PcVue
Release Notes

PcVue 12 Release Notes

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Content of the document :	This document contains information about changes in PcVue 12. It includes information up to Maintenance Release 12.0.19.

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

I. Updates

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
12.0.11 Release

Support of iPad OS 13

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

Web Server Extensions.WebVue
12.0.11 Release

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2. 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
12.0.19 Release

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
12.0.19 Release

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
12.0.19 Release

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
12.0.19 Release
Other versions: 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
12.0.19 Release
Other versions: 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
12.0.19 Release

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
12.0.19 Release

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
12.0.19 Release

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
12.0.19 Release

Blinking effect (SPR #65506)

Fix of a blinking effect on the map control when a marker position was updated.

HMI.Map control
12.0.19 Release

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
12.0.19 Release
Other versions: 11.2.06096

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
12.0.19 Release
Other versions: 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* with the 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
12.0.19 Release

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
12.0.19 Release

Fatal error on the Web back end (SPR #67721)

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.

Web Server Extensions
12.0.19 Release

Tooltip displayed for hidden buttons (SPR #68024, 67993)

The tooltip was displayed on graphic objects, even if it was hidden due to a Visibility animation.

Web Server Extensions.WebVue
12.0.19 Release

Alarm viewer sorting not working with checkbox selection (SPR #68143)

In WebVue, sorting was incorrectly done on the adjacent column when the *Line selection mode* was set to *By checkbox*.

Web Server Extensions.WebVue
12.0.19 Release

WebVue no longer refreshed (SPR #68066, 67305)

Under some circumstances, when using popup mimics, WebVue was no longer refreshed and was disconnected after a while.

Web Server Extensions.WebVue
12.0.19 Release

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
12.0.19 Release

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
12.0.19 Release

Virtual keypad - Validate text input with key Enter (SPR #66378, 65503) Text input could not be validated by pressing the physical keyboard key *Enter* (if any). The input could only be validated with the *OK* button of the Virtual keypad.	**HMI.Animations** 12.0.19 Release
Fatal error when configuring a license renter station (SPR #67689, 67090) A fatal error of the Application Explorer occurred when editing 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** 12.0.19 Release
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** 12.0.19 Release
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** 12.0.18 Release
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** 12.0.18 Release
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** 12.0.18 Release
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** 12.0.18 Release
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** 12.0.17 Release 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** 12.0.17 Release
Function Keys configuration lost (SPR #68051) Since version 12.0.16, *Functions Keys* configuration was lost after restarting a project.	**General** 12.0.17 Release

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
12.0.17 Release
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
12.0.17 Release

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
12.0.17 Release

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
12.0.17 Release

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
12.0.17 Release

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
12.0.17 Release

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
12.0.17 Release

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
12.0.17 Release

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
12.0.17 Release
Other versions: 11.2.06096

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
12.0.17 Release

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
12.0.17 Release
Other versions: 11.2.06094

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
12.0.16 Release
Other versions: 11.2.06094

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
12.0.16 Release
Other versions: 11.2.06094

Improper disconnection

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.

WebScheduler
12.0.16 Release

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
12.0.16 Release

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 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.

General
12.0.16 Release

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
12.0.16 Release

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** 12.0.16 Release
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** 12.0.16 Release
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** 12.0.16 Release Other versions: 11.2.06094
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** 12.0.16 Release
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** 12.0.16 Release
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** 12.0.16 Release Other versions: 11.2.06092
Instruction KEY modes ADDPROG ADDCLK & 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** 12.0.16 Release
Residual objects displayed with large preview (SPR #67062) Some residual objects were displayed in images and symbols selectors when using large preview.	**HMI** 12.0.15 Release

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** 12.0.15 Release Other versions: 11.2.06093
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** 12.0.15 Release
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 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.	**TouchVue** 12.0.15 Release
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** 12.0.15 Release
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** 12.0.15 Release 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** 12.0.15 Release
Instruction SQL_COMMAND mode READBUFFERCELL - Empty cells were ignored (SPR #67266) 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.	**Scripting.SCADA Basic** 12.0.15 Release
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** 12.0.15 Release 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** 12.0.15 Release

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
12.0.15 Release

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
12.0.15 Release

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
12.0.15 Release

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
12.0.14 Release

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
12.0.14 Release

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
12.0.14 Release
Other versions: 11.2.06091

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
12.0.14 Release
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
12.0.14 Release

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
12.0.13 Release

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
12.0.13 Release

IEC 104 variables not refreshed (SPR #66723)	**Data Acquisition.IEC 60870-5-104 Client**
Under some circumstances, some IEC 104 variables could not be refreshed at startup or on server switchover.	12.0.13 Release
Unable to edit symbol from the Graphic Explorer (SPR #66665)	**HMI**
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.	12.0.13 Release
Fatal error with symbol containing a Trend viewer (SPR #66968)	**HMI**
A fatal error occurred when manipulating a symbol containing a Trend viewer with the option *Save runtime properties* activated.	12.0.13 Release
ActiveX controls based on .Net loaded twice (SPR #66858)	**HMI**
ActiveX controls based on .Net components were loaded twice.	12.0.13 Release
Fatal error with included mimics (SPR #66854)	**Web Server Extensions.WebVue**
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).	12.0.12 Release
Translation animation with improper control zone (SPR #66230)	**Web Server Extensions.WebVue**
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.	12.0.12 Release
Send and Link animations not available on transparent graphic objects (SPR #66577, 66327)	**Web Server Extensions.WebVue**
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.	12.0.12 Release
Alarm viewer with first column empty (SPR #66855, 59115)	**Web Server Extensions.WebVue**
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.	12.0.12 Release
Blinking colors not working in animation (SPR #66679)	**Web Server Extensions.WebVue**
Blinking colors were not correctly supported in an animation when changing from blinking to fixed color.	12.0.12 Release
Blinking colors with indexed colors (SPR #66091)	**Web Server Extensions.WebVue**
Blinking colors were not properly displayed on text objects when using indexed colors.	12.0.12 Release
Trends not set with SCADA Basic instruction (SPR #66340)	**Web Server Extensions.WebVue**
Opening a mimic and defining trends with the SCADA Basic instruction SETVAR in the same script was not working properly.	12.0.12 Release

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** 12.0.12 Release
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** 12.0.12 Release
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** 12.0.12 Release
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** 12.0.12 Release
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** 12.0.12 Release 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** 12.0.12 Release
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** 12.0.12 Release Other versions: 11.2.06090
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** 12.0.12 Release
Time-out on variable initialization (SPR #66803) Under some circumstances, a time-out could occur when initializing DNP3 variables.	**Data Acquisition.DNP3** 12.0.12 Release
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** 12.0.11 Release
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** 12.0.11 Release

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
12.0.11 Release

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
12.0.11 Release

#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
12.0.11 Release
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
12.0.11 Release

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
12.0.11 Release
Other versions: 11.2.06088

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
12.0.11 Release
Other versions: 11.2.06087

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
12.0.11 Release

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
12.0.10 Release

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
12.0.10 Release

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
12.0.10 Release

Lost control zones (SPR #66209)

Control zones were lost on polygons after executing them once.

Web Server Extensions.WebVue
12.0.10 Release

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
12.0.10 Release
Other versions: 11.2.06087

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
12.0.10 Release
Other versions: 11.2.06086

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
12.0.10 Release

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
12.0.10 Release
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
12.0.10 Release
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
12.0.10 Release
Other versions: 11.2.06086

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
12.0.10 Release

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
12.0.9 Release

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
12.0.9 Release

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
12.0.9 Release

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
12.0.9 Release

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
12.0.9 Release
Other versions: 11.2.06078

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
12.0.9 Release

Memory leak with Trend Logs (SPR #66205)

A significant memory leak occurred when retrieving Trend Logs.

Data Acquisition.BACnet
12.0.9 Release
Other versions: 11.2.06084

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
12.0.9 Release

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
12.0.9 Release

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
12.0.9 Release

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
12.0.8 Release
Other versions: 11.2.06081

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
12.0.8 Release

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
12.0.8 Release
Other versions: 11.2.06083

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
12.0.8 Release
Other versions: 11.2.06082

3. Critical fixes

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

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.

Data Acquisition.IEC 61850
12.0.16 Release
Other versions: 11.2.06094

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
12.0.15 Release

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
12.0.13 Release

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
12.0.13 Release

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
12.0.12 Release
Other versions: 11.2.06090

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
12.0.11 Release

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)	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) and Windows Server 2012 R2	August 13th, 2019	Windows 8.1, and
KB4512478 (Preview of Monthly Rollup) and 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) and Windows Server 2008 R2 SP1	August 13th, 2019	Windows 7 SP1, and
KB4512514 (Preview of Monthly Rollup) and 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.

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

Upgrade Upgrade of HDS table schema (SPR #66166)

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.

Historical data
12.0.9 Release

4. Enhancements

OPC-XML - Support for Http Basic Authentication (SPR #67279, 67278, 65932) The OPC-XML driver now supports Http Basic Authentication.	**Data Acquisition.OPC Client** 12.0.19 Release
Driver XBUS-IP-MASTER - Handling of connection termination (SPR #66310) 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.	**Data Acquisition.Other built-in drivers** 12.0.19 Release Other versions: 11.2.06085
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** 12.0.18 Release Other versions: 11.1.06120, 11.2.06093
Instruction TRACE mode FILE - Message max length (SPR #67950) The instruction *TRACE* mode *FILE*, can now handle a message of up to 2047 characters (was 80).	**Scripting.SCADA Basic** 12.0.17 Release
Support for extended function keys 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.	**General** 12.0.17 Release
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** 12.0.17 Release
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** 12.0.17 Release
Sampling period greater than the export period (SPR #67469) 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.	**Data Export** 12.0.16 Release

Positioning of markers (SPR #67820)

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

HMI.Map control
12.0.16 Release

New method to log messages (SPR #67826)

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

Scripting.VBA
12.0.16 Release

Show/hide columns

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>
```

WebScheduler
12.0.16 Release

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
12.0.14 Release

Default mode of On Text animations (SPR #66983)

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

HMI.Animations
12.0.13 Release

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
12.0.12 Release

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

12.0.11 Release

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
12.0.11 Release

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
12.0.11 Release
Other versions: 11.0.06101, 11.1.06123, 11.2.06089

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
12.0.11 Release

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
12.0.11 Release

5. Performance

Image caching (SPR #66155)

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.

Web Server Extensions.WebVue
12.0.16 Release

GDI object leak (SPR #67251)

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.

HMI.Form controls
12.0.15 Release

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
12.0.15 Release

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
12.0.12 Release

6. Installation

Documentation update

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.

General.Documentation

12.0.17 Release

7. Security

Vulnerabilities in the Web back end modules

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.

Web Server Extensions
12.0.17 Release

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
12.0.15 Release

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

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.

General
12.0.13 Release
Other versions: 11.2.06091

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
12.0.12 Release

8. Other fixes & enhancements

SPR #65348, 68261	12.0.19 Release
SPR #67223, 67986	12.0.17 Release
SPR #67486	12.0.16 Release
SPR #66811, 66857	12.0.12 Release
SPR #66192	12.0.11 Release
SPR #66009, 66150	12.0.10 Release
SPR #66219, 66269	12.0.9 Release

II. Release

1. New features

New data acquisition driver - EtherNet/IP (SPR #64622, 63343)

A data acquisition driver for EtherNet/IP™ controllers is now available.
It supports controllers in the CompactLogix, ControlLogix, DriveLogix and FlexLogix series.

Add-ons and Tools

MultiTech LoRa Gateway interface

A data acquisition driver for MultiTech LoRa Gateways is now available.

Add-ons and Tools

Management of Generic Traps (SPR #64853)

The SNMP Agent Add-on now supports generic traps.

Communication interfaces.SNMP Agent
Other versions: 11.2.06071

New expression items for numbering and offset calculation

A series of new expression items is available to make it easier to establish numbering or offsetting rules for the value of instances' properties.
This includes a counter of the number of child instances, number of embedded instances, number of variables...

Configuration Environments.Application Architect

Modelling of LNS communication items

It is now possible to define LNS Networks and Nodes in templates and instances.

Configuration Environments.Application Architect

Modelling of IEC 61850 communication items

It is now possible to define IEC 61850 Devices, Datasets, Report groups and Polling groups in templates and instances.

Configuration Environments.Application Architect

Modelling of IEC 104 Outstation datapoints

It is now possible to define IEC 104 Outstation datapoints in templates and instances.

Configuration Environments.Application Architect

Modelling of BACnet automation objects

It is now possible to define BACnet automation objects in templates, including objects of type Device, Notification-Class, Calendar, Schedule, Event Log and Trend Log.

Configuration Environments.Application Architect

Modelling of Archive Units and Log List

It is now possible to define archive units and log list in templates and instances.

Configuration Environments.Application Architect

Making multiple copies of a configuration item

It is now possible to paste multiple copies of an item using the Multiple paste command. The Multiple paste command is available from the context menu when a supported item is being copied.

Items supported by the Multiple Paste command:

- Template instance,
- Topology element,
- All configuration objects,
- Mimic,
- Symbol,
- Embedded template,
- All configuration sub-objects except those that can only be configured once.

Configuration Environments.Application Architect

Access MS Excel files from within expressions - File reference and Excel I/O lists

A set of new functions is available. They can be used in expressions to get data from 3rd party Microsoft Excel files, including *TextJoin*, *Lookup* and *Match*.
With the Application Architect, using such expressions to predefine variables addresses in templates, you can use your regular Excel I/O list as an input for mapping variables automatically without error.

These MS Excel file handling functions come with the ability to pre-configure accessible files using the Application Explorer to define file references.
In addition to security concerns, file references allow you to pre-define how and when external files are loaded and unloaded to prevent excessive resource consumption.

Configuration Environments.Application Architect

Application data files modeling

If your application requires application data files, you can now model Xml and text-delimited files thanks to templates and instances.
Examples of use include cases where a script requires a data file containing a list of mimics, a list of branches, a list of trended variables, a hierarchy of mimics for custom mimic navigation…
Such files can now be generated as part of your application modelling.

This new feature supports the modeling of data files required to populate the built-in form controls.

Configuration Environments.Application Architect

New features in the Application Explorer
The following elements are now be available in the Application Explorer:

- Monitoring of active sessions,
- Web & Mobile back ends configuration,
- SQL Connections configuration,
- File references configuration.

Enhancements to the BACnet engineering process, including the automatic detection of fields in vendor-specific EDE files, as well as support for a variety of encoding.

Configuration Environments.Application Explorer

Configuration of populations

Populations can now be configured using the Application Explorer.

As part of this feature, a population filter can be configured using an SQL query-like editor. In addition, population filters can now include filter elements based on extended attributes 5 to 16.

Configuration Environments.Application Explorer

Configuration of line printers

Line printers can now be configured using the Application Explorer.

Configuration Environments.Application Explorer

Upgrade **Configuration of function keys** (SPR #48178) Function keys can now be configured using the Application Explorer. As part of the configuration management, a change has been introduced to simplify project design. What used to be called 'standard' or 'default' function keys are no longer re-created automatically at startup if they have been deleted from the function key configuration. As part of the migration, the project designer shall make sure to delete the function keys that are not necessary. In addition, the SCADA Basic script designed to delete all function keys and re-create only the useful ones can now be safely removed. Please refer to the SCADA Basic online help for more information (see the topic related to the KEY instruction). A specific task is available in the Application Explorer to re-create all default function keys' configuration.	**Configuration Environments.Application Explorer**
New Smart Generator - SG for MOXA® ioLogik A Smart Generator for MOXA® ioLogik is now available. Based on network scanning and online device discovery, it allows you to automate configuration of data acquisition and variables with support for the ioLogik E1200 & E2500 series.	**Configuration Environments.Smart Generators**
New Smart Generator - SG for OPC (SPR #65207, 64830, 64494) A Smart Generator for OPC is now available to automate configuration of variables based on browsing of OPC servers.	**Configuration Environments.Smart Generators**
New Smart Generator - SG for TIA Portal A Smart Generator for TIA Portal is now available to automate configuration of data acquisition & variables based on a TIA Portal project for Siemens PLC.	**Configuration Environments.Smart Generators**
Support for the OPC UA Gateway PcVue now supports the OPC UA Gateway with built-in licensing. It includes: • The OPC UA client gateway for data acquisition, • The OPC UA server gateway for exposing PcVue variables to 3rd party UA clients. See the Installation section of this Release Notes for more information.	**Data Acquisition** Other versions: 11.0.06094, 11.1.06102, 11.2.06055
New data acquisition driver for Moxa® ioLogik controllers A data acquisition driver for Moxa ioLogik controllers is now available - It supports controllers in the E1200 & E2500 series.	**Data Acquisition**
Support for File Transfer services The standard File Transfer services are now supported. This new feature includes: • A file transfer Helper on IEC 61850 devices nodes in the Application Explorer, • The Helper allows browsing files available in devices connected to the network, as well as file Download, Upload and Deletion, • A new SCADA Basic instruction named FILETRANSFER so that the File Transfer services can be scripted, • Background retrieval and synchronization of files. It permits handling files generated and/or stored in field devices, in particular disturbance recording, files containing device settings or configuration.	**Data Acquisition.IEC 61850**
Append mode It is now possible to append new data to an existing export file (Excel and CSV), to seamlessly aggregate data over successive exports.	**Data Export**

Web Deployment Console

A new tool is introduced to support WebVue server & web services deployment needs. The Web Deployment Console (WDC) is designed to support a comprehensive list of scenarios for web server deployment. It can be used side-by-side with IT admin tools:

- For system administrators, it does not require any knowledge of the Web apps & web services being deployed,
- For automation engineers, it opens the door to web server deployments with limited knowledge of the underlying IT technologies.

Using the Web Deployment Console, you will be able to:

- Install the Microsoft IIS web server components,
- Set-up the connection to the underlying web back end,
- Deploy the services you need to support Web & Mobile apps including WebVue, TouchVue, the WebScheduler and the Web Services Toolkit.

The WDC also includes support for troubleshooting, as well as a re-deploy feature that turns an update of the web server into a 1-click action.

Deployment tools.Web Deployment Console

Handling SQL Connections with the SV Manager SDK

A connection and request handler taking advantage of the pre-defined SQL Connections can be used in Add-ons developed based on the SV Manager Toolkit SDK.

Development kits.SV Manager Toolkit

Labels associated to timestamp quality (SPR #61549)

From now on, it is possible to configure the labels corresponding to the timestamp quality. Such labels can be displayed in the Log Viewer, the Alarm Viewer and Animations by using the substitution character #x.

General

SQL Connections

Acting as a SQL bridge, SQL connections facilitate the connection of the Supervisor to 3rd party systems. In particular, SQL connections are useful to exchange data with Enterprise systems such as a MES, CMMS, ERP and Weather data providers.

SQL connections and the underlying SQL request handler can be used as a universal data connector to any external data source provided that a compatible ADO.NET provider is available. The module behind SQL connection handling helps you connect seamlessly to SQL data sources. It includes:

- Request routing inside the Supervisor's multi-station,
- Support for single active server associations for redundancy,
- Asynchronous command handling,
- Centralized connection strings at the project configuration level.

This SQL bridge supports a large variety of database commands including:

- Select, Insert, Update and Delete queries,
- Scalar, tabular and non-query requests,
- Requests on tables, views, stored procedure execution,
- …

Requests can be scripted in SCADA Basic by using the instructions SQL_COMMAND and SQL_CONNECTION, and the underlying request handler can be used in Add-ons developed based on the SV Manager Toolkit SDK.

General

User sessions & scope

General.User management

A comprehensive user session handling is now available. It includes session monitoring & audit, and with the concept of scope, the ability to isolate a variable's value and associated behaviors (events, thresholds, expressions…) within a user session.

System variables and a new SCADA Basic instruction named SESSION are also available so that sessions can be scripted.

HMI variables

HMI

HMI variables are a new kind of variables designed to be less resource-intensive than internal variables. Managed locally on each station, they can be used to handle user inputs and navigation activities, including WebVue. HMI variables are a complement to I/O and internal variables that can be distributed across multi-station systems based on server and client lists. HMI variables supersede the legacy percent variables and temporary variables.

HMI variables can be used in scripts, including SCADA Basic and VBA. They can be created and deleted via SCADA Basic scripts by using the instruction VARIABLE (modes ADD_HMIBIT, ADD_HMIREG, ADD_HMITXT and DEL_HMIVAR), making it easy to migrate applications taking advantage of temporary variables.

New animations on text value

HMI.Animations

New animations are available to animate graphic elements according to a text value: Symbol on Text, Colors on Text, Images on Text and Visibility on Texts.

New animations - Image on bit/register/text

HMI.Animations

A series of new animations is available to switch images according to a bit, register or text value.

Pie, Doughnut and Pyramid chart

HMI.Chart control

A new chart control is available to represent data under the form of Pie, Doughnut and Pyramid charts.

Textbox form control

HMI.Form controls

A new form control for Textbox is available.
The new control supports scripting via SCADA Basic and VBA.

Grid control printing (SPR #63235)

HMI.Grid control
Other versions: 11.2.06058

It is now possible to print a mimic containing a Grid control. Prior to this fix, Grid control could not be printed out.

Predefined station lists

Networking

Several pre-defined station lists are now available when configuring variables:

- System.AllStations, a client list containing all individual stations,
- System.<StationName>, a server list containing only the indicated station.

Call-backs on mimic events

Scripting.SCADA Basic

The SCADA Basic function to call when a mimic is open can now be configured in mimic properties.
In addition, a SCADA Basic function can be called when a mimic is closed.

New SCADA Basic instructions

New SCADA Basic instructions are available to support scripting of new features:

- File transfer handling: FILETRANSFER,
- Pie, doughnut and pyramid chart control: PIE,
- Session handling: SESSION,
- Textbox form control: TEXTBOX.

Several new modes on existing instructions are also added, including enhancements to scripting for form controls, the WEBVUE instruction…

Scripting.SCADA Basic

New instructions for handling of SQL Connections

The instructions SQL_COMMAND and SQL_CONNECTION are now available for scripting SQL Connections.

As of version 12.0, the use of pre-configured Sql connections along with the SQL_CONNECTION and SQL_COMMAND is preferred to using the verb SVSQL (based on ODBC).

Scripting.SCADA Basic

New event on Mimic size change (SPR #63877)

A new VBA event is available on Mimic objects. It is triggered when the size or zoom level of a mimic is modified:

