are not subject to SPR references. Issues found during version qualification and field tests are not mentioned unless they were present in a previous version and are significant. In the same way, software feature improvements made during software source-code maintenance phases by the R&D teams are not subject to SPR.

Items marked as *Upgrade* indicate a modification requiring particular attention when upgrading a project.

Please refer to the online help for more detailed information about new features, programming language syntax…

PcVue
Release Notes

Summary

Version 12.0.18 Release (12.0.18900)

1. Fixes

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.Animations**
Event selection-changed wrongly 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**
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**
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**

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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** Other versions: 11.1.06120, 11.2.06093

Version 12.0.17 Release (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

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 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

Web component not correctly deployed on Windows 7 and Windows Server 2008 R2 (SPR #67994)

The Web components were not correctly deployed by the WDC on operating systems using IIS 7.35 or lower, which include Windows 7 and Windows Server 2008 R2. This was due to the use of the *applicationInitialization* element in the IIS configuration (only supported by from IIS 8.0 onward).

Deployment tools.Web Deployment Console

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
Other versions: 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

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
Other versions: 11.2.06096

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

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** Other versions: 11.2.06096
Instruction KEY mode ADDPROG and ADDPROGS not working with KeyCode greater than 26 The SCADA Basic instruction *KEY*, with modes *ADDPROG* and *ADDPROGS* was not working when the key code was greater than 26.	**Scripting.SCADA Basic**
Memory leak when changing a threshold on a passive server (SPR #68034) Under some circumstances, a memory leak could occur when executing the instruction *VARIBALE* mode *THRESHOLD_SETVALUE* on a passive server.	**Scripting.SCADA Basic** Other versions: 11.2.06096
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**
Fatal error when closing a web session Under some circumstances, a fatal error could occur when closing a web client's 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**
Unable to 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**

2. Enhancements

Support for dual spontaneous transmissions (SPR #68078) For interop with devices requiring such behavior, it is now possible to send a duplicated spontaneous transmission without time-tag prior to the one with time-tag. It can be configured in the advanced properties of IEC 104 points.	**Communication interfaces.IEC 60870-5-104 Outstation**
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**

Support for extended function keys	**General**

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**

The instruction *TRACE* mode *FILE*, can now handle a message of up to 2047 characters (was 80).

3. Security

Vulnerabilities in the Web back end modules	**Web Server Extensions**

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,
- 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,
- An information exposure vulnerability allowing a non-authorized user to access session data of legitimate users.

See our [Security alert page](#) and Security Bulletin 2020-1 for more information.

4. Other fixes & enhancements

SPR #67223, 67986

Version 12.0.16 Release (12.0.16900)

1. Fixes

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

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
Other versions: 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

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 char-sets).

Configuration Environments.Application Architect

Fatal error upon copy of a variable or trend (SPR #66986)

Under some circumstances, a fatal error could occur when copying a variable or trend.

Configuration Environments.Application Explorer
Other versions: 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

Driver IpOpenWebNet - Extension modules support (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

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

Incorrect value and boundaries for System.Localhost.Session.Type (SPR #67957)

General

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 the client was connected using the Web Services toolkit.
The same fix applies to the values returned by the SCADA Basic instruction SESSION mode GETTYPE.

Fatal error at project startup (SPR #67652)

Historical data
Other versions: 11.2.06094

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).

Upgrade Potential memory leak in Networking with mixed PcVue versions (SPR #67867)

Networking
Other versions: 11.2.06094

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).

Instruction KEY modes ADDPROG ADDCLK & ADDSTD - Existing key not replaced (SPR #67955)

Scripting.SCADA Basic

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.

Improper disconnection

WebScheduler

Without a user action causing a request to the web server, the user was forcibly disconnected after the session time-out (defaulted to 1mn). It could happen when configuring multiple schedules before saving them at once. A keep-alive request is now sent every 10s to make sure the connection is maintained.

2. Critical fixes

Several fixes in the IEC 61850 client driver (SPR #67463)

Data Acquisition.IEC 61850
Other versions: 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

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

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

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

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

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

Version 12.0.15 Release (12.0.15900)

1.Fixes

Driver SAIA - Equipments 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
Other versions: 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

Fatal error with redundant servers (SPR #67440)

Under some circumstances, a fatal error could occur due to trap handling in redundant servers set-up.

Data Acquisition.SNMP Manager
Other versions: 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

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

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

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

Residual objects displayed with large preview (SPR #67062)

Some residual objects were displayed in images and symbols selectors when using large preview.

HMI

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
Other versions: 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

Instruction SQL_COMMAND mode READBUFFERCELL - Empty cells were ignored (SPR #67266)	**Scripting.SCADA Basic**
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)	**TouchVue**
The list of fixes & enhancements includes: • Under some circumstances, mimics could freeze, • Under some circumstances, users could not log out and log in, • 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.	
Instruction TREND mode SETVAR - Variable description not updated (SPR #66637)	**Web Server Extensions.WebVue**
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.	

2. Critical fixes

Unable to restart serial communication (SPR #67037)	**Data Acquisition.Other built-in drivers**
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.	