```
Private Sub Mimic_WindowSize(ByVal Height As
Long, ByVal Width As Long, ByVal ZoomRatio As
Long)
```

Scripting.VBA
Other versions: 11.2.06062

TouchVue new features and enhancements

The TouchVue mobile app now supports simultaneous connection to multiple servers and is able to display graphic mimics and symbols.
A re-designed interface makes it for a great user experience and better performances.

TouchVue

Web back end station

To allow for a better network segmentation, the Web back end station can now be deployed on a different server than the Web server (IIS).
This permits deploying Web Server extensions in a network infrastructure taking advantage of a DMZ.

Web Server Extensions

SCADA Basic support (SPR #64634, 64633)

As part of the WebVue client re-design, several enhancements are brought to SCADA Basic support when scripts are executed in the context of a WebVue session.

In addition, support for SCADA Basic instructions and modes when executed in the context of a WebVue session is now detailed in the SCADA Basic section of the online help, instruction per instruction. This includes specific indications such as:

- Supported: The instruction or mode is supported if executed in the context of a WebVue session,
- Not-supported: The instruction or mode is not supported if executed in the context of a WebVue session,
- Partially supported: The instruction or mode is supported if executed in the context of a WebVue session, but have a specific behavior worth being noticed compared to its execution in the context of the desktop client. In some cases, the specific behavior is a known limitation that may be cleared in the future, and in most cases, it is a desired specific behavior due to the nature of the web client.
- Not applicable: The instruction or mode is not applicable to WebVue (and therefore not supported).

Web Server Extensions

Upgrade Re-designed WebVue client

The web client, which was originally designed as a Java applet introduced to the market in the late 90's, now takes full advantage of the latest web technologies. WebVue provides a graphic interface to monitor and control your process from a web browser on any device. WebVue combines user experience, security and ease of deployment.

New features and enhancements include:

- No installation required on the web client side,
- Cross-browser support, including desktop and mobile web browsers,
- Secured communication over HTTPS,
- Support for network segmentation,
- Multi-tab support with a single license.

The technology stack includes HTML5, SVG and REST/JSON web services over web sockets and OAuth.

The SCADA Basic instruction named WEBVUE have been reworked to fit the new web client design.
WebVue deployment now requires the configuration of a Web & Mobile back end (using the Application Explorer), and the use of the Web Deployment Console on the Web Server.
Some configuration settings are deprecated and no longer used. As part of the migration process, we recommend you to check settings related to the Web Server Extensions to make sure they fit your needs.

2. Fixes

DBImport - Incorrect truncations (SPR #62297)

When importing data with the DBImport, some fields were truncated to incorrect sizes. Such truncations are now matching the constraints corresponding to the targeted HDS database schema version.

Add-ons and Tools
Other versions: 10.0SP2_Update, 11.0.06085, 11.1.06066, 11.2.06001

DBImport - Could not import exponential values (SPR #62356)

The DBImport failed to import exponential values (e.g. -3.4E+2).

Add-ons and Tools
Other versions: 11.0.06087, 11.1.06068, 11.2.06001

Various fixes - svmgrHisTrendPeriod (SPR #63890, 63442, 63441)

Two new properties have been added to modify the behavior of the add-on:

- UseLocalTimestampForTrigger: To determine if the timestamp to set on trigger is expressed in UTC time (1) or in Local time (0, default);
- NotifyHistoricalOnly: To send VTQs to the archives only and bypass the runtime control such as dead banding (1) or to execute the runtime control (0, default).

Add-ons and Tools
Other versions: 11.1.06110, 11.2.06061

DB Import - Fatal error on import (SPR #63701)

Under some circumstances, a fatal error could occur when importing data containing Null values, or having the same character used as the decimal and field delimiter.

Add-ons and Tools
Other versions: 11.0.06094, 11.1.06110, 11.2.06059

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svmgrHisTrendPeriod - Out of bounds values incorrectly archived

When a variable value was out of bounds, the quality of the variable recorded was *NS* instead of *NS L>* or *NS L>*.

Add-ons and Tools
Other versions: 11.1.06112, 11.2.06064

Unmasked alarms remained NS (SPR #64268)

Under some circumstances, alarms were not unmasked when their previous status was masked by dependence. The issue occurred when the masking dependence had a transition from invalid to valid.

Alarms
Other versions: 11.2.06071

Could not create Alarm synthesis (SPR #65667, 65666)

It was not possible to create Alarm Synthesis from a station that did not belong to the alarm synthesis server list.

Alarms
Other versions: 11.2.06079

Several fixes & enhancements related to alarm synthesis (SPR #65035, 65022, 65021, 65020, 64887)

The list of fixes & enhancements includes:

- Improved handling of the @ character,
- Prevent creation of 2 alarm synthesis with the same result variable and different branches,
- Enhanced input validation to prevent forbidden characters in the variable name.

Alarms
Other versions: 11.2.06073

Masking of alarms resulting from an expression (SPR #63223)

User masking (via the Alarm Viewer or SCADA Basic instruction) of alarms that are the result of an expression was not effective. The issue was not affecting masking by dependence (expression or variable).

Alarms
Other versions: 11.1.06102, 11.2.06056

Alarms with empty Domain/Nature not filtered by Population (SPR #64998)

Alarms with an empty Domain and/or Nature were still displayed after applying a population that contained filter on Domain and/or Nature. Text Attributes 03 to 16 were also impacted.

Alarms

NS alarm counters not correctly initialized

The initial values were incorrect for NS alarm counters.

Alarms
Other versions: 11.2.06068

Alarm masked by expression instead of masked by variable (SPR #64822)

When an alarm was masked by a variable, it was incorrectly indicated as masked by an expression.

Alarms
Other versions: 11.2.06071

Audit counter not correctly updated (SPR #64877)

After several days, the audit counter *Target manager good response UI counter not released* was not correctly updated. It was leading to the unnecessary activation of flow control, in particular for OPC.

Audit
Other versions: 11.1.06116, 11.2.06076

Client connections rejected (SPR #62859, 62858)

Under some circumstances, client connections were rejected by the server. In particular with redundant PcVue servers or on computers having multiple network interfaces.

Communication interfaces.IEC 60870-5-104 Outstation
Other versions: 11.2.06034

Could not create IEC 104 Outstation in Chinese (SPR #62787)

The dialog box to create an IEC 104 outstation never opened due to a translation issue. The issue only occurred when running PcVue in Chinese.

Communication interfaces.IEC 60870-5-104 Outstation
Other versions: 11.2.06030

Configuration not saved dynamically (SPR #62858)

The configuration of IEC 104 Outstation was only saved on project shutdown, and not on the *Save* action of the configuration environment.

Communication interfaces.IEC 60870-5-104 Outstation
Other versions: 11.2.06034

Robustness when exposing a large number of items (SPR #62379)

A freeze of Sv32.exe could occur at startup if the number of items exposed was large (approximately over 2000). It was due to the subscription of the configured items.
Now the subscription is done at once upon sector start, and unsubscription at sector stop.

Communication interfaces.IEC 60870-5-104 Outstation
Other versions: 11.2.06001

Fatal error when adding an item (SPR #62771)

A fatal error occurred when an OPC client was trying to add an item with the *ItemId* set to NULL.

Communication interfaces.OPC Server
Other versions: 11.1.06091, 11.2.06031

Fatal error upon OPC group disposal

Under some circumstances, a fatal error could occur when an OPC Group was incorrectly disposed of by an OPC Client.

Communication interfaces.OPC Server
Other versions: 11.1.06115, 11.2.06071

Fatal error on new client connection to the OPC Server Under some circumstances, a fatal error was occurring when several OPC clients were trying to connect to the OPC Server at the same time.	**Communication interfaces.OPC Server** Other versions: 11.2.06076
Fatal error when trying to insert a variable in a SCADA Basic program (SPR #63971) A fatal error could occur when opening the variable selector from the SCADA Basic Editor.	**Configuration Environments** Other versions: 11.2.06063
Fatal error upon alarm deletion (SPR #64152) Under some circumstances, a fatal error could occur when deleting an alarm configured with associated actions. The issue occurred particularly when synchronizing a configuration with the Application Architect.	**Configuration Environments** Other versions: 11.2.06076
Duplicated objects (SPR #62097, 16924, 15998) Under some circumstances, some configuration items were displayed twice in the Application Explorer after creating, importing or editing them. Re-opening the Application Explorer was solving the issue.	**Configuration Environments** Other versions: 11.2.06058
Incorrect pre-selection in selectors (SPR #58906) Symbol, mimic, mimic template and program selectors have been improved to display and pre-select the correct library and the correct item when being re-open. The issue was affecting all configuration tools, in particular: • The Application Architect when changing a symbol or a mimic template already defined/used in a template, • The Application Explorer when modifying a mimic action associated to an alarm, • Smart Generators such as the SG-CAD...	**Configuration Environments** Other versions: 11.2.06025
Changing variable type (SPR #65004, 64020, 61529) Changing the type of a variable through Smart Generators or Application Architect was not working properly. The initial type of the variable was kept.	**Configuration Environments**
Fatal error on frame modification (SPR #64748, 60724) Under some circumstances, a fatal error could occur when modifying a frame.	**Configuration Environments** Other versions: 11.2.06073
Size limit of IEC 61850 configuration properties (SPR #63761, 63760, 63759) The max size and range of several properties of IEC 61850 devices were not correctly checked in the Application Explorer and Application Architect: • Password (80 characters) • Local AP IP (19 characters) • Remote AP IP (19 characters) • Local AE Qualifier (range [0..65000])	**Configuration Environments**
Max period for cyclics (SPR #61676) The allowed range for a cyclic period was not defined. From now on, the range is enforced from 1 to 359 999 sec (99h 59min 59sec).	**Configuration Environments** Other versions: 11.2.06035

Missing panels (SPR #62639) Under some circumstances, some panels were hidden due to an incorrect saving of the splitter positions.	**Configuration Environments.Application Architect** Other versions: 11.1.06089
Could not set inhibiting bit of trends (SPR #62532) An error was raised when generating after having changed the *Inhibiting bit* property of a *trend* item in the Application Architect.	**Configuration Environments.Application Architect** Other versions: 11.1.06079, 11.2.06023
Could not create multiple instances at once Multiple instantiation of inherited templates was not possible.	**Configuration Environments.Application Architect** Other versions: 11.1.06091, 11.2.06031
Could not create Associated Labels (SPR #64224) It was not possible to create Associated Labels that were defined by expressions.	**Configuration Environments.Application Architect** Other versions: 11.2.06064
Properties not displayed Some properties of variable items were not displayed when the source was substituted (ScaledValue, DeviceMinimumValue, DeviceMaximumValue, DeadbandValue, DeadbandType).	**Configuration Environments.Application Architect** Other versions: 11.2.06073
Fatal error when resetting Initial Value A fatal error was occurring when resetting the *Initial Value property* of a *Register* variable item.	**Configuration Environments.Application Architect** Other versions: 11.2.06026
Could not insert global parameters in expressions (SPR #63387) Global parameters were not displayed and therefore could not be inserted when defining a property by an expression. Inserting them manually was working properly.	**Configuration Environments.Application Architect** Other versions: 11.2.06057
Naming rule evaluation The naming rule was not always correctly evaluated on mimic items.	**Configuration Environments.Application Architect** Other versions: 11.2.06020
Mimic generated in the wrong library When a mimic was generated in a library, the friendly name of the library was used instead of its directory path.	**Configuration Environments.Application Architect**
Incorrect symbol insertion with missing parameter value When inserting a symbol which position is calculated with a parameter and the parameter value is not given (either by input or by default value), the symbol position is by default set to upper-left. A warning message is still displayed in the generation window ("missing parameter").	**Configuration Environments.Application Architect** Other versions: 11.2.06033

Incorrect generation of mimics and symbols (SPR #62440) Symbols and mimics were not properly generated when parameters were used to define some of their properties.	**Configuration Environments.Application Architect** Other versions: 11.0.06087, 11.1.06076, 11.2.06020
Alarm Synthesis Server List not inherited by global parameter Global parameters affecting the *Server List* property were not applied properly to *Alarm Synthesis* objects.	**Configuration Environments.Application Architect** Other versions: 11.2.06038
Impossible to paste alarm behavior on threshold items (SPR #62664) It was not possible to paste an alarm behavior on a variable's threshold.	**Configuration Environments.Application Architect** Other versions: 11.2.06025
Mimic modifications lost upon synchronization (SPR #65016) When synchronizing a project, modifications in mimics were lost. Mimics were re-created instead of being updated.	**Configuration Environments.Application Architect** Other versions: 11.2.06073
Fatal error on SNMP variable generation (SPR #65293) A fatal error occurred when generating SNMP variables after the end of the trial period.	**Configuration Environments.Application Architect** Other versions: 11.2.06076
Creation of alarm synthesis with branch and expression (SPR #62351) It was not possible to create an alarm synthesis using both a branch and an expression. Such a configuration was working properly when using the Application Explorer.	**Configuration Environments.Application Architect** Other versions: 11.1.06073, 11.2.06010
Global parameter Client List applied to Cyclic and Event objects When configuring a global parameter for the *Client List* property with targeted object type set to *Any*, *Cyclic* and *Event* items were affected even if they should not. This was leading to a failure of the generation.	**Configuration Environments.Application Architect** Other versions: 11.1.06085, 11.2.06026
Unused parameters (SPR #62493) Under some circumstances, a parameter removed from a template could remain visible in the instance panel.	**Configuration Environments.Application Architect** Other versions: 11.2.06020
Setting Associated Labels on instances (SPR #62644) A fatal error was occurring when trying to set the Associated Labels of a variable at the instances level.	**Configuration Environments.Application Architect** Other versions: 11.2.06025
Message Encoding property not editable (SPR #62349) The *Message Encoding* property of events of type e-mail was not editable.	**Configuration Environments.Application Architect** Other versions: 11.2.06001

Global parameters not working with unmanaged SNMP devices

Global parameters were not working properly with unmanaged SNMP devices.

Configuration Environments.Application Architect
Other versions: 11.1.06092, 11.2.06033

Default filter on variable selector for trends (SPR #61378)

The default filter on variable type was incorrect when the variable selector was used in the context of trend configuration. Under some circumstances, text variables were displayed instead of register variables.

Configuration Environments.Application Explorer
Other versions: 11.2.06001

Fatal error of the Application Explorer (SPR #62182, 62181)

A fatal error occurred when handling items having several contextual tasks in the Application Explorer (tasks in the left panel). The issue was due to a leak of *User* system objects and could happen after several thousand clicks.

Configuration Environments.Application Explorer
Other versions: 11.2.06001

Exception on pasting an item (SPR #64083)

Under some circumstances, an exception was raised when pasting an item that had been deleted after being copied.

Configuration Environments.Application Explorer

Trends behavior not removed after deletion (SPR #62536)

Application Explorer was not correctly refreshed after deleting a HDS trend when the archive unit was set for read-only or when the connection to the database was in error.

Configuration Environments.Application Explorer
Other versions: 10.0SP2_Update, 11.0.06093, 11.1.06093, 11.2.06034

Fatal error when browsing an OPC Server

Under some circumstances, a fatal error could occur in the Application Explorer when browsing an OPC DA3.0 Server with a multiple of 1000 items within the browsed branch.

Configuration Environments.Application Explorer

Trends items after archive unit deletion (SPR #63573)

Trends were not correctly removed when their associated archive unit was deleted.

Configuration Environments.Application Explorer

Fatal error on Log list creation (SPR #64564)

A fatal error could occur when creating a Log list when no default Database or Log table is defined.

Configuration Environments.Application Explorer

Fatal error on branch deletion (SPR #62189)

Under some circumstances, a fatal error could occur when deleting a branch containing a large amount of sub-branches and variables.

Configuration Environments.Application Explorer

Variable browser not correctly resized (SPR #62881)

Under some circumstances, the variable browser was not correctly resized after opening its context menu.

Configuration Environments.Application Explorer
Other versions: 11.2.06038

Inhibiting bit on events (SPR #60551)

Removing the inhibiting bit behavior of an event was only deleting the bit variable. It now also reset the inhibiting bit property of the event.

Configuration Environments.Application Explorer
Other versions: 11.2.06020

Additional child nodes in navigation tree (SPR #62340, 62334)

Some child nodes were wrongly displayed in the navigation tree of the SNMP Manager and BACnet.

Configuration Environments.Application Explorer
Other versions: 11.2.06001

Incomplete OPC Mapping

Some links between OPC items and variables were missing in the Mapping dialog box, despite having the link correctly configured within the variable configuration dialog box. This was due to a case sensitiveness issue.

Configuration Environments.Application Explorer

Improved indications upon configuration saving (SPR #58667)

The indications related to the configuration saving process have been improved. This includes a specific message if a configuration file cannot be saved because it is open in another application (such as Microsoft Excel or a text editor).

Configuration Environments.Application Explorer
Other versions: 11.2.06020

Upgrade Linking Bit Associated Label to alarm variable and vice-versa (SPR #62606)

Prior to version 11.2, it was possible to link a *Bit Associated Label* to an alarm variable and an *Alarm Associated Label* to a bit variable, which was no longer possible since 11.2.05001. A new Compatibility setting is available to enable such a configuration. It is activated by default when upgrading a project and deactivated with new projects.

Configuration Environments.Application Explorer
Other versions: 11.2.06026

Variable modification not taken into account (SPR #63186, 63185, 63076)

Some variable configuration modifications were not taken into account when several variable configuration dialog boxes were opened at the same time.

Configuration Environments.Application Explorer
Other versions: 11.2.06056

Fatal error when editing a population having more filter elements than authorized

A fatal error occurred when trying to edit a population having more filter elements than the authorized limit (50). This could happen when a population is created using the SCADA Basic instruction or by editing the configuration file. Now, the number of filter elements is enforced correctly when creating a population via SCADA Basic and at loading time.

Configuration Environments.Application Explorer
Other versions: 11.2.06058

Upgrade **Log list transitions inverted** (SPR #62312) After applying a modification on a database log list, the transitions "*Change to 1*" and "*Change to 0*" were inverted. Prior to this fix, the recorded events were the ones displayed at the opening of the configuration window. The Generic Import had the same issue. This issue had no side effect in the many cases when both transitions "*Change to 1*" and "*Change to 0*" were recorded in the same log list.	**Configuration Environments.Application Explorer** Other versions: 11.0.06087, 11.1.06066, 11.2.06001
Auto-completion in expression (SPR #63968) The auto-completion was not working properly when editing an expression.	**Configuration Environments.Application Explorer** Other versions: 11.1.06113, 11.2.06064
Loss of custom format for Register variables (SPR #64153) Custom format of register variables could be lost due to an improper initialization of the corresponding property when re-opening the variable's configuration dialog box.	**Configuration Environments.Application Explorer** Other versions: 11.2.06068
Thresholds behavior not refreshed (SPR #64809, 64036, 60434, 59018, 59017, 58623, 48177) Thresholds behaviors were not correctly refreshed in the Application Explorer when adding, modifying or deleting them.	**Configuration Environments.Application Explorer**
Clipboard support for Associated Labels (SPR #62514) It is now possible to Copy/Cut/Paste Associated Labels configuration items.	**Configuration Environments.Application Explorer** Other versions: 11.2.06025
Selection lost in combo box (SPR #65578) Entering and leaving the edit mode in a combo box caused the selected value to be reset when the combo box was in a tree view such as in settings dialog boxes or in the advanced property tab of most configuration items. In addition to improving the user experience, this fix also avoid losing configuration values in cases the configuration element was not actually changed.	**Configuration Environments.Application Explorer**
Missing icons added (SPR #62513) Several missing icons added in Labels configuration.	**Configuration Environments.Application Explorer** Other versions: 11.2.06026
Fatal error with quick connections & disconnections A fatal error could occur in the Application Explorer when IEC 104 devices were quickly connecting and disconnecting (due to network issues for example).	**Configuration Environments.Application Explorer**

Copying/Pasting user profile When copying and pasting a user profile, the associated user are no longer copied.	**Configuration Environments.Application Explorer**
Unable to add Threshold on Alarm Counter (SPR #64482) It was not possible to add Threshold behavior on System Alarm Counter such as *System.NoAckOn.All.Domain_*.*	**Configuration Environments.Application Explorer**
Generic Import - Events not synchronized (SPR #62824) When using the Generic import, events were not correctly synchronized due to automatic naming mechanism.	**Configuration Environments.Smart Generators** Other versions: 11.2.06035
Size of the Generation dialog increasing (SPR #64477) The size of *Configuration Generation* dialog was increasing after several generations, in particular when generating from the Application Architect.	**Configuration Environments.Smart Generators**
Fatal error when importing variables (SPR #63680) Under some circumstances, a fatal error could occur after importing new variables when the project was configured with the option *Permanent scan for mimics* activated.	**Configuration Environments.Smart Generators** Other versions: 11.2.06059
SG-Unity - Fail to create new import (SPR #62292) A fatal error occurred when trying to create a new Unity import after the creation of an OPC XML-DA server.	**Configuration Environments.Smart Generators** Other versions: 11.1.06094, 11.2.06036
SG-CAD - Image cropping (SPR #63126) Free cropping has been reworked and now correctly generates background images for mimics.	**Configuration Environments.Smart Generators**
SG-Step7 - Fatal error when importing a large amount of variables (SPR #61543) Under some circumstances, a fatal error could occur when importing a Step7 configuration with a large amount of variables (over 100 000). It was also linked to the computer's performances.	**Configuration Environments.Smart Generators** Other versions: 11.2.06038
Generic Import - Trailing spaces removed in extended attributes (SPR #63100) Trailing space characters in extended attributes' values were removed when importing configuration with the Generic Import. This regression appeared in the following versions: • 11.0.06074 • 11.1.06033 • 11.2.05001	**Configuration Environments.Smart Generators** Other versions: 11.2.06054
SG-BACnet - Missing variable after synchronization (SPR #63801) Under some circumstances, when synchronizing a project based on an EDE file, the first variable declared was deleted. This was due to an incorrect formatting of the header line in the EDE	**Configuration Environments.Smart Generators**

Fatal error on DDE configuration import (SPR #64553)

A fatal error could occur when importing an incomplete configuration of DDE Client.

Configuration Environments.Smart Generators

Generic Import - Compatibility of OnVariableExpressions items (SPR #63111)

Since version 11.2, it was no longer possible to use the result variable name as the id of *OnVariableExpressions* items.

Configuration Environments.Smart Generators
Other versions: 11.2.06055

SG-TwinCAT - Could not import undefined type arrays (SPR #62940)

A fatal error occurred when importing a *.tpy* file containing an array with undefined type. From now on, in such condition, the array is ignored during the import.

Configuration Environments.Smart Generators
Other versions: 11.2.06035

Fatal error when closing SG imports

A fatal error could occur when closing the Smart Generator imports list if a file was referred to several times in the import references.

Configuration Environments.Smart Generators

XML Generic Import - Synchronization by drag & drop (SPR #64770)

When dragging and dropping a file in the XML Generic Import smart generator dialog box, a fatal error occurred if the file had already been imported once. Now it runs a synchronization.

Configuration Environments.Smart Generators

Duplicated items after import (SPR #64077, 64076, 64075)

Under some circumstances, existing items were duplicated due to case sensitiveness issues.

Configuration Environments.Smart Generators

Fatal error when stopping BACnet communication (SPR #65438)

Under some circumstances, a fatal error could occur at shutdown if the project took advantage of BACnet Alarms.

Data Acquisition.BACnet
Other versions: 11.2.06076

Fatal error on property value update (SPR #65801)

A fatal error could occur when a property value was updated on a client station from the BACnet helper.

Data Acquisition.BACnet
Other versions: 11.2.06080

Fatal error on reinit message

Under some circumstances, a fatal error could occur, when sending a re-initialization message to a device protected by a password.

Data Acquisition.BACnet
Other versions: 11.2.06025

Associated labels not refreshed (SPR #61820)

After a configuration modification, associated labels linked to Schedule objects were not correctly refreshed in the Application Explorer.

Data Acquisition.BACnet
Other versions: 11.2.06034

Trend Log not correctly retrieved after a switchover (SPR #64824)

Under some circumstances, Trend Logs could be retrieved several times after a switchover in case of data acquisition redundancy.

Data Acquisition.BACnet
Other versions: 11.2.06072

Unable to write XML data to SetPoint-Reference & Accumulator-Record

It was not possible to write XML value in *SetPoint-Reference* and *Accumulator-Record* datatypes properties.

Data Acquisition.BACnet
Other versions: 11.2.06055

Fatal error upon acknowledgment notification (SPR #65187)

Under some circumstances, a fatal error occurred due to a notification of type acknowledgment event (ACK-NOTIFICATION).

Data Acquisition.BACnet
Other versions: 11.2.06075

Fatal error upon alarm acknowledgement (SPR #64600)

Under some circumstances, a fatal error could occur when processing alarm acknowledgement in Notification-Class objects.

Data Acquisition.BACnet
Other versions: 11.2.06072

Device incorrectly considered as offline

Under some circumstances, devices were incorrectly displayed as offline. The issue occurred with devices containing a large number of notification-class objects if their initialization was taking longer than the configured time-out.

Data Acquisition.BACnet
Other versions: 11.2.06057

Trend Log records retrieval (SPR #62387, 62370)

Trend Log records were not all retrieved and displayed in the Helper when several ReadRange requests were necessary to process the request.

It was a known issue since version 11.2.05001.

Data Acquisition.BACnet
Other versions: 11.2.06010

Datatype Egress-Time not recognized

Properties of type *Egress-Time* were not correctly detected when browsing devices.

Data Acquisition.BACnet
Other versions: 11.2.06055

Handling of duplicated DeviceId (SPR #62904, 62709, 62221)

A fatal error could occur when stopping a network in case of duplicate *DeviceId* on the network.

Data Acquisition.BACnet
Other versions: 11.2.06034

Several fixes & enhancements (SPR #62581, 62576)

The list of fixes & enhancements includes:

- New traces and audit counters for COV subscription and unsubscription,
- General enhancement of COV subscriptions handling,
- COV unsubscriptions were not always sent, in particular in case of communication failure or manual stop of the network,
- The minimum COV subscription lifetime is now 10 mn,
- A fatal error was occurring in the Application Explorer when applying reset property from EDE mapping,
- Incorrect look-up of Trend Log & Trend Log Multiple in case a variable was mapped on a BACnet object and its Present Value was trend logged at the device level. The consequence was that the Trend Log buffer was never retrieved. The look-up was correct when the variable was mapped on the trended BACnet object property.

Data Acquisition.BACnet
Other versions: 11.2.06023

Values not always refreshed in the BACnet mapping editor (SPR #62197)

The value of properties displayed in the BACnet mapping editor was not always refreshed when opening the dialog box.

It was a known issue since version 11.2.05001.

Data Acquisition.BACnet
Other versions: 11.2.06001

Truncated description (SPR #62193)

Some texts comprising double-quote characters were truncated, in particular in the object-description properties.

Data Acquisition.BACnet
Other versions: 11.2.06001

Using reserved and proprietary properties (SPR #62926, 62734)

It is now possible to view and map variables on properties whose identifier is in the reserved but undefined range (as per the BACnet standard).
Proprietary properties are also displayed in the mapping editor and variables can be map on them.
In such cases, values will be handled correctly at runtime if the property type is standard and supported (as per the PICS).

Data Acquisition.BACnet
Other versions: 11.2.06034

Fatal error when loading large EDE file (SPR #65013)

Under some circumstances, a fatal error could occur when loading large EDE files. From now on, only the first 10000 lines of the file are loaded and a warning message will be displayed in the Event Viewer if this limit is reached.

Data Acquisition.BACnet

Could not read UCS_2 character type (SPR #62833)

A fatal error was occurring when reading properties encoded with UCS_2 character type.

Data Acquisition.BACnet
Other versions: 11.2.06034

Truncated value sent for writing (SPR #63995)

Under some circumstances, the value sent when writing a floating point number was truncated (e.g.: 10.3 was sent as 10)

Data Acquisition.BACnet
Other versions: 11.2.06071

Fatal error when retrieving Trend Log with on-demand reads (SPR #65515)

Under some circumstances, a fatal error could occur when retrieving Trend Log or Notifications with the on-demand read mechanism, in particular with configuration having many Trend Log objects configured (>1000).

Data Acquisition.BACnet
Other versions: 11.2.06078

Column notification-class in EDE file (SPR #65083)

The column *notification-class* as specified in the EDE v2.3 spreadsheet is now supported.

Data Acquisition.BACnet

Fatal error when watchdog property not defined

Since version 11.2, a fatal error could occur when the watchdog property of BACnet device was not defined.

Data Acquisition.BACnet
Other versions: 11.2.06080

Fatal error with complex-event-type notifications (SPR #62861)

A fatal error occurred upon reception of a notification of type *complex-event-type* with no parameter.

Data Acquisition.BACnet
Other versions: 11.2.06032

Parsing vendor-specific columns (SPR #64479)

Fix of a fatal error occurring when parsing EDE files if a vendor-specific columns is located before standard columns.

Data Acquisition.BACnet
Other versions: 11.2.06067

Unable to write to enumerated proprietary property

It was not possible to write a proprietary property if its BACnet datatype was "enumerated".

Data Acquisition.BACnet
Other versions: 11.2.06055

Fatal error on network stop (SPR #62229)

A fatal error was occurring when stopping a Network with a disconnected Device.

Data Acquisition.BACnet
Other versions: 11.2.06001

Several fixes & enhancements related to BACnet (SPR #62580, 62574, 62573, 62561, 62554, 62552, 62551, 62252, 62244)

The list of fixes & enhancements includes:

- Fixed dialog box resizing issues in the Helpers,
- Improved persistency of the Mapping Editor dialog box sizes,
- When a variable is mapped on a BACnet object, its status is now set to NS if the *status-flag* is "bad" (was set to NS-COM),
- Fix of regression - The Scale property was not taken into account properly when calculating the value of *Accumulator* objects,
- Trend Log buffer retrieval from the Helpers is now working properly when used from a PcVue client station (remote BACnet data acquisition server),
- Improved fallback in case a read of a Trend Log buffer returns a "value-out-of-range" error.
  This error is returned if PcVue is trying to read buffer sequence-number that are no longer available in the device. In such a situation, the buffer read is retried by requesting data based on the timestamp of the older record available in the Trend Log buffer.
  In particular, Trend Log buffers are retrieved by sequence-number at start-up (if available),
- A new setting is available to indicate whether Trend Log buffer reads via the Helpers have to be stored in the archives or not. This setting defaults to False,
- Improved tracing of Trend Log record storage in the archives,
- In the Helpers, the selection of a Trend Log object was causing a useless read of its buffer,
- At startup or upon reconnection, a first record was stored in the archives based on real time values,
- Under some circumstances, a fatal error could occur when shutting down PcVue while a BACnet network was already in the stop phase,
- Writing of one bit within a bitstring based on field extraction (as defined at the time of mapping) was not working properly.

Data Acquisition.BACnet
Other versions: 11.2.06020

Fatal error on writing time-out (SPR #63276)

Under some circumstances, fatal errors could occur in case of time-out after sending writes command.

Data Acquisition.BACnet
Other versions: 11.1.06110, 11.2.06059

Invalid variables for some object types (SPR #61072)

When a variable was mapped at the object level on an object of type Calendar, Group, Averaging or Command, it was never initialized properly and its status was always NS_COM.

Data Acquisition.BACnet
Other versions: 11.2.06026

Fatal error after stopping BACnet communication

Under some circumstance, a fatal error could occur when stopping the BACnet communication, in particular when notification-class were operating.

Data Acquisition.BACnet
Other versions: 11.2.06056

Time-out message with Trend Logs (SPR #64891)

A time-out message was displayed at startup for all trended variables linked to a BACnet Trend Log.

Data Acquisition.BACnet
Other versions: 11.2.06072

Failure on Read requests (SPR #62437)

Under some circumstances, read requests could fail due to a time-out when the device did not support segmentation. It occurred in particular when reading properties returning large result sets such as the object-list (Device object) or recipient-list (Notification Class object).
This issue happened in many circumstances when using the SCADA Engine simulator.

To avoid such a situation, a new setting can be edited in the file *C\VarConf.dat* to set the time-out of read requests. Its default value is now 60 s (was 30 s).

Data Acquisition.BACnet
Other versions: 11.2.06010

Fatal error at the end of the trial period

Under some circumstances, a fatal error could occur at the end of the trial period.

Data Acquisition.BACnet

ADPU size limitation (SPR #63022)

The max APDU size in advanced settings of device is now limited to 1476 (as defined in the standard), except in mode "Display Advanced Features" where it can be adjusted up to 100 000. In addition, it is no longer required to restart the device to apply APDU length modifications.

Data Acquisition.BACnet
Other versions: 11.2.06038

Incorrect value retrieved for the Accumulator object (SPR #63021)

The retrieved value after calculation kept the same datatype as the present-value property (unsigned integer) leading to rounded values (e.g. value "3.0" was retrieved instead of "3.4" for example).

Data Acquisition.BACnet
Other versions: 11.2.06039

Failed to write Boolean properties (SPR #62950, 62937)

It was not possible to write Bit variables linked to a BACnet property of type Boolean (such as out-of-service).

Data Acquisition.BACnet
Other versions: 11.2.06035

Empty object-type and var-type lists (SPR #62962)

The lists of object-type and var-type were empty when the associated device was disconnected.

Data Acquisition.BACnet

Improved robustness of Trend Log property reading (SPR #62785)

A fatal error of Sv32.exe could occur when receiving an incorrect response to a request for reading some properties of Trend Log and Trend Log Multiple objects. The issue could occur at initialization time, or when using the Trend Log Helper.

Data Acquisition.BACnet
Other versions: 11.2.06030

EDE mapping (SPR #62229)

Several fixes have been implemented for the EDE mapping. In particular, proprietary objects and alarm configuration are now properly supported.

Data Acquisition.BACnet
Other versions: 11.2.06001

Incorrect day in Schedule helpers

In the Helper for Schedule objects, "Monday" was written in front of each days of *BACnetDailySchedule* arrays.

Data Acquisition.BACnet
Other versions: 11.2.06026

Fatal error after multiple connections & disconnections (SPR #65176)

A fatal error due to a deadlock could occur after multiple connections & disconnections.

Data Acquisition.BACnet
Other versions: 11.2.06073

Historical buffer not retrieved at startup (SPR #62803)

At startup, only the last change was read and not the full buffer.

Data Acquisition.DNP3
Other versions: 11.2.06037

Fatal error with multiple connection/disconnection (SPR #64497)

A fatal error was occurring in the Application Explorer in case of multiple fast connection/disconnection.

Data Acquisition.DNP3
Other versions: 11.2.06068

Fatal error when sending freeze commands

A fatal error occurred when sending a freeze command to a disconnected device.

Data Acquisition.DNP3
Other versions: 11.2.06064

Fatal error with offline devices (SPR #63750)

Under some circumstances, a fatal error could occur when the DNP3 driver was trying to check the IIN bits of an offline device. The issue could happen when the communication was lost while checking the IIN.

Data Acquisition.DNP3
Other versions: 11.2.06060

Incorrect device status on passive servers

In an association of type single active server, the device status displayed on passive servers was incorrect. The status as seen by the active server was displayed.

Data Acquisition.DNP3
Other versions: 11.2.06064

Inconsistent timestamp and quality after switchover

Timestamp source and quality were lost after a switchover in a single active association.

Data Acquisition.IEC 60870-5-104 Client
Other versions: 11.1.06070, 11.2.06001

GI, CI and ClockSync sent only once

The GI, CI and ClockSync commands were sent only once.

Data Acquisition.IEC 60870-5-104 Client
Other versions: 11.1.06080, 11.2.06024

Various fixes & enhancements to the IEC 104 driver (SPR #63189, 62402)

The list of fixes & enhancements includes:

- Under some circumstances, the use of commands such as Reset, Clock synch and Test from the Application Explorer could cause the PcVue main process to shut down due to watchdog detection,
- The Reset, Clock synch and Test commands can now be executed from a PcVue client station or a passive data acquisition server. Until this enhancement, it could be successfully executed only from the active data acquisition server,
- Fix of a fatal error occurring at network startup. The issue only occurred with configurations comprising a large amount of sectors.

Data Acquisition.IEC 60870-5-104 Client
Other versions: 11.1.06099, 11.2.06054

Fatal error on network start (SPR #62402) Under some circumstances, a fatal error could occur when starting an IEC 104 network. The issue could be reproduced when a large number of sectors was configured.	**Data Acquisition.IEC 60870-5-104 Client** Other versions: 11.1.06080, 11.2.06024
Fatal error with multiple write commands (SPR #62402) Under some circumstances, a fatal error could occur when several write commands were processed at the same time.	**Data Acquisition.IEC 60870-5-104 Client** Other versions: 11.1.06102, 11.2.06055
Fatal error with periodic clock synch (SPR #63227) A fatal error could occur at start-up when a sector was configured to use UTC timestamps while also configured to periodically send clock synchronization commands. The issue was a regression introduced recently in PcVue 11.2.0.06054.	**Data Acquisition.IEC 60870-5-104 Client** Other versions: 11.2.06055
Handling of invalid timestamp Invalid timestamps received from IEC 104 devices were interpreted as valid. Prior to this fix, only the unsync qualifier was taken into account to update the timestamp quality.	**Data Acquisition.IEC 60870-5-104 Client** Other versions: 11.1.06069, 11.2.06001
Abnormal long execution time for SBO with Single Point (SPR #62854) It could take up to 10 sec to execute a Select Before Operate action when using the corresponding SCADA Basic instruction with a Single Point. It did not occur with other data types.	**Data Acquisition.IEC 60870-5-104 Client** Other versions: 11.2.06038
Fatal error when sending a command (SPR #64550) A fatal error occurred when sending a control for a BSC data class.	**Data Acquisition.IEC 61850** Other versions: 11.2.06068
IEC 61850 & IEC 61400-25 catalogs updated (SPR #62592, 62501) The IEC 61850 catalog has been updated to fix a series of issues and enabling mapping of complex CDCs from the mapping dialog box (61400-25's SPV and alike). These changes also fix some issues when specializing or extending the catalog in a project's specific catalog file.	**Data Acquisition.IEC 61850** Other versions: 11.1.06082, 11.2.06026
Command locked if control model is SBOw or DEw Commands with control models SBOw and DEw were locked when they the controlled value was not of type boolean.	**Data Acquisition.IEC 61850** Other versions: 11.2.06068
Command property not enabled when variable created from the Mapping dialog box (SPR #65111) When creating a variable from the mapping dialog box (map on a new variable), the variable was not flagged 'Commandable' even if the Common Data Class type required a commandable variable.	**Data Acquisition.IEC 61850**
Password with special characters (SPR #64065) It was not possible to define a password with special characters such as !,?,* or $.	**Data Acquisition.IEC 61850**

Connection failure

Connection to a device was failing and leading to a critical error on the network when there was no DataSet configured on the device on the PcVue side.

Data Acquisition.IEC 61850
Other versions: 11.1.06074, 11.2.06020

Connection failure with the IEDScout

Connection to the IEDScout (OMICRON) was failing when using Edition 2 behavior.

Data Acquisition.IEC 61850
Other versions: 11.1.06073, 11.2.06010

Enumala did not work with IEC 61850 (SPR #62659)

The Enumala feature was not working properly with variables mapped on IEC 61850 data.

Data Acquisition.IEC 61850
Other versions: 11.1.06081, 11.2.06025

Incorrect value retrieved for t data attribute (SPR #62851)

The displayed value was incorrect when a text variable was mapped on a *t* data attribute (timestamp).

Data Acquisition.IEC 61850
Other versions: 11.0.06093, 11.1.06091, 11.2.06031

Fatal error with Write command on SPC (SPR #64111)

Under some circumstances, a fatal error could occur after sending a Write command on an SPC data object.

Data Acquisition.IEC 61850
Other versions: 11.2.06064

Robustness in handling EntryId

Under some circumstances, a fatal error could occur due to concurrent access to internal resources used to handle the EntryId of BRCB.

Data Acquisition.IEC 61850
Other versions: 10.0SP2, 11.1.06093, 11.2.06034

SBO and DE could not be executed from client stations (SPR #61175, 59161)

The SBO and DE commands can now be executed from client stations, even if using the SCADA Basic instruction *M61850*.

Data Acquisition.IEC 61850
Other versions: 11.2.06040

Double-Point On and Off value identical (SPR #63762)

It was possible to configure the same ON and OFF values for double-point. Now when setting ON to [10], OFF is automatically set to [01] and vice-versa.

Data Acquisition.IEC 61850

Could not write bitstring (SPR #65771)

Under some circumstances, it was not possible to write data attributes of type bitstring, when its size was modified in the device. The same issue occurred with data attributes of type octetstring.

Data Acquisition.IEC 61850
Other versions: 11.2.06080

Duplicate declaration of BRCB & URCB (SPR #61065)

It was possible to configure several URCB/BRCB referring to the same physical one.

Data Acquisition.IEC 61850

Could not read data attribute

Under some circumstances, it was not possible to read a data attribute. The issue could occur when the attribute to read belonged to an object that was part of an array (or one of its parent object).

Data Acquisition.IEC 61850
Other versions: 11.1.06084, 11.2.06026

Incorrect connection state for Data Report groups

Under some circumstances, the connection state of Data Report group was not accurate. This issue mainly occurs with slow connection.

Data Acquisition.IEC 61850

Fatal error on SBOw and SBO command (SPR #63265)

Since version 11.2.06040, some random fatal errors could occur when sending SBOw and SBO commands.

Data Acquisition.IEC 61850
Other versions: 11.2.06055

Timestamp incorrectly updated (SPR #62731, 62688)

When processing a change of a data object with a bad timestamp, the local acquisition timestamp was wrongly used in case the value did not change. From now on, in such situation, the timestamp is updated only if the value has changed.

Data Acquisition.IEC 61850
Other versions: 11.1.06093, 11.2.06035

Values could remain NS COM (SPR #64505)

When, at driver startup, the initial read request of a variable failed due to network issues, the variable's status was remaining NS COM until the next value change was received. Now the initial read is retried until the gateway respond.

Data Acquisition.KNX
Other versions: 11.2.06067

Data acquisition redundancy (SPR #65719)

The redundancy was not correctly handled. Despite becoming passive after a switchover, the formerly active server was still processing read and write commands.

Data Acquisition.KNX
Other versions: 11.2.06080

KNX unsolicited traffic not received (SPR #62508)

When configuring a KNX interface with only unsolicited data (e.g. without polled data), it was deactivated after a time-period of 2 minutes without traffic.

Data Acquisition.KNX
Other versions: 11.1.06074, 11.2.06020

Variables remained NS COM (SPR #62889, 62835, 62722)

Due to missing information when reading the LonWorks' types catalog, some references were not resolved and the variable remained NS COM (such as variables mapped to SCPTsetPnts data).

Data Acquisition.LNS
Other versions: 11.0.06093, 11.1.06090, 11.2.06033

Fatal error on LNS startup (SPR #62459)

While reading the LNS catalog, a format error exception was not properly handled, leading to a fatal error.

Data Acquisition.LNS
Other versions: 11.0.06089, 11.1.06079, 11.2.06023

Could not read variables value (SPR #62722)

Since versions 11.0.06081, 11.1.06048 and 11.2.05001, some enumerated variables types were remaining invalid (NS COM).

Data Acquisition.LNS
Other versions: 11.0.06092, 11.1.06087, 11.2.06026

Values remained NS after end of simulation (SPR #63949)

When variables were set to simulated mode and back again to real-time, they remained with quality NS until the next data change. This issue only occurred with OPC variables in particular scenarios when the simulated mode was changed while the OPC server was disconnected.

Data Acquisition.OPC Client
Other versions: 11.2.06073

Fatal error when sending a recipe (SPR #62661) A fatal error was occurring when sending a recipe containing exclusively OPC variables mapped on a deleted OPC Group or OPC Server. This could happen when manually editing the configuration of the OPC Server.	**Data Acquisition.OPC Client** Other versions: 11.0.06090, 11.1.06081, 11.2.06025
Incomplete items list in the mapping dialog box (SPR #62553) When browsing an OPC server, only the first 1000 items were retrieved and displayed. The issue only occurred with OPC Servers supporting the OPC DA 3.0 browsing interface.	**Data Acquisition.OPC Client** Other versions: 11.1.06101, 11.2.06026
Incorrect timestamp after reconnection (SPR #62622) After a disconnection/reconnection to an OPC server, timestamp of variables which value had not changed in the meantime were set with the timestamp of the reconnection instead of the timestamp of the previous known valid change.	**Data Acquisition.OPC Client** Other versions: 11.2.06026
Support for special characters in OPC ItemId The configuration of OPC Items containing some special characters was incorrectly saved. The characters ", ', &, < and > are now escaped to be correctly saved and interpreted.	**Data Acquisition.OPC UA Gateway Client** Other versions: 11.2.06072
Variable not NS after Equipment stopped (SPR #62816) Under some circumstances, some variables could remain with quality Good instead of being NS after their associated Equipment was stopped.	**Data Acquisition.Other built-in drivers**
System status variables of frame always invalid (SPR #62793) The System variables for the status of frames were always set to NS even when frames were started and working properly.	**Data Acquisition.Other built-in drivers** Other versions: 11.0.06093, 11.1.06092, 11.2.06033
Fatal error when starting communication (SPR #63288) Under some circumstances, a fatal error could occur when the file *C\Comm.dat* was malformed and the file *CTEMP\Comm.dat* was read-only.	**Data Acquisition.Other built-in drivers**
Driver TwinCat - Error when writing a float value (SPR #62375) A fatal error occurred when trying to write a float value with a frame size larger than 350 floats.	**Data Acquisition.Other built-in drivers** Other versions: 11.1.06068, 11.2.06001
Driver XBUS-IP-MASTER - Fatal error upon connection close (SPR #63177) A fatal error could occur when a device was configured with the property *Close connection on passive station* activated. Such configuration is used when the data acquisition architecture includes serial to IP converters with a limited max number of simultaneous TCP connections.	**Data Acquisition.Other built-in drivers** Other versions: 11.0.06093, 11.1.06099, 11.2.06054
Driver Ferromatik - Fatal error with several networks A fatal error was occurring when more than 20 networks were configured with this driver.	**Data Acquisition.Other built-in drivers** Other versions: 11.2.06068

Driver XBUS-IP-MASTER - Fatal error using verb CIMWAY mode CFG (SPR #63085)

A fatal error could occur when using the SCADA Basic verb *CIMWAY* mode *CFG* if the param string exceeded 65 characters.

Data Acquisition.Other built-in drivers
Other versions: 11.2.06046

Fatal error when stopping CimWay (SPR #63009)

A fatal error was occurring when stopping a CimWay driver while having pending write commands. From now on, the stop request is suspended until all queued write commands are completed.

Data Acquisition.Other built-in drivers
Other versions: 11.2.06039

Driver XBUS-IP-MASTER - Message time-out (SPR #62948)

The *Message time-out* management has been improved for better performances:

- No longer played at start-up, which speeds up the start-up process,
- Only played when the previous request is valid and within the *Message time-out* period, no longer all the time,
- Only played once and not at every *SendReceive* period.

Data Acquisition.Other built-in drivers
Other versions: 11.0.06093, 11.1.06094, 11.2.06036

Driver XBUS-IP-SLAVE - Fatal error on Modbus function code 3 (SPR #62439)

Under some circumstances, a fatal error could occur when responding to a request for registers with the Modbus function code 3.

Data Acquisition.Other built-in drivers
Other versions: 11.1.06080, 11.2.06024

Thread leak when stopping communication (SPR #63018)

A thread leak of 1 thread per device was occurring when stopping CimWay communication using the SCADA Basic instruction *CIMWAY("OFF")*.

Data Acquisition.Other built-in drivers
Other versions: 11.2.06038

Driver XBUS-IP-SLAVE - Fatal error when stopping communication (SPR #65320)

A fatal error occurred when stopping communication using the Xbus IP-Slave driver.

Data Acquisition.Other built-in drivers
Other versions: 11.2.06076

Driver XBUS-IP-MASTER - Error 108 (SPR #63930)

The error 108 occurred when the equipment was sending more data than requested. Now such frames are accepted, but only the requested data length is processed, and only if the first receive packet has a correct transaction Id.

Data Acquisition.Other built-in drivers
Other versions: 11.2.06062

Fatal error on SNMP Manager startup (SPR #63215)

A fatal error could occur if the file *mib_index* was malformed, in particular if it contained a Null character.

Data Acquisition.SNMP Manager
Other versions: 11.1.06100, 11.2.06054

Automatic conversion of numeric values (SPR #63529)

String values can now be automatically converted to register values even when including decimal and/or thousand separators.
Examples:

- 12,000.45 = 12000.45
- 12.000.45 = 12000.45
- 12,00045 = 12,00045
- 12.00045 = 12.00045

Data Acquisition.SNMP Manager
Other versions: 11.2.06059

Device defined with hostname not reachable (SPR #62483)

When a device was defined using its hostname, it was not refreshed if the hostname could not be resolved at startup (DNS not available). A restart of the project was necessary in such a situation.
Two options have been added to the properties of a device:

- A resolution period for the hostname to cyclically check the IP address,
- An option to resolve the hostname after a disconnection. If not activated, the initial resolved IP address is used at reconnection time.

Data Acquisition.SNMP Manager
Other versions: 11.1.06074, 11.2.06020

Invalid started device counter (SPR #62579)

The system variable and audit counters indicating the number of started devices was incorrect in case of dynamic host resolution.

Data Acquisition.SNMP Manager
Other versions: 11.1.06078, 11.2.06026

Fatal error when editing ICMP variable (SPR #65424)

A fatal error occurred when editing an ICMP variable configured without polling group.

Data Acquisition.SNMP Manager

Variable value not refreshed (SPR #62481)

When a device using SNMP v3 returns an *engineTime* equals to 0 at the first frame request, variables configured as *Trap with Ad'hoc sync* were not correctly refreshed.

Data Acquisition.SNMP Manager
Other versions: 11.1.06074, 11.2.06020

Fatal error at startup (SPR #63199)

Under some circumstances, a fatal error could occur at startup. It was due to the automatic creation of a folder used by the SNMP Manager at the root of the system partition instead of within the *PER* folder. When not run with administrative privileges, the system prevented the folder creation, leading to the fatal error.

Data Acquisition.SNMP Manager
Other versions: 11.1.06099, 11.2.06054

SNMP devices without variables indicated as connected (SPR #62577)

Devices using SNMP v3 without any variable mapped were always indicated as connected.

Data Acquisition.SNMP Manager
Other versions: 11.1.06078, 11.2.06026

Unable to stop project (SPR #63672)

Under some circumstances, project did not stop when more than 64 devices were configured with ping activated for status handling.

Data Acquisition.SNMP Manager
Other versions: 11.2.06059

Incorrect aggregated statistics in export (SPR #63863)

Under some circumstances, when exporting a Trend Page with aggregated statistics, the last values were incorrect. The issue could occur with HDS archive units when the exported trend had no valid value at the end of the period. In such conditions, the last valid aggregated data was wrongly duplicated until the end of the period.

Data Export
Other versions: 11.0.06095, 11.1.06110, 11.2.06061

Incorrect aggregated values and statistics (SPR #62274, 62149)

Under some circumstances, some aggregated values and statistics were wrong in the export, in particular the duration of alarms and number of occurrences. This was due to different Time Zones between the station generating the exports and the station hosting the archive unit.

This issue was a regression due to changes done on July 2014, and also affected version 11.0 and 11.1.

Data Export
Other versions: 11.0.06085, 11.1.06065, 11.2.05000

Export disappear after creation (SPR #63937)

Exports configured were disappearing right after their creation, when they were configured with a sever list to which the station did not belong.

Data Export
Other versions: 11.2.06064

Incorrect duration calculation (SPR #63041)

The duration stat for logged events could be wrong due to an incorrect calculation of the initial state in the calculated period.

Data Export
Other versions: 11.0.06094, 11.1.06103, 11.2.06056

Statistical data when using "Log only alarm on/off changes in log lists" (SPR #64469, 63324, 62949, 62815)

Log pages statistics configuration and export were not correctly handled when the project setting *Archives.Log only alarm on/off changes in log lists* was activated.

Data Export
Other versions: 11.1.06103, 11.2.06066

Incorrect export dates (SPR #63695)

The following expression elements were not processed properly and were returning an incorrect date:

- Export.StartDate.Year
- Export.StartDate.Hours
- Export.StartDate.Minutes
- Export.EndDate.Year
- Export.EndDate.Hours
- Export.EndDate.Minutes

Data Export
Other versions: 11.2.06059

Empty export for logs

Since versions 11.1.06087 and 11.2.06026, exporting logs was no longer working and always returned an empty export.

Data Export
Other versions: 11.1.06089, 11.2.06030

Editing Trends and Log lists from Data Export (SPR #63888)

It is no longer possible to modify Trends and Log lists directly from the Data Export configuration. The properties of the associated items are still displayed, but they can no longer be changed.

Data Export

Incorrect samples with weekly period (SPR #62896)

Some incorrect samples were generated when exporting trends with the sampling period set to Week.

Data Export
Other versions: 11.0.06093, 11.1.06093, 11.2.06034

Incorrect aggregated statistics (SPR #64124)

When calculating aggregated statistics, the initial value was not taken into account when not synchronized with statistic period start time, and NS values were not correctly managed. With low frequency value changes, it was leading to erroneous calculation.

Data Export

Variable name in Trend pages was always exported (SPR #63256)

In Trend pages configuration, the property "*Show variable name*" was not correctly loaded and always active. As a consequence, variables names were always exported.

Data Export
Other versions: 11.2.06064

Incorrect Occurrence and Duration statistics (SPR #63324, 62949)

Under some circumstances, Occurrence and Duration statistics were incorrect when the archive setting *Log only alarm on/off* was activated,

Data Export

Multiple Log lists in a Log page (SPR #64579)

Under some circumstances, it was possible to configure multiple Log lists in a Log page. Now, when associating a Log list to a Log page, the previous one is correctly removed.

Data Export

First point in aggregated values (SPR #62366)

When exporting aggregated values, the first value was incorrect because the previous value was not correctly taken into account.

For instance, with a 1 min sampling period between 10h00 and 10h10, the first row will contain all values between 10h00 to 10h00.59.999 plus the previous value of the point if it exists. In addition, the last row will contain values between 10h09 and 10h09.59.999.

Data Export
Other versions: 11.2.06035

Folder creation upon generation (SPR #61877)

When generating a csv export, any necessary folder is created correctly as part of the generation. Until this fix, the csv file export could be aborted due to the failure of the folder creation.

It was a known issue since version 11.2.05001.

Data Export
Other versions: 11.2.06010

Columns not properly removed (SPR #64986, 64826)

Removing columns from a Log page was not working properly. After having applied the removal, the columns were still present and moved at the end of the list.

Data Export
Other versions: 11.2.06073

Next and Finish buttons remained enabled after an export was cancelled (SPR #62958)

When canceling an export operation in the wizard, the *Next* and *Finish* buttons were not disabled. Clicking on the *Next* button was leading to a fatal error.

Data Export
Other versions: 11.2.06036

Memory leak

Fix of a memory leak when exporting aggregated values.

Data Export
Other versions: 11.0.06093, 11.1.06093, 11.2.06035

Unsupported characters (SPR #63858, 63696)

Some characters such as # (hash), / (slash), "(quote) or , (comma) were not correctly interpreted in data export configuration when used in various properties (File Name, Sheet Name...) or in expressions.
The issue was for example obvious when reloading a data export item where one of the property was defined by an expression including at least 2 parameters separated by a comma - The expression was truncated after the first comma.

Data Export
Other versions: 11.0.06095, 11.1.06110, 11.2.06061

Maximum number of points reached (SPR #62184)

The message indicating that the maximum number of points is reached was not always prompted by the wizard.

Data Export
Other versions: 11.2.04000

Fatal error when generating an export with a log page Under some circumstances, a fatal error could occur when generating an export with a log page.	**Data Export** Other versions: 11.0.06097, 11.1.06116, 11.2.06071
Trends not pasted when pasting a Trend page (SPR #62696) When copying and pasting a Trend page, the associated Trends were not copied properly.	**Data Export** Other versions: 11.2.06039
Matrix formula lost (SPR #62795) Matrix formula were lost when exporting data.	**Data Export** Other versions: 11.2.06031
Data export trace mask overridden (SPR #64399) Trace levels were not properly saved. Saving a trend page trace mask was causing an override of the parent data export trace mask.	**Data Export** Other versions: 11.2.06066
Fatal error upon generation of an export (SPR #65841, 65036) A fatal error could occur when generating an export with a time-period greater than the authorized limit. It is no longer possible to set the time period value out of bounds.	**Data Export** Other versions: 11.2.06080
Cancelling an export (SPR #48217) The Cancel action when an export was in progress was not properly handled.	**Data Export**
Memory leak with function SetDataSet (SPR #64852) Updating a Text variable with the method SetDataSet caused a small memory leak.	**Development kits.SV Manager Toolkit** Other versions: 11.2.06082
Fatal error on project shutdown On project shutdown, a fatal error could occur in particular cases when a variable subscription response was being received while shutting down.	**Development kits.SV Manager Toolkit** Other versions: 11.2.06064
Upgrade **Incorrect value for inhibition bit of log lists** (SPR #62332) The *InhibitingCondition* property of *LogFilter* in Free, ODBC and Proprietary units was wrongly interpreted during import. Prior to this fix the following values had to be used: - 0 to activate the inhibition bit - -1 to deactivate the inhibition bit The default value was correct.	**Development kits.XML Generic Import Toolkit** Other versions: 11.2.06001
Missing system variables STATUS and STATUSCOMP (SPR #62626, 62394) The system variables STATUS and STATUSCOMP are now always created automatically. The associated setting to create them has been removed. Automatic creation of these variables for an existing project can be done by saving variables.	**General** Other versions: 11.2.06035

Unable to run as a service

Under some circumstances, when an unhandled exception occurred in the services *svCoreDaemon* or *svCoreSessionHost*, the process hosting them was no longer responding. The Service Control Manager was then terminating the process after the usual 30-second time-out and logged the following error message:
"*Error 1053: The service did not respond to the start or control request in a timely fashion*".

Additional diagnostics messages have been added to traces in such a situation.

General
Other versions: 11.2.06039

SMS and Email events - Various fixes and enhancements (SPR #63697, 63527, 63093)

The list of fixes & enhancements includes:

- An incorrect error message was displayed in the Event Viewer when trying to send a message to an unknown user or with an unknown SMS/Email profile;
- Checking the existence of users and profiles have been improved before sending messages;
- Messages queuing reworked in case of sending error/failure;
- Customization of modem configuration is now possible through several new settings: XON/XOFF, CTS handshaking, DSR handshaking, DSR sensitivity, DTR circuit, RTS circuit and Set RTS signal.

General
Other versions: 11.1.06102, 11.2.06060

SMS sent continuously (SPR #63075)

When sending SMS to multiple recipients, including an incorrect one, first recipients defined before it were receiving continuously the SMS, while recipients defined after the incorrect one were never receiving the SMS.

General
Other versions: 11.1.06098, 11.2.06045

Libraries' modification rights (SPR #62957)

From now on, new libraries are created with modification rights given to all users. Previously, they were dependent on the profile.

General
Other versions: 11.1.06095, 11.2.06038

Upgrade Support for secured connections to email servers (SPR #62558, 59910)

To cope with the wider deployment of secured email servers, more choices are now offered to support secure connections when configuring an *E-mail account* to:

- No secure connection,
- Explicit TLS (STARTTLS),
- Implicit TLS (SSL/TLS).

Please note that since version 10.0, changes occurred leading to support for only Implicit TLS in some versions, and only Explicit TLS in some other versions. You should verify your configuration in case of migration.

General
Other versions: 11.1.06079, 11.2.06023

Modal warning message in service mode (SPR #64976)

When running the Supervisor as a Windows service, some messages typically displayed in interactive user sessions were not disabled, leading to a fatal error. These messages were warnings related to:

- The number of GDI objects
- The number of User objects
- The percentage of used memory
- The number of opened mimics

General
Other versions: 11.2.06072

"Open context mimic" setting not saved (SPR #62978)

The HMI option *Open context mimic* was not correctly reloaded when a mimic was open via SCADA Basic at project startup.

General
Other versions: 11.1.06095, 11.2.06038

Email template values field options (SPR #63000)

Email template values field options were not correctly handled as described in the help:

- Not defined by the template - The template does not provide information for that field. This is the default setting.
- Imposed by the template - The text that you enter will be used in any message where the template is used and cannot be changed there.
- Suggested by the template. The text that you enter will be used in any message where the template is used but can be edited there.

General
Other versions: 11.2.06038

Incorrect language in window's title

At startup and on language change, the title of the PcVue main window and the event viewer were not correctly updated according to the display language.

General
Other versions: 11.1.06105, 11.2.06057

Could not insert variable in a Recipe (SPR #64296)

An improper message was displayed when trying to insert a variable defined by another variable in a recipe. It was only occurring when both variable had a minimum value different from 0.

General
Other versions: 11.2.06064

Freeze during startup - Alarm Manager (SPR #64576)

Under some circumstances, PcVue could freeze during project startup when loading the Alarm manager.

General
Other versions: 11.2.06068

Incorrect email address format (SPR #62999)

Under some circumstances, a fatal error could occur when sending emails to an invalid email address used in one of the following fields: sender, reply-to, to, cc, bcc.
The dialog boxes now prevent typing in such addresses, it can happens when manually editing configuration files, using a project developed with an earlier version or using substitution characters.