3. Performance

GDI object leak (SPR #67251)	**HMI.Form controls**
A memory leak occurred when opening mimic containing Form controls (Combo-box, List-box, Option-list, Tree view). One GDI object was lost for each control using a custom font.	
Degraded response time (SPR #67120)	**Web Server Extensions.Web Services Toolkit**
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.	

4. Security

Access to another web session (SPR #66644)	**Web Server Extensions**
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.	

Version 12.0.14 Release (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** Other versions: 11.2.06092
File & Folder filter for Project version not correctly saved (SPR #66794) Under some circumstances, the file selection configured in the central version 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**
Incorrect filtered list of alarms in Alarm viewer (SPR #67009) Under some circumstances, the alarms displayed in an Alarm viewer did not match to the expected filter. It could occur if a filter was applied using VBA while quickly opening and closing mimics.	**HMI.Alarm viewer** Other versions: 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**
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**

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**

Version 12.0.13 Release (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 60870-5-104 Client**
ActiveX controls based on .Net loaded twice (SPR #66858) ActiveX controls based on .Net components were loaded twice.	**HMI**
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**
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**
Images not correctly displayed (SPR #66947, 65941) Rendering of images used in *Images* animations (eg: *Image on Bit*) was not correct. The option *Stretch image* was not taken into account.	**Web Server Extensions.WebVue**
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**

2. Critical fixes

Contingent purge not executed (SPR #67005) Since version 12.0, the contingent 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**
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

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

4.Security

Access to the online help and potential security policy infringement
(SPR #66776, 65910)

General
Other versions: 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.

Version 12.0.12 Release (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

Time-out on variable initialization (SPR #66803)

Under some circumstances, a time-out could occur when initializing DNP3 variables.

Data Acquisition.DNP3

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

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
Other versions: 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

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
Other versions: 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

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

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

Blinking colors with indexed colors (SPR #66091)

Blinking colors were not properly displayed on text objects when using indexed colors.

Web Server Extensions.WebVue

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

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

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

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

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

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

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
Other versions: 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

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

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

6. Other fixes & enhancements

SPR #66811, 66857

Version 12.0.11 Release (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

Support of iPad OS 13

WebVue now supports the Safari web browser shipped with iPad OS 13.

Web Server Extensions.WebVue

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
Other versions: 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

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
Other versions: 11.2.06087

Associated labels not correctly displayed with Mismatch 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

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

Font not properly initialized (SPR #66411)

Under some circumstances, text fonts were not properly initialized when using the ASCII format. Consequently, the text graphic item failed to load and display.

HMI.Graphics
Other versions: 11.2.06087

Send Bit animation - Mode Handled and Pulse reworked (SPR #66459, 66439, 66334)

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*.

Web Server Extensions.WebVue

Time filter wrongly disabled in the Log Viewer (SPR #66606)

The Time filter in the Log Viewer was incorrectly disabled if the access to Filtering options was disabled.

Web Server Extensions.WebVue

3. Critical fixes

Session context not taken into account in RealTimeData service (SPR #66609, 66410)

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.

Web Server Extensions.Web Services Toolkit

4. Enhancements

Allow write commands when equipment is in error (SPR #66436)

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.

Data Acquisition.Other built-in drivers

Ability to disable file opening after data export (SPR #65359)

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.

Data Export

Small font size in Send Text animation (SPR #66342, 66038)

When a Send Text animation was configured with direct input, the font size for displaying and typing the text were different.

Web Server Extensions.WebVue

Support of SCADA Basic modes INSERT and REMOVE for Check-list ,Combo-box, List-box and Option-list 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

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
Other versions: 11.0.06101, 11.1.06123, 11.2.06089

5. Other fixes & enhancements

SPR #66192

Version 12.0.10 Release (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**
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 datapoint to map. The issue occurred in particular when the last datapoint to map was of type REAL.	**Configuration Environments.Smart Generators** Other versions: 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**
Issue when changing the binding (SPR #65998, 65964) When changing the binding of a web site, the Registry service end-point 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**
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** Other versions: 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** Other versions: 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** Other versions: 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** Other versions: 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

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

Lost control zones (SPR #66209)

Control zones were lost on polygons after executing them once.

Web Server Extensions.WebVue

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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:

General
Other versions: 10.0SP2_Update, 11.0.06100, 11.1.06122, 11.2.06087

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

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.

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3. Other fixes & enhancements

Version 12.0.9 Release (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
Other versions: 11.2.06078

Memory leak with Trend Logs (SPR #66205)

A significant memory leak occurred when retrieving Trend Logs.

Data Acquisition.BACnet
Other versions: 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

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

Instruction LOGDISPLAY mode FILTER 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

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

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

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

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

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

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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

Version 12.0.8 Release (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
Other versions: 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

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
Other versions: 11.2.06082

Fatal error when importing variables (SPR #64677)

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
Other versions: 11.2.06081

Known Issues

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 Release

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 12, 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 Release
Other versions: 11.2.06094

[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 Release
Other versions: 11.2.06094

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