General
Other versions: 11.2.06038

Consecutive emails not sent (SPR #63086)

Some emails were lost when sending several of them almost simultaneously via event actions or SCADA Basic. It was only possible to send one email per event and per millisecond.

General
Other versions: 11.2.06047

Fatal error caused by large email messages (SPR #62965)

Sending an email message longer than 10240 characters was causing a fatal error. From now on, such messages are truncated.

General
Other versions: 11.2.06038

Fatal error few minutes after a configuration modification (SPR #63152)

Under some circumstances, a fatal error could occur few minutes after a configuration modification. It could happen in case of a networking application having flow regulation activated during the modification. The fatal error occurred when the regulation stopped, if a modified object was still in the regulation queue.

General
Other versions: 11.1.06098, 11.2.06054

Email testing with profile (SPR #62755)

It was not possible to send a test email with a specific account profile. It was working fine when indicating directly an email address.

General
Other versions: 11.1.06088, 11.2.06027

SNMP Agent option not active (SPR #62490)

The license option allowing the use of the SNMP Agent was not correctly detected.

General.Licensing
Other versions: 11.2.06020

Station-dependent profile no longer working with Active Directory users (SPR #64377)

When an Active Directory user is applied different profiles according to the PcVue station it connects to, the correct profile is now applied. Until this fix, the first profile was always enforced.

General.User management
Other versions: 11.2.06071

Station dependent User profiles not applied with Active Directory (SPR #64637, 64377, 62981)

The association of specific User profiles for different stations was not correctly applied when using Active Directory groups. The first found profile was applied on every stations.

General.User management
Other versions: 11.2.06042

Unable to open Variable properties dialog box (SPR #63069)

Since version 11.2.05001, users having the DEFPROFILE were not able to open the variable properties dialog box when accessed from an animation, even if granted developments privileges.

General.User management
Other versions: 11.2.06055

Excessive CPU consumption (SPR #62596)

When the *user.dat* file was encrypted, it was reloaded every second even if no change occurred.

General.User management
Other versions: 11.0.06089, 11.1.06078, 11.2.06023

Failed to edit DEFUSER details (SPR #63440)

It was not possible to edit the DEFUSER details (First Name, Last Name...). An improper validation rule required to set a password, which was wrong for the default user.

General.User management
Other versions: 11.2.06058

Unexpected automatic user logoff (SPR #61964, 60807, 60795)

User activity is now tracked at the Windows session level to avoid automatic logoff when a user is using the configuration tools. Until this fix, only the activity in mimics was tracked, leading to situations where the user could be automatically logged out of the Application Explorer (or Application Architect).

General.User management
Other versions: 11.0.06092, 11.1.06092, 11.2.06033

Priority wrongly given to Active Directory users (SPR #64637, 64377)

Since version 11.2.06063, when a built-in user had the same login name as a user from the Active Directory, the priority was given to the Active Directory user instead of the built-in user.

General.User management
Other versions: 11.2.06071

Password change requested at startup (SPR #62708)

Since version 11.2.06023, a dialog box requesting to change user's password was displayed at project startup. It was occurring when user was automatically logged in with SCADA Basic instruction and when strong password option was activated. The issue occurred in particular when launching the *QuickStart* sample project.

General.User management
Other versions: 11.2.06026

Automatic logoff warning message displayed too briefly (SPR #65210, 65129)

The warning message before automatic logoff was not properly handled. The configured duration was ignored and the warning was displayed only one second before disappearing.

General.User management
Other versions: 11.2.06073

Windows User group containing a "." (SPR #63814, 16655)

It was not possible to associate a Windows User Group containing a '.' (dot) character to a user profile.

General.User management
Other versions: 11.2.06060

HDS Databases update (SPR #62324)

As documented, from now on, when upgrading a project to version 11.2, if a HDS database is larger than 10 Gb, the HDS loading is aborted and an error message is traced.
As part of the migration process, databases' schema has to be updated using the T-SQL scripts provided in the file *bin\UpgradeDatabase.sql* before starting PcVue and the HDS.

It was a known issue since version 11.2.05001 - The T-SQL scripts were not up to date for upgrading to 11.2.

[Edit 11.2.060030] - The scripts in earlier updates were still incorrect.

Historical data
Other versions: 11.2.06030

Fatal error when reading recent proprietary archives (SPR #65103, 64663)

Under some circumstances, a fatal error could occur when requesting log or trend data recorded recently in a proprietary archive unit.

Historical data
Other versions: 11.2.06073

Failed to start project (SPR #63210)

Under some circumstances, it was no longer possible to start a project, due to an infinite loop in the loading of the archive manager. This issue was a regression and only occurred with existing proprietary archive unit when a trended variable did not have any record stored in the archives.

Historical data
Other versions: 11.2.06054

ODBC - Could not store deferred attributes (SPR #65190)

Deferred attributes can now be archived in ODBC archive units.

Historical data
Other versions: 11.2.06080

Field ValueTriggeringThreshold in HDS databases (SPR #62614)

An additional field named *ValueTriggeringThreshold* is now available when selecting the property *Threshold* in Trend and Log tables.

Historical data
Other versions: 11.1.06096, 11.2.06038

Handling of the trend invalid point on communication loss (SPR #63742)

Prior to this fix, on a communication failure, an invalid point was always recorded in the archives for each trend upon communication loss. When communication was restored, an attempt to record the retrieved value was done. In the particular case of HDS, it was leading to primary key violation when the VTQ did not changed during the communication loss.
From now on, the invalid point is recorded only when the communication is restored, and if the variable's VTQ is different.

Historical data
Other versions: 11.1.06110, 11.2.06060

Free Archive Unit created on consumer stations

When exiting a project, Free Archive Unit files were generated on consumer stations instead of only on producer stations.

Historical data
Other versions: 11.2.06071

Filtering with multiple Populations (SPR #63137)

Requesting historical data from a Database archive unit with a filter while more than one populations were applied was not returning the correct set of records.

Historical data
Other versions: 11.1.06101, 11.2.06055

File histo.sav not flushed upon exit (SPR #64037)

Under some circumstances, the file *histo.sav* may not be correctly flushed on project exit. The issue occurred only when the Archive folder had been modified and if trends were configured on the archive unit.

Historical data
Other versions: 11.2.06068

Fatal error of the HDS in case of overflow (SPR #65968)

Under some circumstances, a fatal error of the HDS could occur when it was both in an overflow situation due to Insert requests and heavily solicited with Select requests by PcVue. The fix consists in a better control over the switchover to another PcVue archive producer station, i.e. set the availability rate to 0 when the HDS does not respond to PcVue requests in a timely fashion.

Historical data
Other versions: 11.2.06081

HDS stopped recording (SPR #16941)

Under some circumstances, the HDS was no longer recording data when the temporary file .hds was over 2 Go. Now, when the file reaches such a size, an error message is displayed in the event viewer and the file is no longer processed, meaning it has to be manually imported in the database.

Historical data

Filtering extended attributes with space characters did not work (SPR #61117, 61112)

It was not possible to apply a filter to retrieve historical data (for example with SCADA Basic instructions *SVLOG* or *LOGVIEWER*) when conditions on extended attributes contained space characters.
Now it works correctly if enclosed in quotation marks.
e.g.: =(#A5=="x y z"))

Historical data
Other versions: 11.1.06029, 11.2.00010

Incorrect register value recorded with threshold events (SPR #62614)

The register value recorded alongside a threshold event (bit or alarm) was incorrect. The trigger value was registered instead of the current value of the register when the threshold was triggered.
The issue only affected HDS archive units.

Historical data
Other versions: 11.1.06082, 11.2.06026

Checkstructure parameter not taken into account (SPR #64258)

The *Checkstructure* setting that can only be directly edited in the *\C\HDSConf.dat* file, was not correctly taken into account.

It can be set to 0 to disable schema verification when loading the HDS, and thus enabling a given version of the product to archive data in a database created with a more recent version. Note that it may lead to incompatibility format issues and data loss.

Historical data
Other versions: 11.2.06064

Deadband ignored if value out of range (SPR #65308)

Deadband configured on a register variable was not taken into account when the variable was out of range (NS L> or NS L<). It was leading to unnecessary archive records.

Historical data
Other versions: 11.1.06117, 11.2.06076

Trends remained invalid after project startup (SPR #62165)	**Historical data**
When using HDS archives units, invalid points were recorded at project exit (quality=64). Under some circumstances, no valid point were recorded at project startup, in particular with timestamped data or when archive and data acquisition servers are on separate machines, due to a primary key violation (identical VTQ). Thus, trends were wrongly displayed as invalid in the Trend Viewer. This behavior was also occurring in case of networking failure (quality = 24). From now on, the invalid points are recorded at project startup, only if the data has changed in the meantime.	Other versions: 11.1.06072, 11.2.06023
Could not filter logs by both domain and nature (SPR #62702, 62497)	**Historical data**
Since versions 11.1.06029 and 11.2.05001, when using HDS archive units, it was no longer possible to apply a filter with a combination of both a domain and a nature.	Other versions: 11.1.06087, 11.2.06026
Use of negative filter in Log Viewer (SPR #62497)	**Historical data**
When archiving logs in a HDS archive unit, it was not possible to apply a filter for retrieving empty fields or negative filter such as #A3="" or #A1!=Domain1.	Other versions: 11.1.06097, 11.2.06039
Unable to read comma character (SPR #64291, 64136, 61173)	**Historical data**
The comma character was not correctly interpreted in the Log Viewer when used in some events/fields such as "*failed log attempt*" or variable description.	Other versions: 11.2.06067
Unable to read old archive files (SPR #63967)	**Historical data**
Since version 11.0, it was no longer possible to read old proprietary archives files (format with extension .idx) if the option "*without attribute*" was activated on the archive unit. This option is no longer editable in the configuration dialog boxes and is deactivated by default in new projects since version 11.0.	Other versions: 11.0.06097, 11.1.06112, 11.2.06063
Error messages no longer prompted in preview mode (SPR #65133)	**HMI**
Error messages such as missing mimic template are no longer prompted when a mimic is loaded to be displayed in preview mode. Such message prompts could occur when loading mimics in the following contexts: File.Open dialog box, mimic selector, Application Explorer...	
Check box list and Option button list not selectable (SPR #63057)	**HMI**
Under some circumstances, the selectable items (check box or radio button) could disappear when changing the font of the control.	Other versions: 11.2.06062
Fatal error when loading a mimic (SPR #63956)	**HMI**
Under some circumstances, a fatal error occurred when loading a mimic containing an ActiveX. The issue occurred when the ActiveX was not installed properly on the computer and configured with the property *Save properties as text* activated.	Other versions: 11.2.06063
Inadequate suggested name for "Save as" actions (SPR #61890)	**HMI**
Suggested names for mimics and symbols when using "Save as" were inadequate and could lead to overwriting existing objects.	Other versions: 11.1.06074, 11.2.06020

Virtual keypad not opened in the correct region (SPR #62585)

The Virtual keypad was not always opened in the correct region, in particular with a 4-screen configuration.

HMI
Other versions: 11.1.06089, 11.2.06031

Fatal error at startup (SPR #63747)

Under some circumstances, a fatal error could occur when at startup a mimic was opened via SCADA Basic. The issue only occurred if the mimic had both the Navigator activated and SCADA Basic function executed on the Before open callback. The fatal error appeared only after switching the mimic to the design mode.

HMI
Other versions: 11.2.06064

Mouse wheel behavior reversed (SPR #62647)

The mouse wheel behavior when zooming was reversed compared to usual implementations.

HMI
Other versions: 11.1.06081, 11.2.06025

Loss of the color palette (SPR #64107)

Under some circumstances, the color palette was not correctly initialized, leading to the replacement of indexed colors by fixed colors.

HMI
Other versions: 11.1.06113, 11.2.06064

Warning icon not always displayed (SPR #62421)

Under some circumstances, the warning icon was not displayed on objects having missing or non-existing variables in animations.

HMI
Other versions: 11.1.06074, 11.2.06020

Template mimic size not retrieved

The property *Keep the mimic template size* was not working when the mimic template size was higher than the initial mimic size.

HMI

Removed unnecessary Save prompt (SPR #63823)

When a mimic containing ActiveX controls was switch to design mode, and then back to runtime mode, a prompt asking for saving the mimic was displayed even if no change was to be saved. From now on, built-in ActiveX and controls no longer cause this prompt. The message will still be raised if the mimic contains a third-party ActiveX for which there is no guarantee that configuration change is correctly transmitted to the ActiveX container.

HMI
Other versions: 11.2.06064

Editing symbol with the Graphic Explorer (SPR #63857)

Under some circumstances, a fatal error could occur when editing nested symbols using the Graphic Explorer.

HMI
Other versions: 11.2.06064

Toolbars and menus could not be clicked

Under some circumstances, toolbars and menus could not be clicked when positioned over a Map Control.

HMI

Function keys not effective (SPR #61582)

Under some circumstances, function keys (F2...) were not effective. The issue could occur when the graphic item having the focus was a component such as a Trend Viewer or a Combo box.

HMI
Other versions: 11.1.06092, 11.2.06034

GDI object leak (SPR #65069)

Fix of a GDI object leak. Up to 4 GDI objects were leaked when closing a mimic.

HMI
Other versions: 11.2.06073

Maintenance filter button in toolbar not saved

The "Maintenance filter" toolbar button was lost when saving mimics in ASCII mode.

HMI.Alarm viewer
Other versions: 11.1.06095, 11.2.06038

Alarms not displayed

Under some circumstances, new alarms were not displayed in the Alarm viewer after an alarm was removed from the list. In particular, the issue occurred when the list of potential alarms to display was greater than the buffer size.

HMI.Alarm viewer
Other versions: 11.2.06074

Missing alarms after zooming or scrolling (SPR #62764)

Under some circumstances, when scrolling or zooming with the mouse wheel in an Alarm Viewer, some lines were disappearing.

HMI.Alarm viewer
Other versions: 11.1.06088, 11.2.06031

Could not select lines (SPR #62506)

Since versions 11.1.06048 and 11.2.05000, it was no longer possible to select a line in the Alarm Viewer when the viewer was configured to display context mimics and context mimic was left undefined.

HMI.Alarm viewer
Other versions: 11.1.06075, 11.2.06020

Unable to remove animation Visibility on Variable presence and Visibility on Text (SPR #65505)

It was not possible to remove animations of type *Visibility on Variable Presence* and *Visibility on Text* from graphic objects.

HMI.Animations
Other versions: 11.2.06078

Max size of comments for tooltips (SPR #63245)

The maximum size of the comment in the animation is now 255 characters (was 80). When several animations are configured on the same object, their concatenated total length is now limited to 2500 characters (was 80).

HMI.Animations
Other versions: 11.2.06061

Mouse wheel in combo box leads to fatal error (SPR #60767)

Under some circumstances, a fatal error could occur when using the mouse wheel to scroll a combo box control for several seconds.

HMI.Animations
Other versions: 11.1.06094, 11.2.06038

Instruction WINDOW mode OPEN in animation Run macro (SPR #61939)

Animations *Run macro* executing the instruction WINDOW mode OPEN in a mimic saved in ASCII format failed if the mimic name passed as argument included a simple quotes.

HMI.Animations
Other versions: 11.1.06081, 11.2.06025

Incorrect error message on interlock condition (SPR #62372)

The error message prompted when the interlock condition was defined by an expression was incorrect.

HMI.Animations
Other versions: 11.1.06072, 11.2.06020

Fatal error when selecting new item in a Tree view Control (SPR #62832)

Under some circumstances, a fatal error was occurring when rapidly changing the index value in the Tree view Control (e.g. by clicking on different items).

HMI.Animations
Other versions: 11.1.06094, 11.2.06036

'Send bit' animation on 3D object not working well (SPR #63053)

Animations *Send bit* created for graphic objects of a 3D model did not work. Only the last one in the model's hierarchy was working properly.

HMI.Animations
Other versions: 11.2.06054

Incorrect value sent with Send Register animation (SPR #63471)

Incorrect values were sent with the Send Register animation. The issue occurred when the animation was configured with both "direct send" and "variable copy", and only if the source variable was in an invalid state.

HMI.Animations

Axes properties not saved (SPR #64045)

When using the ASCII format, the axes properties of Chart control were not correctly saved.

HMI.Chart control
Other versions: 11.1.06113, 11.2.06064

Animations misconfigured after reordering tree view nodes

When reordering nodes in a Tree view control, the animations were wrongly reassigned.

HMI.Form controls

File full path not displayed

In the content tab of the Form controls, only the file name was displayed (instead of its full path) when not located in the TP directory of the project.

HMI.Form controls

Moving items in a tree view control (SPR #63497, 59554)

It was not possible to reorganize root items in a tree view control. In addition, animations were lost when moving items.

HMI.Form controls
Other versions: 11.2.06058

Tree View selection not changed upon UserData update (SPR #63230)

Updating the variable linked to UserData of a tree view was not updating the selected item of the tree view.

HMI.Form controls

OnSelect event not triggered (SPR #64932)

The *OnSelect* event of listbox controls was not triggered after loading items with the SCADA Basic instruction *LISTBOX*, mode *LOAD*.

HMI.Form controls

Relative path not properly handled (SPR #64132)

Relative paths other than \TP were not correctly handled in Form controls (Combo-box, List-box, Check-box list, Option-button list and Tree-view). Only absolute paths were recognized. As of now, relative paths to any of the project sub-folder can be handled correctly in a relative way, and folders outside the project are handled as absolute.

HMI.Form controls
Other versions: 11.2.06070

User data not updated after loading a file (SPR #61351)

The *UserData* was not updated when the content of a List box was reloaded from a file defined by a variable.

HMI.Form controls
Other versions: 11.2.06058

Default font not restored (SPR #63978)

Unchecking the custom font in Form Controls was not restoring the default font.

HMI.Form controls

Selection not triggered for OptionList and CheckList (SPR #63318)

The linked variables (User Data, Index and State) were not updated when selecting an item without changing its state. The variables were only updated when the state (checked/not checked) of an item was changed.

HMI.Form controls

Unselect all items in listbox (SPR #64491, 64490)

It was not possible to unselect all the items in a listbox Form control.

HMI.Form controls

Data and Index not initialized in form controls (SPR #63211)

In the form controls - Check box list, List box, Option button list and Tree view - the Index and User Data values were not set according to the default selection at initialization stage.

HMI.Form controls
Other versions: 11.2.06055

Tree View - Selection notification when switching to runtime mode (SPR #63313)

A selection notification was triggered when switching from edit to runtime mode, even if the selection did not change in the meantime.

HMI.Form controls

Fatal error with incorrect file (SPR #64026, 16215)

A fatal error could occur when a Form Control was configured to load a file with an incorrect format.

HMI.Form controls

Fatal error when changing Z-order (SPR #62393)

Under some circumstances, a fatal error could occur when changing the Z-order of graphic items in a mimic having a symbol with VBA code inside.

HMI.Graphics
Other versions: 11.1.06094, 11.2.06037

Invisible border for Tree view (SPR #62527)

It was not possible to make borders invisible for the Tree View control.

HMI.Graphics
Other versions: 11.1.06076, 11.2.06020

Rotation angle (SPR #62482)

The rotation angle is now saved in the mimics.
Previously, when applying a rotation, the graphic items were rotated directly, and the rotation angle was reset to 0. After successive rotations, the graphic items could be distorted due to rounding calculation.

HMI.Graphics
Other versions: 11.1.06080, 11.2.06024

Value formatting in historical mode (SPR #63356, 63207)

It is now possible to configure the formatting of register values when using the Historical mode. In particular, the number of digits and heading/trailing zeros.

HMI.Grid control
Other versions: 11.2.06056

Fatal error when no trend is configured (SPR #62564)

A fatal error was occurring when opening the Data Export Wizard from the Grid Control configured in Historical mode with no trend configured.

HMI.Grid control
Other versions: 11.1.06077, 11.2.06020

Thresholds in branched mimics

When using the Grid control in historical mode in a branched mimic, thresholds were not correctly retrieved, causing an incorrect coloring of the cells.

HMI.Grid control
Other versions: 11.1.06072, 11.2.06020

Incorrect export in demo mode

Exporting data from the Grid control while in demo mode was generating a file with only one correct line out of two.

HMI.Grid control
Other versions: 11.1.06094, 11.2.06035

Manual configuration of thresholds

Unchecking the automatic mode was not effective, preventing from entering specific values for thresholds. Even if the automatic mode was unchecked, the fields for entering threshold values remained greyed.

HMI.Grid control
Other versions: 11.1.06073, 11.2.06020

Fatal error with Free log lists (SPR #64108)

A fatal error was occurring when a Log viewer was configured with a log list defined in a Free archive unit. As Free archive units are write only, they cannot be used in log viewers. Such a configuration now returns an empty Log viewer.

HMI.Log viewer
Other versions: 11.2.06064

Filtering of Login, Logoff and Login failure events in Log Viewer lost (SPR #62404)

The Login, Logoff and Login failure events filters were lost when navigating in the list of logged events. These filters can only be applied by SCADA Basic or VBA.

HMI.Log viewer
Other versions: 11.1.06079, 11.2.06023

Fatal error with mouse wheel (SPR #64914)

Under some circumstances, a fatal error could occur when scrolling quickly using the mouse wheel in a Log Viewer.

HMI.Log viewer
Other versions: 11.1.06118, 11.2.06072

Login/Logoff filter always active (SPR #63048)

In the Log Viewer filter configuration, the "Login/Logoff" filter option was not correctly saved and always restored as selected.

HMI.Log viewer
Other versions: 11.1.06097, 11.2.06041

Incorrect markers position in Remote Desktop sessions (SPR #63378)

Under some circumstances, when running in a Remote Desktop Session, markers were wrongly positioned top-left in the map control. The issue only occurred after disconnecting and reconnecting to a session. Re-opening the associated mimic was repositioning markers correctly.

HMI.Map control
Other versions: 11.2.06058

Fatal error when resizing the Map control (SPR #64558)

Under some circumstances, a fatal error occurred when resizing the Map control.

HMI.Map control

Map markers editor - Duplicated layers after copy/paste (SPR #64014)

An additional layer was inserted after a copy/paste action of a non-default layer.

HMI.Map control

Unable to validate Map positioning animation

It was not possible to select *No change* in the *Zoom level* property of the animation *Map positioning*.

HMI.Map control

Impossible to save GPX file

The *Save* button was always disabled when editing an existing GPX file with the Map Marker Editor.

HMI.Map control
Other versions: 11.2.06027

Improper default zoom limits (SPR #62683)

When creating a new .gpx file (markers) or a new layer, the zoom limits of the default layer are now applied by default. Until this fix, it was possible to introduce zoom limits discrepancies, because the zoom range [1..20] was used by default.

HMI.Map control
Other versions: 11.2.06060

Several fixes & enhancements of the Marker editor

The list of fixes & enhancements includes:

- Under some circumstances, the preview was not working for Symbols markers,
- Upon selection of a marker on the map, the marker properties were not displayed if the marker was not in an expanded part of the tree view in the right-side panel,
- Under some circumstances, the *Save* button could stay greyed after changing a user data or a property.

HMI.Map control
Other versions: 11.2.06026

Dotted border around symbols (SPR #64263)

A dotted border was incorrectly displayed around symbols.

HMI.Map control
Other versions: 11.2.06081

Fatal error after a marker disappeared (SPR #62724)

Under some circumstances, a fatal error could occur after a marker disappeared from the visible area (due to zooming or map scrolling), in case it had an opened popup linked to it.

HMI.Map control
Other versions: 11.2.06027

Symbols displayed incorrectly (SPR #64263)

Symbols were not correctly displayed when crossing the Map control border. It was only occurring with symbols including rectangle with dotted border.

HMI.Map control

Map markers editor - Inserting a marker in a dynamic layer

In the Map markers editor, toolbar buttons to insert makers were not disabled when a dynamic layer was selected.

HMI.Map control

Missing symbol not indicated

As of now, a warning is displayed at design time if a symbol used for a marker is missing.

HMI.Map control

Map markers editor - Automatic zoom on layer double-click (SPR #64015)

In the Map markers editor, the zoom level was not correctly set when double-clicking on a layer to adapt the display to show all the markers.

HMI.Map control

OpenStreetMap cached map

Following a previous fix to disable OpenStreetMap maps due to license restrictions, a fatal error was occurring when using such a map stored in the local cache.

HMI.Map control
Other versions: 11.2.06034

Map not correctly displayed with local cache

Under some circumstances, local map tiles were not correctly displayed after loading and/or using the Map position animation. In particular, the issue could occur when the map was loaded with a zoom level that was not selected at the time the map had been locally cached.

HMI.Map control
Other versions: 11.1.06103, 11.2.06056

VBA code embedded in symbol not executed

VBA code embedded in a symbol was not correctly loaded and executed when used as a marker.

HMI.Map control

Marker position modified when switching from runtime to design mode (SPR #63804)

Under some circumstances, the position of symbol markers in the Map Control was wrongly modified when switching from runtime to design mode.

HMI.Map control
Other versions: 11.2.06062

Markers not displayed

Markers were hidden after using the instruction *MAPDISPLAY* mode *LOADMARKERS*. They were refreshed after moving, zooming or clicking in the map.

HMI.Map control
Other versions: 11.2.06081

Access to OpenStreetMap tiles blocked

OpenStreetMap has blocked online access to their tile servers from 3rd party applications. The OpenStreetMap provider was therefore no longer usable and has been removed from the list of available map providers.

HMI.Map control
Other versions: 11.2.06027

Markers position and visibility not refreshed properly (SPR #63203, 62727)

Visibility of markers of type Symbol was not always correctly maintained with regards to layer visibility, position changes and zoom modification.
Performance of marker rendering is also improved.

HMI.Map control
Other versions: 11.2.06056

Markers not displayed after provider change (SPR #64521)

Under some circumstances, when changing the map provider at runtime (for example with SCADA Basic instruction), some markers could disappear. The issue occurred when the layer levels of markers did not include the minimal zoom level of the map. Markers' were properly refreshed and displayed after moving the map or updating the zoom level.

HMI.Map control
Other versions: 11.2.06068

Map markers Editor - Zoom level modified upon marker insertion

In the Map markers editor, when an invisible layer was selected, the zoom level was automatically set to the layers' max level, every time a marked was inserted.

HMI.Map control

Minimal value displayed

From now on, the minimal value the Trend Viewer can display is 10e-30 (was 10e-15). Values lower than this limit are rounded to 0.

HMI.Trend viewer
Other versions: 11.1.06115, 11.2.06071

Incorrect trend displayed after modification (SPR #64766)

When changing the displayed trend at runtime, it could happen that the curve and the cursor values were not updated. The issue occurred when the newly selected trend was not associated to an archive unit.

HMI.Trend viewer
Other versions: 11.1.06115, 11.2.06071

Invalid point displayed with Points curve type

When curve type was set to "*points*", both valid and invalid values were displayed and could be wrongly interpreted. From now on, only valid points are displayed.

HMI.Trend viewer
Other versions: 11.1.06091, 11.2.06031

Label field not updated in the legend (SPR #64577)

When changing the displayed variable in the Trend Viewer, the associated Label field in the legend was not updated when it was configured to use the variable's description (Label left empty at design-time).

HMI.Trend viewer
Other versions: 11.2.06068

Curve color not updated (SPR #62998)

Curve were not immediately updated when modifying curve color with the SCADA Basic instruction *TREND*, mode *SETCOLOR*.

HMI.Trend viewer
Other versions: 11.1.06095, 11.2.06038

Language for variable descriptions in the legend (SPR #62311)

Variable descriptions were not dynamically changed when switching the project language.

HMI.Trend viewer
Other versions: 11.1.06066, 11.2.06001

Trends not well displayed (SPR #62319)

Trends were not correctly displayed when scales were larger than the display area of the trends.

HMI.Trend viewer
Other versions: 11.0.06085, 11.1.06066, 11.2.06001

Scientific notation in scales (SPR #64696)

Scales were not using the scientific notation with large values.

HMI.Trend viewer
Other versions: 11.2.06072

Truncated value in semi-log mode (SPR #65347)

Values displayed at the cursor in semi-log mode could be truncated.

HMI.Trend viewer
Other versions: 11.2.06076

Small values not correctly displayed in the legend (SPR #63856, 63670)

Small values, lower than 0.001 where displayed as 0 in the legend. They are now displayed using scientific notation.

HMI.Trend viewer
Other versions: 11.1.06110, 11.2.06061

Value with e-10 not correctly displayed

When using the scientific notation, the particular case of *e-10* was not correctly displayed. The trailing zero was removed and the value wrongly displayed as *e-1*.

HMI.Trend viewer
Other versions: 11.1.06113, 11.2.06064

Value lower than e10-6 not displayed

Value lower than e10-6 were displayed as 0.

HMI.Trend viewer

Truncated value in scale (SPR #64657)

Under some circumstances, value displayed in scale were truncated when using scientific notation.

HMI.Trend viewer
Other versions: 11.1.06114, 11.2.06070

Fatal error when editing expression (SPR #63694)

Under some circumstances, a fatal error could occur after several modifications of an existing expression, when some of the modifications were incorrect.

All kind of expressions were affected: Expression on variable, template expression and expression in animations.

Miscellaneous

System variables for printers remained invalid (SPR #62839)

Since version 10.0, system variables for printers were no longer initialized at startup and remained invalid (NS).

Miscellaneous
Other versions: 11.2.06031

Online printing not working (SPR #60929, 27775)

Online printing was not working when no Proprietary archive unit was configured.

Miscellaneous

Variables indicated as NS in mimics

Under some circumstances, some variable values could be displayed as NS in animations and as valid values in the Application Explorer.
The issue could only occur in a specific scenario after a time-out on a variable subscription and the fact that flow regulation was active when the first subsequent subscription response was received.

Networking
Other versions: 10.0SP2_Update, 11.0.06092, 11.1.06088, 11.2.06027, 9.0SP3

Unable to modify the activation trigger of an alarm (SPR #63724)

It was no longer possible to modify the activation trigger of an alarm (positive or negative) from the Application Explorer or by import (Smart Generator, Generic Import, Application Architect) if the station belonged to a single-active association. It can now be done on the active station of the association.

Networking
Other versions: 11.2.06059

Incorrect error message in three-level architectures (SPR #65191)

In a three-level architecture, some incorrect messages were displayed at the gateway level regarding the archiving. Despite the error messages, logs were correctly routed.

Networking
Other versions: 11.2.06076

Erroneous messages removed (SPR #62955)

Under some circumstances, false error messages were displayed when a HDS trend variable was produced by a station and archived by another station. The issue could be reproduced when a variable was timestamped at the source level, with the Trend group period set to 0 sec. The following messages were displayed:

```
5,W,,5582,,2,Send ask refresh for OPC.Bit01
variable
5,W,,5586,,2,Station number=4 retry number=1
Time Out=20s
5,W,,5582,,2,Send ask refresh for OPC.Bit01
variable
5,W,,5586,,2,Station number=4 retry number=2
Time Out=20s
```

These messages had no impact on the system behavior.

Networking
Other versions: 11.1.06094, 11.2.06036

Status NS L> and NS L< not correctly distributed to client stations (SPR #63592)

Under some circumstances, the status *NS L>* and *NS L<* were not correctly transmitted to client stations and were simply interpreted as *NS*. As a consequence, the associated value was not displayed on client stations.

Networking
Other versions: 11.1.06110, 11.2.06059

Incorrect project version in RDS session (SPR #63655, 62583)

Under some circumstances, projects started in a Remote Desktop Session were loaded with an incorrect version. The issue could occur due to incorrect user permissions on the project folder. From now on, a warning is displayed when the user has improper permissions and project startup is aborted.

Networking
Other versions: 11.0.06094, 11.1.06110, 11.2.06060

Fatal error on network message processing (SPR #65030)

Under some circumstances, a fatal error could occur when a network message containing data changes larger than 32 Kb was being processed.

Networking

Other versions: 11.1.06116, 11.2.06072

NS COM status not correctly refreshed (SPR #63869)

Under some circumstances, the status of a variable was wrongly set to *NS* instead of *NS COM* after a communication loss. The issue occurred if the variable was previously in status Out of range (*NS L>* or *NS L<*).

Real time data

Other versions: 11.1.06110, 11.2.06061

Timestamp discrepancy after a communication restart (SPR #62733)

In case of a single active server association, when restarting the communication on the active server, the timestamp type and value could differ on the active server compared to client stations. It was occurring with saved variables when the setting *Use the local timestamp upon device reconnection* was enabled. In such condition the timestamp type and value was set to the local SV timestamp on the active server instead of the last known PLC timestamp, as it is on client stations.

Real time data

Other versions: 11.1.06088, 11.2.06031

Incorrect expression result after a server switchover (SPR #62566)

Under some circumstances, in a single active server association, expressions could be incorrect after a switch from passive to active.

Real time data

Other versions: 11.1.06078, 11.2.06023

'$' character not recognized in expressions (SPR #62505)

The '$' character was not recognized as a part of a variable name. Thus expressions using synthesis such as @System.NoAckOn.ALL.Domain_$ were not considered valid.

Real time data

Other versions: 11.1.06075, 11.2.06020

Handling of corrupted persistent data (SPR #62906, 62757)

Improved handling of the files *VariablesSaved.dat* and *AlarmSaved.dat* if they are corrupted. From now on, backup copies are used in replacement.

Real time data

Other versions: 11.2.06034

DNP3 and IEC104 system variables remained invalid (SPR #60107)

System variables linked to IEC104 and DNP3 data acquisition drivers could remain invalid at startup when the option *Activate at start-up* was not checked.

Real time data

Other versions: 11.1.06095, 11.2.06038

Alarm synthesis not loaded

When several synthesis had the same criteria (same extended attributes value for example) and the only difference was the branch, only the first one was correctly loaded, others were ignored.

Real time data

Other versions: 11.1.06080, 11.2.06024

Truncated associated labels (SPR #58811)

Following the modification of the maximum length of associated labels to 255 characters, such labels were wrongly truncated:

- When using the #E substitution in the alarm and log viewers,
- When used as part of a log list filter on proprietary log lists.

Real time data

Other versions: 11.2.06023

Alarm synthesis not updated (SPR #64619, 64483)

Under some circumstances, alarm syntheses were not updated due to multiple use of the result variable. It was possible to configure several alarm syntheses having the same result variable. In such a situation, only the last created or loaded was executed. The error handling is also improved to better warn user when creating an Alarm Synthesis from the Application Explorer, Application Architect or Generic Import.

Real time data
Other versions: 11.2.06072

Template Expression using a variable several times (SPR #64525)

Under some circumstance, a fatal error could occur when modifying an *Expression template*. The issue occurred only when the calculated expression contained a reference to a given variable more than once.

Real time data
Other versions: 11.2.06067

Consecutive writes not all sent

Under some circumstances, when the option *Write only if the value is different* was activated, consecutive write instructions done in SCADA Basic were not correctly managed if the initial value was used in the sequence.

For instance, with an initial value set to 1 and the following sequence:
Variable = 2;
Variable = 1;
Variable = 3;
Variable = 1;
Only values 2 and 3 were sent.

Real time data

Fatal error upon variable deletion

Under some circumstances, a fatal error could occur upon variable deletion. The issue occurred if a variable mapped on an equipment data acquisition driver was deleted after a command was sent and before the command acknowledgement was processed.

Real time data
Other versions: 11.1.06091, 11.2.06031

Unknown variable in expression

Under some circumstances, a fatal error could occur when an unknown variable was used in an expression.

Real time data
Other versions: 11.2.06066

Filtering on numerical values for Text attributes (SPR #62594)

Since version 11.2.05001, filters applied to Alarm and Log Viewers comprising numerical values for text attributes were no longer working (if executed in SCADA Basic or in VBA).

Scripting
Other versions: 11.2.06023

Instruction EVENT mode DEL did not work (SPR #63999)

The SCADA Basic instruction EVENT mode DEL did not work properly.

Scripting.SCADA Basic
Other versions: 11.2.06068

Instructions LOGDISPLAY & ALARMDISPLAY modes GETLINES & GETSELECTEDLINES did not work (SPR #65392)

The modes *GETLINES* and *GETSELECTEDLINES* of instructions *LOGDISPLAY* and *ALARMDISPLAY* were not working properly. The parameter *LineStart* was ignored and always considered equal to 1. As a consequence, the first line was always returned.

Scripting.SCADA Basic
Other versions: 11.2.06076

Instruction KEY - Various fixes & enhancements

Scripting.SCADA Basic

It includes:

- Intellisense for modes *DELSTD* and *DELCLK* were inverted,
- Intellisense for modes *ADDCLK* and *ADDSTD* were incorrect,
- Success return value of all modes was 0 instead of 1,
- Incorrect return values were not all handled properly,
- New argument *DelAllMode* for modes *DEL* and *DELALL*,
- Fixed a compatibility issue with project version control.

Instruction M61850 modes SBOW_SELECT and SBO_SELECT - Incorrect return type (SPR #62903)

Scripting.SCADA Basic
Other versions: 11.2.06034

The type of the Value argument for the instruction *M61850*, modes *SBOW_SELECT* and *SBO_SELECT* was incorrect. It is now of type Integer for consistency with the equivalent instructions for IEC 104 and DNP (was String).

For compatibility with existing projects, support for the Value argument of type String remains.

Instruction M61850 modes START_DATAGROUP & STOP_DATAGROUP (SPR #62725)

Scripting.SCADA Basic
Other versions: 11.1.06086,
11.2.06026

The modes *START_DATAGROUP* and *STOP_DATAGROUP* are now operational as indicated in the help. They replace the previous modes *START_GROUP* and *STOP_GROUP* those are now deprecated and kept for compatibility only.

Instruction HISTORY failed to import (SPR #64158, 64157)

Scripting.SCADA Basic
Other versions: 11.2.06064

Since version 11.2, trend values were not properly imported when using the instruction *HISTORY* with the mode *IMPORTTREND* and the *VarFlag* parameter set to 1.

Instruction CIMWAY mode CFG / EQT_ADDRESS no longer working with Modbus devices (SPR #62913)

Scripting.SCADA Basic
Other versions: 11.0.06093,
11.1.06093, 11.2.06046

The instruction *CIMWAY* mode *CFG* sub-mode *EQT_ADDRESS* was no longer working with XBUS-IP-MASTER driver. This regression was introduced in the following versions:

- 11.2.06026
- 11.1.06086
- 11.0.06092

Instruction CHART mode LINE_CLEAR always returned 0 (SPR #64723)

Scripting.SCADA Basic

The mode *LINE_CLEAR* of the instruction *CHART* always returned 0 even when executed successfully.

Instruction CHART mode SETENDTIMEPERIOD did not work (SPR #64726)

Scripting.SCADA Basic

The mode *SETENDTIMEPERIOD* of the instruction *CHART* was not recognized as valid nor executed.

Instruction CHART mode RANGE_REMOVEPOINT did not work (SPR #64721)

Scripting.SCADA Basic

The mode *RANGE_REMOVEPOINT* of the instruction *CHART* was adding points instead of deleting them.

Instruction RECIPE mode NETWORKBROADCAST (SPR #63124)

When using the instruction RECIPE mode NETWORKBROADCAST, the status variable allowing controlling the correct execution was never refreshed. It was always in status NS.

Scripting.SCADA Basic
Other versions: 11.2.06054

Instruction BUFTOEXCEL mode MERGE did not work (SPR #63520)

The mode *MERGE* of the instruction *BUFTOEXCEL* did not work correctly and generated a corrupted file.

Scripting.SCADA Basic

Opening a program from a missing library (SPR #62417)

When trying to open/edit a SCADA Basic program from a missing library, the legacy SCADA Basic Editor was opened instead of raising a warning. From now on, an error message is displayed in the event viewer.

Scripting.SCADA Basic
Other versions: 11.2.06023

BRANCHE is a reserved word (SPR #65039)

It is no longer possible to use *BRANCHE* as a function or a variable name.

Scripting.SCADA Basic

Upgrade Instruction BACNET mode LOG_RETRIEVAL - Incorrect timestamp type (SPR #63604)

Timestamps used with the instruction *BACNET* mode *LOG_RETRIEVAL* were UTC instead of local.

Scripting.SCADA Basic

Instruction ASCIIFIELD was limited to 256 fields (SPR #62670)

The SCADA Basic instruction *ASCIIFIELD* was limited to 256 fields and could cause a heap corruption if handling a larger buffer. From now on, the instruction is no longer limited in number of fields.

Scripting.SCADA Basic
Other versions: 11.1.06093, 11.2.06034

Variable substitution not working (SPR #63793)

Under some circumstances, variables substitutions were not working in SCADA Basic programs, in particular with multiple substitutions in the same function.

Scripting.SCADA Basic
Other versions: 11.2.06062

Fatal error with instruction VARIABLE mode IMPORTBUFFER

Under some circumstances, a fatal error could occur when using the instruction *VARIABLE* mode *IMPORTBUFFER*.

Scripting.SCADA Basic
Other versions: 11.2.06079

Incorrect Intellisense for instruction BACNET mode LOG_RETRIEVAL

The Intellisense for the instruction *BACNET* mode *LOG_RETRIEVAL* of was incorrect.

Scripting.SCADA Basic

Instruction CIMWAY failed to handle frames (SPR #62716)

Since version 11.2.05001, modes of the instruction *CIMWAY* applying to a frame were no longer working properly, including:

- STOP
- START
- READFRAME
- SCANMDF
- READAFTERWRITE

Scripting.SCADA Basic
Other versions: 11.0.06092, 11.1.06089, 11.2.06030

LOGDISPLAY filtering modes not waiting EXECUTE (SPR #64548) Under some circumstances, the SCADA Basic instructions to modify the filter applied to a Log Viewer could be executed immediately instead of waiting for the EXECUTE command. This issue was occurring when the Log Viewer was configured with the auto-refresh mode.	**Scripting.SCADA Basic** Other versions: 11.1.06114, 11.2.06068
Instruction MAPCONTROL - Incorrect return type The return type for the SCADA Basic instruction *MAPCONTROL* was inconsistent. In case of error, some return types were not the one expected. For instance, the success return type of the mode *GETZOOM* is *double*, and in case of error, the instruction was returning an *integer*.	**Scripting.SCADA Basic**
Instruction WINDOW mode GETSUBWINDOW did not work with #U and #I (SPR #64005, 63017) Incorrect results were returned when using the instructions *WINDOW* mode *GETSUBWINDOW* with submodes *#U* and *#I*.	**Scripting.SCADA Basic**
Instruction WINDOW mode ZOOM - Mimic back in the foreground Mimic were brought to the foreground after setting their zoom level from a value lower to 100 to a value greater than 100, by using the instruction *WINDOW* with the mode *ZOOM*.	**Scripting.SCADA Basic**
Instruction WINDOW mode SELECTTAB - Incorrect return value on error The mode SELECTTAB of the instruction WINDOW returned 1 instead of 0 when the index of the tab was out of range.	**Scripting.SCADA Basic**
Intellisense for instruction OPC (SPR #64373) The Intellisense for the instruction *OPC* modes *SETTRACE*, *RESETTRACE*, *PUTMASKTRACE* and *SAVEMASKTRACE* was incorrect.	**Scripting.SCADA Basic**
Intellisense for instruction M104 The Intellisense for the instruction *M104* mode *STPV_COMMAND* was incorrect. The online help was correct.	**Scripting.SCADA Basic** Other versions: 11.2.06046
Instruction SELECTOR returned negative color values (SPR #63744) The modes GETCELLBACKCOLOR and GETCELLTEXTCOLOR of the instruction SELECTOR were returning negative values for some colors (greater than the hex value 0x7FFF).	**Scripting.SCADA Basic**
Error management related to Form Controls (SPR #63372) Several SCADA Basic instructions and modes related to Form Controls were not handling errors correctly: • CHECKLIST, modes LOAD, INSERT and SETSTATE, • COMBOBOX, modes LOAD, INSERT and SETSELECTED, • LISTBOX, modes LOAD and INSERT, • OPTIONLIST, modes LOAD, INSERT and SETSTATE, • TREEVIEW, modes LOAD, INSERT, SETSELECTED, EXPANDNODE, COLLAPSENODE and REMOVENODE.	**Scripting.SCADA Basic**

Instruction WINDOW mode CURRENTNAME and CURRENTBRANCH returned an invalid value

Scripting.SCADA Basic

The SCADA Basic instruction WINDOW with the modes CURRENTMIMIC and CURRENTBRANCH generated an "incompatible type" error when no mimic was opened.

Instruction VARIABLE mode SETLONGLABEL - Missing Intellisense (SPR #62429)

Scripting.SCADA Basic
Other versions: 11.1.06072, 11.2.06020

The auto-completion was missing for the SCADA Basic instruction VARIABLE mode SETLONGLABEL.

Instruction TREND mode THRESHOLD_GETMODE - Wrong return code (SPR #62879)

Scripting.SCADA Basic
Other versions: 11.1.06094, 11.2.06036

When a curve was configured in threshold auto mode but without associated threshold to the variable, then the function was returning -1 instead of 0.

Instruction TREND mode SETPERIOD - New argument (SPR #63582)

Scripting.SCADA Basic
Other versions: 11.1.06110, 11.2.06060

A new argument named *ForceHistoricalRequest* has been added to the SCADA Basic instruction *TREND*, mode *SETPERIOD*. When set to 1, a request to the archives is executed to refresh the buffer for the newly set time-period, otherwise, the buffer is not modified.

```
TREND("SETPERIOD", Window, Branch, Identity,
Duration[, ForceHistoricalRequest])
```

Executing this instruction without setting this argument could lead to partially rendered curves because the buffer may not contain data for the new period.

Instruction TOC - Support for type LONGLONG (SPR #64639)

Scripting.SCADA Basic

The *TOC* instruction returned an empty string when the input argument was of type *LONGLONG*.

Instruction TREEVIEW mode GETROOT did not work (SPR #62542)

Scripting.SCADA Basic
Other versions: 11.1.06076, 11.2.06020

The SCADA Basic instruction *TREEVIEW*, mode *GETROOT* did not work properly.

Instruction SVTREND - Robustness (SPR #62293)

Scripting.SCADA Basic
Other versions: 11.0.06087, 11.1.06066, 11.2.06001

Since version 11.1, a fatal error occurred when using the instruction SVTREND if the Begin or End datetime was earlier than the first record of the database. A similar issue occurred when the returned buffer was empty.

SCADA Basic Editor - Line numbers moving (SPR #62697, 61932, 60539, 59463)

Scripting.SCADA Basic
Other versions: 11.2.06035

Under some circumstances, the lines numbers were moving. It was occurring when the file was starting with several carriage returns.

Instructions HEX and CONVERT with 64-bit values (SPR #62671, 17452)

Scripting.SCADA Basic
Other versions: 11.0.06093, 11.1.06097, 11.2.06043

Instructions *HEX* and *CONVERT* (modes *BINTOA*, *OCTOTOA*, *HEXTOA* and *BCDTOA*) were not correctly processing 64-bit values (>= 2147483648).

Instruction STATION_FILTER mode APPLY - Incorrect population name (SPR #64024)

No error was returned when using the instruction *STATION_FILTER* mode *APPLY* with an unknown population.

Scripting.SCADA Basic

Instruction SVTREND mode GETTREND - Incorrect extraction (SPR #62700)

Under some circumstances, when retrieving sampled values, some data were incorrectly extracted.
This instruction is deprecated and its usage is discouraged. Use EXPORT_TREND mode GETSAMPLE instead.

Scripting.SCADA Basic
Other versions: 10.0SP2_Update, 11.0.06092, 11.1.06087, 11.2.06026

Instructions FOPEN and FCLOSE - Could not open/close files (SPR #62914)

Since version 11.2.05000, the instructions *FOPEN* and *FCLOSE* were no longer working properly.

Scripting.SCADA Basic
Other versions: 11.2.06034

Instruction SVSQL with a SQL Server database (SPR #62899)

A fatal error could occur when using the instruction *SVSQL* to query a SQL Server database. It only happened when the "*SQL Server*" ODBC driver was used. It did not happen with the "*SQL Server Native Client*" ODBC driver.

Scripting.SCADA Basic
Other versions: 11.0.06093, 11.1.06092, 11.2.06034

Instructions ALARMDISPLAY and LOGDISPLAY mode ISLINEVISIBLE - Incorrect return value (SPR #64693)

The mode *ISLINEVISIBLE* of instructions *ALARMDISPLAY* and *LOGDISPLAY* returned -1 instead of 0 when the line to retrieve was not visible. The issue occurred when the viewer was configured with a buffer size larger than the number of lines it could display.

Scripting.SCADA Basic

Line numbering not correctly refreshed (SPR #64805, 63774, 63773)

Under some circumstances, the line numbering in the SCADA Basic Editor was not correctly refreshed, in particular once activated or with numbers only comprised between 1 and 11.

Scripting.SCADA Basic

Intellisense of instruction TRACE (SPR #64804)

The instruction TRACE was not correctly highlighted in the SCADA Basic Editor.

Scripting.SCADA Basic

Robustness of VBA method Execute

Calling the VBA method *Execute* on a Log viewer object now returns an error if such a call is already being processed.

Scripting.VBA
Other versions: 11.1.06073, 11.2.06020

Embedded VBA scripts on event not executed (SPR #62631, 62604)

When a symbol embedding VBA script was inserted several times, the events subscribed within (on variables or graphical items) were fired only for the first instance.

Scripting.VBA
Other versions: 11.1.06080, 11.2.06024

Embedded object renaming upon insertion of symbol (SPR #60947)

When inserting a symbol several times in a mimic, its embedded objects were renamed (numbered copy). From now on, embedded objects are no longer renamed.

Scripting.VBA
Other versions: 11.1.06076, 11.2.06020

Exception returned when requesting RealTimeData services (SPR #63144)

The RealTimeData Browsing, Read and GetProperties services were returning an exception when trying to retrieve information about a variable having an xml reserved character in its description (for example: <, >, &, ', "...). Characters are now escaped properly.

Web Server Extensions.Web Services Toolkit
Other versions: 11.1.06098, 11.2.06054

Wrong deferred attributes returned (SPR #62963)

It was not possible to read deferred attributes of several variables at once. The first retrieved value was wrongly duplicated for all the other variables.

Web Server Extensions.Web Services Toolkit
Other versions: 11.1.06095, 11.2.06038

Branches and variables browsing (SPR #62726, 62444, 62443, 62380)

When requesting branches and variables having a specific branch, all branches and variables containing the specified text were returned.

For example, with these variables:

- @Test.B1
- @Test.B2
- @Test1.B1
- @Test1.B2

When requesting with the branch "Test", only the first 2 ones are now returned. Until the fix, the 4 variables were returned.

In addition, when the description of a variable was empty, the full variable's name was displayed instead of only the leaf as described in the help.

Both issues had consequences on installation browsing and variable view in TouchVue and the Web Services Toolkit.

Web Server Extensions.Web Services Toolkit
Other versions: 11.0.06092, 11.1.06090, 11.2.06030

Handle leak with Trend viewer

Two handles were lost every time a WebVue mimic containing a Trend viewer was closed.

Web Server Extensions.WebVue
Other versions: 11.2.06066

Popup mimic not correctly positioned (SPR #65963, 65962)

Popup mimics were not correctly positioned when the opening button was at the edge of the parent mimic.

Web Server Extensions.WebVue

Inconsistent cursor position and date & time (SPR #61757)

In the Trend Viewer, the date & time in *Cursor* mode was incorrect when some configured scales were hidden.

Web Server Extensions.WebVue
Other versions: 11.2.06001

Texts in mimics not correctly displayed (SPR #62569)

Texts in mimics generated with the Smart Generator for FactoryLink® were not correctly displayed.

Web Server Extensions.WebVue
Other versions: 11.1.06078, 11.2.06023

Could not filter Domain and Nature having the same name (SPR #62374)

Filtering in the Alarm and Log Viewers in WebVue was not working properly if the configuration included the same name for both a Domain and a Nature. When applying such a filter on a nature, it was wrongly filtered against the domain criteria.

Web Server Extensions.WebVue
Other versions: 11.1.06072, 11.2.06010

Could not filter log list by Domain or Nature (SPR #62550)

Requests to HDS log lists were not correctly processed when filtering on Domain or Nature.

Web Server Extensions.WebVue
Other versions: 11.1.06078, 11.2.06023

Fatal error when executing the SCADA Basic instruction WINDOW mode CURRENTNAME (SPR #107474)

A fatal error occurred when executing the SCADA Basic instruction *WINDOW* mode *CURRENTNAME* in a WebVue context.

Web Server Extensions.WebVue
Other versions: 11.1.06065, 11.2.06001

Alarms and logs incorrectly returned (SPR #62814)

Alarms and Logs were incorrectly returned when some text properties (associated label, description...) contained a comma.

Web Server Extensions.WebVue
Other versions: 11.1.06091, 11.2.06031

Improved robustness

Improved handling to make sure all pending Http requests are closed when navigating away from the start page.

WebScheduler
Other versions: 11.1.06086, 11.2.06026

Access rights enforcement (SPR #62407)

When navigating and editing schedules in multiview, an issue related to user rights enforcement was preventing from saving modifications even if the user was granted such authorizations.

In addition, access to the standard week, special days behavior, effective period and properties pages was checked against the CalendarRead right instead of the StandardWeekRead right.

WebScheduler
Other versions: 11.2.06010

Edition of recurring intervals (SPR #62435, 61793, 61792, 61766, 61765)

The edition of recurring intervals for BACnet Calendar objects was not correctly handled. Depending on the recurrence pattern, it could lead to one or more of the following consequences:

- Additional occurrences displayed,
- Additional occurrences inserted in the Calendar object,
- Incorrect datetime of the last occurrence,
- Next intervals only displayed in edition mode.

WebScheduler
Other versions: 11.2.06010

Unable to save exception interval (SPR #63364, 63335)

Under some circumstances, it was not possible to save exception intervals. The issue occurred with BACnet schedules after deleting an existing exception based on the *AnyMonth* wildcard.

WebScheduler
Other versions: 11.2.06056

Wrong default label for intervals on Cron schedules (SPR #62384)

The default mode was always 1 (=Active). From now on, the default mode depends on the send-mode of the schedule. It is 0 (=Inactive) for Bit Cmd to 1 and 1 (=Active) for Bit Cmd to 0.

It was a regression in version 11.2 that did not affect earlier versions.

WebScheduler
Other versions: 11.2.06001

Could not read BACnet Schedule without standard week or exception period (SPR #62842)

A fatal error was occurring when, in a Schedule object, the weekly-schedule or the exception-period property was missing. According to the BACnet standard, both properties are optional but at least one of the two must be present.

WebScheduler
Other versions: 11.2.06037

3. Critical fixes

Alarm behaviors not saved (SPR #63263)

Since version 11.2.05001, behaviors associated to alarm variables were not automatically saved when leaving the project.

Communication interfaces
Other versions: 11.2.06055

Event actions not saved upon shutdown (SPR #63960, 63789)

Under some circumstances, modification to Event actions were not saved when shutting down the project.

Configuration Environments.Application Explorer
Other versions: 11.2.06064

Failed fast synchronization was not rolled back (SPR #61684)

After a failed fast synchronization, the reference file was not rolled back leading to a discrepancy with the actual configuration. Subsequent fast synchronizations were then considered as successful. It was then necessary to execute a full synchronization to regenerate this reference file.

This was affecting all of the Smart Generators able to execute fast synchronization and the Application Architect.

Configuration Environments.Smart Generators
Other versions: 11.2.06066

Improper redundancy switchovers (SPR #65321)

When a server station belonged to more than one associations, a switchover of one association to which it belonged could cause the other associations to also switchover. This could have severe side effects, in particular if associations were used for data acquisition, in particular:

- IEC 61850: Communication with devices could be halted,
- BACnet: Communication for Notification class, Schedule, Calendar and Log objects could be halted,
- SNMP: Values already processed by an active server could be replayed on a passive server.

Data Acquisition
Other versions: 11.2.06075

Trend-Log buffer lost at startup (SPR #63268)

At startup, the first retrieval of *Trend-Log* buffer could be performed before the subscription to the HDS, leading to the loss of the retrieved values.

Data Acquisition.BACnet
Other versions: 11.2.06055

Fatal error when using Schedule and Trend Log objects (SPR #62800)

In networked architectures, a network overload could occur due to undesired messages being sent back and forth between PcVue clients and PcVue data acquisition server when handling schedule or trend log configuration items.
At some point, a fatal error occurred on the PcVue server side.

The issue occurred in a scenario when at least one PcVue client was already running at the moment a data acquisition server was started. The same could occur when re-connecting or re-starting a BACnet network (or BACnet device) when at least one PcVue client was already running.

Data Acquisition.BACnet
Other versions: 11.2.06030

Data exchanges frozen (SPR #62581)

Under some circumstances, data exchanges could freeze, leading to situations where values were no longer updated. In addition, browsing and helpers did not work properly in such cases.

The issue could occur on projects with a large number of BACnet variables and significant network traffic. It was related to computer clock & timer resolution.

Data Acquisition.BACnet
Other versions: 11.2.06054

COV re-subscription issue

Under some circumstances, COV re-subscription messages were not sent, leading to situations where one or more BACnet device stopped sending value changes while PcVue was expecting them (and failed to detect the abnormal situation). The symptom was that values were no longer refreshed for one or more device, but remained valid. Stopping and starting PcVue was required to recover up-to-date values, stopping and starting BACnet communication objects was not enough.

Data Acquisition.BACnet
Other versions: 11.2.06054

Wrong BBMD started (SPR #63174)

Under some circumstances, a wrong BBMD list could be started when an application comprised more than 1 BACnet network.

Data Acquisition.BACnet
Other versions: 11.2.06054

Alarm/event initialization (SPR #62740, 62738)

The alarm/event initialization was not working properly for some event types. A series of fixes & enhancements have been done to the BACnet alarming handling including:

- Some event types were not taken into account at initialization: ChangeOfBitstring, ChangeOfCharacterstring, ChangeOfLifeSafety, ChangeOfState and ChangeOfStatusFlags,
- At the time of mapping a variable to a BACnet alarm/event, the device level timestamp was not retrieved,
- Using the Mapping Editor in online mode, it is now possible to map alarms directly on event-enrollment objects. The same could already be achieved from the variable dialog box,
- It is also possible when using the Mapping Editor in offline mode, except that all event-types are displayed and it is up to the application designer to pick up the correct one (EDE files do not include enough information about events).

Data Acquisition.BACnet
Other versions: 11.2.06026

Buffer overflow loop on reporting (SPR #62704)

Fix of an interop issue related to the buffer overflow handling.

The behavior was not correct with devices indicating buffer overflow after a purge of the buffer and was dependent on the level of implementation of tissues #278, #329 and #453 by device vendors.
The handling has been changed to avoid an infinite loop in the following scenario: (1) reception of a buffer overflow indication, (2) disable report, (3) purge buffer, (4) enable report, (5) reception of the buffer overflow indication.

Data Acquisition.IEC 61850
Other versions: 11.1.06085, 11.2.06026

BRCB buffer purged on reconnection (SPR #62804)

Upon reconnection after a communication failure, the buffer of BRCB was purged, leading to a data loss.

Data Acquisition.IEC 61850
Other versions: 11.1.06090, 11.2.06030

Driver XBUS-IP-MASTER - Fatal error when using shared connections (SPR #63085)

A fatal error could occur when stopping and restarting devices if they were configured to share the same connection.

Data Acquisition.Other built-in drivers
Other versions: 11.2.06046

Driver XBUS-IP-MASTER - Value discrepancies (SPR #62791)

Since versions 11.0.06087, 11.1.06084 and 11.2.06026, discrepancies could occur on received data due to multiple requests being sent if the delay of the response from the PLC is greater than 1 sec and the time-out configured on the node is greater than 1 sec.
In this context, the acquired values may be wrongly interpreted on the PcVue side. As a consequence, monitored values may be wrong, thresholds or alarms may not trigger or trigger false positive.

Data Acquisition.Other built-in drivers
Other versions: 11.0.06092, 11.1.06090, 11.2.06030

Partial log data export (SPR #65933, 65905) Exported log data was improperly limited to 150 lines per log page.	**Data Export** Other versions: 11.2.06081
Multiple clicks on the Save Button (SPR #63194, 62768) A fatal error could occur when the saving process was called several times and already in progress.	**General** Other versions: 11.2.06033
Cannot login when domain server is not reachable (SPR #63309) Despite having activated the setting "cache the credentials", it was not possible to login with a Microsoft Windows User when the domain server was not reachable.	**General.User management** Other versions: 11.2.06060
Unknown user in User.dat file (SPR #65312, 65235) When the Advanced security strategy was activated, an attempt to login in with an invalid user account was causing the creation of a dummy user in the built-in user directory.	**General.User management** Other versions: 11.2.06074
Could not login after strong password setting activation (SPR #16676) After activation of the setting *Impose strong password*, users with "simple" password were no longer able to login. From now on, when this setting is activated, users with a "simple" password are requested to change it at next login.	**General.User management** Other versions: 11.2.06023
Contingent shrink for databases (SPR #62710) The contingent shrink mechanism was not working efficiently with large databases (over 10 Gb). It has been redesigned to fasten its execution and hence minimize the time window during which blocking database operations are performed. Note that the contingent shrink should be executed only as a last resort to free disk space. While being executed, the data recording is not guaranteed. The usage of Maintenance Plan to delete smaller amounts of records on a regular basis is recommended to free space without taking the risk of blocking database recording.	**Historical data** Other versions: 11.0.06093, 11.1.06090, 11.2.06032
Prevent wrong backup folder configuration (SPR #61941) This fix prevent from using the same backup folder for several proprietary archive units. Using the same backup folder for different archive units causes backup files of one unit to be overridden by files from other units, leading to unrecoverable data losses.	**Historical data**
Incorrect optional columns configuration saved (SPR #61950) Under some circumstances, columns configured in the HDS were not correctly saved.	**Historical data**
Histo.sav file incorrectly loaded When the histo.sav was read at startup, trend values with quality 192 were incorrectly interpreted as if their value was 52428 leading to incorrect records in the archives. This issue only affected proprietary archives units.	**Historical data** Other versions: 11.2.06071
HDS redundancy regression (SPR #62649) Since versions 11.1.06072 and 11.2.06010, in an architecture with a single active historical server association, when a server switched from passive to active, it failed to record data to the database. As a consequence, no new record were stored by the HDS. It was mandatory to restart all the servers of the association to resume recording.	**Historical data** Other versions: 11.1.06081, 11.2.06024

Fatal error on HDS switchover (SPR #64016)

Under some circumstances, a fatal error could occur after a switchover of HDS servers. The issue could be reproduced with a single-active HDS server association with a large amount of data to record at the time of the switchover.

Historical data
Other versions: 11.2.06071

Early events at startup not recorded in log lists (SPR #62646)

When the compatibility setting enabling the recording of events from all stations was activated, some early events during the startup could fail to be recorded by a remote archive server because they occurred before the connection to the source station was established.

The issue could be reproduced with Login events in case the Windows user auto-logon was enabled.

Historical data
Other versions: 11.1.06084, 11.2.06026

Backup files lost (SPR #61941)

It was possible to configure several proprietary archives unit configured with the same backup directory. In such a configuration, some backup files were lost due to file being overridden. Now the Application Explorer prevents such configuration, and an error message is displayed at project startup if need be.

Historical data

Administrative privileges no longer required (SPR #61058)

Since changes brought in with Microsoft SQL Server 2008 R2, administrative privileges on the SQL Server instance were required to connect to a SQL database using the HDS. The issue resided in evolutions of the Microsoft SQL-DMO library. The HDS implementation has been changed to take advantage of the more recent Microsoft SQL-SMO library that does not require such high privileges on the SQL Server instance.

The Database Manager and the Replication Manager have also been changed accordingly.

Historical data
Other versions: 11.2.06060

Email and SMS sent multiple times (SPR #65316, 65072, 65002)

Under some circumstances, Email and SMS were sent multiple times.

Miscellaneous
Other versions: 11.2.06076

Inconsistent configuration on servers

A fatal error of a data acquisition server was occurring in case of an inconsistent configuration between servers, when a bit variable was configured as a temporized alarm on a server and as a simple bit on another server.

Networking
Other versions: 11.0.06087, 11.1.06070, 11.2.06001

Upgrade Fully qualified domain names not recognized (SPR #63160)

Since versions 11.1.06077 and 11.2.06020, fully qualified domain names were no longer recognized as valid station names in the networking configuration. Only IP addresses could be used.

Networking
Other versions: 11.1.06099, 11.2.06054

Regression on network messaging between servers

Since version 11.0.06044 and 11.1.05000, when a distributed attribute was modified at least twice in less than 200 ms, new values were sent back and forth between the active and passive servers of the producing association.

Networking
Other versions: 11.0.06087, 11.1.06071, 11.2.06001

Support for double back-slash in expressions

Expressions including a double back-slash to display it on multiple lines in the expression editor failed to load, and the result variable was never updated at runtime.

The issue was a regression following modifications in the expression engine in version 11.1.

Real time data
Other versions: 11.1.06075, 11.2.06001

Multimode timetables - Various fixes and enhancements (SPR #64289)

WebScheduler
Other versions: 11.2.06066

The list of fixes & enhancements includes:

- Critical: Under some circumstances, multimode timetables were displayed with the wrong mode when not all modes were used in at least one interval;
- When deleting more than one exception interval at once, the operation failed and a misleading error message was displayed;
- The button to navigate backward in time in the Calendar view could be disabled, preventing from coming back to the current week. The button to go to 'Today' was working properly in these circumstances.

4. Enhancements

License Utility - Display .lic file content (SPR #64048)

The License Utility is now able to display the content of .lic files prior to updating/upgrading a license.

Add-ons and Tools
Other versions: 11.2.06064

User privileges to access audits

Users can now access the Audit information in the Application Explorer if they are granted Diagnostics permissions in their profile.
Until this change, audits were only accessible to users having development permissions.

Audit

Invalid timestamp quality

It is now possible to set the timestamp quality of the items exposed by the IEC 104 Outstation when using the SCADA Basic instruction *SYSTEM* with the mode *SETSYNCHRONIZEDCLOCK*. This instruction is global and is applied to all the items exposed by the IEC 104 Outstation.

Communication interfaces.IEC 60870-5-104 Outstation
Other versions: 11.2.06001

Time Sync request handling (SPR #65668)

It is now possible to acknowledge positively a Time Sync request even if the service is not supported. This change improves interoperability with IEC 104 clients that do not handle negative ack properly. In all cases, the computer clock is not changed.

Communication interfaces.IEC 60870-5-104 Outstation
Other versions: 11.2.06079

SnapshotPeriod range modified

The range for the *SnapshotPeriod* setting is now limited to [50 ms, 10 min].

Communication interfaces.SNMP Agent
Other versions: 11.2.06071

Status bar (SPR #62890)

Additional information is displayed in the status bar at the bottom of the Application Explorer and Application Architect:

- Current user,
- Current station name,
- Total number of I/O variables configured,
- Max number of I/O variables.

Configuration Environments

SNMP Manager mapping editor (SPR #62368)

The mapping editor for the SNMP Manager now supports array objects.

Configuration Environments.Application Architect
Other versions: 11.2.06010

Sorting of the Tpl_Instances file

The elements in the file *Templates\Tpl_Instances.xml* are now sorted, which enables easier file comparison between multiple versions of a project.

Configuration Environments.Application Architect

New function support in expressions - StrLen

It is now possible to use the function *StrLen* in expressions to get the length of a string.
Syntax: `Int = StrLen(String)`

Configuration Environments.Application Architect
Other versions: 11.2.06034

Generate mimics in libraries (SPR #62862) It is now possible to indicate if a mimic has to be generated in the local, common or shared library.	**Configuration Environments.Application Architect**
Reorganization of the intermediate file The intermediate file generated by the Application Architect has been reorganized to group and sort elements in a more efficient way regarding the import performances.	**Configuration Environments.Application Architect**
Local branch for symbols (SPR #63193) It is now possible to configure a local branch for symbols.	**Configuration Environments.Application Architect**
HMI for settings related to Event and Cyclic actions Following the addition of settings allowing executing event and cyclic actions on all servers or only the active servers of an association, these settings can now be changed via the Application Explorer HMI.	**Configuration Environments.Application Explorer** Other versions: 11.2.06001
Initialization Bit of Chronometer (SPR #16517) The Initialization bit variable of a Chronometer behavior is now optional	**Configuration Environments.Application Explorer**
OPC items list The OPC items are now sorted alphabetically in the Mapping dialog box.	**Configuration Environments.Application Explorer**
Custom Expression property of OPC variables It is now possible to edit the property *Custom Expression* of OPC variables in the *Advanced* tab of the variables properties dialog. This property was already available by editing the *C\Varexp.dat* file.	**Configuration Environments.Application Explorer**
Paste items from context menus (SPR #61660, 16515) It is now possible to paste branches and variables from context menus.	**Configuration Environments.Application Explorer** Other versions: 11.2.06026
Configurable default associated labels Some labels that used to be hard-coded are now fully configurable to allow for a greater customization. This includes labels associated to user actions (login, logout...), timestamp quality...	**Configuration Environments.Application Explorer**
Station without node (SPR #62063) When creating a new station in the Networking configuration, canceling the node creation was not cancelling the station creation leading to a station configured without a node.	**Configuration Environments.Application Explorer**

LonWorks items list LonWorks items (Networks and Nodes) are now sorted alphabetically in the Application Explorer.	**Configuration Environments.Application Explorer**
Selecting Smart Generators to display (SPR #62834) It is now possible to select which Smart Generators are available in the right-side menu *Import references* of the Smart Generators main window.	**Configuration Environments.Smart Generators**
Imports list (SPR #63082) The list of imports is now sorted alphabetically.	**Configuration Environments.Smart Generators** Other versions: 11.2.06055
Several fixes & enhancements of the BACnet Smart Generator (SPR #63820, 63817, 63807, 63803, 63800, 63799, 63797, 63792) The list of fixes and enhancements incudes: • Select variables dialog box reworked to reduce flickering in list views, • Fixed several issues with the selection persistency for devices and automation objects, • Fixed an issue when replacing characters in automation object names, • Fixed a validation issue of BACnet Device Id for IEIEJ import. Values outside of the range [0..4194303] are no longer allowed, • Improved progress notification upon parsing of input file.	**Configuration Environments.Smart Generators**
Handling of time tagged data It is now possible to set how to handle the timestamp upon reconnection to OPC servers: • Use of the local station timestamp, • Use of the last known timestamp. The new setting named *Use Local Timestamp Upon Reconnection* is available as part of the OPC Client settings. It is set to true for existing project, and defaults to false for new projects. Similar settings already existed for the IEC 104 client and DNP3 drivers.	**Data Acquisition** Other versions: 11.1.06067, 11.2.06001
Max segments accepted increased to 64 The max number of segments accepted has been increased to 64 (was 16) to improve the interoperability with some devices that were not considering this capability element correctly.	**Data Acquisition.BACnet** Other versions: 11.2.06026
Prevent mapping of unknown objects It is no longer possible to map variables on BACnet objects that are of an unknown type (e.g. object type Id in the range of Proprietary or Reserved object types for example).	**Data Acquisition.BACnet** Other versions: 11.2.06037
Property selected by default in Helper (SPR #62936) When creating a *List of property reference* in the BACnet Helper, the property selected by default is now *present-value* instead of the first in alphabetical order.	**Data Acquisition.BACnet**
EDE mapping coloration In the EDE mapping dialog box, properties are now displayed in red when read request failed.	**Data Acquisition.BACnet**

Incorrect list of properties when browsing

When the service *ReadPropertyMultiple* with a property reference set to *ALL* is not supported by the requested device, the property list defined in the built-in XML catalog is used instead of the default one.

Data Acquisition.BACnet
Other versions: 11.2.06031

Support for UTF-8 and OEM encoding for EDE files (SPR #65095, 64376)

It is now possible to load EDE files with ANSI, UTF-8 or OEM encoding. Previously, only ANSI encoding was supported.

Data Acquisition.BACnet

Configurable column mapping for EDE files (SPR #63340)

From now on, it is possible to select how the loading of each EDE file is handled, either with the automatic detection mode, or with a customized mode by selecting:

- The column delimiter;
- The column header's names.

Data Acquisition.BACnet
Other versions: 11.2.06066

Execute Read request after Write request

From now on, it is possible to execute a synchronization read request on a BACnet object or property that has been updated by a write request.
Such behavior can be configured at device level with the advanced property *Writing.Synchronize values after writing* (enabled by default).

It has been designed to ensure user awareness in cases where the command is successfully executed end-to-end, but, because there is already a higher priority command, the command issued from PcVue is not reflected in the object value.

Data Acquisition.BACnet
Other versions: 11.2.06041

Support for the time-delay-normal property

The BACnet driver now supports the property *time-delay-normal* (id 356).

Data Acquisition.BACnet

Reading specific index of a BACnetArray (SPR #62817)

From now on, it is possible to map a variable onto a specific index of a property of type BACnetArray (such as priority-array or weekly-schedule properties) by specifying *BACnetArray(x)* in the advanced property *Field* of the variable, where *x* corresponds to the 1-based index in the array. If the specified index is higher than the array size or if the value cannot be converted (according to the variable type), the quality of the variable will be set to NS_FMT. Index 0 can be used to get the size of array.

This syntax only applicable to BACnetArray, it is not applicable to properties of type BACnetList.

Data Acquisition.BACnet
Other versions: 11.2.06035

DNP3 device redundancy support

In addition to data acquisition server redundancy, the DNP3 client driver now also supports device redundancy.

Data Acquisition.DNP3
Other versions: 11.1.06097, 11.2.06043

Clear Restart IIN and Refresh Attributes

It is now possible to configure if a request to clear IIN1.7 (Restart IIN) and Refresh Attributes need to be sent when a connection to a device is established.

Data Acquisition.DNP3
Other versions: 11.2.06071

Time zone overridden

Under some circumstances, it happens that the time zone sent by the device is incorrect (i.e.: misconfiguration). To avoid erroneous data reading and recording, a new advanced property is available at variable level to enable overriding the time zone sent by the device.

Data Acquisition.DNP3
Other versions: 11.2.06064

Support for the ONLINE flag

The flag ONLINE of DNP3 objects was not taken into account in the status of variables. It is now taken into account in addition to the COMM_LOST flag.

Data Acquisition.DNP3
Other versions: 11.1.06075, 11.2.06020

DNP3 time synchronization

A new advanced property named *Synchronization type* is available on DNP3 devices. It allows defining whether time synch messages sent by PcVue should be formatted as defined by the DNP3 LAN or DNP3 Serial standards (defaults to LAN). This new option allows support for devices that only support DNP3 Serial time synch messages over TCP.

Data Acquisition.DNP3
Other versions: 11.2.06055

Improved connection management

In order to avoid multiple connections/disconnections, the communication is stopped after 3 connections and disconnections in less than a second, and restarted after 30 seconds. Such a behavior could be generated by an erroneous configuration in the project and could cause network traffic overload.

Data Acquisition.IEC 60870-5-104 Client
Other versions: 11.1.06095, 11.2.06038

New time zone property (SPR #62568)

It is now possible to configure the time zone (Local or UTC) used by a Sector for timestamped data. It can be set in the advanced properties of Sectors.

Data Acquisition.IEC 60870-5-104 Client
Other versions: 11.1.06079, 11.2.06023

SCADA Basic instructions to change global settings (SPR #58835)

New modes are available for the SCADA Basic instruction M61850 to modify the IEC 61850 global settings by script:

M61850("SET_GLOBAL_ORCAT", <Value>)
where <Value> can be "*not-supported*", "*bay-control*", "*station-control*", "*remote-control*", "*automatic-bay*", "*automatic-station*", "*automatic-remote*", "*maintenance*" or "*process*".
Defines the value used for the OrCat parameter when sending Controls

M61850("SET_GLOBAL_ORIDENT", <Value>)
where <Value> can be   "*00*", "*01*", "*10*" or "*11*".
Defines the value used for the OrIdent parameter when sending Controls.

M61850("SET_GLOBAL_TEST", <Value>)
where <Value> can be *0* or *1*.
When set to 1, all controls sent will be by default flagged as "Test".

M61850("SET_GLOBAL_CHECK", <SynchroCheck_Value>, <InterlockCheck_Value>)
where <SynchroCheck_Value> and <InterlockCheck_Value> can be *0* or *1*.
When <SynchroCheck_Value> is set to 1, all controls sent will be by default flagged for synchro-check.
When <InterlockCheck_Value> is set to 1, all controls sent will be by default flagged for interlock-check.

M61850("SET_GLOBAL_CHECK", <Value>)
where <Value> can be   "*00*", "*01*", "*10*" or "*11*".
Similar to the previous mode with the following value definitions:
"00" SynchroCheck_Value = 0 and InterlockCheck_Value = 0
"01" SynchroCheck_Value = 0 and InterlockCheck_Value = 1
"10" SynchroCheck_Value = 1 and InterlockCheck_Value = 0
"11" SynchroCheck_Value = 1 and InterlockCheck_Value = 1

Data Acquisition.IEC 61850

Double-point configuration at device level It is now possible to configure at device level how double-points should be interpreted ([01]/[10] or [10]/[01] for true/false). This setting overrides the one which was already available in the global IEC 61850 settings.	**Data Acquisition.IEC 61850** Other versions: 11.2.06055
Support for Report Control Block reservation (SPR #61065, 60875) Control Block Reservation is now supported for URCB and BRCB, including RCB reservation in redundant data acquisition architectures.	**Data Acquisition.IEC 61850**
Port configuration (SPR #61675) It is now possible to customize the TCP port for connecting to IEC 61850 devices. The new property is available in the device's advanced properties.	**Data Acquisition.IEC 61850** Other versions: 11.2.06046
Support for 3V16, 4V16, 3F16 and 4F16 data formats (SPR #65791) The KNX add-on now supports the 3V16, 4V16, 3F16 and 4F16 data formats.	**Data Acquisition.KNX** Other versions: 11.2.06080
New setting for initial read at startup (SPR #64505) A new setting named *InitialReadItemsNumber* is available in the KNX configuration file. It specifies the maximum number of items refreshed at once on project start-up. The driver refreshes all the items flagged as R at the rate of *TimeOutInSec*30s* until all the items are read. Default value is 200.	**Data Acquisition.KNX** Other versions: 11.2.06068
Non-compliant OPC group name (SPR #63246, 63147) A new advanced property named *OPC group name imposed by the server* is now available. It is designed to solve interop issues when an OPC server imposes a group name that cannot be the name of a configuration item in PcVue (due to special characters or name length). As an example, taking advantage of timestamping at the PLC level with Schneider Electric OFS requires using an OPC group named *##TSEventsGroup##*.	**Data Acquisition.OPC Client** Other versions: 11.2.06055
Mitsubishi TCP/IP - Maximum address range for R and D data (SPR #63996) The maximum address range of D and R data for Mitsubishi Q series PLC is now 65535 (was 12287).	**Data Acquisition.Other built-in drivers** Other versions: 11.2.06064
UTF-8 and MSDOS PC-8 support for text variables (SPR #61431) Support for UTF-8 and MS DOS PC-8 encoding for text variables mapped on CimWay frames. The encoding can be set in the advanced properties of the corresponding variables. In case of UTF-8, it is possible to indicate a byte size (from the source) that may differ from the text variable size.	**Data Acquisition.Other built-in drivers** Other versions: 11.2.06026
IP Mewtocol - Several enhancements (SPR #65277) The list of enhancements includes: • Data range is increased from 999 to 65535, • New equipment supported : FP2SH-LAN (no IP header), • Support for the bridge feature up to 3 levels for FPX-LAN, • Size of frames is increased from 30 to 500 words.	**Data Acquisition.Other built-in drivers**

Driver XBUS-IP-MASTER - Several enhancements (SPR #62301)

Several enhancements of the XBUS-IP-MASTER driver to better support IP to modem converters, including:

- Improved handling of the connection time-out and retry,
- Information frame enhanced with timeout and retry values:

    - INFO 0004: max Timeout value,
    - INFO 0005: current Timeout value,
    - INFO 0006: max number of retries,
    - INFO 0007: current number of retries,

- Improved management of the serialization of several devices using the same connection channel,
- New option at device level to indicate if it is a *Fixed timeout* or *Standard* device:

    - When *Standard* is selected, the time-out is not played if the corresponding socket is not opened on the device (default value),
    - When *Fixed timeout* is selected, the timeout is forced even if the socket is not opened.

In addition, new submodes are available for the SCADA Basic instruction *CIMWAY*, mode *SENDMSG*:

- To enable the usage of a specific connection channel to a device:
  ```
  CIMWAY("SENDMSG",NetworkName,"EnableConnect
  ion;EqtName;CnxNb")
  ```
- To disable the usage of a specific connection channel to a device:
  ```
  CIMWAY("SENDMSG",NetworkName,"DisableConnect
  ion;EqtName;CnxNb")
  ```
- To activate CWAudit traces on the selected communication object:
  ```
  CIMWAY("SENDMSG",ObjectName,"TraceOn")
  ```
- To deactivate CWAudit traces of the selected communication object:
  ```
  CIMWAY("SENDMSG",ObjectName,"TraceOff")
  ```

Data Acquisition.Other built-in drivers
Other versions: 11.0.06092, 11.1.06086, 11.2.06026

Driver XBUS-IP-MASTER - Default slave Id (SPR #62357)

In order to follow official recommendations, the default slave Id is now 255 (was 1).

While discouraged, it is now also possible to configure a slave Id equal to 0.

Data Acquisition.Other built-in drivers
Other versions: 11.1.06068, 11.2.06001

New extraction string

A new extraction string *NOTENUM(xyz)* is available for bit variables. It enables setting a bit variable to 1 when the source item value is not contained in the given enumeration (here *x* or *y* or *z*).

Data Acquisition.SNMP Manager

Max size of authentication and encryption keys (SPR #62918)

From now on, the maximum size of authentication and encryption keys is 255 characters (was 30).

Data Acquisition.SNMP Manager
Other versions: 11.1.06093, 11.2.06034

Enhanced Command reception

The handling of command reception has been improved to enhance performances. Until this change, all the configured devices were processed. From now on, only the devices having pending commands are.
In addition, a device was not able to receive traps while waiting for a command reception. Both actions are now dealt with separately to avoid any delay in traps handling.

Data Acquisition.SNMP Manager
Other versions: 11.1.06079, 11.2.06026

Configuring alarm on Trap of type text (SPR #63262)	**Data Acquisition.SNMP Manager**
It is now possible to configure an alarm on a trap of type text. In such case, the *Field* property has to be set to *StrCmpare(<string>)*, where *<string>* matches the text that will trigger the alarm.	Other versions: 11.2.06058

Export of interval start and end timestamps	**Data Export**
It is now possible to export both the start and end date and time of each interval in aggregated statistics.	

Start date and End date on the same line	**Data Export**
Start date and end date are now displayed on the same line for aggregated statistics.	

Starting position of exported data	**Data Export**
It is now possible to indicate for each export page the starting position of the data in the page.	

Data Export limits (SPR #62613)	**Data Export**
In order to ensure nominal performances, the number of items that can be configured for the Data Export is now limited to: • 100 exports • 10 pages per export • 100 trends per page These limits can be modified in the file *\C\svConf.dat*. Warning messages are displayed in the Event Viewer when these limits are reached. Performances may degrade when exceeding default limits.	Other versions: 11.1.06085, 11.2.06026

Exporting previous point (SPR #64448)	**Data Export**
When exporting trends in raw mode, it is now possible to include the last point prior to the export period.	

Support for special characters in settings (SPR #63475)	**Data Export**
Characters '#' and '/' are now supported as part of the replacement strings for unknown and non-significant data. This enhancement allows the use of the replacement string '#N/A' (without quotes) which is by default interpreted by Microsoft Excel as a non-significant value (including formula...).	Other versions: 11.2.06064

Date and time format	**Data Export**
It is now possible to configure date and time: • Date only, • Time only, • Dante and Time. A new argument has been added to the SCADA Basic instruction EXPORT_TREND.	

Filtering logs (SPR #63382)	**Data Export**
In addition to filtering event types, it is now possible to apply an additional filter based on extended attributes to a Log list when exporting it.	

Out of memory fatal error when exporting (SPR #61990)

Data Export

Under some circumstances, when exporting a large amount of trends or on a long period with short sampling, an Out of memory exception could be raised. To prevent such a situation, new settings have been added to Exports.

Improved filtering of logged data export (SPR #63382)

Data Export
Other versions: 11.2.06061

When using data export for logged events, it is now possible to filter according to all usual variable attributes including Domain, Nature and Extended Attributes.
A new tab named *Attributes* is available on Log Filter items to configure the expression filter to be applied to the associated log page.

Number of GDI & USER objects, Desktop heap

General
Other versions: 11.2.06073

It is now possible to use the SV Core Management Console to change the size of the desktop heap and to set the maximum number of GDI and User objects that can be created per-process. Changing these Windows system-level settings is sometimes necessary to handle more mimics when a PcVue web back end runs as a Windows service.

Changing these settings is sensitive; in particular, setting the desktop heap to a value too high can put the system in a no-boot situation due to the Windows kernel not being able to allocate memory properly to even get Session 0 set up.

Improved mechanism for detecting running Sv32 instances

General
Other versions: 11.0.06092,
11.1.06087, 11.2.06026

The detection mechanism of running instances of the Sv32.exe process has been improved. It is mainly useful with RDS-based architecture. In addition, new diagnostic messages related to this mechanism have been added.

Change for dev licenses

General.Licensing

Development licenses now offer up to 4 hours of continuous data acquisition.

User password length (SPR #64047)

General.User management
Other versions: 11.2.06064

The maximum password length is now 127 characters (was 16)

Filtering Active Directory User Groups (SPR #62674)

General.User management
Other versions: 11.0.06090,
11.1.06082, 11.2.06026

When associating a User profile to an Active Directory User Group, it is now possible to filter the AD User Groups. This feature is particularly interesting when there is plenty of User Groups.

Unable to load project from Central folder (SPR #62583)

General.Version management

When the Windows user does not have the correct permission on the USR folder, loading a project from the Central folder could fail. Now a warning message box is displayed in such a situation.

Excluding files by extension (SPR #63198)

General.Version management

When managing project versions, it is now possible to exclude files depending on their extensions.
For instance, to exclude all xml files of the C directory, use the following syntax:
```
f1=C\*.xml
```

Filtering by username (#N) (SPR #62427)

From now on, it is possible to filter archived HDS and proprietary log lists by User name (#N). A new column and a new attribute have been added to their respective configuration.

Historical data
Other versions: 11.2.06037

Log on/off alarm changes setting (SPR #63324)

The archive global setting *Log only on/off alarm changes in log lists* is now read-only when an archive unit with a log list is configured. Changing this setting while having already archived alarms leads to misinterpretation of archived data.

Historical data

Invalid points for trends after communication failure (SPR #62964)

From now on, invalid points are no longer recorded for trends in case of communication failure, in particular with networking architecture having separated servers for data acquisition and archiving.
When communication is recovered, if the VTQ has changed, then an invalid point with the timestamp of the start of the communication failure and the new VTQ is recorded.

Historical data
Other versions: 11.1.06096, 11.2.06038

Max length of names for archive configuration items increased

Max length for names of archive configuration items are now:

- Archive unit name is now up to 80 characters (was 12), except for ODBC,
- HDS Database name is now up to 100 characters (was 32),
- HDS Table name is now up to 45 characters (was 32),
- HDS Trend group name is now up to 100 characters (was 32),
- Log list name is 100 characters is now up to (was 12), except for ODBC.

Historical data

Decreasing station priority on HDS failure

The availability rate is now automatically set to 0 when the HDS is not answering requests. As a consequence, requests are automatically redirected to a server having a higher availability rate.

Historical data

ODBC archives - Compatibility with MySQL and MariaDB (SPR #63386)

It is now possible to set a specific column delimiter to be used in the handling of ODBC databases. In particular, it enables the usage of MySQL and MariaDB database engines.

Historical data
Other versions: 11.1.06110, 11.2.06059

Deletion of referenced Log table (SPR #62910)

From now on, it is no longer possible to delete a Log table when it is referenced by a Log list. Allowing such deletion was leading to configuration inconsistency and logs were no longer recorded without notice.

Historical data
Other versions: 11.1.06093, 11.2.06035

Disabling right-click in the workspace (SPR #62022)

A new HMI option named *Mimics.Context menus.Disable workspace right click popup menu* is available.
When activated, the context menu will not be displayed on right-click on the workspace.

HMI
Other versions: 11.1.06061, 11.2.06001

Image picker and file types

The image picker now displays all files by default, instead of only *.bmp files.

HMI
Other versions: 11.1.06099, 11.2.06054

Dialog boxes' position reset

The position of dialog boxes is now reset automatically when they are detected in a non-visible part of the desktop workspace.
Such issues occur when changing operating system display setting, for example when switching from 2 screens to 1.

HMI
Other versions: 11.2.06038

Default export folder (SPR #64190, 61952)

The default export folder when exporting data from the wizard of the Trend viewer or the Grid Control is now configurable with the setting *Data Export Wizard.Working folder*.
It defaults to the Documents folder of the currently logged Windows user (*C:\Users\<UserName>\Documents*).

HMI

Default filter of image selector

By default, the image selector now displays all files (was only displaying .bmp files).

HMI

List of available SCADA Basic functions (SPR #63269)

The list of available functions in a program is now displayed when configuring:

- A *Run Program* animation,
- Form Controls,
- *OnOpen* and *OnClose* functions in mimic properties.

HMI

Default value for property "Original size" of symbols (SPR #62304)

A new HMI option named *Mimics.Symbols."Original size" selected when inserting symbol* is available to indicate whether the *Original size* property shall be ticked or not when inserting a symbol in a mimic.

HMI
Other versions: 11.1.06067, 11.2.06001

Variable substitution dialog box (SPR #62304)

The dialog box to configure variable substitutions on a symbol has been enhanced. It is now a sizable window and supports column resizing for a better display.

HMI
Other versions: 11.1.06071, 11.2.06001

Low resource warning system for GDI and USER objects
Rework on the low resource warning system for both GDI and USER objects:

- Changed the GDI and USER object monitoring configuration to use a percentage of the resource limit rather than an absolute value,
- Changed the message displayed in the warning dialog box when the application exceeds the maximum resources allocated to it,
- Added monitoring of USER objects by default for new projects.

HMI
Other versions: 11.2.06073

Configurable Navigator's border color and thickness (SPR #62306)

It is now possible to configure the border color and thickness of the Navigator from the menu *Preference/Colors*.

HMI
Other versions: 11.1.06072, 11.2.06020

Empty comments in exported translations (SPR #64154)

When exporting mimic and symbol resources for translations, empty comments are no longer exported.

HMI

Replacement text for AlaOn, AlaOff & AlaAck substitution characters (SPR #61869)

A new HMI option named *Mimics.Animations.Replacement symbol if alarm timestamp does not exist* is available to customize the replacement text for the substitution characters of type #xxxAlaOn, #xxxAlaOff and #xxxAlaAck, when the corresponding timestamp does not exist.

HMI.Alarm viewer
Other versions: 11.1.06067, 11.2.06001

Enhanced text animations

Enhancements include the ability to use pre-defined labels associated to an enumeration.

HMI.Animations

Enumeration associated labels in Text animations (SPR #63878)

It is now possible to use the *Enumeration Associated Labels* in text animations. Prior to this enhancement, they were only usable in the WebScheduler.

HMI.Animations
Other versions: 11.2.06062

Case sensitive comparison in text animations

A new HMI global option allows using case sensitive comparison in animations based on text value (defaults to Non-sensitive case comparison). The option is named *Enable case sensitivity for animations that compare text strings* and is available in the *Animation* category.

HMI.Animations

Keyboard shortcut for Run Program and Run Macro (SPR #63103)

It is now possible to configure keyboard shortcut accelerators for the animations *Run Program* and *Run Macro*.

HMI.Animations

Tooltips for wrapped labels in Form controls (SPR #62586)

Wrapped labels are now fully displayed as tooltips in Form controls.

HMI.Form controls
Other versions: 11.2.06064

Selected layers of pasted graphical object (SPR #61084)

From now on, when copying and pasting a graphical object, layers configured in the original object are also copied. Previously, layers were set according to the displayed ones at the moment of the pasting.

HMI.Graphics

Branch selection for symbol in branched-mimic

Now, the selection of the local branch of a symbol takes into account the context branch of the mimic if any.

HMI.Graphics

New sorting option in historical mode

It is now possible to sort data according to their timestamp. It defaults to *newest data on top of the list*.

HMI.Grid control

Ability to display statistical data

The Grid control Historical mode is now able to display sampled trend and statistical data, in addition to raw data. Used in conjunction with the Data Export wizard, users can now export any trend data in their preferred format.

HMI.Grid control

Disabling command sending (SPR #63424)

It is now possible to disable the possibility for the user to send commands in *Variable tracking* mode.

HMI.Grid control
Other versions: 11.1.06105, 11.2.06058

Automatic refresh period The minimum value of the *Automatic refresh period* property is now 1 sec (was 5).	**HMI.Log viewer** Other versions: 11.1.06095, 11.2.06038
Enumeration labels in the Log viewer It is now possible to display enumeration labels configured for Register and Text variables in the Log viewer.	**HMI.Log viewer**
Initial position of the map (SPR #64012) When inserting a Map control or modifying the provider, the initial position and zoom level are now identical to the ones used when the map was cached with the Map Cache Creator.	**HMI.Map control**
Markers visibility It is now possible to link the visibility of a marker to a variable.	**HMI.Map control**
Support for external GPX files (SPR #63249) It is now possible to configure dynamic layers linked to external GPX files. A *URI* property can be defined at the layer level in the Map Markers Editor to indicate its source.	**HMI.Map control**
Embedding Markers and Local Map into the project folder It is now possible to store the configuration of markers and map cache into the local *GIS* folder of a project (could only be stored in the Common folder until this change). As for other graphical objects, the local folder is referenced by a starting '/' in the file name.	**HMI.Map control** Other versions: 11.2.06058
Centering symbol markers on anchor (SPR #64254) It is now possible to configure whether symbol markers shall be positioned according to their anchor or to their center.	**HMI.Map control** Other versions: 11.2.06068
Max length for description (SPR #65149) The maximum length of trend description is now 255 characters (was 60).	**HMI.Trend viewer** Other versions: 11.2.06074
Time-axis limits (SPR #63088) From now on, it is possible to configure the horizontal axis period and time capacity buffer from 1 to 14400 for each time unit: Seconds, minutes, hours, days (was 3600).	**HMI.Trend viewer** Other versions: 11.1.06101, 11.2.06055
Trend Viewer - Support for 16 curves The trend viewer now supports up to 16 curves simultaneously. As part of this evolution, colors for the trend viewer can be pre-configured using the color preferences.	**HMI.Trend viewer**
Max number of points The maximum number of points that can be retrieved to draw a trend curve is now up to 48000 (was 12000).	**HMI.Trend viewer** Other versions: 11.2.06039

Scientific notation	**HMI.Trend viewer** Other versions: 11.2.06070
Scientific notation was always used in the legend and scale areas when value was greater than 100 000. It is now possible to configure if this formatting has to be used or not.	

Upgrade **Backup/restore of the file Settings.ini**	**Installation**
In order to ensure proper update of the product at installation time, the file \Bin\Settings.ini is now explicitly deleted upon uninstallation. Because this file potentially stores important settings such as the configuration of Thread pools and Web thread pools, it is important that you back up this file prior to uninstallation and make sure you restore those settings that are key to your project set-up after installation.	

Accuracy of timer for cyclic functions	**Miscellaneous** Other versions: 11.2.06073
Improved accuracy of the timer used for cyclic functions.	

New system variables (SPR #65265)	**Miscellaneous**
The list of new system variables includes: • @System.Localhost.Environment.RunningAsService: Indicates if PcVue is running as a Windows service, • @System.Localhost.Environment.RunningInRemoteDesktopSession: Indicates if PcVue is running in a remote desktop session, • For compatibility, the variable @System.WTS is kept updated if it exists, but it is no longer created and shall no longer be used.	

Description property limited to 255 characters (SPR #61530)	**Miscellaneous**
The description property of various items are now limited to 255 characters (was 80). It includes: • Archives Units and associated objects, • Alarm synthesis, • Alarm Associated actions, • Messages items (profile, templates, SMS and Email), • Function keys, • Cyclic, • Events, • Expressions (template and on variable), • …	

Syntax control (SPR #64583, 64413, 16442)	**Miscellaneous**
The syntax control has been reinforced for new projects. While it was only executed at design time in earlier versions, syntax control can now also be executed when loading a project. For compatibility purpose, the new setting is only activated for new projects. It is recommended to activate it on projects developed with earlier versions. The setting in named *Syntax check* and is available in the section *Advanced.Compatibility.Syntax*.	

Enhanced robustness upon archive server switchover	**Networking** Other versions: 11.0.06087, 11.1.06072, 11.2.06010
The robustness of the switchover mechanism has been improved for archive server association when configured as single active. In addition, traces have been added to better monitor switchover.	

Expression without a variable (SPR #60832, 60831)

Real time data

From now on, expressions defined without a variable are evaluated and no longer remain NS. It applies to expressions on variable and expressions in animations.

Notification of timestamp change

Real time data
Other versions: 11.1.06069, 11.2.06001

It is now possible to configure whether the Alarm Manager and the User Interface shall be notified when only the timestamp changes.

The new settings are located in the file C\VarConf.dat:
```
[DeviceTimestampChangeNotification]
ToAlarmManager=1
ToUserInterfaceManager=1
```
For both settings, the value 1 indicates that the corresponding manager is notified, their default value is 1.

This permits updating real time data and alarms on value change or on timestamp change.

Chrono now limited to 1h (SPR #48048)

Real time data

Period of a Chrono variable is now limited to 1h (was 655 sec).

Instruction TREND - New mode SHOW_LEGEND (SPR #63254)

Scripting.SCADA Basic

A new mode *SHOW_LEGEND* is available for the instruction *TRENDVIEWER*. It enables showing and hiding the legend of a given Trend viewer.

Upgrade Instruction LOGDISPLAY - Context parameter reworked

Scripting.SCADA Basic

The argument *Context* of the instruction *LOGDISPLAY*, which enables delaying the application of the filter until the mode *EXECUTE* is called, has been reworked as following:

- It is renamed *DelayExecution,*
- When set to 0, the instruction is immediately executed,
- When different from 0, its execution is delayed until the mode *EXECUTE* is called,
- It is optional for all applicable modes and defaults to 0.

This argument can be used with the modes *DOMAIN*, *EVENTMASK*, *EVENTMASKEX*, *FILTER*, *LOGLIST*, *NATURE, MINMAX* and *SETDATETIME*.

When upgrading a project from an earlier version, a particular attention must be given to the mode SETDATETIME that was working differently (instruction delayed only when the argument was omitted).

Instruction CRONTAB - New modes EXECUTE_TABLE & EXECUTE_ALLTABLES (SPR #63444)

Scripting.SCADA Basic
Other versions: 11.0.06096, 11.1.06111, 11.2.06062

Two new modes *EXECUTE_TABLE* and *EXECUTE_ALLTABLES* have been added to the instruction *CRONTAB* to execute the standard timetable or active exceptions:

- `CRONTAB("EXECUTE_TABLE", TableName)`
  returns 0 if the *TableName* does not exists
  returns 1 otherwise
- `CRONTAB("EXECUTE_ALLTABLES")`
  always returns 1

Instruction CYCLIC mode DELALL - New argument

Scripting.SCADA Basic

A new argument *DellAllMode* is available for the instruction *CYCLIC* mode *DELLALL*. It can have the following values:

- 1: Delete all temporary items by program (default value),
- 2: Delete all permanent items by program,
- 3: Delete all temporary and permanent items by program.

Instruction EVENT mode DELALL - New argument

Scripting.SCADA Basic

A new argument *DellAllMode* is available for the instruction *EVENT* with the mode *DELLALL*. It can have the following values:

- 1: Delete all temporary items by program (default value),
- 2: Delete all permanent items by program,
- 3: Delete all temporary and permanent items by program.

Instruction GETARG - New modes

Scripting.SCADA Basic

Several modes dedicated to event actions have been added to the instruction GETARG:

- TS_VALUE: Get the timestamp of the triggering variable,
- TS_TYPE: Get the timestamp source of the triggering variable,
- VARVALUE_BIT: Get the triggering variable value as an integer,
- VARVALUE_TEXT: Get the triggering variable value as a string,
- VARVALUE_REGISTER: Get the triggering variable value as a double,
- VARVALUE_ALARM: Get the triggering variable alarm status.

Go to the definition of a function (SPR #61506)

Scripting.SCADA Basic

It is now possible to go to the definition of a function in a SCADA Basic program by using the corresponding entry of the context menu displayed when right clicking on a function name.

Instruction LOGDISPLAY- New mode GET_NAME_FROM_LINE

Scripting.SCADA Basic
Other versions: 11.1.06075, 11.2.06020

A new mode is available for the SCADA Basic instruction *LOGDISPLAY*:

- *GET_NAME_FROM_LINE*: Returns the variable name associated to a given line number.

Upgrade Instruction M61850 - Return code reworked

Scripting.SCADA Basic

The return codes of the instruction *M61850* has been reworked for the modes:

- *START_NETWORK*
- *STOP_NETWORK*
- *START_PHYSICALDEVICE*
- *STOP_PHYSICALDEVICE*
- *START_DATAGROUP*
- *STOP_DATAGROUP*
- *START_DATASETGROUP*
- *STOP_DATASETGROUP*
- *START_REPORTGROUP*
- *STOP_REPORTGROUP*

The new return values are the following:

- -1, Command in progress
- 0, Command successfully executed
- 1, Not implemented
- 2, Object not found
- 3, Not enabled
- 4, Already enabled
- 5, Already disabled
- 6, Not produced by local station
- 7, Message lost and nack
- 8, Stopped
- 9, Already stopped
- 10, The owner is not started
- 11, Already connected
- 12, CommObj already connecting
- 13, Connection lost
- 14, Already disconnected
- 15, CommObj already disconnecting
- 16, The owner is in bad state
- 17, Object undefined
- 1001, Stack issue
- 1002, Remote access error
- 1003, No datareport associated
- 1004, Report is already used
- 1005, Bad configuration for scope request
- 1006, No dataset associated
- 1007, Error during browsing

Instruction CRONTAB - New modes ADDPROG_EX and DELPROG_EX (SPR #15208)

Two new modes are available for the instruction CRONTAB:

- *ADDPROG_EX* (15) to add a program schedule by CronType/Frequency/Program/Branch/Function and its function arguments & active bit.
  ```
  CRONTAB("ADDPROG_EX", CRONTYPE, Date, Time,
  Program, Branch, Function [, Arguments [,
  ActiveBit]]);
  ```
- *DELPROG_EX* (16) to delete program schedules with different arguments & active bit.
  ```
  CRONTAB("ADDPROG_EX", CRONTYPE, Date, Time,
  Program, Branch, Function [, Arguments[,
  ActiveBit]]);
  ```

The modes *ADDPROG* and *DELPROG* are now obsolete.

Instruction OPC - Group identifier separator

The instruction OPC now supports both '.' and '/' as separator for group identifier.

Instruction TREEVIEW - New modes

Several new modes have been added to the instruction *TREEVIEW*:

- CLEAR,
- INSERTNODE,
- REMOVENODE,
- SORT.

Instruction TREND - New modes related to thresholds (SPR #62758)

New modes have been added to the SCADA Basic instruction *TREND*:

- ```
  TREND("THRESHOLD_GETMODE", Window, Branch,
  Identity, Trace);
  ```
  Returns the current mode of the selected trace:
  -1: no threshold,
  0: automatic,
  1: pphigh/pphigh/phigh/high,
  2: pphigh/phigh/high/low,
  3: phigh/high/low/plow,
  4: high/low/plow/pplow,
  5: low/plow/pplow/ppplow.

- ```
  TREND("THRESHOLD_ISCHECKED", Window, Branch,
  Identity, Trace, ThresholdNumber );
  ```
  Returns the current mode of a given threshold (0: not activated; 1: activated).

- ```
  TREND("THRESHOLD_GETVALUE", Window, Branch,
  Identity, Trace, ThresholdNumber );
  ```
  Returns the value of a given threshold.

- ```
  TREND("THRESHOLD_ISDRAWLINE", Window,
  Branch, Identity, Trace, ThresholdNumber );
  ```
  Indicates if the limit line of a given threshold is displayed or hidden (0: hidden, 1: displayed).

- ```
  TREND("THRESHOLD_GETCOLOR", Window, Branch,
  Identity, Trace, ThresholdNumber );
  ```
  Returns the line color of a given threshold (RGB code in double format).

- ```
  TREND("THRESHOLD_GETSTYLE", Window, Branch,
  Identity, Trace, ThresholdNumber );
  ```
  Returns the style of the line of a given threshold:
  0: solid,
  1: dash,
  2: dot,
  3: dashdot,
  4: dashdotdot.

Scripting.SCADA Basic
Other versions: 11.1.06092, 11.2.06034

Instruction WINDOW - New mode GETCOLLECTION (SPR #63129)

A new mode GETCOLLECTION is available for the instruction WINDOW. It enables retrieving an XML fragment with the list of opened mimics.

Scripting.SCADA Basic

Instruction WINDOW mode IS_OPEN - Branch now optional (SPR #62748)

From now on, the branch is an optional parameter when using the SCADA Basic instruction *WINDOW*, mode *IS_OPEN*. It enables to check if a mimic is opened whatever the branch is.

Scripting.SCADA Basic
Other versions: 11.1.06088, 11.2.06031

Instruction XMLPATH - New mode COUNT

A new mode COUNT has been added to the instruction XMLPATH. It returns the number of nodes in the Xml fragment.

Scripting.SCADA Basic

Upgrade Instruction SYSTEM mode CHANGEPASSWORD - New return value (SPR #63047)

Scripting.SCADA Basic

New return values are available for the instruction *SYSTEM*, mode *CHANGEPASSWORD*:

- 0: Syntax error,
- 1: Success,
- 2: User name or old password error,
- 3: New password is empty,
- 4: New password length is less than 6 characters, for the advanced security option only,
- 5: New password has already been used, for the advanced security option only,
- 6: New password does not meet the strong password criteria, for the strong password option only,
- 7: New password is the same as the old one.

Instruction ASSOCLABEL - New modes (SPR #16728)

Scripting.SCADA Basic

New modes are available for the instruction ASSOCLABEL to set a specific associated labels type:

- SETBITLABEL
- SETALARMLABEL

Change a picture dynamically in a mimic (SPR #62685)

Scripting.VBA
Other versions: 11.2.06026

A new VBA method *SetImage* is available for the *Bitmap* objects. It enables to dynamically change a picture in a mimic. Only pictures stored in the libraries (Common, Shared or Project) can be used.

```
myObject.SetImage "/myLib/newImage.png"
```

It returns:

- -1 if the image does not exist,
- 0 if the format is invalid,
- 1 when successful.

Alarm value in VBA (SPR #60978)

Scripting.VBA
Other versions: 11.1.06065, 11.2.06001

A new HMI option named *Scripting.Variable Value returns alarm value if variable is an alarm* is available.
When activated, the VBA property *Value* of *Variable* items is an Alarm value (see below), otherwise it is a Bit value (0 or 1). It is not activated for new projects and activated for existing projects.

In addition, a new VBA property *AlarmValue* is available on *Variable* items. If a variable item corresponds to an alarm, it returns the alarm value as follows:

- 0: Off
- 1: On, Not Acknowledged
- 2: On, Acknowledged
- 3: Off, Not Acknowledged
- 4: Masked operator
- 5: Masked program
- 6: Masked variable
- 7: Masked expression

New events on the Grid Control (SPR #63425)

Two new VBA events have been added to the *Grid Control* to indicate when it starts and completes the update of the variables. These events are useful when the Grid control is in variable tracking mode:

- OnBeginUpdatingVariables()
- OnEndpdatingVariables()

Scripting.VBA
Other versions: 11.1.06105, 11.2.06058

SetImage method with absolute path (SPR #63487)

The VBA method *SetImage* now support absolute path, thus allowing loading images that are not stored within a project or library folder.

Scripting.VBA
Other versions: 11.2.06058

Support for Alarm maintenance mode

WebVue, TouchVue and the associated Web Services now support the maintenance mode of alarms.

Web Server Extensions

Web Extensions - WebScheduler

In order to simplify deployment, the WebScheduler now accesses the built-in timetable configuration directly via an API.
The configuration of the path to the *Cron.dat* file is no longer necessary and ignored if present.

Web Server Extensions

Default number of schedules displayed (SPR #62557)

A new setting *GridViewPageSize* is available in the *web.config* file of the WebScheduler. It enables to set the number of schedules to be displayed in the schedule page. Defaults to 20.

WebScheduler
Other versions: 11.1.06089, 11.2.06030

Configuration of associated labels on Schedules (SPR #62625, 61819)

It is now possible to configure associated labels at the schedule level instead of only within the properties of referenced outputs. This new property has a higher priority than properties of reference outputs. It offers the possibility to have suitable labels in the WebScheduler even if schedule outputs are not configured at the PcVue level.

WebScheduler
Other versions: 11.2.06038

Upgrade Week numbering (SPR #63363)

Week numbering in the WebScheduler is no longer based on the *CalendarWeekRule* setting from the web.config file, but on the culture associated to the language selected at login time (or the culture settings of the web browser, if the Default language is selected upon login).

This change makes it easier to adapt to a variety of users operating in areas with different standards for week numbering, but may affect existing users if their browser configuration or language selection do not correspond to how the *CalendarWeekRule* setting was configured on the WebScheduler server.

WebScheduler
Other versions: 11.1.06103, 11.2.06056

5. Performance

Alarm counters Performance enhancements in the handling of alarm counter system variables.	**Alarms** Other versions: 11.2.06066
Alarm syntheses loading time improved Loading time of Alarm Syntheses has been significantly improved with a better handling of filter defined without branches. As an example, the loading of 7300 Alarm Syntheses now takes only 7 mn instead of 37 mn.	**Alarms** Other versions: 11.2.06066
Saving of the file HDSTrend.dat The file *C\HDSTrend.dat* is now saved on demand, and only when trends have been added, modified or removed. Prior to this fix, it was saved each time a trend was modified leading to strong performances issues when importing configuration with a Smart Generator or the Application Architect.	**Configuration Environments**
HDS Trends configuration saving (SPR #62905, 62900) From now on, the configuration file containing HDS Trends is only saved in the following cases: • Completion of an import (Generic Import, Smart Generators, Application Architect), • Application Explorer *Save* action, • Project exit. This file was previously saved upon all single modification of a HDS Trend, causing imports to perform poorly.	**Configuration Environments** Other versions: 11.2.06039
Improved performances of the variable selector (SPR #62849, 62838, 62571) Improvement of the variable browsing implementation. As a consequence, the variable selector is much more responsive.	**Configuration Environments** Other versions: 11.2.06035
Rendering performance on template/category creation Rendering performances when adding a new template or category to a library has been improved.	**Configuration Environments.Application Architect**
New settings for performance improvements Two new settings have been added to improve general performances when displaying object composition: • *Skip reference calculations for generation* - This setting affects the generation of properties requiring access to an Excel function. The properties are not generated in the output from the Application Architect. The affected properties do not exist - they are not just empty. This is to ensure the correct synch when de-selecting the option. • *Do not display detail of included templates for instances* - This setting affects the instances tab. If not selected when you click on a template instance, the inputs, input parameters and expressions appear in the lower part of the screen for both the selected instance and any child objects particularly those from included templates. If set, inputs, input parameters and expressions for the included templates are not displayed. This is used to improve the display of the Application Architect's HMI, particularly for templates including other templates that have many parameters to evaluate.	**Configuration Environments.Application Architect**

Slow display of templates with Global parameters The time to display templates and instances having global parameters has been greatly improved. On large number of instances, the time to display is reduced from 15 sec to 3 sec.	**Configuration Environments.Application Architect** Other versions: 11.2.06081
Synchronization time reduced The time to synchronize with the Application Architect has been improved, in particular when the configuration contains alarm synthesis, expression on variables, cyclic and HDS trend items.	**Configuration Environments.Application Architect** Other versions: 11.1.06088, 11.2.06026
Excessive time to import Associated Actions (SPR #61908) Importing alarm Associated Actions was taking an abnormal long time to perform due to multiple file accesses. Prior to the fix, importing 6000 Associated Actions took around 12mn. The import time has been decreased to less than a minute.	**Configuration Environments.Smart Generators** Other versions: 11.1.06085, 11.2.06026
Improved responsiveness On-demand reads are heavily used by the mapping editor and Helpers for device objects discovery, introspection of property lists, and value retrievals. This series of enhancements increases performances by reducing both the network traffic and improving the user experience. When using the mapping editor and Helpers, the time to display or refresh information is reduced, making use of these tools much more comfortable for users. The improvement is significant when connected to devices with limited support for segmentation, small max APDU size, or having large sets of objects and properties (object-list, arrays...).	**Data Acquisition.BACnet** Other versions: 11.2.06038
Resources usage (SPR #65770) Improvements to CPU and resources usage for the IEC 61850 driver, leading to more responsive data exchanges. CPU consumption has been reduced by 40%.	**Data Acquisition.IEC 61850** Other versions: 11.2.06080
Excessive time to stop a network (SPR #62605) In case of dynamic host name resolution, stopping a network could take a long time. Now the name resolution is stopped when a device is stopped.	**Data Acquisition.SNMP Manager** Other versions: 11.1.06078, 11.2.06031
Several performance improvements Several performance improvements, including: • Faster start-up, reduced generation and synchronization time with the Application Architect and XML generic import, • Improvements to CPU and resources utilization for the IEC 61850 driver, leading to more responsive data exchanges, • Improvements to on-demand reads with the BACnet driver, leading to more responsive configuration and diagnostic tools, • Improvements to the variable browsing to improve the user experience with the variable selector, Improvements to the WebScheduler responsiveness when displaying BACnet Schedules and Calendars.	**General**
Max framerate The framerate is now limited to 33 fps to avoid CPU overloading.	**HMI.Map control** Other versions: 11.1.06098, 11.2.06045

Loading time of the Trend Viewer (SPR #62336)

The time to load historical data points in the Trend Viewer has been reduced.

Web Server Extensions.WebVue
Other versions: 11.1.06068, 11.2.06001

BACnet Calendar loading time (SPR #62435)

When displaying a BACnet Calendar, multiple reads were done, slowing down the loading time of the calendar page.

WebScheduler
Other versions: 11.2.06010

Asynchronous loading of schedules (SPR #62557)

The loading time of schedules has been improved by using asynchronous calls. In addition, selecting a schedule before the end of loading interrupts it to enable a faster display of the selected schedule.

WebScheduler
Other versions: 11.2.06045

6. Audit & diagnostic

Additional messages in FORM.ERR (SPR #64265, 64264)

Audit

New messages are recorded in the FORM.ERR file when incorrect properties are defined in the Varexp.dat file, in particular:

- Range of alarm acknowledgment level between -1 and 29,
- Range of alarm masking level between -2 and 29,
- Range of alarm maintenance level between -2 and 29.

Value -1 means that the corresponding property uses the *Alarm Priority* level.
Value -2 means that the corresponding property uses the *Alarm Acknowledgment* level.

Additional traces and messages for Email and SMS

Audit

Additional traces and messages can be activated for diagnosis purpose for Messages (Email and SMS).

Archives audit (SPR #62846)

Audit

Audit counters for archives items have been enhanced. The following counters are now available:

- Trends linked to Free Archive Units,
- Trends linked to HDS Archive Units,
- Trends linked to ODBC Archive Units,
- Trends linked to Proprietary Archive Units,
- Trends linked to other outputs (printer),
- Trends without output,
- Log lists linked to Free Archive Units,
- Log lists linked to HDS Archive Units,
- Log lists linked to ODBC Archive Units,
- Log lists linked to Proprietary Archive Units,
- Log lists linked to other outputs (printer),
- Log lists without output.

CwAudit - Max number of equipments (SPR #63019)

Audit
Other versions: 11.0.06093, 11.1.06096, 11.2.06038

The maximum number of equipments CwAudit can managed is now 2018 (was 256).

CwAudit startup enhancement (SPR #63029)

Audit
Other versions: 11.2.06038

CwAudit was able to connect to PcVue only one time after startup. Now it can be started, stopped and restarted on the fly while PcVue is running.

New audit counters for IEC 104 Outstation

Audit

New audit counters are available for IEC 104 Outstation.

Pending export (SPR #64508)

Audit

A new system variable is available to indicate the amount of pending exports per station:
```
System.<Station>.DataAnalysis.DataExport.Pending
Exports
```

New traces for the SNMP Agent driver (SPR #62378)

New traces are added to the SNMP Agent driver, for a better diagnosis of incorrect loading of the configuration file.

Communication interfaces.SNMP Agent
Other versions: 11.2.06001

Additional report in case of fatal error (SPR #65060)

In addition to dump file, plain text files are now created in case of a fatal error of the Application Explorer or Smart Generators.

Configuration Environments

New dump files (SPR #16703)

From now on, dump files are generated upon fatal error of the Application Explorer, the Application Architect and Smart Generators.

Configuration Environments
Other versions: 11.2.06035

Application Architect tracing

Logs and traces generated by the Application Architect have been improved for better diagnosis and tracking of the sources of configuration errors.

Configuration Environments.Application Architect

New traces for the KNX driver (SPR #62378)

New traces are added to the KNX driver, for a better diagnosis of incorrect loading of the configuration file.

Data Acquisition.KNX
Other versions: 11.2.06001

Enhanced robustness of the Event Viewer (SPR #62901, 62763)

Under some circumstances, a fatal error could occurred when too many traces were sent to the *Event Viewer*. Now the *Event Viewer* updates the displayed traces 3 times per seconds instead of on every new trace.

General
Other versions: 11.2.06067

Warning message when no reference project/library (SPR #65102)

A warning message is now displayed in the event viewer when the project is started using the command line option -r or -r_delta if no reference version is defined.

General.Version management

7. Add-ons & tools

BACnet server Add-on (SPR #63008)

A BACnet server interface is now available as an Add-on. It supports BACnet/IP with the profile B-ASC.
The Add-on is licensed.

Communication interfaces
Other versions: 11.2.06057

8. Installation

Dream Report version 5.0	**Add-ons and Tools**

The newer installation package for Dream Report is available in the Add-ons & Tools section of the DVD.

New Add-on - OPC UA Gateway	**Add-ons and Tools** Other versions: 11.2.06063

PcVue now supports the OPC UA Gateway with built-in licensing. It includes:

- The OPC UA client gateway for data acquisition,
- The OPC UA server gateway for exposing PcVue variables to 3rd party UA clients.

The OPC UA Gateway is available in the Add-ons & tools section of the DVD.

New and updated libraries	**General**

New and updated libraries:

- Railway: A new library including a set of images and symbols for Urban & Main lines signaling systems and station assets such as ticketing machines and security gates,
- Navigation: Updated mimic templates with new styles in dark and light themes.

Documentation update	**General.Documentation**

The product documentation has been updated:

- Online help in Chinese - Now at the level of version 11.2 update.

9. Security

Weak password set by the administrator (SPR #64326)

When resetting a user's password, the administrator was able to set a weak password even if a strong password policy was enforced.

General.User management

FIPS enforcement deactivated

FIPS has been deactivated at the application level for all the provided executables that are based on the .NET Framework and are likely to use cryptographic algorithms that are not FIPS compliant.

Security
Other versions: 11.1.06110, 11.2.06058

Latency when starting the application (SPR #63384)

Under some circumstances, a huge latency (up to 1 min) could be noticed when starting an application (project selector, Application Explorer...). The issue was due to the validation of the code-signing certificate regarding the certificate revocation list (CRL).

Security
Other versions: 11.2.06060

OpenSSL library updated

The OpenSSL library has been updated to version 1.0.2q (20 Nov 2018).

Security

10. Other fixes & enhancements

SPR #14068, 60149, 61490, 61879, 61935, 61967, 61968, 61978, 62014, 62792, 63301, 63897, 63922, 64068, 64514, 64567, 64645, 64675, 64695, 64815, 64816, 64817, 65180, 65225, 65245, 65470, 65703, 65768, 65796, 65920	
SPR #62538	Other versions: 10.0SP2, 11.0 Update, 11.1 Update, 11.2 Update, 9.0SP3
SPR #62034, 62290, 62409, 62451, 62535, 62585, 62668, 62741, 62845, 62874, 63152, 63338, 63403, 63486, 63723, 63894, 64042, 64316, 64463	Other versions: 11.1 Update, 11.2 Update
SPR #16300, 61080, 61718, 61858, 62167, 62251, 62414, 62496, 62672, 62734, 62749, 62762, 62786, 62806, 62811, 62875, 62881, 62912, 63030, 63046, 63119, 63163, 63174, 63183, 63208, 63226, 63229, 63277, 63334, 63355, 63375, 63383, 63438, 63493, 63532, 63580, 63607, 63668, 63730, 63749, 63764, 63815, 63873, 63889, 63893, 63923, 63949, 63974, 63988, 64018, 64125, 64315, 64503, 64531, 64555, 64596, 65074, 65090, 65313, 65463, 65491, 65496, 65513, 65617, 65701, 65720, 65725, 65840, 65931, 65958	Other versions: 11.2 Update
SPR #60690, 61039, 62541, 63095, 63164, 63255	Other versions: 11.0 Update, 11.1 Update, 11.2 Update

III.   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 Release

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

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 Release
Other versions: 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 Release

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.
This change is available since version 11.2.06085 and will be available in a next Feature Release of version 12.

Data Acquisition.Other built-in drivers
12.0.7 Release

Statistical data when using "Log only alarm on/off changes in log lists" (SPR #64469, 63324)

Log pages statistics are not properly handled when the project setting *Archives.Log only alarm on/off changes in log lists* is activated. In particular, the behavior is not fully consistent depending on the type of archive unit (HDS or Proprietary).

Data Export
12.0.7 Release
Other versions: 11.2.06066

[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 Release

[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 Release

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 Release

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 Release

[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

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 Release

Support for WebFont requires manual installation on Windows 7 SP1 (IIS 7.5) (SPR #65847)

Web Server Extensions.WebVue
12.0.7 Release

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.

Known limitation related to the animation Send register in Step mode

Web Server Extensions.WebVue
12.0.7 Release

The '+' and '-' buttons are not rendered in WebVue when using the *Send register* animation with the *Step mode* enabled.

Restrictions related to web browsers

Web Server Extensions.WebVue
12.0.7 Release

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 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).

Known limitation related to hiding control zone highlighting

Web Server Extensions.WebVue
12.0.7 Release

At the time of writing, hiding the control zone highlighting (according to the HMI option) is only implemented for rectangle shapes.

Drag handling with Firefox

Web Server Extensions.WebVue
12.0.7 Release

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.

[Fixed] Limited support for included mimics and popups

Web Server Extensions.WebVue
12.0.7 Release

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]

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 Release

[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 Release

Upgrade **WebScheduler migration issue**

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 Release

PcVue Solutions

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